



## **OPERATING AND SERVICE MANUAL**

# **MODEL 3585A SPECTRUM ANALYZER**

Serial Numbers: 1750A00101 and greater

### **WARNING**

*To help minimize the possibility of electrical fire or shock hazards, do not expose this instrument to rain or excessive moisture.*

## **VOLUME II**

**Manual Part No. 03585-90001**

**Microfiche Part No. 03585-90051**

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P.O. Box 301, Loveland, Colorado 80537



## SAFETY

*This product has been designed and tested according to International Safety Requirements. To ensure safe operation and to keep the product safe, the information, cautions, and warnings in this manual must be heeded. Refer to Section I for general safety considerations applicable to this product.*

## CERTIFICATION

*Hewlett-Packard Company certifies that this product met its published specifications at the time of shipment from the factory. Hewlett-Packard further certifies that its calibration measurements are traceable to the United States National Bureau of Standards, to the extent allowed by the Bureau's calibration facility, and to the calibration facilities of other International Standards Organization members.*

## WARRANTY

This Hewlett-Packard product is warranted against defects in material and workmanship for a period of one year from date of shipment, except that in the case of certain components listed in Section I of this manual, the warranty shall be for the specified period. During the warranty period, Hewlett-Packard Company will, at its option, either repair or replace products which prove to be defective.

For warranty service or repair, this product must be returned to a service facility designated by -hp-. However, warranty service for products installed by -hp- and certain other products designated by -hp- will be performed at Buyer's facility at no charge within the -hp- service travel area. Outside -hp- service travel areas, warranty service will be performed at Buyer's facility only upon -hp's- prior agreement and Buyer shall pay -hp's- round trip travel expenses.

For products returned to -hp- for warranty service, Buyer shall prepay shipping charges to -hp- and -hp- shall pay shipping charges to return the product to Buyer. However, Buyer shall pay all shipping charges, duties, and taxes for products returned to -hp- from another country.

## LIMITATION OF WARRANTY

The foregoing warranty shall not apply to defects resulting from improper or inadequate maintenance by Buyer, Buyer-supplied software or interfacing, unauthorized modification or misuse, operation outside of the environmental specifications for the product, or improper site preparation or maintenance.

NO OTHER WARRANTY IS EXPRESSED OR IMPLIED. HEWLETT-PACKARD SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

## EXCLUSIVE REMEDIES

THE REMEDIES PROVIDED HEREIN ARE BUYER'S SOLE AND EXCLUSIVE REMEDIES. HEWLETT-PACKARD SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, WHETHER BASED ON CONTRACT, TORT, OR ANY OTHER LEGAL THEORY.

## ASSISTANCE

*Product maintenance agreements and other customer assistance agreements are available for Hewlett-Packard products.*

*For any assistance, contact your nearest Hewlett-Packard Sales and Service Office. Addresses are provided at the back of this manual.*

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- II. INSTALLATION AND INTERFACE
- III. OPERATING INSTRUCTIONS

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- VIII. SERVICE



## **CATHODE-RAY TUBE WARRANTY AND INSTRUCTIONS**

The cathode-ray tube (CRT) supplied in your Hewlett-Packard Instrument and replacement CRT's purchased from -hp- are warranted by the Hewlett-Packard Company against electrical failure for a period of one year from the date of shipment from Colorado Springs. Broken tubes and tubes with phosphor or mesh burns are not included under this warranty. No other warranty is expressed or implied.

### **INSTRUCTION TO CUSTOMERS**

If the CRT is broken when received, a claim should be made with the responsible carrier. All warranty claims with Hewlett-Packard should be processed through your nearest Hewlett-Packard Sales/Service Office (listed at rear of instrument manual).

### **INSTRUCTIONS TO SALES/SERVICE OFFICE**

Return defective CRT in the replacement CRT packaging material. If packaging material is not available, contact CRT Customer Service in Colorado Springs. The Colorado Springs Division must evaluate all CRT claims for customer warranty, Material Failure Report (MFR) credit, and Heart System credit. A CRT Failure Report form (see reverse side of this page) must be completely filled out and sent with the defective CRT to the following address:

**HEWLETT-PACKARD COMPANY**  
1900 Garden of the Gods Road  
Colorado Springs, Colorado 80907

**Parcel Post Address:**  
P.O. Box 2197  
Colorado Springs, Colorado 80901

Attention: CRT Customer Service

Defective CRT's not covered by warranty may be returned to Colorado Springs for disposition. These CRT's, in some instances, will be inspected and evaluated for reliability information by our engineering staff to facilitate product improvements. The Colorado Springs Division is equipped to safely dispose of CRT's without the risks involved in disposal by customers or field offices. If the CRT is returned to Colorado Springs for disposal and no warranty claim is involved, write "Returned for Disposal Only" in item No. 5 on the form.

Do not use this form to accomplish CRT repairs. In order to have a CRT repaired, it must be accompanied by a customer service order (repair order) and the shipping container must be marked "Repair" on the exterior.





## SAFETY SUMMARY

***The following general safety precautions must be observed during all phases of operation, service, and repair of this instrument. Failure to comply with these precautions or with specific warnings elsewhere in this manual violates safety standards of design, manufacture, and intended use of the instrument. Hewlett-Packard Company assumes no liability for the customer's failure to comply with these requirements.***

### **GROUND THE INSTRUMENT.**

To minimize shock hazard, the instrument chassis and cabinet must be connected to an electrical ground. The instrument is equipped with a three-conductor ac power cable. The power cable must either be plugged into an approved three-contact electrical outlet or used with a three-contact to two-contact adapter with the grounding wire (green) firmly connected to an electrical ground (safety ground) at the power outlet. The power jack and mating plug of the power cable meet International Electrotechnical Commission (IEC) safety standards.

### **DO NOT OPERATE IN AN EXPLOSIVE ATMOSPHERE.**

Do not operate the instrument in the presence of flammable gases or fumes. Operation of any electrical instrument in such an environment constitutes a definite safety hazard.

### **KEEP AWAY FROM LIVE CIRCUITS.**

Operating personnel must not remove instrument covers. Component replacement and internal adjustments must be made by qualified maintenance personnel. Do not replace components with power cable connected. Under certain conditions, dangerous voltages may exist even with the power cable removed. To avoid injuries, always disconnect power and discharge circuits before touching them.

### **DO NOT SERVICE OR ADJUST ALONE.**

Do not attempt internal service or adjustment unless another person, capable of rendering first aid and resuscitation, is present.

### **USE CAUTION WHEN EXPOSING OR HANDLING THE CRT.**

Breakage of the Cathode-ray Tube (CRT) causes a high-velocity scattering of glass fragments (implosion). To prevent CRT implosion, avoid rough handling or jarring of the instrument. Handling of the CRT shall be done only by qualified maintenance personnel using approved safety mask and gloves.

### **DO NOT SUBSTITUTE PARTS OR MODIFY INSTRUMENT.**

Because of the danger of introducing additional hazards, do not install substitute parts or perform any unauthorized modification to the instrument. Return the instrument to a Hewlett-Packard Sales and Service Office for service and repair to ensure that safety features are maintained.

### **DANGEROUS PROCEDURE WARNINGS.**

Warnings, such as the example below, precede potentially dangerous procedures throughout this manual. Instructions contained in the warnings must be followed.

**WARNING**

**Dangerous voltages, capable of causing death, are present in this instrument.  
Use extreme caution when handling, testing, and adjusting.**

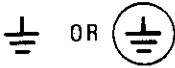
## General Definitions of Safety Symbols Used On Equipment



Instruction manual symbol: the product will be marked with this symbol when it is necessary for the user to refer to the instruction manual in order to protect against damage to the instrument.



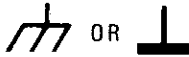
Indicates dangerous voltage (terminals fed from the interior by voltage exceeding 1000 volts must be so marked).



Protective conductor terminal. For protection against electrical shock in case of a fault. Used with field wiring terminals to indicate the terminal which must be connected to ground before operating equipment.



Low-noise or noiseless, clean ground (earth) terminal. Used for a signal common, as well as providing protection against electrical shock in case of a fault. A terminal marked with this symbol must be connected to ground in the manner described in the installation (operating) manual, and before operating the equipment.



Frame or chassis terminal. A connection to the frame (chassis) of the equipment which normally includes all exposed metal structures.



Alternating current (power line).



Direct current (power line).



Alternating or direct current (power line).

**WARNING**

The WARNING sign denotes a hazard. It calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in personal injury.

**CAUTION**

The CAUTION sign denotes a hazard. It calls attention to an operating procedure, practice, or the like, which if not correctly performed or adhered to, could result in damage to or destruction of part or all of the product.

## **SECTION IV**

### **PERFORMANCE TESTS**

#### **4-1. INTRODUCTION.**

4-2. This section contains the procedures for the performance tests which verify that the 3585A will meet its published specifications as listed in Table 1-1. Access to the interior of the instrument is not needed to perform any of the tests. Two different types of tests are included in this section: Semi-Automatic Performance Tests and Operational Verification Tests. The Semi-Automatic Performance Tests are used to verify that the 3585A meets its published specifications. The Operational Verification Tests will give you a good indication that the 3585A is working as specified; however, they do not verify that the 3585A meets *all* its specifications.

#### **4-3. RECOMMENDED TEST EQUIPMENT.**

4-4. The equipment that is recommended for testing the 3585A is listed in Table 4-1. If the recommended model is not available, use a substitute that meets the "Required Characteristics" given in the table. When using the Semi-Automatic Performance Tests, see Paragraph 4-14 for further instructions.

**Table 4-1. Recommended Test Equipment.**

Instrument	Required Characteristics	Usage		Recommended Model
		Semi-Automatic Performance Test	Operational Verification Tests	
Audio Oscillator	Frequency: 1kHz Distortion: $\leq -90$ dB Amplitude: 0.1Vrms	x	x	-hp- 339 or -hp- 239
Attenuator: Variable 10dB/Step Variable 1dB/Step See Note 1	Range: 0 - 120dB Range: 0 - 12dB	x x	x x	hp- 355D -hp- 355C
Bridge: Directional 50 $\Omega$ 75 $\Omega$ See Note 2, 3	Frequency: 0.1 - 40 MHz Return Loss > 30dB Directivity > 40dB	x x	x x	-hp- 8721A -hp- 8721A Option 00B
Calculator	Compatible with -hp- 9825A Software and I/O	x		-hp- 9825
Calculator ROM's	HP-IB* and -hp- 9825A Compatible	x		-hp- 98210A and hp- 98213A
Filter: 9MHz Low Pass	See Figure 4-14	x	x	
Frequency Counter	Range: 5 to 10 MHz Resolution: 0.1 Hz Accuracy: $\pm 1$ count, $+ 5 \times 10^{-10}$ /day	x	x	-hp- 5328A Option 010
Frequency Synthesizer	Freq. Range: 200 Hz to 40.1 MHz Amp. Range: + 10 to -85 dBm Amplitude Accuracy: $\pm 0.25$ dBm	x	x	-hp- 3335A
Frequency Synthesizer	Freq. Range: 1 kHz to 33 MHz Amplitude Range: -25 dBm Amplitude Accuracy: $\pm 0.4$ dB	x	x	-hp- 3330B
Function Generator See Note 3	Frequency: 1.2kHz Square Wave: 100n.s rise time dc Offset: $\pm 1$ V	x		-hp- 3311A
HP-IB* Interconnection Cables		x		-hp- 10631
HP-IB* Interface Cable	-hp- 9825A Compatible	x		-hp- 98034A
Impedance Matching Network (50 $\Omega$ to 75 $\Omega$ Minimum Loss Pad)	Frequency: 0.1 to 40 MHz VSWR < 1.05	x	x	-hp- 8542B
Mixer: Double Balanced See Note 3	Frequency: 0.1 - 40MHz	x		-hp- 10534
Oscilloscope See Note 2	Vertical Scale: $\geq 5$ mV/Div. Horizontal Scale: $\geq 50$ nsec/Div.		x	-hp- 1740A
Power Supply: DC See Note 4	Voltage range: 0 - 10 V DC	x		-hp- 6213A
Printer: Impact Summer	Plotter Capability See Figure 4-15	x x	 x	 -hp- 9871A
Termination: Feedthrough 50 $\Omega$ 75 $\Omega$	$\pm 0.1$ ohm, 1 Watt	x x	x x	-hp- 11048C -hp- 11094C
Thermal Voltage Converter: 50 $\Omega$ , 0.5 V See Note 4	Frequency: 0.1 - 60MHz Calibration Data	x		-hp- 11051A Option 01
Voltage Divider: 10 to 1 Terminated in 50 $\Omega$ See Note 4	See Figure 4-7	x		
Voltmeter: Digital See Note 4	Full Scale Range: 1Vdc Accuracy: + 0.004% Resolution: 6 Digits Input Resistance: > 1 M $\Omega$	x		-hp- 3455A

**NOTES**

1. Attenuator must be calibrated by standards lab. Correction factors are required for the Operational Verification Tests.
2. Required for the Operation Verification Return Loss Test.
3. Required for the Semi-Automatic Performance Test Return Loss procedure.
4. Required to run the calibrator accuracy program.

\*Hewlett-Packard Interface Bus.

#### **4-5. SEMI-AUTOMATIC PERFORMANCE TESTS OVERVIEW.**

4-6. Due to the vast number of features incorporated in the 3585A, Semi-Automatic Performance testing is a highly desirable alternative to the Operational Verification tests. The function of Semi-Automatic Performance testing is to free the operator from the time consuming data gathering and documentation normally associated with Performance Tests. Semi-Automatic Performance Tests will check all of the specifications and do so in a much more detailed manner than the Operational Verification Tests. The Semi-Automatic Performance Tests give you a confidence level of 99% and take approximately 2 1/4 hours to complete.

4-7. The Semi-automatic Performance Tests and associated instructions are contained on the cassette tape (Part Number 03585-10001) included with the 3585A. In order to run the Performance Tests automatically, the program contained on the cassette tape is loaded into the -hp- 9825A calculator memory and run. Once the program is started, instructions for running the Performance Tests are printed by the calculator or displayed on the 3585A CRT. After the instructions have been completed, the calculator will proceed to execute the present test and document the data. This process gives the operator a neatly typed summary of the performance of the 3585A in a minimum amount of time.

#### **4-8. OPERATIONAL VERIFICATION TESTS OVERVIEW.**

4-9. The Operational Verification Tests are done manually for the 3585A and are designed to be run with a minimum amount of equipment. A comparison of the required test equipment is presented in Table 4-1. These tests give the user a good indication of the overall condition of the 3585A. Using this method of testing a 90% level of confidence that the 3585A meets all its specifications is obtained. The Operational Verification tests take about 3 hours to run (as compared to 2 1/4 hours for a complete semi-automatic characterization).

#### **4-10. PERFORMANCE TEST CARD.**

4-11. A Performance Test Card is provided at the end of this section for your convenience, to record the performance of the 3585A during the Operational Verification Tests. This card can be removed from the manual and used as a permanent record of the incoming inspection or of a routine Performance Test. The Performance Test Card may be reproduced without the written permission of Hewlett-Packard. The Performance Test Card is not used for the Semi-Automatic Performance Tests. The printer documents the tests results for you in a form similar to that of the Performance Test Card.

#### **4-12. CALIBRATION CYCLE.**

4-13. The 3585A requires verification of its specified performance every 12 months. The Performance Tests can also be used as a part of incoming inspection or after a repair is made to the instrument. The filter screen on the fan should be cleaned each time the instrument's performance is checked.

#### **4-14. SEMI-AUTOMATIC PERFORMANCE TESTS.**

##### **4-15. Program Summary.**

4-16. Table 4-2 is a list of the programs used during the Semi-Automatic Performance Tests. The Performance Test cassette tape file numbers are also contained in this table so that any program may be run individually.

**Table 4-2. Summary of Programs Used For Semi-Automatic Performance Testing.**

Size	Maximum Size	Track	File	Test Title
3440	5000	0	0	"10/14/77 GRIND":
4910	5000	0	1	"03/03/78; instrument interconnect test & Header"
4988	5000	0	2	"06/10/78": "Turn on/Cal Offset"
4954	5000	0	3	"06/10/78": "Source Accuracy"
2016	5000	0	4	"02/07/78": "Calibrator Accuracy" (Optional)
1574	5000	0	5	"02/13/78 Range Calibration":
2928	5000	0	6	"6/10/78": "Amplitude Linearity"
3264	5000	0	7	"6/14/78": "Ref Level Set Accuracy"
3720	5000	0	8	"6/10/78": "Flatness, 50 ohm, no cal, 10 Hz to 40 M"
3630	5000	0	9	"06/10/78": "Flatness, 1 M, 20 Hz to 40 MHz"
3372	5000	0	10	"06/13/78": "RETURN LOSS"
1978	5000	0	11	"6/14/78": "Noise vs. BANDWIDTH"
1610	5000	0	12	"06/10/78": "1 M Input Noise, open circuit"
1234	5000	0	13	"10/21/77 Marker Accuracy":
4340	5000	0	14	"4/14/78": "Low Freq. Response/LO sidebands"
1084	5000	0	15	"4/18/78": "Residual Spurs"
2160	5000	0	16	"04/13/78": "Conv/Input Spurs and Image"
2014	5000	0	17	"06/07/78": "IF Harmonic Distortion"
3224	5000	0	18	"6/10/78": "Harmonic Distortion"
4018	5000	0	19	"6/13/78": "IM Distortion"
3648	5000	0	20	"BW MEAS 5/31/78":
2324	5000	0	21	"10/24/77": "Tracking Generator Flatness"
1710	5000	0	22	"04/18/78": "Step IF, Fraction N Spurs"
1820	5000	0	23	"10/24/77": "API Spurs in Multiple Loop"
346	5000	0	24	"10/24/77 End of Perf. Test message":
4998	5000	0	25	"Dynamic Range Chart 1/20/78":
1014	5000	0	26	"HP-IB Test for Op. Verification 3/08/78":

**4-17. Semi-Automatic Performance Test Equipment.**

4-18. The Semi-Automatic Performance Test software is designed to be run with a particular set of HP-IB compatible instruments. These instruments are denoted by an asterisk (\*) in Table 4-3. Critical specifications for this equipment may be found in Table 4-1. For usage of equipment other than that listed in Table 4-3, refer to Paragraph 4-19.

**Table 4-3. Semi-Automatic Performance Test Equipment List**

-hp- 03585-10001	Semi-Automatic Performance Test Cartridge	
*-hp- 9825A	Programmable Calculator	
*-hp- 9871A	Character Impact Printer	
*-hp- 3335A	Frequency Synthesizer	
*-hp- 3330B	Frequency Synthesizer	
*-hp- 3455A	Digital Voltmeter	
*-hp- 98034A	HP-IB Interface	
	Frequency Counter . . . . .	-hp- 5328A
	Function Generator . . . . .	-hp- 3311A
	Audio Oscillator . . . . .	-hp- 339A
	50Ω Return Loss Bridge . . . . .	-hp- 8721A
	75Ω Return Loss Bridge . . . . .	-hp- 8721A Option 008
	50Ω Feed Thru Termination . . . . .	-hp- 11048C
	75Ω Feed Thru Termination . . . . .	-hp- 11094B
	10dB/Step Attenuator . . . . .	-hp- 355D
	1dB/Step Attenuator . . . . .	-hp- 355C
	0.5V Thermal Voltage Converter . . . . .	-hp- 11051A Option 01
	Double Balanced Mixer . . . . .	-hp- 10534A
	HP-IB Cables . . . . .	-hp- 10631
	10:1 Voltage Divider Terminated in 50Ω . . . . .	(See Figure 4-7)
	Frequency Summer . . . . .	(See Figure 4-15)
	9MHz Low Pass Filter . . . . .	(See Figure 4-14)
	DC Power Supply . . . . .	-hp- 6213A
	50/75Ω Minimum Loss Pad . . . . .	-hp- 85428B

**4-19. Test Equipment Substitutions.**

4-20. The included Semi-Automatic Performance Test software is designed to be used with the calculator, printer and frequency synthesizers listed under Recommended Test Equipment, Table 4-3. Other HP-IB compatible controllers and instruments may be used for the tests; however, the user must write his own software to be compatible with his particular equipment. To facilitate this, flow charts of the Semi-Automatic Performance Tests are included in Appendix 4-A. Substitute test equipment must meet the critical specifications listed in Table 4-1.

**NOTE**

*HP-IB is Hewlett-Packard's implementation of IEEE std 488-1975, "standard digital interface for programmable instrumentation".*

**4-21. Program Failures.**

4-22. If, while running a program everything comes to a grinding halt, you are sure the program is gathering false data or an error message is displayed on the calculator, the following steps should be taken:

- a. Press
- b. Check the equipment set-up to be sure all connections and control settings are correct.
- c. Press

If this procedure fails to correct the problem, then try this procedure:

- a. Press
- b. Find out which program you are trying to run. The 9871A printout should be useful in finding this information.
- c. Using the Performance Test title (or the previous test title) go to Table 4-2 and find the file number for the program that you are trying to run.
- d. Enter these commands on the 9825A calculator:

File No. From Step C.

- e. Press

**4-23. Running Individual Semi-Automatic Performance Tests.**

4-24. To run one of the individual programs shown in Table 4-2 the following command sequence should be entered on the 9825A calculator:

- a.
- b.
- c.

Chosen File No.

**NOTE**

*When individual programs are run it is assumed that all the needed equipment has been correctly connected and checked with the Instrument Interconnect Test in File No. 1.*

If more than one Program is to be run, only Steps B and C need to be executed after all three steps have been executed once.



**4-25. HP-IB Address Switch Settings.**

4-26. The HP-IB Address switch settings for the instruments used in the Semi-Automatic Performance Tests are listed in Table 4-4. If the Addresses for the 3585A, 3330B or 9871A are incorrectly set, a qualified service technician must set them correctly. The procedure for changing the 3585A HP-IB address can be found in Paragraph 2-32. For instructions on changing the other instruments HP-IB addresses, refer to each instruments individual manual. The -hp- 3335A and -hp- 3455A HP-IB Instrument Listen Address switches are located on their respective rear panels and may be changed for these tests.

**Table 4-4. HP-IB Address Switch Settings**

Instrument	HP-IB Listen Address (5-Bit Decimal Code)
-hp- 3585A Spectrum Analyzer	11
-hp- 9871A Impact Printer	1
-ho- 3335A Frequency Synthesizer	5
-hp- 3330B Frequency Synthesizer	4
-hp- 3455A Digital Voltmeter	22

**WARNING**

*HP-IB Address switches which require access to the interior of the instrument should be changed only by qualified service personal.*

**3585A Switch Settings**

```

FRONT ↑↑
-----
| 0 | 7
| 0 | 6
| 0 | 5
|0  | 4
| 0 | 3
|0  | 2
|0  | 1
-----
    
```

**3335A Switch Settings**

```

-----
1 | 0 0 1
0 |0 0 0 1
-----
  5 4 3 2 1
    
```

**9871A Switch Settings**

```

-----
5 |0  |  | 0|
4 |0  |  | 0|
3 |0  |  |0|
2 |0  |  | 0|
1 | 0|  |0  |
-----
  ON<-   ->ON
    
```

**3330B Switch Settings**

```

S1 S2 S3 S4 S5
0  0  1  0  0
    
```

**3455A Switch Settings**

```

-----
1 |0  | 0 0 |
0 | 0  | 0  |
-----
  5 4 3 2 1
    
```

**4-27. Manual Tests**

4-28. Before proceeding with the calculator controlled portion of the Semi-Automatic Performance Tests, two manual tests must be performed. The first of these tests is for frequency accuracy, and the second test checks the 1 M ohm input impedance and capacitance.

**4-29. Frequency Accuracy**

4-30. This test verifies the frequency accuracy of the 3585A by using an external counter to check the internal frequency reference. It is important that the frequency counter used to do this test has a reference which is more accurate than that of the 3585A.

Specification: Counter Accuracy,  $\pm 0.3\text{Hz} \pm 1 \times 10^{-7}/\text{month}$

Procedure:

a. Allow the instruments used in this test to warm up for 15 to 20 minutes before beginning this test.

b. Set the synthesizer controls for:

FREQUENCY.....9 MHz  
 AMPLITUDE.....0 dBm

c. Set the 3585A controls for:

INSTRUMENT PRESET  
 MANUAL SWEEP.....9 MHz  
 COUNTER.....on

d. Using a BNC "T" connector, connect the synthesizer's 50 ohm output to the frequency counter and the 3585A 50 ohm input.

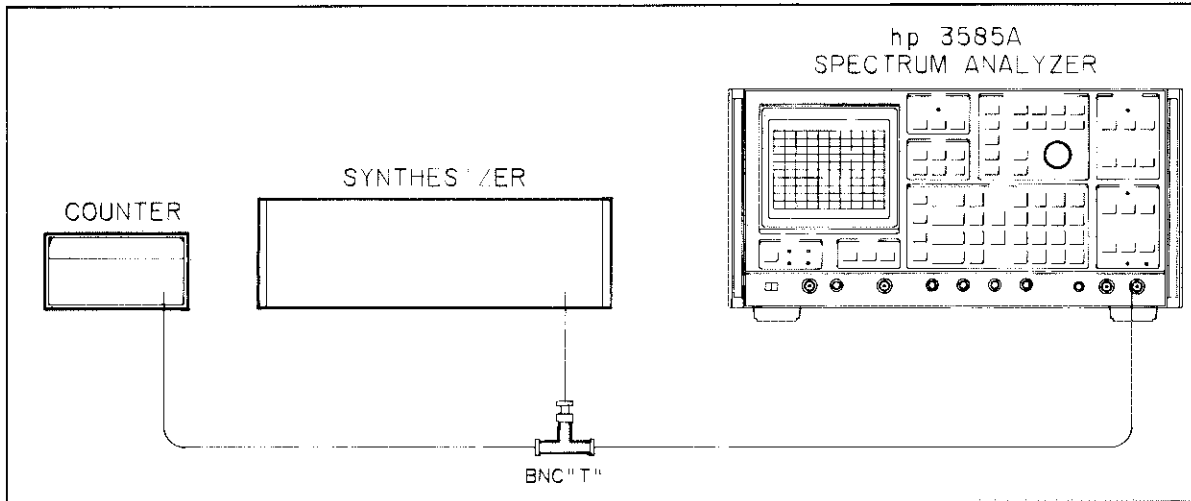
**NOTE**

*Be sure that the synthesizer and the 3585A are operating on their own internal references. disconnect any reference connection common to both instruments.*

e. Record the frequency difference between the frequency counter and the 3585A counter reading. Difference frequency equals \_\_\_\_\_ Hz.

f. The 3585A frequency accuracy is specified in terms of frequency drift; therefore, if the frequency accuracy derived from this test is not in accordance with your requirements, turn to Section 5 of this manual for the Reference Oscillator Adjustment procedure.

g. This completes the Frequency Accuracy Test, reconnect any necessary references.



**Figure 4-1. Frequency Accuracy Test**

**4-31. 1 M Ohm Input Impedance Test.**

4-32. These tests verify that the 3585A meets the Input Impedance specifications for the 1 MΩ, 30 pf Input Impedance setting.

**Equipment Required:**

- Resistor: 1MΩ ± 1%, 1/8W film.....-hp- Part No. 0757-0344
- 50Ω Feed Thru Termination.....-hp- 11048C
- Synthesizer.....-hp- 3335A

Specification: 1MΩ ± 3%, < 30 pf

**Procedure:**

- a. Set the 3585A controls as follows:

```

INSTRUMENT PRESET
CENTER FREQUENCY.....1 kHz
MANUAL SWEEP.....on
RES. BW.....100 Hz
dB/DIV......2 dB
RANGE......0 dBm
INPUT IMPEDANCE.....1 MΩ
    
```

- b. Connect the 50Ω termination to the 3585A 1 MΩ input. Connect the synthesizer output to the termination input.

- c. Set the synthesizer controls for:

```

FREQUENCY......1 kHz
AMPLITUDE......0 dBm
    
```

- d. Set the 3585A controls for OFFSET on. Allow time for the marker reading to stabilize and press the ENTER OFFSET button.
- e. Using short clip leads, insert the 1 M $\Omega$  resistor between the output of the termination and the 3585A 1 M $\Omega$  input as shown in Figure 4-2.
- f. The 3585A marker amplitude reading should be  $-6.0 \text{ dB} \pm 0.44 \text{ dB}$ , verifying that the input resistance is  $1 \text{ M}\Omega \pm 5\%$ .
- g. Press the 3585A ENTER OFFSET button.
- h. Set the synthesizer frequency to 10 kHz.
- i. Set the 3585A for a CENTER FREQUENCY of 10 kHz.
- j. The 3585A marker reading should be between  $-2 \text{ dB}$  and  $-3 \text{ dB}$ , verifying that the shunt capacitance is less than 30 pf.

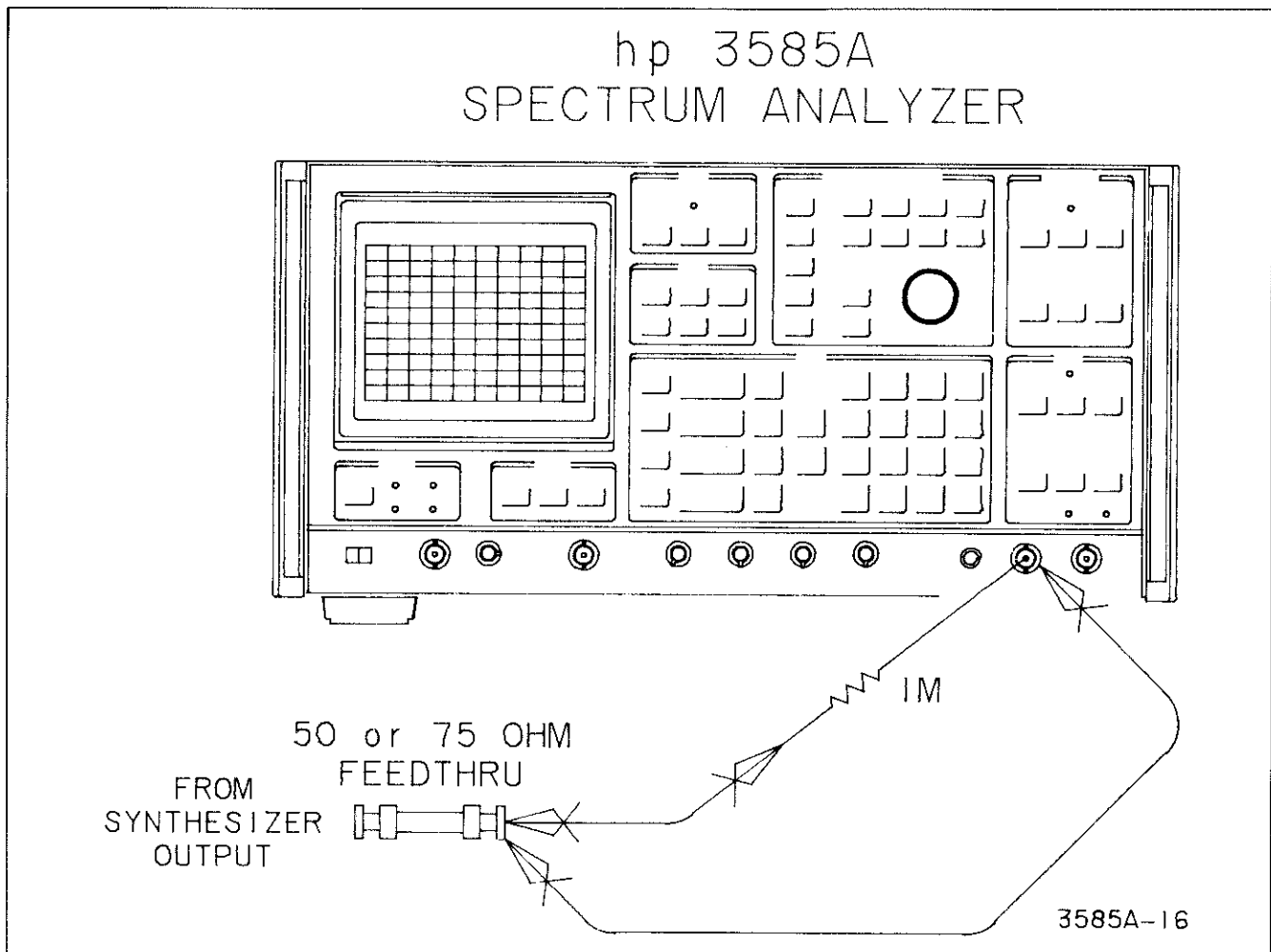


Figure 4-2. 1 M Ohm Input Impedance Test.

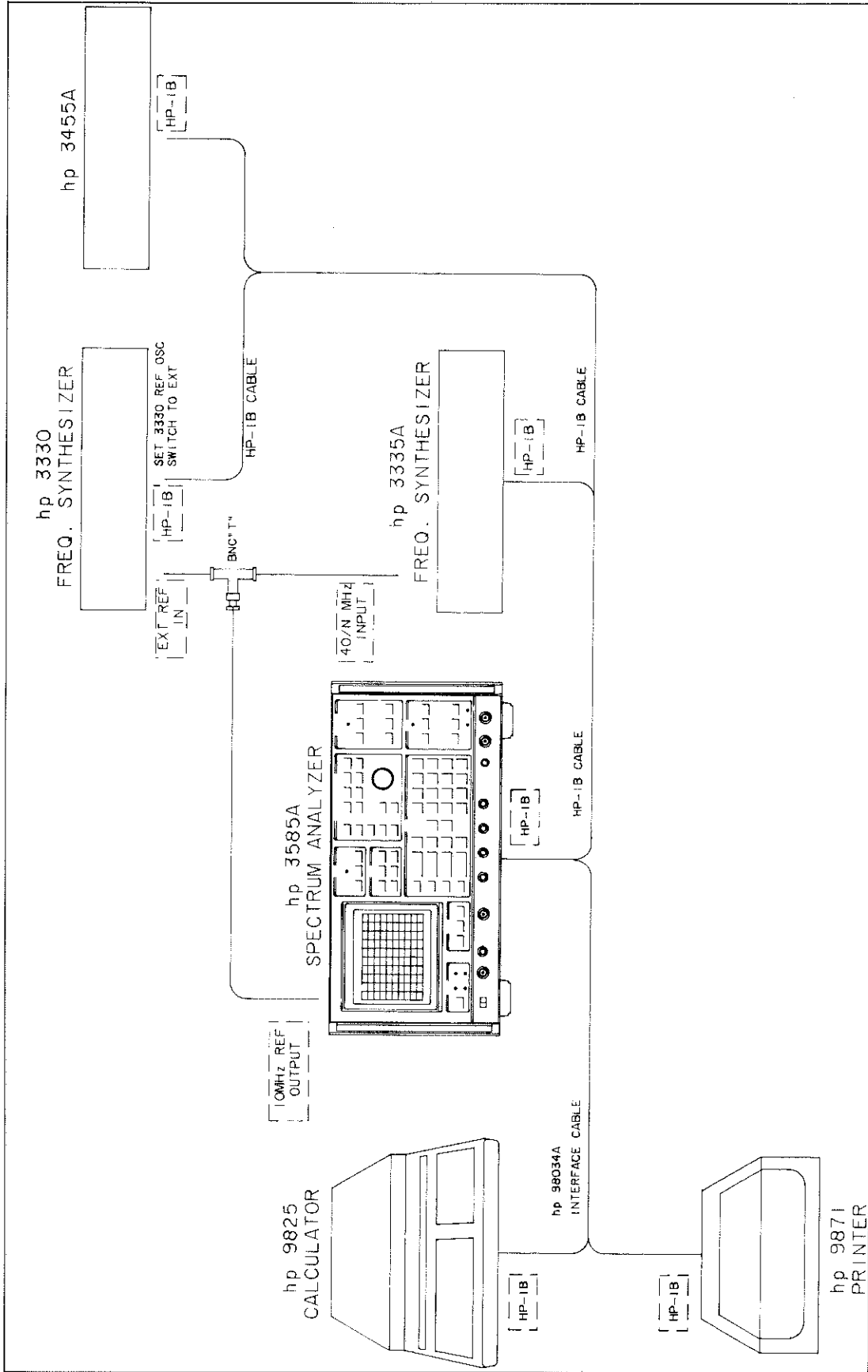


Figure 4-3. Semi-Automatic Performance Test Equipment Set-up.

### 4-33. Semi-Automatic Performance Test Equipment Set-up.

4-34. To run the Semi-Automatic Performance Tests, the -hp- 9825A Calculator, -hp- 9871 Printer, -hp- 3335A Frequency Synthesizer, -hp- 3330 Frequency Synthesizer and -hp- 3585A Spectrum Analyzer must be connected together as shown in Figure 4-3 and remain so for all of the performance tests unless otherwise noted.

### 4-35. Semi-Automatic Performance Test Procedure.

- a. Turn the calculator power off.
- b. Insert the calculator ROM's described in the Recommended Test Equipment list, Table 4-1, and into the slots under the calculator keyboard (see Figure 4-4).
- c. Check the rotary switch setting (Figure 4-5) on the HP-IB interface cable. The pointer should be on "7". If the pointer is at some other setting, use a small screwdriver to set it on "7".
- d. Turn the calculator, printer, synthesizer and spectrum analyzer power on.
- e. Load the supplied performance test cassette tape (Part Number 03585-10001) into the cassette tape slot.
- f. Press **LOAD** **0** on the calculator keyboard.
- g. Press **EXECUTE**
- h. After the run light has gone out, press **RUN** on the calculator keyboard.
- i. From this point on, the calculator will give instructions for what to do next. The manual does contain equipment set-ups for some of the tests. As these tests are encountered, the calculator will refer you to the equipment set-up diagram in the manual.

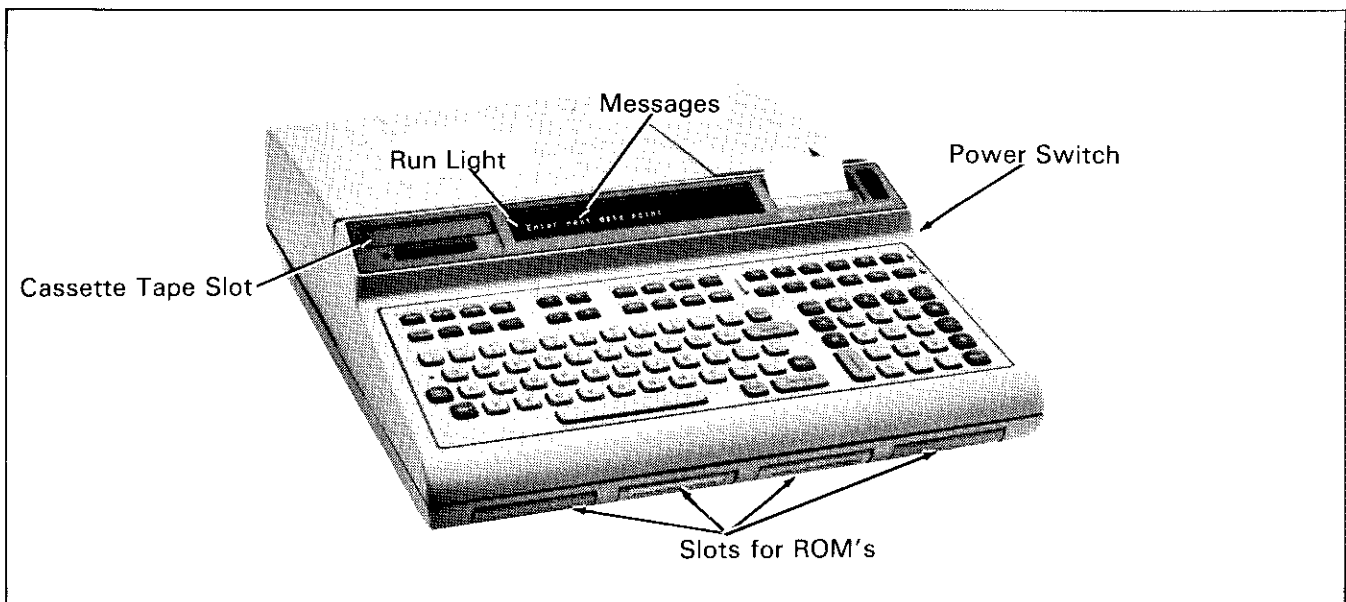
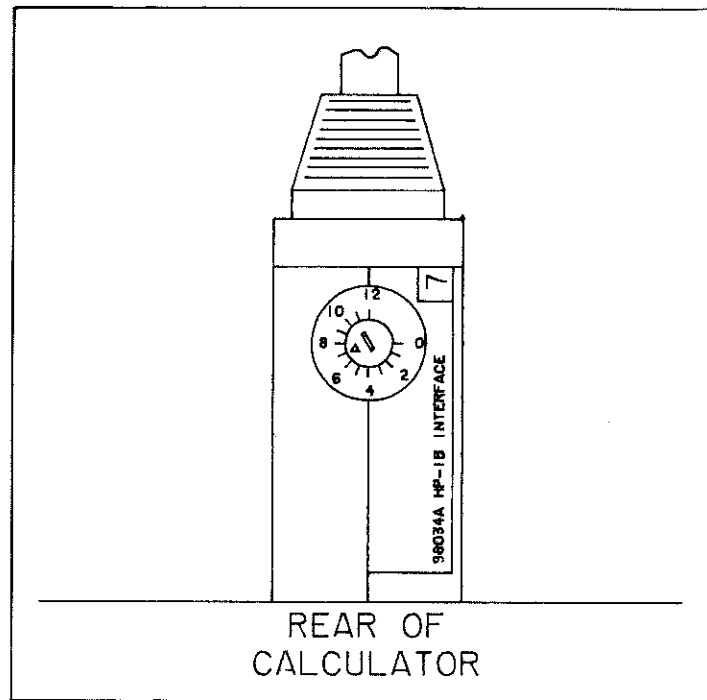


Figure 4-4. HP 9825A Calculator



**Figure 4-5. HP-IB Interface Cable Switch Setting.**

#### **4-36. Source Accuracy Program.**

4-37. The purpose of the source accuracy program is to calibrate the amplitude flatness of the synthesizer. This is done so that the synthesizer's corrected amplitude will be perfectly flat for the Calibrator Flatness and Range Calibration tests. The results of the Calibrator Flatness test will show how accurately the 3585A is being calibrated with respect to frequency.

4-38. To begin the Source Accuracy program, the calibration data for the N.B.S.\*-Certified Thermal Converter is entered into the calculator memory (this information can be obtained by ordering Option 01 with your -hp- 11051A Thermal Converter). After entering the frequency-related calibration data, a reference output voltage is obtained for a known input voltage. This is accomplished by a DC to DC transfer measurement. This measurement involves inputting a DC signal to the Thermal Converter that is equivalent to a 6 dBm signal into 50Ω. Next, the output of the synthesizer is applied to the N.B.S.\*-Certified Thermal Converter. The output of the Thermal Converter is monitored using a high accuracy, high resolution digital voltmeter. The program will adjust the output of the synthesizer until the previously measured Thermal converter output voltage is read by the digital voltmeter. The output level and frequency of the synthesizer are then stored in the calculator memory. Thirty-three frequencies are calibrated in this manner across the 40 MHz range. Once the 40 MHz range has been calibrated, the correction factors stored in the calculator's memory are recorded onto the performance test tape for use in later programs.

\*U.S. National Bureau of Standards.

**NOTE**

*It is very important that the synthesizer and output cable used to perform the source accuracy program are the same ones used to perform the calibrator flatness and range calibration tests.*

4-39. The data that is recorded on the tape for the source calibration test is only valid for one particular synthesizer-cable combination. Anytime the synthesizer or output cable is changed, a new set of source calibration data must be taken. For this reason, a space is provided at the beginning of the source calibration program to enter any pertinent information about the synthesizer, output cables or conditions.

**4-40. Using the Source Accuracy Program.**

4-41. The Source Accuracy program is structured in such a way so that maximum flexibility is available to the user. Because of this flexibility, guidelines are needed to help you understand the workings of this test. The flow chart of Figure 4-6 outlines the workings of this program. As you can see, the program centers around the menu which will appear as follows:

```

YOUR MENU IS:
ENTER THERMAL CONVERTER CALIBRATION DATA.....0
MEASURE THE THERMAL CONVERTER OUTPUT.....1
MEASURE THE SOURCE FOR CORRECTION DATA.....2
MANIPULATE DATA..(Print, Load, Record).....3
ENTER ONE OPTION # ON THE CALCULATOR KEYBOARD, CONT.
    
```

From the menu any of the four paths are available. When each path is completed a message will be displayed like this one:

```

GO BACK TO THE MENU.....CONTINUE
END.....1, CONTINUE
    
```

This message allows you to continue working in the Source Accuracy program for as long as you desire.

4-42. From the "List of Operations" (Table 4-5), a typical usage of the Source Accuracy program can be derived. This is the normal way in which the Source Accuracy program should be run. This typical usage would involve entering the Thermal Converter calibration data, measuring the Thermal Converter output, measuring the synthesizer for calibration data and recording the data. This sequence of events may be accomplished by performing operations a, b, c and d of Table 4-5. Another possibility is that the recorded Thermal Converter calibration data is correct, but a new set of synthesizer correction data needs to be taken. This may be accomplished by completing operations g and d. Data on the tape may be checked at any time by using operations e and f. Operation e may also be used during the running of the Source Accuracy program to check the data presently in memory.

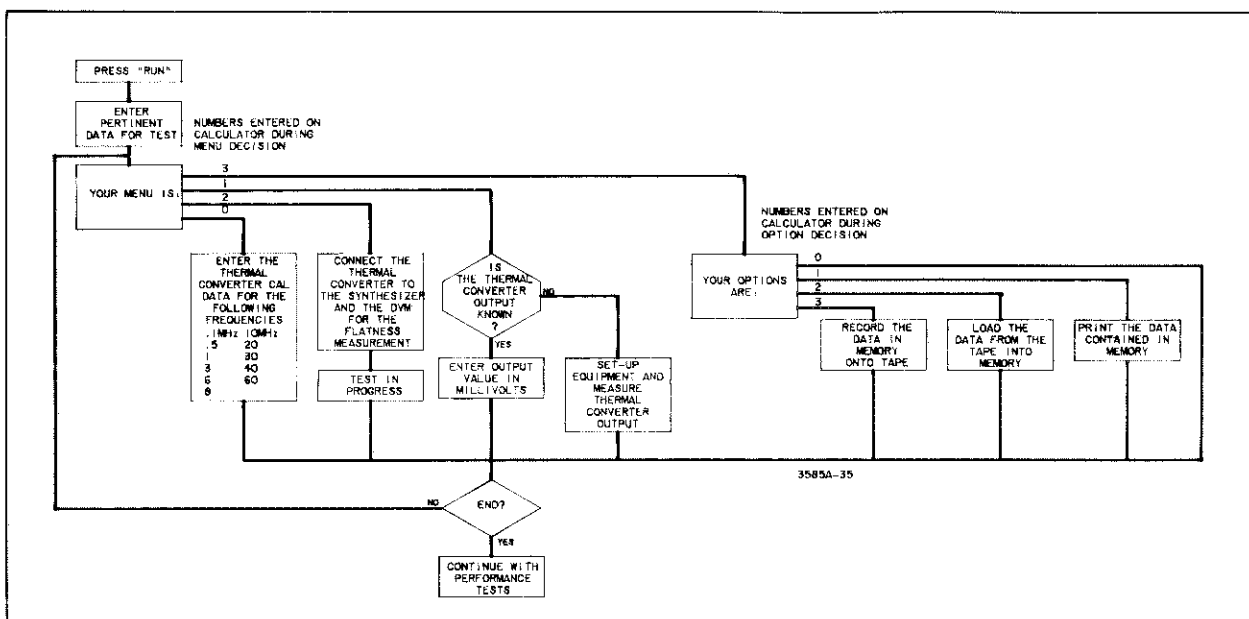
**NOTE**

*Unless the source accuracy program has been run within the last 30 days, it should be run again. This will assure that the data used to check the 3585A calibrator is valid.*



**Table 4-5. List of Operations.**

<p>a. To enter the Thermal Converter calibration data.</p>	<ol style="list-style-type: none"> <li>1. go to the menu</li> <li>2. choose path #0</li> </ol>
<p>b. To measure the Thermal Converter output voltage.</p>	<ol style="list-style-type: none"> <li>1. go to the menu</li> <li>2. choose path #1</li> <li>3. answer "no" to the question</li> <li>4. take the measurement as directed</li> </ol>
<p>c. To measure the synthesizer for correction data.</p>	<ol style="list-style-type: none"> <li>1. go to the menu</li> <li>2. choose path #2</li> <li>3. connect the equipment as directed</li> <li>4. wait for the completion of the test</li> </ol>
<p>d. To record the correction data onto the Performance Test tape.</p>	<ol style="list-style-type: none"> <li>1. go to the menu</li> <li>2. choose path #3</li> <li>3. choose option #3</li> <li>4. follow the instructions for recording the data</li> </ol>
<p>e. To print the correction and Thermal Converter calibration data contained in memory.</p>	<ol style="list-style-type: none"> <li>1. go to the menu</li> <li>2. choose path #3</li> <li>3. choose option #1</li> </ol>
<p>f. To load the correction data from the Performance Test tape into memory</p>	<ol style="list-style-type: none"> <li>1. go to the menu</li> <li>2. choose path #3</li> <li>3. choose option #2</li> </ol>
<p>g. To use the Thermal Converter calibration data and take a new set of synthesizer correction data.</p>	<ol style="list-style-type: none"> <li>1. go to the menu</li> <li>2. choose path #3</li> <li>3. choose option #2</li> <li>4. go to the menu</li> <li>5. choose path #1</li> <li>6. go to the menu</li> <li>7. choose path #2</li> </ol>



**Figure 4-6. Source Accuracy Program Flowchart.**

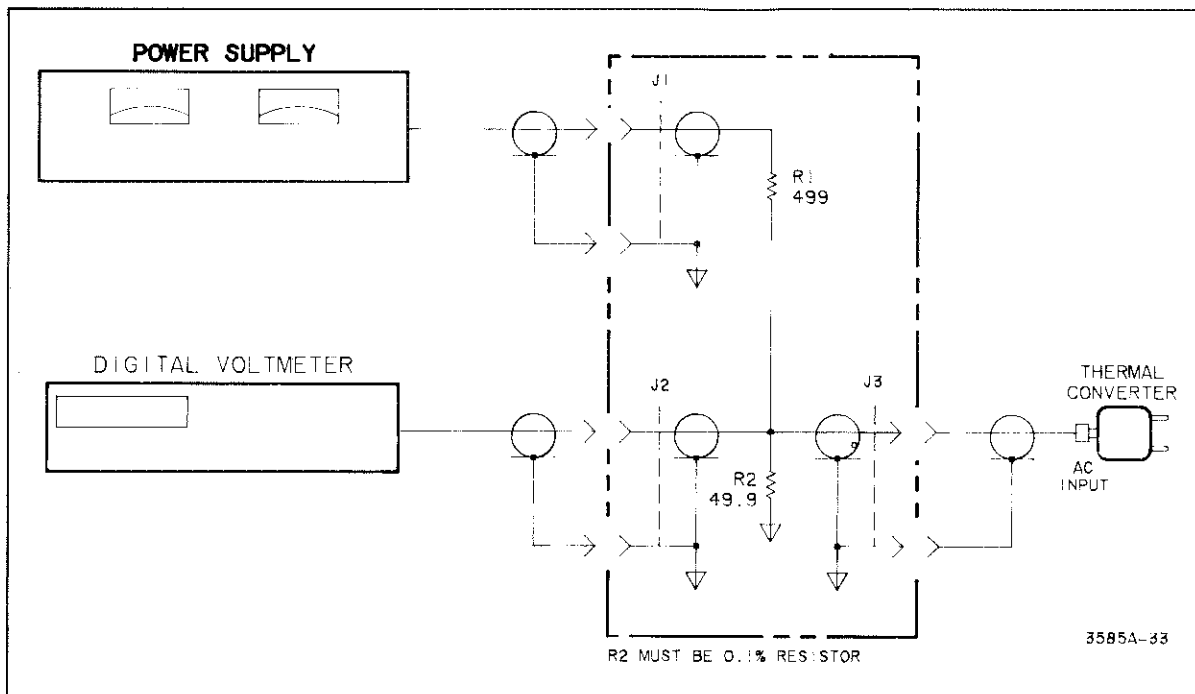


Figure 4-7. Thermal Converter Output Calibration.

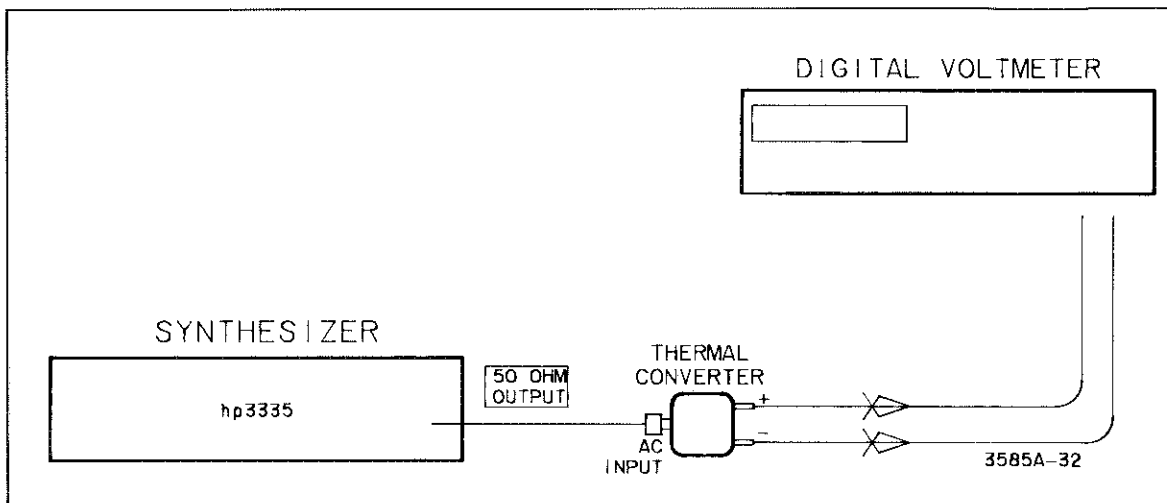


Figure 4-8. Measurement of Frequency Synthesizer For Calibration Data.

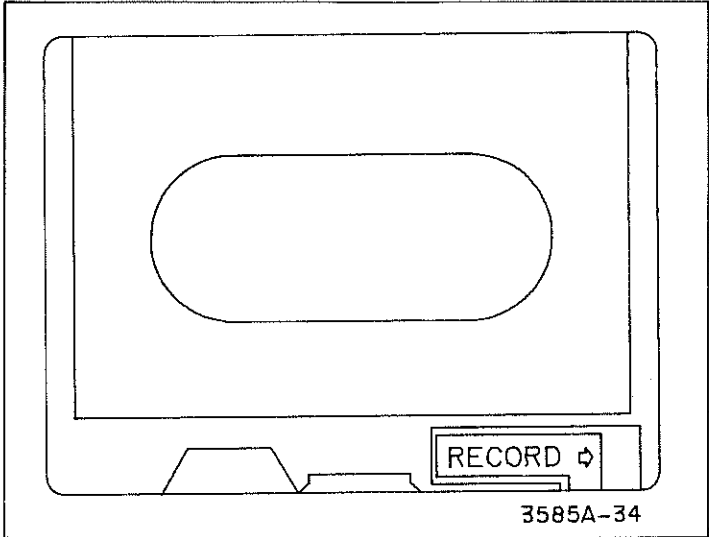


Figure 4-9. 9825A Cassette Tape.

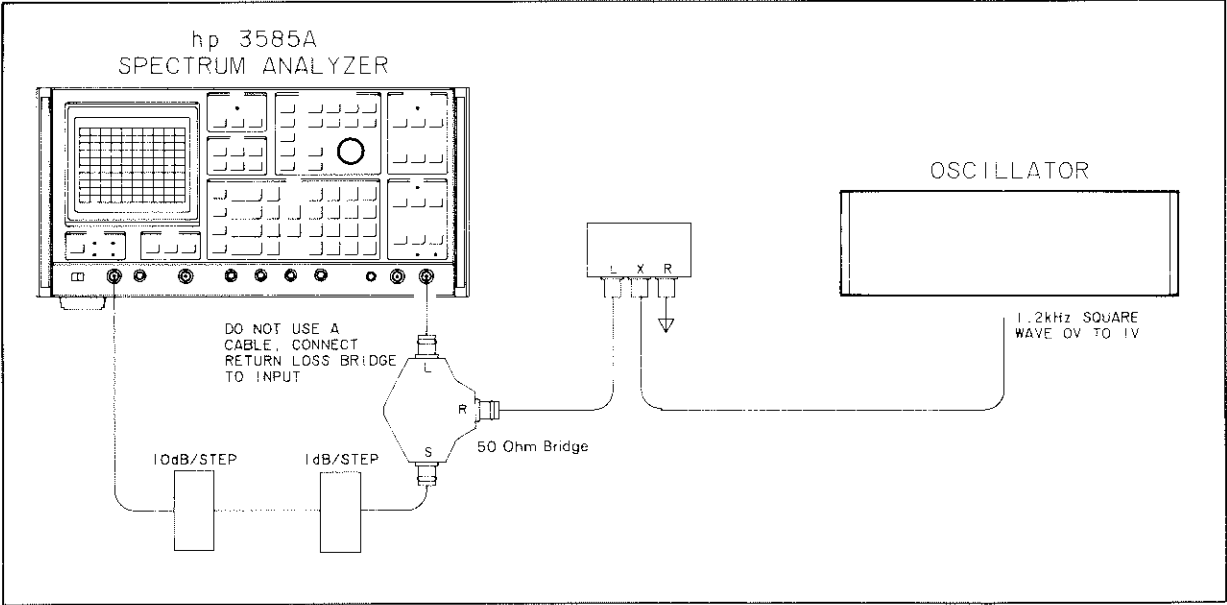


Figure 4-10. 50 ohm Return Loss Test (Automatic Tests).

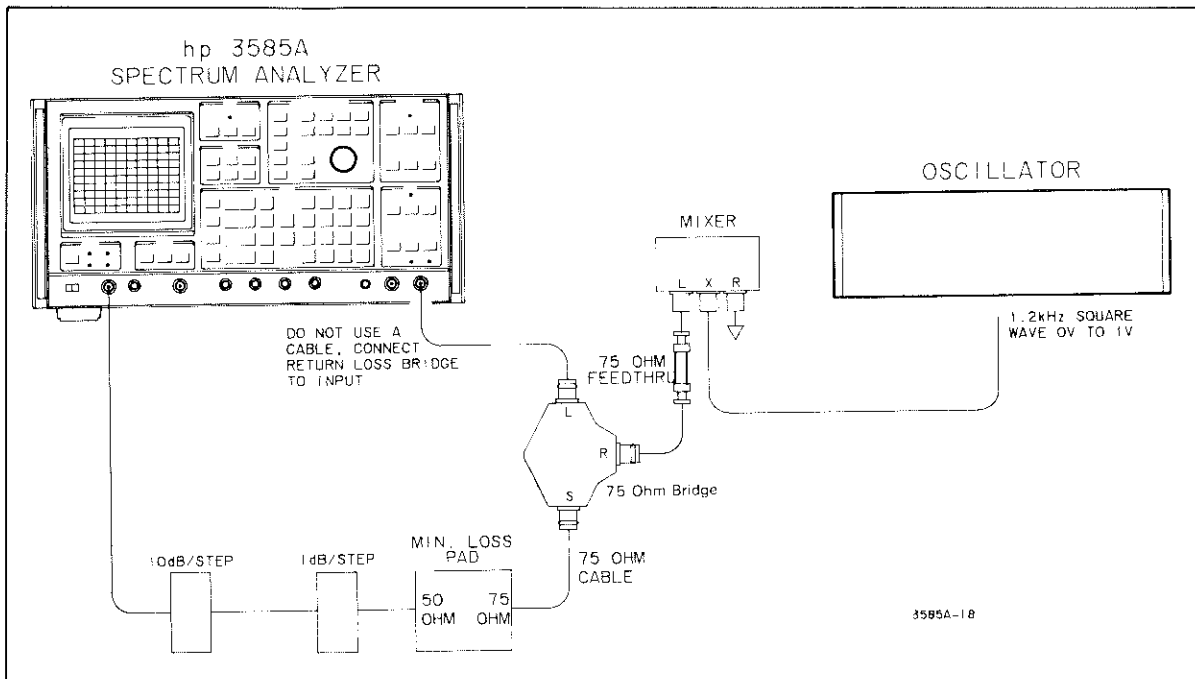


Figure 4-11. 75 ohm Return Loss Test (Automatic Tests).

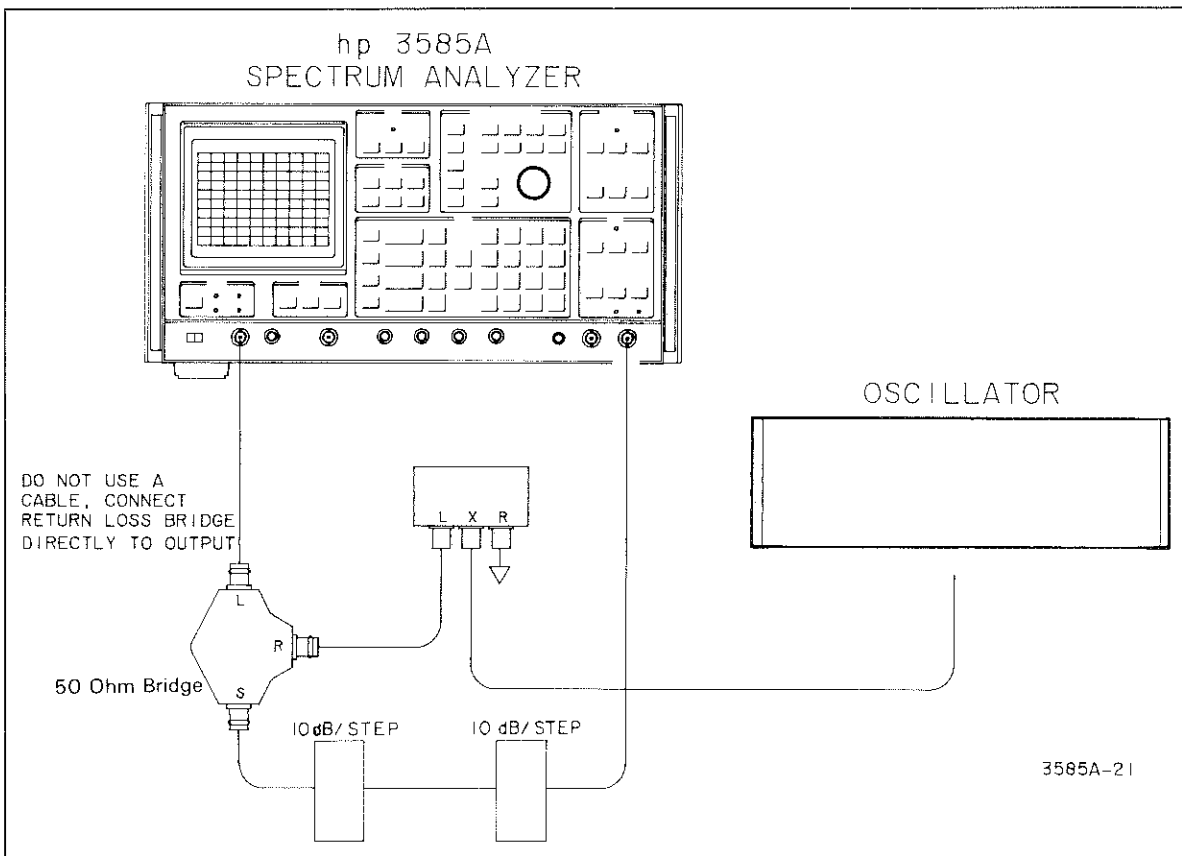


Figure 4-12. Tracking Generator Return Loss Test (Automatic Tests).

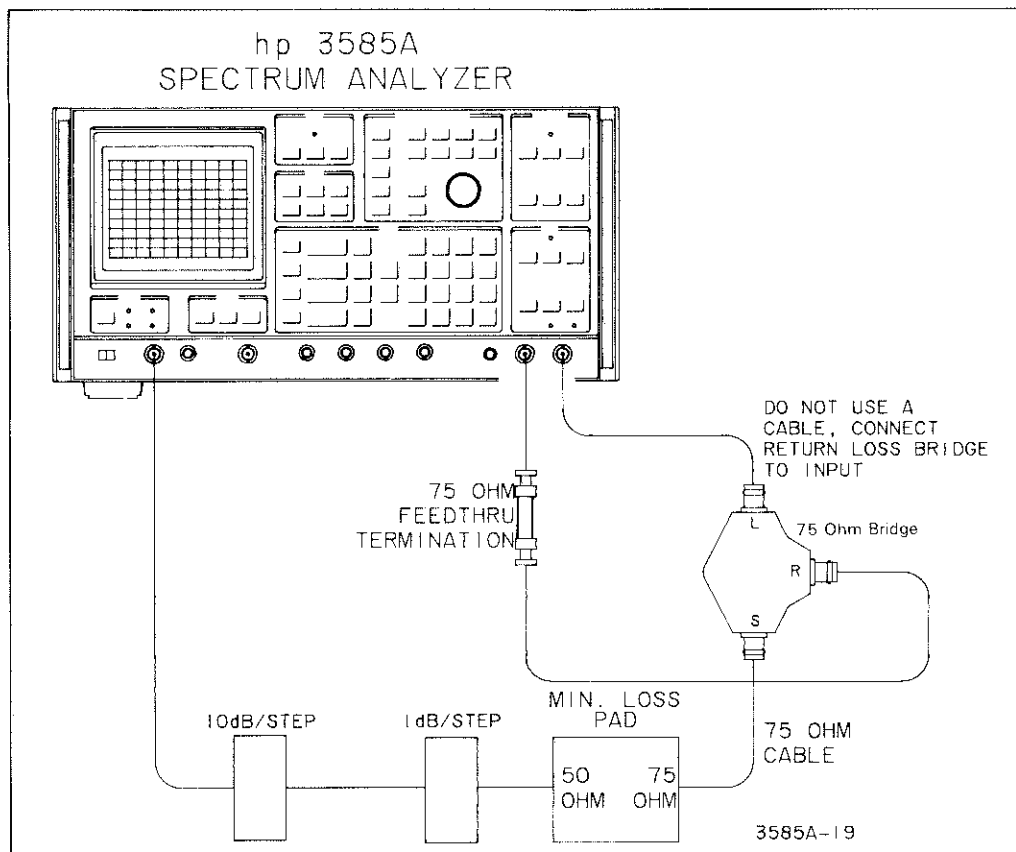
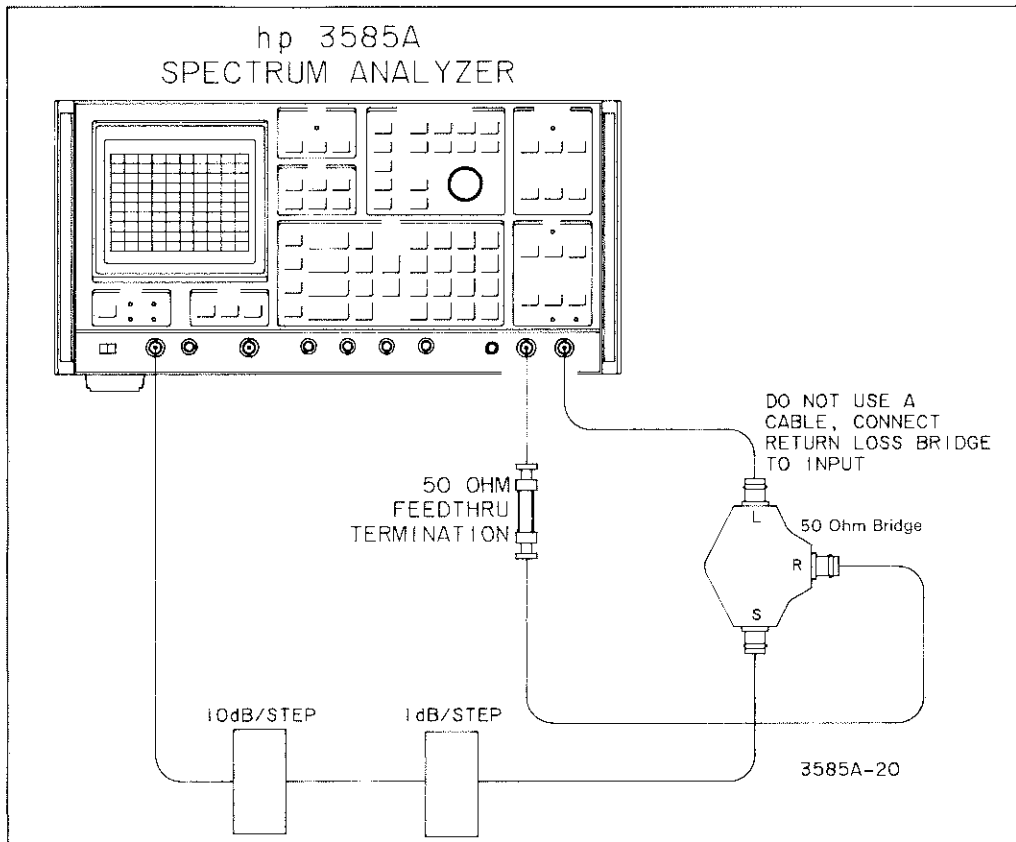


Figure 4-13. Terminated Input Return Loss Test (Automatic Tests).

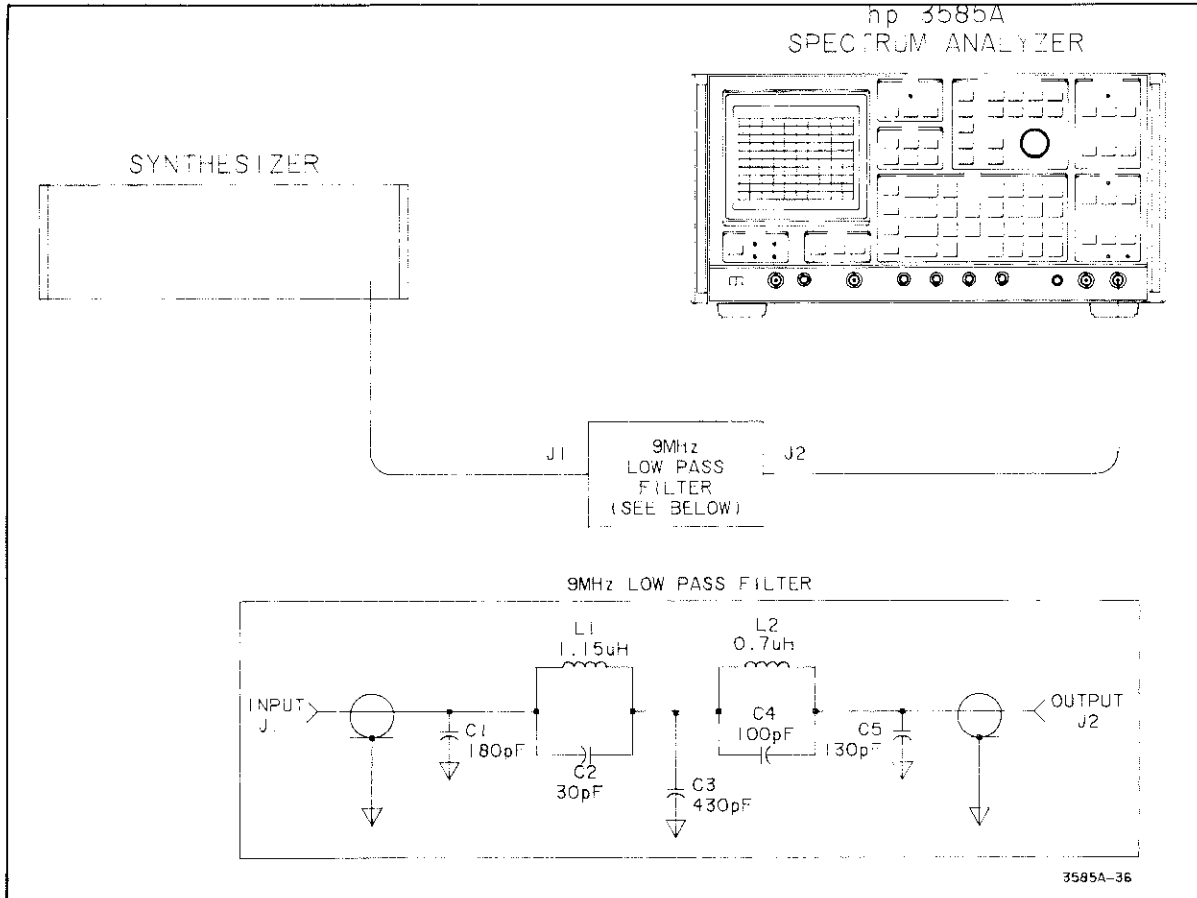


Figure 4-14. Harmonic Distortion Test

		-hp- Part No.
C1	180pf 5%, 300V	0140-0197
C2	30pf 5%, 300V	0162-2199
C3	430pf 5%, 300V	0160-0939
C4	100pf 5%, 300V	0162-0939
C5	130pf 5%, 300V	0140-0195
L1,2	1μH adjustable, 10% Adjust as shown in Figure 4-20	9100-3312

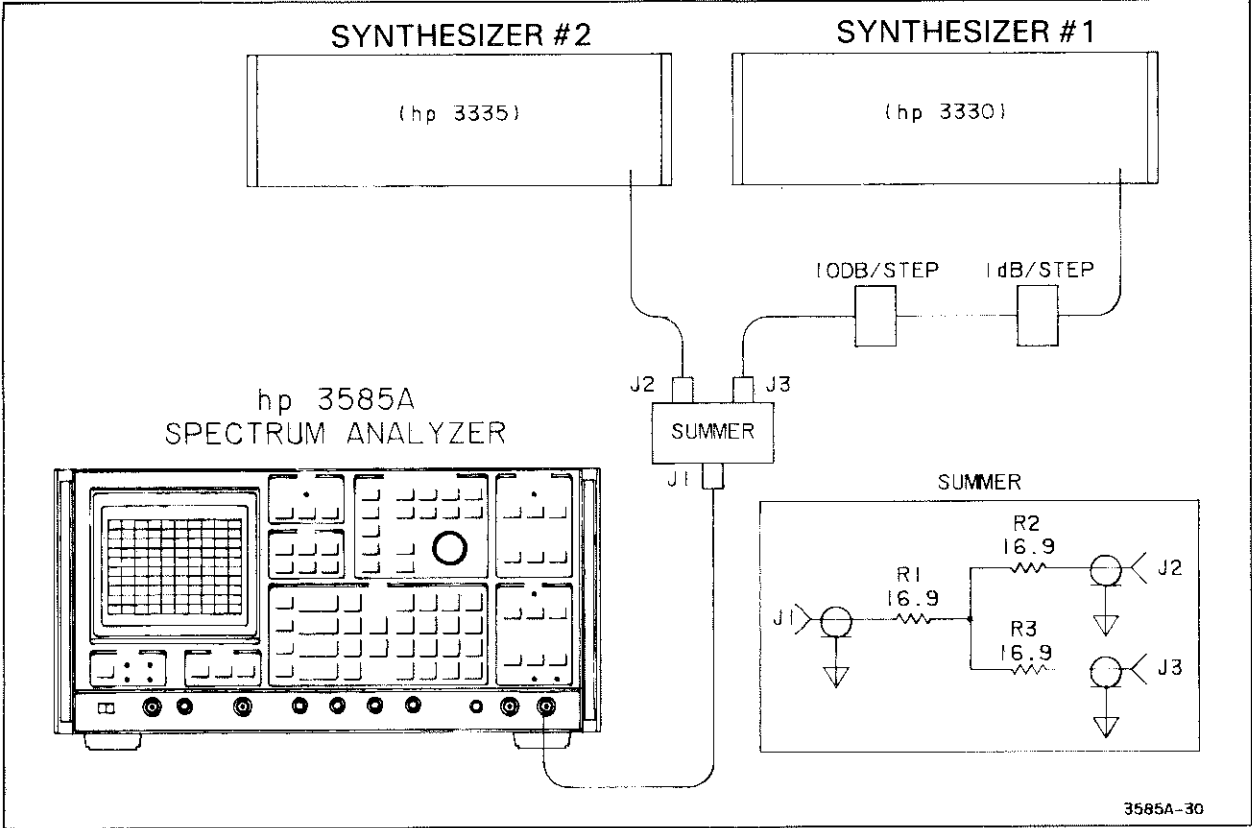


Figure 4-15. Intermodulation Distortion Test.

**4-43. OPERATIONAL VERIFICATION TESTS**

4.44. This portion of Section IV contains the following Operational Verification Tests:

<b>Test Name</b>	<b>Paragraph</b>
Frequency Accuracy.....	4-47
Calibrator Test (Optional).....	4-49
Cal Offset Test (Optional).....	4-51
Range Calibration Test.....	4-53
Amplitude Linearity Test.....	4-55
Reference Level Accuracy Test.....	4-57
50/75Ω Frequency Response Test.....	4-59
1 MΩ Frequency Response Test.....	4-61
Return Loss Tests.....	4-63
1 MΩ Input Impedance Test.....	4-65
Marker Accuracy Test.....	4-67
Noise Test.....	4-69
Zero Response Test.....	4-71
Low Frequency Responses Test.....	4-73
Local Oscillator Sidebands Test.....	4-75
Residual Spurs Test.....	4-77
Harmonic Distortion Test.....	4-79
Intermodulation Distortion Test.....	4-81
Bandwidth Tests.....	4-83
Fractional N API Spur Test.....	4-85
Tracking Generator Flatness Test.....	4-87
HP-IB Check (Optional).....	4-89

**4-45. Synthesizer Reference Connections.**

4-46. Unless otherwise specified the synthesizer reference oscillator input (40/N MHz input for the 3335A) should be connected to the 3585A 10 MHz REF OUTPUT. This will assure accurate frequency measurements during the Operational Verification Tests.



**4-47. Frequency Accuracy.**

4-48. This test verifies the frequency accuracy of the 3585A by using an external counter to check the internal frequency reference. It is important that the frequency counter used to do this test has a reference which is more accurate than that of the 3585A.

Specification: Counter Accuracy,  $\pm 0.3\text{Hz} \pm 1 \times 10^{-7}/\text{month}$

Equipment Required:

Frequency Counter.....-hp- 5328A  
Frequency Synthesizer.....-hp- 3335A

Procedure:

a. Allow the instruments used in this test to warm up for 15 to 20 minutes before beginning this test.

b. Set the synthesizer controls for:

FREQUENCY.....9 MHz  
AMPLITUDE.....0 dBm

c. Set the 3585A controls for:

INSTRUMENT PRESET  
MANUAL ENTRY.....9 HMz  
COUNTER ..... on

d. Using a BNC "T" connector, connect the synthesizer's 50 ohm output to the frequency counter and the 3585A 50 ohm input.

**NOTE**

*Be sure that the synthesizer and the 3585A are operating on their own internal references. Disconnect any reference connection common to both instruments.*

e. Record the frequency difference between the frequency counter and the 3585A counter reading. Difference frequency equals \_\_\_\_\_ Hz.

f. If the frequency accuracy derived from this test is not in accordance with your requirements, turn to Section 5 of this manual for the Reference Oscillator Adjustment procedure.

g. This completes the Frequency Accuracy Test, reconnect the references as outlined in Paragraph 4-45.

**4-49. Calibrator Test. (Optional)**

4-50. This test makes a two point test of the calibrator flatness to check for any high frequency roll-off.

Equipment Required:

Frequency Synthesizer . . . . . -hp- 3335A

Specification: At 100kHz, -25dBm  $\pm$  0.25dB  
 At 40MHz, the 100kHz reading  $\pm$  0.25dB

Procedure:

a. Set the synthesizer for:

FREQUENCY . . . . . 100 kHz  
 AMPLITUDE . . . . . -25 dBm

b. Set the 3585A controls for:

dB/DIV . . . . . 1 dB  
 CENTER FREQUENCY . . . . . 100 kHz  
 MANUAL SWEEP . . . . . on

c. Connect the 3585A 50Ω input to the synthesizer 50Ω output.

d. The marker amplitude reading should be -25 dBm  $\pm$  0.25 dB to verify proper operation of the calibrator.

e. Set the 3585A controls for:

OFFSET . . . . . on  
 ENTER OFFSET  
 CENTER FREQUENCY . . . . . 40 MHz

f. Set the synthesizer controls for:

FREQUENCY . . . . . 40 MHz

g. The marker amplitude reading should be less than  $\pm$  0.25 dB verifying that the high frequency roll-off of the calibrator is not excessive.

**4-51. Cal Offset Test. (Optional)**

4-52. This test is a check of the amplitude and frequency offsets within the 3585A when the calibration system is turned off. It's purpose is to check the adjustment of the 3585A IF section for large errors which the calibration system may mask. A failure in this test indicates a need to adjust the IF section.

Equipment Required:

Frequency Synthesizer.....-hp- 3335A

Specification: See Table 4-6.

Procedure:

- a. Set the synthesizer controls for:

FREQUENCY..... 10 MHz  
 AMPLITUDE.....-25 dBm

- b. Connect the 50Ω output of the synthesizer to the 50Ω input of the 3585A.

- c. Set the 3585A controls for:

RECALL 602  
 INSTRUMENT PRESET  
 RES. BW HOLD.....on  
 CENTER FREQUENCY..... 10 MHz  
 FREQUENCY SPAN.....50 kHz  
 REFERENCE LEVEL.....-22 dBm  
 dB/DIV..... 1 dB  
 SWEEP TIME......0.8 sec  
 OFFSET.....on  
 ENTER OFFSET  
 SAVE 1  
 RECALL 601  
 INSTRUMENT PRESET  
 RECALL 1

**Table 4-6. Cal Offset Settings.**

Res. BW	Freq. Span	Freq. Test Limit	Amplitude Test Limit
30 kHz	50 kHz	± 3.5 kHz	± 3.5 dB
10 kHz	20 kHz	± 3.5 kHz	± 3.5 dB
3 kHz	5 kHz	± 3.5 kHz	± 3.5 dB
1 kHz	2 kHz	± 3 kHz	± 3.5 dB
300 Hz	500 Hz	± 900 Hz	± 3.5 dB
100 Hz	200 Hz	± 300 Hz	± 3.5 dB
30 Hz	50 Hz	± 90 Hz	± 3.5 dB
10 Hz	20 Hz	30 Hz	± 3.5 dB
3 Hz	7 Hz	± 9 Hz	± 3.5 dB

- d. Place the marker on the most positive point of the CRT trace. The marker reading in the upper right of the CRT will assist you in finding this point.
- e. Enter the Offset and Marker reading on the Performance Test Card.
- f. Repeat Steps d and e for each of the Resolution Bandwidths in Table 4-6.

**4-53. Range Calibration.**

4-54. This test verifies that the Range Calibration system is working as specified.

Equipment Required:

Frequency Synthesizer . . . . .-hp- 3335A

Specification:

$\pm 0.7$  dB (Equals the Reference Level Accuracy ( $\pm 0.4$  dB) for a -25 dBm signal plus the Amplitude Linearity spec (0.3 dB) for a signal 5 dB below the Reference Level)

Procedure:

- a. Connect the 50 $\Omega$  output of the synthesizer to the 3585A 50 $\Omega$  input.
- b. Set the synthesizer controls for:

FREQUENCY . . . . .150 kHz  
 AMPLITUDE . . . . .-25 dBm

- c. Set the 3585A controls for:

INSTRUMENT PRESET  
 CENTER FREQUENCY . . . . .150 kHz  
 REFERENCE LEVEL . . . . .-20 dBm  
 1 dB/DIV  
 RES BW . . . . .10 Hz  
 MANUAL SWEEP . . . . .on  
 REF LEVEL TRACK . . . . .off  
 OFFSET . . . . .on  
 ENTER OFFSET

- d. Set the 3585A controls for:

RANGE UP

- e. Check the marker reading, it should be less than  $\pm 0.7$  dB to verify that the RANGE shown is within spec.
- f. Repeat steps d and e until all ranges have been checked.

**4-55. Amplitude Linearity Test.**

4-56. This test confirms that the 3585A will read the amplitude of the input signal correctly within the limits of the specification. A frequency synthesizer with a very accurate, calibrated output is used as the source.

Equipment Required:

- 10dB/step Attenuator.....-hp-355D
- Frequency Synthesizer.....-hp-3335A

Specification:

Amplitude Linearity	0dB	-20dB	-50dB	-80dB	-100dB
	± 0.3dB	± 0.6dB	± 1 dB	± 2 dB	

Procedures:

- a. Connect the 3585A Tracking Generator output to the input of the attenuator. Connect the output of the attenuator to the 50Ω input of the 3585A.
- b. Set the attenuator to 0 dB of attenuation.
- c. Set the 3585A controls for:

```

INSTRUMENT PRESET
CENTER FREQUENCY.....1 MHz
RES. BW.....3 Hz
VIDEO BW.....3 Hz
RANGE.....0 dBm
MANUAL SWEEP.....on
    
```

- d. Adjust the AMPLITUDE of the 3585A Tracking Generator so that the marker amplitude reads .0 dBm.
- e. Set the Variable Attenuator for one of the settings listed in Column A, Table 4-7.
- f. Add the Correction Factor (Column B) to the Ideal reading (Column C) and enter this value in Column D.
- g. Record the 3585A Marker Reading in Column E.
- h. Subtraction of Column D from Column E should yield a value within the Test Tolerance of Column F, thereby verifying the Amplitude Linearity specification.
- i. Repeat Steps e thru h until all the Variable Attenuator settings have been checked.

**Table 4-7. Amplitude Linearity Test.**

(A) Variable Attenuator	(B) Correction Factor*	(C) Ideal Reading	(D) Correct Reading (B + C)	(E) 3585A Marker Reading**	(F) Test Tolerance
0 dB	-----	00.0 dB	00.0 dB	00.0 dB	-----
-10 dB	-----	-10.0 dB	----- dB	----- dB	± 0.3 dB
-20 dB	-----	-20.0 dB	----- dB	----- dB	± 0.3 dB
-30 dB	-----	-30.0 dB	----- dB	----- dB	± 0.6 dB
-40 dB	-----	-40.0 dB	----- dB	----- dB	± 0.6 dB
-50 dB	-----	-50.0 dB	----- dB	----- dB	± 0.6 dB
-60 dB	-----	-60.0 dB	----- dB	----- dB	± 1.0 dB
-70 dB	-----	-70.0 dB	----- dB	----- dB	± 1.0 dB
-80 dB	-----	-80.0 dB	----- dB	----- dB	± 1.0 dB
-90 dB	-----	-90.0 dB	----- dB	----- dB	± 2.0 dB

**4-57. Reference Level Accuracy.**

4-58. This test verifies that the 3585A meets the specification for Reference Level Accuracy.

Equipment Required:

Frequency Synthesizer . . . . .-hp- 3335A

Specifications: Reference Level Accuracy, Terminated Input

+ 10dB	-50dB	-70dB	-100dB
± 0.4dB	± 0.7dB	± 1.5dB	

Procedure:

- a. Connect the 50Ω output of the synthesizer to the 50Ω input of the 3585A.
- b. Set the synthesizer controls for:

FREQUENCY . . . . .20 MHz  
 AMPLITUDE . . . . .10 dBm  
 AMPLITUDE INCR. . . . . 10 dBm

- c. Set the 3585A controls for:

INSTRUMENT PRESET  
 RANGE . . . . .0 dBm  
 REFERENCE LEVEL . . . . .10 dBm  
 REF LVL TRACK . . . . .off  
 1 dB/DIV  
 RES BW . . . . .100 Hz  
 VIDEO BW . . . . .1 Hz  
 MANUAL SWEEP . . . . .on

\*Correction factor must be obtained from attenuator calibration data.  
 \*\*If noise jitter is present, use average marker reading.

d. Enter the marker amplitude reading in Column (C). Subtract the value in Column (C) from that in Column (A) and enter this value in Column (D). The value in Column (D) should not exceed the Test Tolerance of Column (E). This will confirm that the 3585A meets its Reference Level Accuracy spec.

e. Set the Synthesizer Level to the next value in Column (A) and the 3585A REFERENCE LEVEL for the next value in Column (B) as shown in Table 4-8.

f. Repeat Steps d and e until all values in Table 4-8 have been checked.

**Table 4-8. Reference Level Accuracy Tests.**

(A) Synthesizer Level	(B) 3585A Reference Level	(C) 3585A Marker Reading	(D) Synthesizer Level Minus The 3585A Marker Reading (A-C)	(E) Test Tolerance
+ 10 dBm	+ 10 dBm	_____	_____	± 0.4 dB
0 dBm	0 dBm	_____	_____	± 0.4 dB
- 10 dBm	- 10 dBm	_____	_____	± 0.4 dB
- 20 dBm	- 20 dBm	_____	_____	± 0.4 dB
- 30 dBm	- 30 dBm	_____	_____	± 0.4 dB
- 40 dBm	- 40 dBm	_____	_____	± 0.4 dB
- 50 dBm	- 50 dBm	_____	_____	± 0.7 dB
- 60 dBm	- 60 dBm	_____	_____	± 0.7 dB
- 70 dBm	- 70 dBm	_____	_____	± 1.5 dB
- 80 dBm	- 80 dBm	_____	_____	± 1.5 dB

**4-59. 50/75Ω Frequency Response Test.**

4-60. In this test the 50Ω and 75Ω flatness of the instrument is checked against the output of the internal calibrator. The display shows the Tracking Generator switched through the internal calibrator, which is assumed to be flat, sweeping across the frequency range of the instrument. The maximum and minimum points of the sweep are measured. This gives the total deviation of the 3585A 50 or 75Ω input relative to the flatness of the calibrator.

Specification:

Frequency Response, Terminated Input: ±0.5 dB referenced to 20.1 MHz

Procedure:

a. Set the 3585A controls for:

```

RECALL 604
INSTRUMENT PRESET
START FREQUENCY.....0.1 MHz
STOP FREQUENCY.....40.1 MHz
REFERENCE LEVEL.....-20 dBm
dB/DIV.....1 dB
REF LVL TRACK.....off
RANGE.....-25 dBm
    
```

- b. Press the SINGLE SWEEP button on the 3585A.
- c. Wait until the sweep is completed. The trace you now see is the flatness of the 50Ω input.
- d. Move the marker to the center of the trace. The marker amplitude reading in the upper right-hand corner of the display will help you find this point.
- e. Set the 3585A controls for OFFSET on and ENTER OFFSET.
- f. Using the marker, find the point on the trace which gives the greatest positive or negative deviation as shown by the marker amplitude reading.
- g. The marker amplitude reading displayed is the greatest deviation from the calibrator flatness for the range shown. Record this value under Maximum Amplitude Deviation on the Performance Test Card.
- h. Set the 3585A controls for RANGE.....STEP UP.
- i. Repeat Steps b thru h until all ranges have been tested.
- j. Set the 3585A controls for:

RANGE.....-25 dBm  
 INPUT IMPEDANCE.....75Ω  
 SINGLE SWEEP

- k. Wait until the sweep is completed. The trace you now see is the flatness of the 75Ω input.
- l. Repeat Steps d thru f and enter the results on the Performance Test Card.

**4-61. 1 M Ohm Frequency Response Test.**

4-62. This test checks the frequency response of the 1 MΩ input relative to the flatness of the 50Ω input. Ideally the difference between the two signals would be zero.

Equipment Required:

50Ω Feed Thru Termination.....-hp- 11048C

Specification:

High Impedance Frequency Response

20Hz	10MHz	40MHz
± 0.7dB		± 1.5dB



Procedure:

- a. Set the 3585A controls for:

```

INSTRUMENT PRESET
STOP FREQUENCY.....10 MHz
dB/DIV.....1 dB
RANGE.....0 dBm
RES. BW.....3 kHz
RES. BW HOLD.....on
RECALL .....4

```

- b. Connect the 3585A Tracking Generator output to the 3585A 50Ω input.
- c. Adjust the Tracking Generator Amplitude control for the center of its range.
- d. Allow one complete sweep to occur. Press the STORE A → B key of the 3585A.
- e. Connect a 50Ω termination to the 1 MΩ input of the 3585A. Connect the output of the Tracking Generator to the input of this termination.

- f. Set the 3585A controls for:

```

INPUT.....1 MΩ
B TRACE.....off
A-B.....on

```

- g. Move the marker to the most negative point on the displayed trace. (Ignore the LO feedthrough point at 0 Hz)

- h. Set the 3585A controls for:

```

OFFSET.....on
ENTER OFFSET

```

- i. Move the marker to the most positive point on the displayed trace. (Ignore the LO feed-through point at 0 Hz)

- j. Record the marker amplitude on the Performance Test Card as the 1 MΩ unflatness for the 0 to 10 MHz band. The marker amplitude should be less than ± 0.7 dB to verify the specification.

- k. Set the 3585A controls for:

```

START FREQUENCY.....10 MHz
STOP FREQUENCY.....40 MHz
INPUT.....50Ω
A-B.....off

```

- l. Repeat Steps b thru i.

m. Record the marker amplitude on the Performance Test Card as the 1 MΩ unflatness for the 10 MHz to 40 MHz band. The marker amplitude reading should be less than ± 1.5 dB to verify the specification.

**4-63. Return Loss Tests.**

4-64. These tests verify that the 3585A meets the Return Loss specification for the 50Ω, 75Ω and Terminated inputs.

Equipment Required:

- 100 MHz Oscilloscope.....-hp- 1740A
- 50Ω Return Loss Bridge.....-hp- 8721A
- 75Ω Return Loss Bridge.....-hp- 8721 Option 008
- 50Ω Feed Thru Termination.....-hp- 11048C
- 75Ω Feed Thru Termination.....-hp- 11094B
- 50/75Ω Min. Loss Pad.....-hp-85428B
- (2) 12'' 75Ω Cables.....-hp- 11170E
- Male BNC/BNC Adapter.....-hp- Part No. 1250-0216
- Frequency Synthesizer.....-hp-3335A

Specification:

- Return Loss, 50Ω or 75Ω Terminated Input..... > 26 dB
- 50Ω or 75Ω Dummy Load..... > 14 dB (Optional)

Procedure:

a. Set the 3585A controls for:

- INSTRUMENT PRESET
- MANUAL SWEEP.....40 MHz
- RANGE.....5 dBm

b. Set the synthesizer controls for:

- FREQUENCY.....40 MHz
- AMPLITUDE.....10.5 dBm

c. Set the oscilloscope controls for:

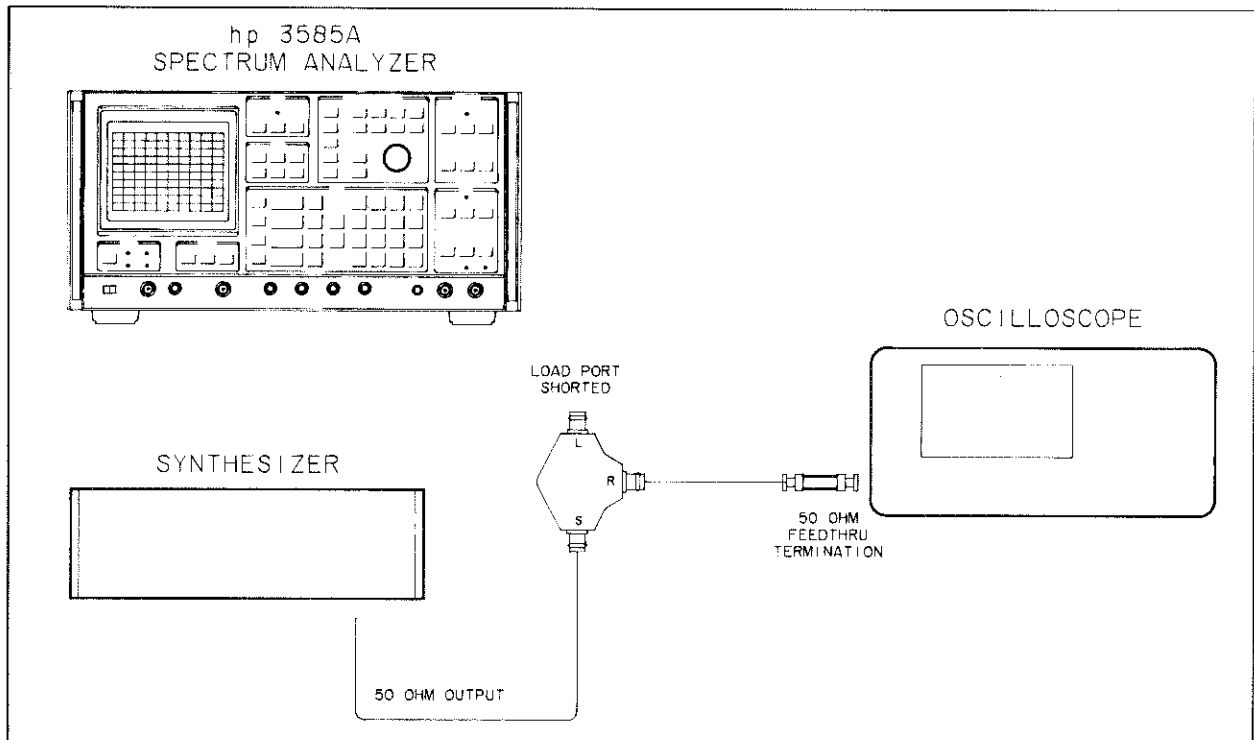
- VERTICAL SCALE.....0.1 V/DIV (ac coupled)
- HORIZONTAL SCALE.....0.05μ sec/DIV

d. Connect the equipment as shown in Figure 4-16.

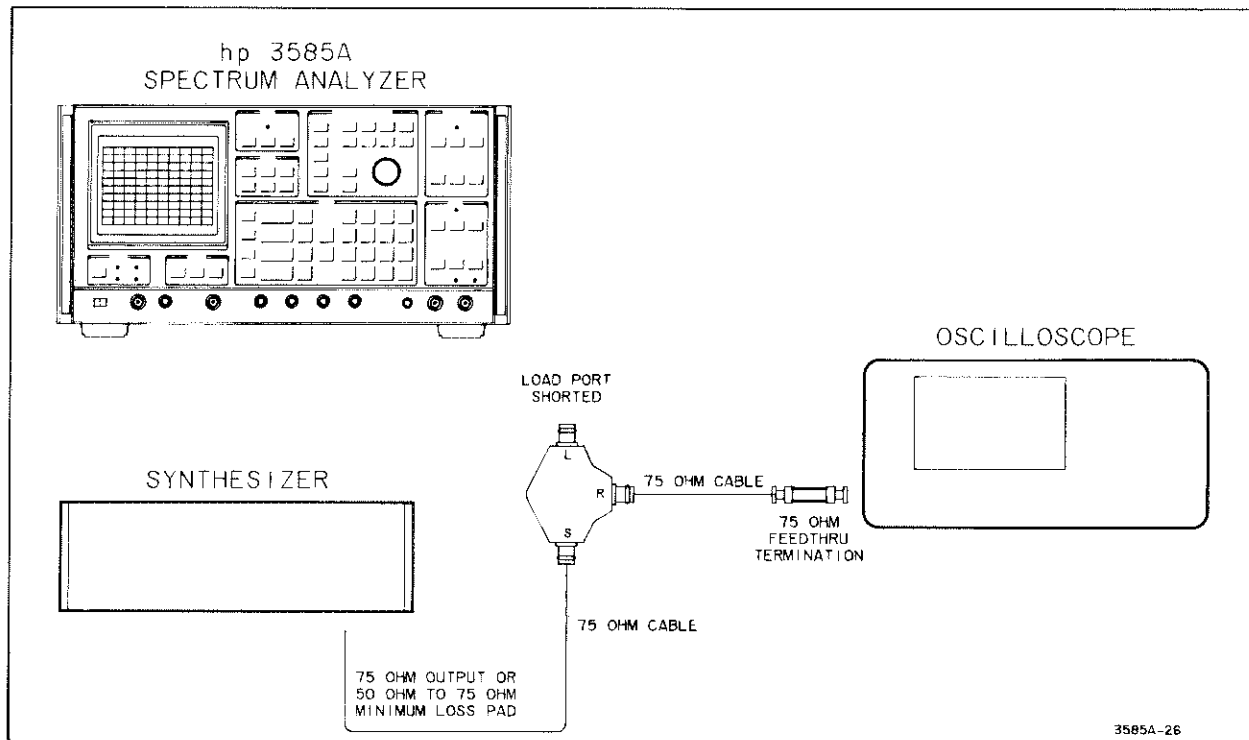
e. Check the waveform amplitude displayed on the scope. The amplitude displayed should equal 0.35 V p-p. Adjust the synthesizer as necessary to obtain this amplitude.

f. Remove the shorting connection from the Load port of the Return Loss Bridge.

- g. Connect the Return Loss Bridge Load port to the 50 $\Omega$  input of the 3585A.
- h. Read the amplitude of the waveform on the scope display. It should be less than 0.0175 V p-p. This confirms that the 50 $\Omega$  (75 $\Omega$ ) Return Loss of the 3585A is greater than 26 dB.
- i. Press the 1 M $\Omega$  input impedance key on the 3585A.
- j. Again check the amplitude of the scope waveform. It should be less than 0.07 V p-p. This will confirm that the Return Loss of the Terminated input is greater than 14 dB.
- k. Connect the equipment as shown in Figure 4-17 for the 75 $\Omega$  Return Loss tests.
- l. Press the 75 $\Omega$  input impedance key on the 3585A.
- m. Repeat Steps d thru i for the values in parenthesis.
- n. Change the synthesizer frequency to 15 MHz.
- o. Set the 3585A controls for MANUAL SWEEP 15 MHz.
- p. Repeat Steps c thru m.
- q. This completes the Return Loss Tests. Disconnect the test equipment.



**Figure 4-16. 50 $\Omega$  Return Loss Test (Operational Verification).**



**Figure 4-17. 75Ω Return Loss Test (Operational Verification).**

**4-65. 1 M ohm Input Impedance Test.**

4-66. These tests verify that the 3585A meets the Input Impedance specifications for the 1 MΩ, 30 pf Input Impedance setting.

Equipment Required:

Resistor:

- 1 MΩ ± 1%, 1/8W Film.....-hp- Part No. 0757-0344
- 50Ω Feed Thru Termination.....-hp- 11048C
- Synthesizer.....-hp- 3335A

Specification:

$$1M\Omega \pm 3\%, < 30 \text{ pf}$$

Procedure:

- a. Set the 3585A controls as follows:

INSTRUMENT PRESET  
 CENTER FREQUENCY.....1 kHz  
 MANUAL SWEEP.....on  
 RES. BW.....100 Hz  
 RANGE.....0 dBm  
 INPUT IMPEDANCE.....1 MΩ

b. Connect the 50Ω termination to the 3585A 1 MΩ input. Connect the synthesizer output to the termination input.

c. Set the synthesizer controls for:

FREQUENCY.....1 kHz  
 AMPLITUDE.....0 dBm

d. Set the 3585A controls for OFFSET on. Allow time for the marker reading to stabilize, then press the ENTER OFFSET button.

e. Using short clip leads, insert the 1 MΩ resistor between the output of the termination and the 3585A 1 MΩ input as shown in Figure 4-18.

f. The 3585A marker amplitude reading should be  $-6.0 \text{ dB} \pm 0.44 \text{ dB}$ , verifying that the input resistance is  $1 \text{ M}\Omega \pm 5\%$ .

g. Press the 3585A ENTER OFFSET button.

h. Set the synthesizer frequency to 10 kHz.

i. Set the 3585A for a CENTER FREQUENCY of 10 kHz.

j. The 3585A marker reading should be between -2 dB and -3 dB, verifying that the shunt capacitance is less than 30 pf.

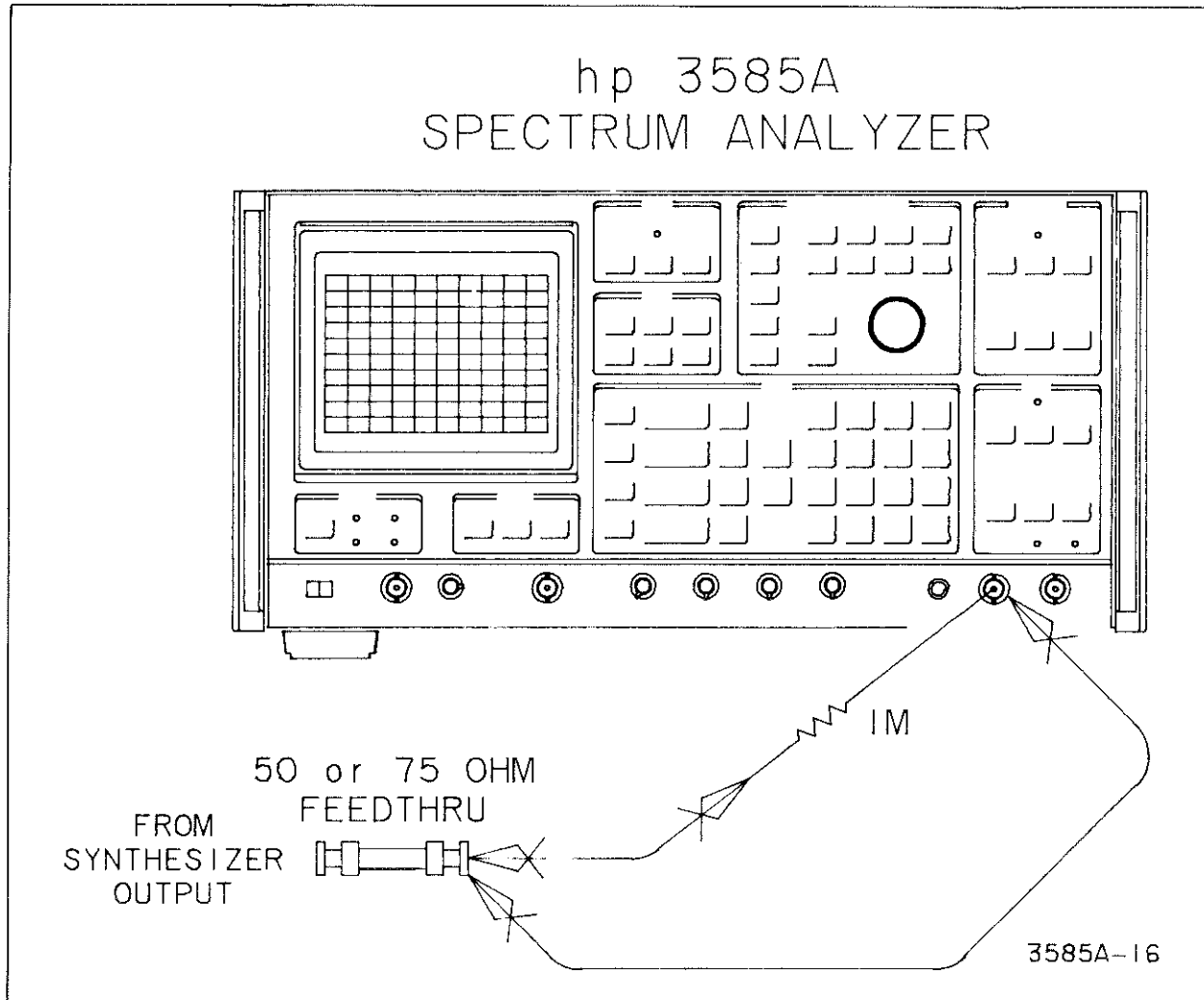


Figure 4-18. 1 M ohm Input Impedance Test.

**4-67. Marker Accuracy.**

4-68. This test verifies that the 3585A meets its marker accuracy specification.

Specification:

$$\pm 0.2\% \text{ of frequency span} \pm \text{Resolution Bandwidth setting}$$

Procedure:

- a. Set the 3585A controls for:

INSTRUMENT PRESET

- b. Connect the 50Ω output of the synthesizer to the 50Ω input of the 3585A.

c. Set the synthesizer controls for:

FREQUENCY.....20.08 MHz  
 AMPLITUDE.....-25 dBm

d. Put the marker at the peak of the response shown on the 3585A CRT.

e. The marker frequency should read between 20.00 MHz and 20.16 MHz thereby verifying that the 3585A marker reads within  $\pm 0.2\%$  of the input frequency.

**4-69. Noise.**

4-70. This test is used to determine the average noise level in each of the resolution bandwidths.

Specification: 50/75Ω input, -25 dBm Range

Res. BW	Specification
30 kHz	-100 dBm
10 kHz	-104 dBm
3 kHz	-108 dBm
1 kHz	-111 dBm
300 Hz	-115 dBm
100 Hz	-122 dBm
30 Hz	-127 dBm
10 Hz	-132 dBm
3 Hz	-137 dBm

Procedure:

a. Disconnect all inputs to the 3585A.

b. Set the 3585A controls for:

INSTRUMENT PRESET  
 CENTER FREQUENCY.....9.35 MHz  
 REFERENCE LEVEL.....-75 dBm  
 RES. BW.....30 kHz  
 VIDEO BW.....30 Hz  
 MANUAL SWEEP.....on

c. Read the marker amplitude. Take an average of the readings displayed. This average value should be below the test tolerance shown in Table 4-9.

d. Record the average noise reading, across from the BW displayed, on the Performance Test Card.

e. Set the 3585A controls for RES. BW STEP DOWN.

f. Repeat Steps c thru e until all Resolution Bandwidths have been measured for their average noise level.

**Table 4-9. Noise Test.**

(A) 3585A Res BW	(B) Average Noise Reading	(C) Test Tolerance
30 kHz	_____	-100
10 kHz	_____	-104
3 kHz	_____	-108
1 kHz	_____	-111
300 Hz	_____	-115
100 Hz	_____	-122
30 Hz	_____	-127
10 Hz	_____	-132
3 Hz	_____	-137

**4-71. Zero Response.**

4-72. This test measures the amplitude of the local oscillator feedthrough. This response occurs at 0 Hz due to the local oscillator passing directly through the IF section.

Specification:

$$\text{LO Feed Through} < -15 \text{ dB below range}$$

Procedure:

- a. Disconnect all inputs to the 3585A.
- b. Set the 3585A controls for:

INSTRUMENT PRESET  
RANGE.....0 dBm

- c. Using the MANUAL ENTRY key set the manual frequency to 0 Hz.
- d. Read the marker amplitude. The reading should be less than -15 dB.
- e. Record the marker amplitude reading under zero response on the Performance Test Card.

**4-73. Low Frequency Responses.**

4-74. Within the 3585A there are several frequencies which may be picked up by the sensitive analog circuits. These frequencies include:

- 60 Hz\* Power Line
- 5 kHz A/D clock
- 20 KHz (approx) Power Supply Switching Oscillator
- 30 kHz (approx) CRT High Voltage Oscillator
- 100 kHz Fractional N Clock
- 1 MHz Fractional N Step Loop Clock
- 10 MHz Internal Reference

\*or other power line frequency.



These frequencies and their harmonics will be used to verify that all Low Frequency Responses are less than -120 dBm.

Specification:

Residual Responses < -120 dBm

Procedure:

- a. Disconnect all inputs to the 3585A.
- b. Set the 3585A controls for:

```

INSTRUMENT PRESET
REFERENCE LEVEL.....-75 dBm
RES. BW.....3 Hz
VIDEO BW.....1 Hz
MANUAL SWEEP.....on
    
```

- c. Set the 3585A controls for:

```

CENTER FREQUENCY.....] One of the frequencies
CF STEP SIZE.....] in Table 4-10.
    
```

d. The marker is now displaying the amplitude of the frequency chosen in Step c. Record the marker reading across from the frequency chosen in Step c on the Performance Test Card.

e. Set the 3585A controls for CENTER FREQUENCY....STEP UP. This will increment the marker to the next harmonic component of the frequency chosen in Step c.

f. Take an average reading of the marker amplitude. Record the reading across from the frequency chosen in Step c and under the harmonic presently being measured.

g. Repeat Steps e and f until the fifth harmonic of the frequency entered in Step c has been measured.

- h. Repeat Steps c thru g until all frequencies in Table 4-10 have been checked.

- i. Set the 3585A controls for:

```

INSTRUMENT PRESET
CENTER FREQUENCY.....20 kHz
FREQUENCY SPAN.....2 kHz
AUTO RANGE.....off
RANGE.....-25 dBm
INPUT IMPEDANCE.....1 MΩ
    
```

j. Connect a coaxial cable between the EXT TRIGGER input and the 1 MΩ input of the 3585A. You are now looking at the Power Supply Switching frequency and possibly the fourth harmonic of the 5 kHz A/D clock.

k. Set the marker on the most positive point of the largest response. this will be at 20 kHz  $\pm$  20 Hz.

l. Set the 3585A controls for COUNTER on. Wait for the counter reading to stabilize before proceeding.

m. Set the 3585A controls for:

```

MKR → CF
COUNTER.....off
REFERENCE LEVEL.....-75 dBm
FREQUENCY SPAN.....1 MHz
RES. BW.....10 Hz
VIDEO BW.....3 Hz
INPUT IMPEDANCE.....50Ω
MANUAL SWEEP.....on
    
```

n. Enter the displayed CENTER FREQUENCY value as a CF STEP SIZE.

o. Enter the CENTER FREQUENCY reading under the correct frequency heading (Power Supply or CRT Oscillator) on the Performance Test Card.

p. Read the 3585A marker amplitude and enter the value as the first harmonic on the Performance Test Card.

q. Set the 3585A controls for CENTER FREQUENCY - STEP UP. This increments the marker to the next harmonic of the original CENTER FREQUENCY reading.

r. Read the marker amplitude. Record the reading under the correct harmonic on the Performance Test Card.

s. Repeat Steps q and r up through the fifth harmonic of the original CENTER FREQUENCY.

t. Set the 3585A controls for:

```

INSTRUMENT PRESET
CENTER FREQUENCY.....28 kHz
FREQUENCY SPAN.....15 kHz
AUTO RANGE.....off
RANGE.....-25 dBm
INPUT IMPEDANCE.....1 MΩ
    
```

u. Disconnect the cable from the EXT TRIGGER input and hold the end of the cable on the CRT display. You are now observing the CRT High Voltage Oscillator Frequency.

v. Set the marker on the most positive point of the response.

w. Repeat Steps l thru s.

**Table 4-10. Low Frequency Responses.**

Description	Frequency	Harmonics				
		*1	*2	*3	*4	*5
Line Frequency	60 Hz*	_____	_____	_____	_____	_____
A/D Clock	5 kHz	_____	_____	_____	_____	_____
Fractional N Clock	100 kHz	_____	_____	_____	_____	_____
Step Loop Clock	1 MHz	_____	_____	_____	_____	_____
Internal Reference	10 MHz	_____	_____	_____	_____	_____
Power Supply	_____	_____	_____	_____	_____	_____
CRT Oscillator	_____	_____	_____	_____	_____	_____

**4-75. Local Oscillator Sidebands.**

4-76. The OVEN REF output on the rear panel of the 3585A is a source relatively free of Local Oscillator Sidebands. The OVEN REF output is used as the input for this test. This test checks to what extent internal frequencies are mixing with the input signal in the Local Oscillator and appearing on the output.

Specification:

Spurious Responses < -80 dB below signal

Procedure:

- a. In this test use the frequencies from Table 4-10 (omitting 10 MHz).
- b. Disconnect the OVEN REF OUT from the EXT REF IN. Both of these connectors are found on the rear panel of the 3585A.
- c. Connect the OVEN REF OUT to the front panel 50Ω input.
- d. Set the 3585A controls for:

INSTRUMENT PRESET  
 CENTER FREQUENCY.....10 MHz  
 COUNTER..... on

- e. When the counter reading is stable, set the 3585A controls for:

MARKER → CF  
 COUNTER..... off  
 OFFSET..... on  
 ENTER OFFSET  
 REFERENCE LEVEL.....-50 dBm  
 RES. BW.....3 Hz  
 VIDEO BW.....3 Hz  
 MANUAL SWEEP..... on  
 SAVE 1

- f. Set the 3585A controls for a CF STEP SIZE equal to one of the frequencies for the Low Frequency Responses test, Table 4-10.

- g. Set the 3585A controls for MANUAL ENTRY - STEP DOWN. this puts the marker one CF STEP SIZE lower in frequency.
- h. Take an average reading of the marker amplitude. Enter this number on the Performance Test Card under the correct sideband frequency.
- i. Repeat Steps f and g two more times.
- j. Press the STEP UP key four times. This puts the marker on the first upper sideband frequency (+ 1).
- k. Take an average reading of the marker amplitude. Enter this number on the Performance Test Card under the correct sideband harmonic frequency.
- l. Press the STEP UP key on the 3585A. This puts the marker one CF STEP SIZE higher in frequency.
- m. Repeat Steps k and l two more times.
- n. Set the 3585A controls for RECALL 1. This returns you to the original Center Frequency.
- o. Repeat Steps f thru n until all the frequencies in the Low Frequency Response Test Table have been tested.
- p. Reconnect the OVEN REF OUT and the EXT REF IN on the rear panel. This completes the Local Oscillator Sideband Test.

**4-77. Residual spurs.**

4-78. This test checks for mixing product harmonics of the 90 MHz and 10 MHz internal reference frequencies. Due to frequency offsets in the IF the exact frequency of these mixing products is not known; therefore, a 1 kHz span is used to account for any frequency offsets.

Specification:

Residual Responses < -120 dBm

Procedure:

- a. Disconnect all inputs to the 3585A.
- b. Set the 3585A controls for:

```

INSTRUMENT PRESET
REFERENCE LEVEL.....-75 dBm
RES. BW.....30 Hz
VIDEO BW.....1 Hz
RANGE.....-25 dBm
MANUAL SWEEP.....on

```

c. Set the 3585A CENTER FREQUENCY for each of the frequencies listed in Table 4-11. The average value of the marker reading, when placed on the most positive point, should be less than -120 dBm verifying that the 3585A meets its Residual Spur specification..

**Table 4-11. Residual Spur Test Frequencies.**

39.825 MHz
29.475 MHz
23.1 MHz
16.2 MHz
14.7375 MHz
9.5625 MHz
37.2375 MHz
32.0625 MHz
9.72 MHz
5.58 MHz
27.72 MHz

**4-79. Harmonic Distortion.**

4-80. This test verifies that the harmonic distortion produced by the 3585A is less than -80 dB below signal. The filter shown for this test removes the harmonic distortion of the sources. This leaves only the distortion of the 3585A.

Equipment Required:

- 9MHz Low Pass Filter . . . . . (see Figure 4-19)
- Frequency Synthesizer . . . . . -hp- 3335A

Specification:

Spurious Responses < -80 dB below signal

Procedure:

- a. Connect the output of the 3585A Tracking Generator to the input of the filter shown in Figure 4-18. Connect the output of the filter to the 3585A 50Ω input.
- b. Compare the displayed trace with that of Figure 4-20. This will confirm that the filter is operating properly.
- c. Disconnect the filter.
- d. Set the 3585A controls for:

```

INSTRUMENT PRESET
CENTER FREQUENCY . . . . . 9 MHz
CENTER FREQUENCY STEP . . . . . 9 MHz
RES. BW . . . . . 10 Hz
RANGE . . . . . -25 dBm
MANUAL SWEEP . . . . . on
    
```

- e. Set the synthesizer frequency at 9 MHz, -25 dBm.

f. Connect the 50 $\Omega$  output of the synthesizer to the input of the filter. Connect the output of the filter to the 50 $\Omega$  input of the 3585A (see Figure 4-21).

g. Set the 3585A controls for:

```

OFFSET..... on
ENTER OFFSET
REFERENCE LEVEL.....-50 dBm

```

h. Set the 3585A for CENTER FREQUENCY UP. Read the marker amplitude and record it on the Performance Test Card.

i. Repeat Step h until the fourth harmonic has been checked. All values should be less than -80 dB verifying that the instrument meets its Harmonic Distortion specification.

j. Disconnect the synthesizer and filter from the 3585A.

k. Connect the low distortion Audio Oscillator to the 50 $\Omega$  input of the 3585A.

l. Set the Audio Oscillator for:

```

FREQUENCY.....1 kHz
OUTPUT LEVEL.....0.1 V

```

m. Set the 3585A controls for:

```

OFFSET..... off
RANGE.....-20 dBm
REFERENCE LEVEL.....-20 dBm
CENTER FREQUENCY.....1 kHz
COUNTER..... on

```

n. When the counter reading is stable, enter these commands on the 3585A:

```

MARKER → CF
COUNTER.....off

```

o. Enter the CENTER FREQUENCY reading as the CF STEP SIZE.

p. Repeat Steps g thru i.

q. Disconnect the Audio Oscillator. This completes the Harmonic Distortion Test.

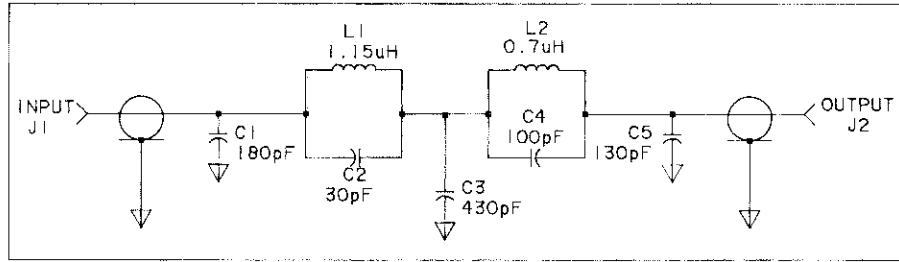


Figure 4-19. 9 MHz Low Pass Filter.

3585A-36

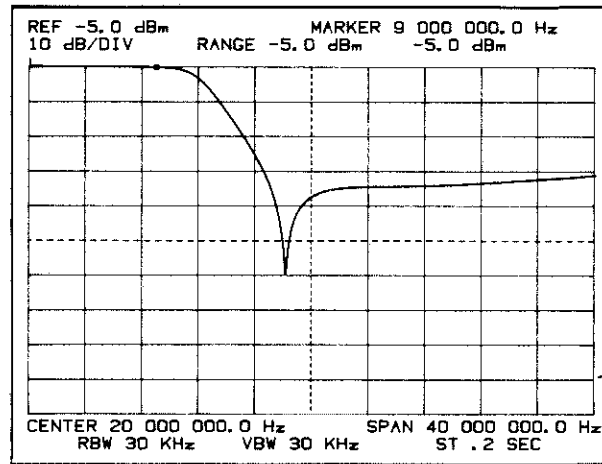


Figure 4-20. Approximate Filter Response.

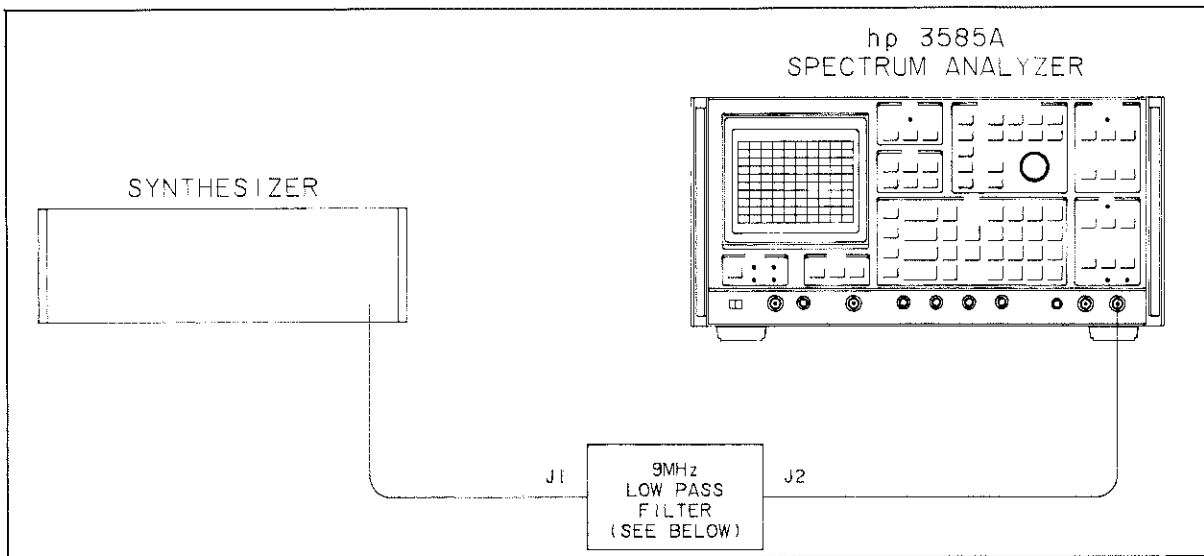


Figure 4-21. Harmonic Distortion Test.

**4-81. Intermodulation Distortion Test.**

4-82. This test places two signals 100 Hz apart at the input of the 3585A. The second and third order IM products are then checked against the specification.

**Equipment Required:**

Frequency Synthesizer . . . . .-hp-3335A  
 Frequency Synthesizer . . . . .-hp- 3330B  
 10 dB/Step Attenuator . . . . .-hp-355D  
 1 dB/Step Attenuator . . . . .-hp- 355C  
 Frequency Summer . . . . .(See Figure 4-22)

**Specification:****Intermodulation Distortion:**

For two signals, each at least 6 dB below the RANGE setting and separated in frequency by at least 100 Hz, referred to the larger of the two signals.

< -80 dB; except 2nd order IM with one or both of the input signals within the range of 10 MHz to 40 MHz, < -70 dB

**Procedure:**

- a. Set the 3585A controls for:

INSTRUMENT PRESET  
 CENTER FREQUENCY . . . . .1.65 kHz  
 FREQUENCY SPAN . . . . .350 Hz  
 OFFSET . . . . .on

b. Connect synthesizer #1 and #2 to the summer as shown in Figure 4-23. Connect the output of the summer to the 50Ω input of the 3585A. Set the attenuators for 0 dB of attenuation.

- c. Set the controls of synthesizer #1 for:

FREQUENCY . . . . .1.6 kHz  
 AMPLITUDE . . . . .-25 dBm

- d. Set the controls of synthesizer #2 for:

FREQUENCY . . . . .1.7 kHz  
 AMPLITUDE . . . . .-25 dBm

- e. All one complete sweep to occur on the 3585A.



- f. Move the marker to the maximum point on the 1.6 kHz (33 MHz) response.
- g. Press ENTER OFFSET on the 3585A.
- h. Watching the offset frequency in the upper right-hand corner of the 3585A display, move the marker until the frequency reads -100 Hz  $\pm$  1 Hz (see Figure 4-24).
- i. The marker amplitude reading should be less than -80 dB to verify that the 3585A meets its Intermodulation Distortion specification.
- j. Move the marker until the offset frequency reads 200 Hz  $\pm$  1 Hz.
- k. The marker amplitude reading should be less than -80 dB to verify that the 3585A meets its Intermodulation Distortion specification.

l. Set the 3585A controls for:

```

MARKER → CF
MANUAL SWEEP
CLEAR A
CENTER FREQUENCY.....100 Hz
    
```

m. The marker reading is the second order IM distortion product and should be less than -80 dB (-70 dB) verifying that the 3585A meets its IM Distortion specification.

n. Set the controls of synthesizer #1 for:

```

FREQUENCY.....33 MHz
                (13 MHz for the -hp- 3330B)
AMPLITUDE.....-25 dBm
For the 3330B this requires using the rear panel
output and an attenuator to get the required fre-
quency and level.
    
```

o. Set the controls of synthesizer #2 for:

```

FREQUENCY.....33.0001 MHz
AMPLITUDE.....-25 dBm
    
```

p. Set the 3585A controls for:

```

CENTER FREQUENCY.....33.00005MHz
CONT. SWEEP
    
```

- q. Repeat Steps e thru m using the values in parenthesis.
- r. This completes the test, disconnect all inputs to the 3585A.

SUMMER

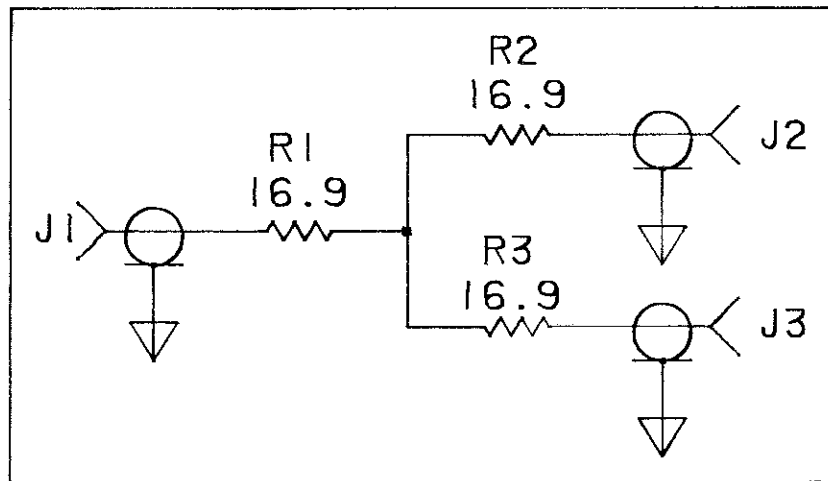


Figure 4-22. Frequency Summer.

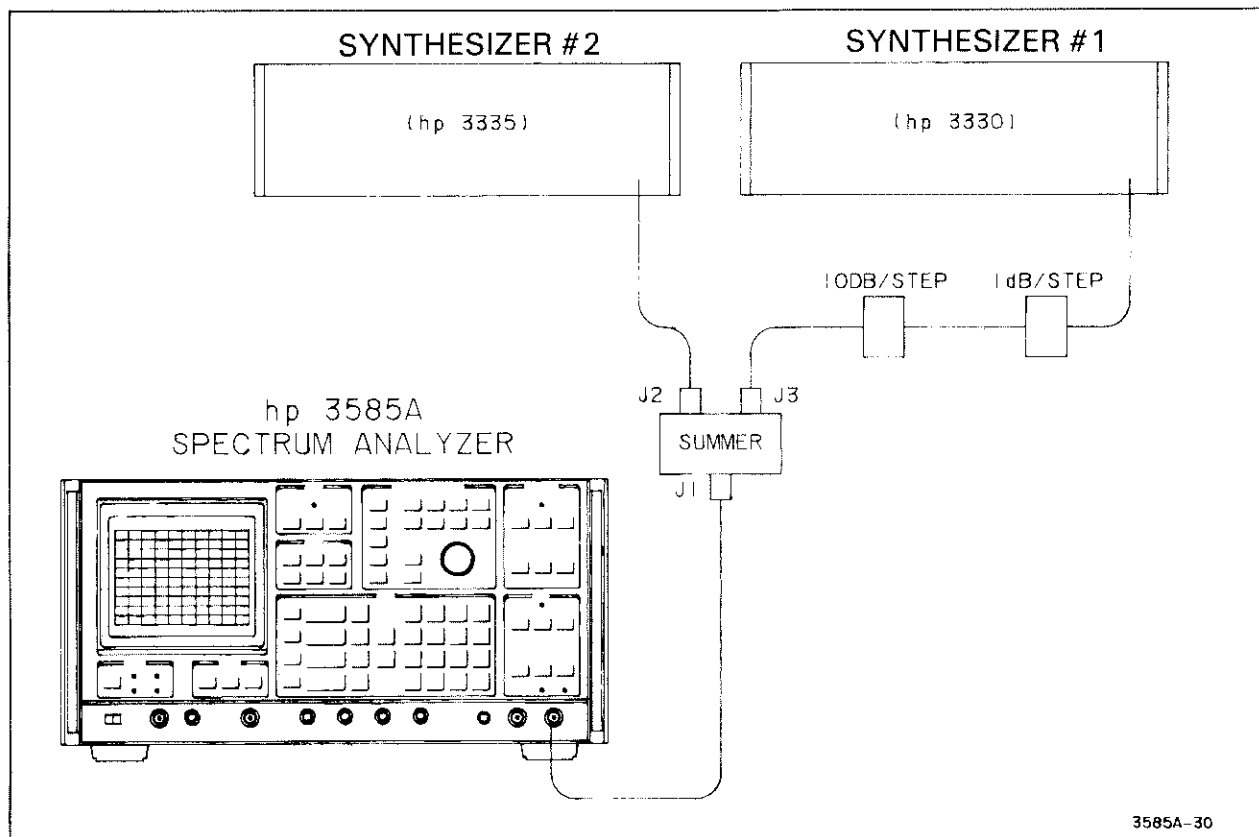
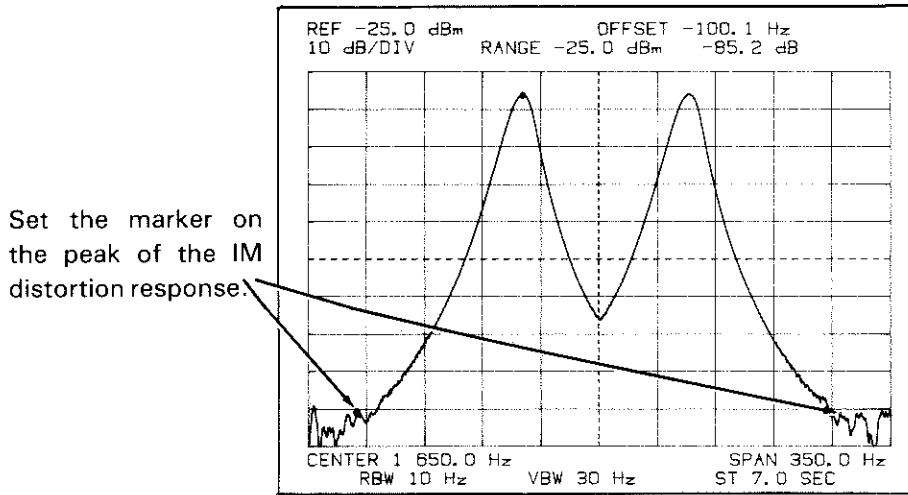


Figure 4-23. Intermodulation Distortion Test.



**Figure 4-24. IM Distortion Response.**

**4-83. Bandwidth Tests.**

These tests will verify that the 3585A meets its 3 dB, Bandwidth and Shape Factor specifications.

Specification:

- Resolution Bandwidth Accuracy
- 3 dB Bandwidth . . . . . ± 20% of BW setting at the 3 dB points
- Selectivity (Shape Factor) . . . . . < 11:1

Procedure:

a. Set the 3585A controls for:

```

RECALL 602
INSTRUMENT PRESET
CENTER FREQUENCY . . . . . 10 MHz
FREQUENCY SPAN . . . . . 10 Hz
REFERENCE LEVEL . . . . . -24.5 dBm
dB/DIV . . . . . 1 dB
RES. BW . . . . . 3 Hz
RES. BW HOLD . . . . . on
    
```

b. Initially this test checks the 3 dB points of each Resolution Bandwidth; therefore, ignore the values in parenthesis until instructed otherwise.

c. Allow one complete sweep to occur. Now put the marker on the most positive point of the trace, using the marker amplitude reading as your guide.

d. Set the 3585A controls for:

```

OFFSET . . . . . on
ENTER OFFSET
    
```

- e. Check the readings in the upper right-hand corner. They should read:

OFFSET.....0 Hz  
 .00 dB (.0 dB)

If the readings are not correct, set the OFFSET control OFF and continue at Step d.

- f. Move the marker down the left side of the trace until a marker amplitude reading of -3.00 dB ± 0.02 dB (-60.0 dB ± 0.4 dB) is obtained.

- g. Press ENTER OFFSET.

- h. Move the marker to the right side of the trace until a reading of 0.00 dB ± 0.02 dB (0.0 dB ± 0.4 dB) is obtained.

- i. Read the value displayed as OFFSET. This value represents the frequency span between the 3 dB (60 dB) points of the IF filter. The value obtained should be within ± 20% of the chosen bandwidth.

- j. Record the OFFSET value in the 3 dB (60 dB) column, across from the appropriate bandwidth, on the Performance Test Card.

- k. Set the 3585A controls for:

OFFSET..... off  
 RES. BW..... } next value in Table 4-12  
 FREQUENCY SPAN..... }

- l. Repeat Steps c thru k until all the 3 dB (60 dB) bandwidth measurements in Table 4-12 have been completed.

- m. Now the 60 dB bandwidth measurements will be made. For the remainder of the bandwidth tests use the values in parenthesis wherever they occur.

- n. Set the 3585A controls for:

FREQUENCY SPAN.....100 Hz  
 dB/DIV.....1 dB  
 RES. BW.....3 Hz

- o. Repeat Steps c thru k.

- p. Set the 3585A controls for VIDEO BW 10 Hz.

- q. Repeat Steps c thru l for the remaining 60 dB bandwidth measurements in Table 4-12.

**Table 4-12. Bandwidth Control Settings.**

RES. BW	Frequency Span	
	3 dB	60 dB
3 Hz	10 Hz	100 Hz
10 Hz	30 Hz	200 Hz
30 Hz	100 Hz	500 Hz
100 Hz	200 Hz	2 kHz
300 Hz	1 kHz	5 kHz
1 kHz	2 kHz	20 kHz
3 kHz	10 kHz	50 kHz
10 kHz	20 kHz	100 kHz
30 kHz	100 kHz	500 kHz

**4-85. Fractional N API Spur Test.**

4-86. This test checks that the Fractional N API circuitry is operating properly by checking the spurious response level.

Specification:

Spurious Responses < -80 dB below signal

Procedure:

- a. Set the synthesizer controls for:

FREQUENCY.....37,648,955 Hz  
 AMPLITUDE..... + 10dBm

- b. Connect the 50Ω output of the synthesizer to the 50Ω input of the 3585A.

- c. Set the 3585A controls for:

INSTRUMENT PRESET  
 CENTER FREQUENCY.....37,650,055 Hz  
 FREQUENCY SPAN.....200 Hz  
 REFERENCE LEVEL.....-30 dBm  
 RANGE.....0 dBm  
 VIDEO BW.....10Hz

- d. Allow one complete sweep to occur.

e. All points on the display should read less than -80 dB, verifying that the 3585A passes this Fractional N API Spur test.

**4-87. Tracking Generator Flatness Test.**

4-88. This test compares the output of the calibrator to the output of the Tracking Generator. Any unflatness contributed by the input section is subtracted out.

## Specification:

Tracking Generator Frequency Response  $\pm 0.7$  dB

## Procedure:

- a. Set the 3585A controls for:

```

RECALL 604
INSTRUMENT PRESET
dB/DIV..... 1 dB
REFERENCE LEVEL..... -20 dBm

```

- b. Allow a complete sweep to occur, then enter these commands:

```

STORE A → B
INSTRUMENT PRESET
dB/DIV..... 1 dB
RANGE..... 0 dBm

```

- c. Connect the Tracking Generator output to the 3585A 50 $\Omega$  input.

d. Adjust the Tracking Generator Amplitude control so that the displayed trace is in the middle of the CRT display.

- e. Turn the A-B function on.

- f. Move the marker to the most negative point on the trace.

- g. Set the 3585A controls for:

```

OFFSET.....on
ENTER OFFSET

```


h. Move the marker to the most positive point on the trace. The marker amplitude should read less than 1.5 dB thereby verifying that the 3585A Tracking Generator meets its flatness specification.

**4-89. HP-IB Check (Optional).**

4-90. Up to this point the 3585A has been checked only as a bench operated instrument. If the instrument is to be used with a controller, the HP-IB interface should be checked. The program shown in Figure 4-23 will check the HP-IB operation of the instrument to a high level of confidence. This program is flow charted using controller independent language (meta message) so that it may be adapted to your controller. If you have a -hp- 9825A calculator, a listing of this program appears in Table 4-14. The program is also contained on File 26, Trace 0 of the Semi-Automatic Performance Test tape (P.N. 0J3585-10001). If an error is detected in the HP-IB interface of the 3585A, an error number will be printed out. The error definitions are contained in Table 4-13 and may be used to help locate problems on the 3585A HP-IB board.

4-91. To run the HP-IB check with the -hp- 9825A calculator, insert the Semi-Automatic Performance Test tape in the calculator tape slot and press the following keys:

**LOAD**      **2**      **6**      **EXECUTE**

When the lazy ‘‘T’’ (  ) has reappeared on the 9825A display, press the **RUN** key. To complete the test, follow the instructions on the calculator display. If no HP-IB errors are found by the test, ‘‘HP-IB OK’’ will be printed by the calculator. This ends the HP-IB check program.

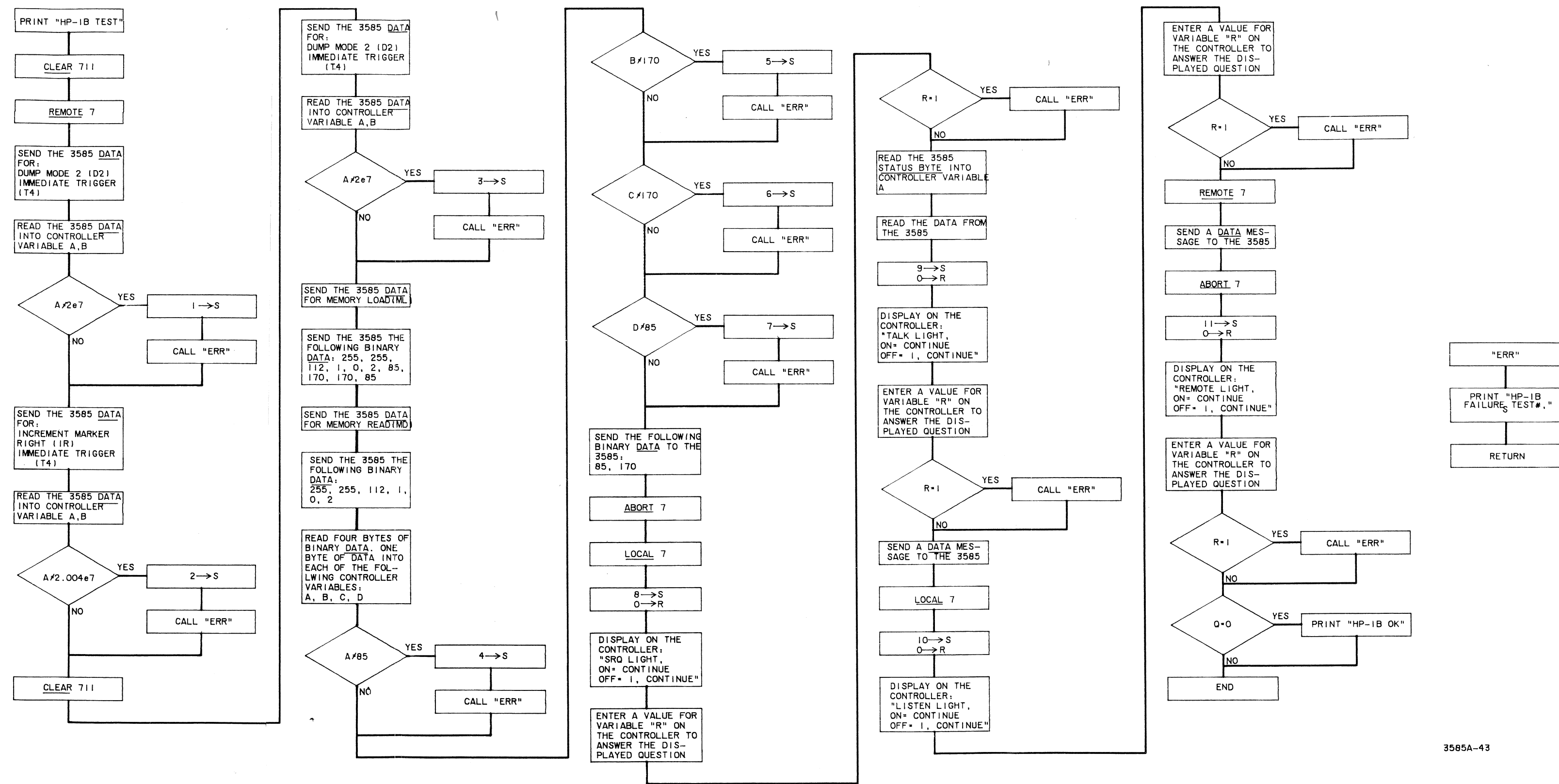
**Table 4-13. HP-IB Error Definitions.**

Error #	Explanation
1	} Large HP-IB Problem; DSA Required
2	
3	
4	} Data Line Problem
5	
6	
7	
8	} Front Panel Light or Interface Problem; otherwise use DSA
9	
10	
11	

**Table 4-14. HP-IB Check Program Listing For The 9825A Calculator.**

```
0: "HP-IB Test for Op. Verification 3/08/78":
1: spc 2;prt "HPIB Test";spc 2;0→Q
2: clr 711
3: rem 7
4: wrt 711,"D2T4"
5: red 711,A,B
6: if A#2e7;1→S;gsb "ERR"
7: wrt 711,"IRT4"
8: red 711,A,B
9: if A#2.004e7;2→S;gsb "ERR"
10: clr 711
11: wrt 711,"D2T4"
12: red 711,A,B
13: if A#2e7;3→S;gsb "ERR"
14: wrt 711,"ML"
15: wtb 731,255,255,112,1,0,2,85,170,170,85
16: wrt 711,"MD"
17: wtb 731,255,255,112,1,0,2
18: rdb(711)→A;rdb(711)→B;rdb(711)→C;rdb(711)→D
19: if A#85;4→S;gsb "ERR"
20: if B#170;5→S;gsb "ERR"
21: if C#170;6→S;gsb "ERR"
22: if D#85;7→S;gsb "ERR"
23: wtb 711,85,170
24: cli 7
25: lcl 7;8→S
26: 0→R;beep;ent "SRQ Light on=cont;off=1,cont",R;if R=1;gsb "ERR"
27: rds(711)→A
28: red 711;9→S
29: 0→R;beep;ent "Talk Light on=cont;off=1,cont",R;if R=1;gsb "ERR"
30: wrt 711
31: lcl 7;10→S
32: 0→R;beep;ent "Listen Light on=cont;off=1,cont",R;if R=1;gsb "ERR"
33: rem 7
34: wrt 711
35: cli 7;11→S
36: 0→R;beep;ent "Remote Light on=cont;off=1,cont",R;if R=1;gsb "ERR"
37: if Q=0;prt "HPIB OK";spc 2
38: end
39: "ERR":prt "HPIB Failure      Test #",S;spc 2;1→Q
40: ret
*6082
```





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Figure 4-23. HP-IB Check Flowchart. 4-55/4-56

## PERFORMANCE TEST CARD

Hewlett-Packard Model 3585A

Spectrum Analyzer

Serial No. \_\_\_\_\_

Tests Performed By \_\_\_\_\_

Date \_\_\_\_\_

### FREQUENCY ACCURACY TEST

Frequency difference from reference \_\_\_\_\_ Hz

### CALIBRATOR TEST

Frequency	3585A Marker Reading
100 kHz	_____ dBm
40 MHz	_____ dB

### CAL OFFSET TEST

Res. BW	3585A Offset Frequency Reading	Frequency Test Limit	3585A Amplitude Reading	Amplitude Test Limit
300 Hz	_____ Hz	± 3.5 kHz	_____ dB	± 3.5 dB
10 kHz	_____ Hz	± 3.5 kHz	_____ dB	± 3.5 dB
3 kHz	_____ Hz	± 3.5 kHz	_____ dB	± 3.5 dB
1 kHz	_____ Hz	± 3 kHz	_____ dB	± 3.5 dB
300 Hz	_____ Hz	± 900 Hz	_____ dB	± 3.5 dB
100 Hz	_____ Hz	± 300 Hz	_____ dB	± 3.5 dB
30 Hz	_____ Hz	± 90 Hz	_____ dB	± 3.5 dB
10 Hz	_____ Hz	± 30 Hz	_____ dB	± 3.5 dB
3 Hz	_____ Hz	± 9 Hz	_____ dB	± 3.5 dB

### RANGE CALIBRATION TEST

Test Limit ± .7 dB

Range	Marker Reading
-25 dBm	_____ 0 dB
-20 dBm	_____ dB
-15 dBm	_____ dB
-10 dBm	_____ dB
- 5 dBm	_____ dB
0 dBm	_____ dB
5 dBm	_____ dB
10 dBm	_____ dB
15 dBm	_____ dB
20 dBm	_____ dB
25 dBm	_____ dB
30 dBm	_____ dB

**PERFORMANCE TEST CARD (Cont'd)**

**AMPLITUDE LINEARITY TEST**

(A) Variable Attenuator	(B) Correction Factor*	(C) Ideal Reading	(D) Correct Reading	(E) 3585A Marker Reading**	(F) Test Tolerance
0 dB	- - - -	00.0 dB	00.0 dB	00.0 dB	----
-10 dB	_____	-10.0 dB	_____ dB	_____ dB	± 0.3 dB
-20 dB	_____	-20.0 dB	_____ dB	_____ dB	± 0.3 dB
-30 dB	_____	-30.0 dB	_____ dB	_____ dB	± 0.6 dB
-40 dB	_____	-40.0 dB	_____ dB	_____ dB	± 0.6 dB
-50 dB	_____	-50.0 dB	_____ dB	_____ dB	± 1.0 dB
-60 dB	_____	-60.0 dB	_____ dB	_____ dB	± 1.0 dB
-70 dB	_____	-70.0 dB	_____ dB	_____ dB	± 1.0 dB
-80 dB	_____	-80.0 dB	_____ dB	_____ dB	± 2.0 dB
-90 dB	_____	-90.0 dB	_____ dB	_____ dB	± 2.0 dB

\* Correction factor must be obtained from attenuator calibration data.

\*\* If noise jitter is present, use average marker reading.

**REFERENCE LEVEL ACCURACY TESTS**

(A) Synthesizer Level	(B) 3585A Reference Level	(C) 3585A Marker Reading	(D) Synthesizer Level Minus The 3585A Marker Reading	(E) Test Tolerance
+ 10 dBm	+ 10 dBm	_____ dBm	_____ dB	± 0.4 dB
0 dBm	0 dBm	_____ dBm	_____ dB	± 0.4 dB
- 10 dBm	- 10 dBm	_____ dBm	_____ dB	± 0.4 dB
- 20 dBm	- 20 dBm	_____ dBm	_____ dB	± 0.4 dB
- 30 dBm	- 30 dBm	_____ dBm	_____ dB	± 0.4 dB
- 40 dBm	- 40 dBm	_____ dBm	_____ dB	± 0.4 dB
- 50 dBm	- 50 dBm	_____ dBm	_____ dB	± 0.7 dB
- 60 dBm	- 60 dBm	_____ dBm	_____ dB	± 0.7 dB
- 70 dBm	- 70 dBm	_____ dBm	_____ dB	± 1.5 dB
- 80 dBm	- 80 dBm	_____ dBm	_____ dB	± 1.5 dB

**50Ω FREQUENCY RESPONSE TEST**

Test Limit ± .5 dB

Range	Maximum Amplitude Deviation
- 25 dBm	_____ dB
- 20 dBm	_____ dB
- 15 dBm	_____ dB
- 10 dBm	_____ dB
- 5 dBm	_____ dB
0 dBm	_____ dB
5 dBm	_____ dB
10 dBm	_____ dB
15 dBm	_____ dB
20 dBm	_____ dB
25 dBm	_____ dB
30 dBm	_____ dB

**PERFORMANCE TEST CARD (Cont'd)**

**75Ω FREQUENCY RESPONSE TEST**

Test Limit  $\pm .5$  dB

Range	Maximum Unflatness
- 25 dBm	_____ dB

**1 MΩ FREQUENCY RESPONSE TEST**

Frequency	Maximum Unflatness	Test Limit
0 to 10 MHz	_____ dB	$\pm 0.7$ dB
10 MHz to 40 MHz	_____ dB	$\pm 1.5$ dB

**RETURN LOSS TESTS**

Input	Test Limit < 17.5 mV p-p		Test Limit
	40 MHz	15 MHz	
50Ω	_____	_____	17.5 mV
Terminated (50Ω)	_____	_____	70 mV
75Ω	_____	_____	17.5 mV
Terminated (75Ω)	_____	_____	70 mV

**1 MΩ INPUT IMPEDANCE TEST**

Frequency	3585A Reading	Test Limit
0 kHz	_____ dB	-5.56 to -6.44 dB
10 kHz	_____ dB	-2 to -3 dB

**MARKER ACCURACY TEST**

Test Limit <  $\pm 0.2\%$  Of Span

Ideal Reading	3585A Reading	Test Limit
20.08 MHz	_____ MHz	20-20.16 MHz

**PERFORMANCE TEST CARD (Cont'd)**

**DYNAMIC RANGE TESTS**

**NOISE**

<b>3585A Res. BW</b>	<b>9.36 MHz Average Noise Reading</b>	<b>Test Limit</b>
30 kHz	_____ dBm	-100
10 kHz	_____ dBm	-104
3 kHz	_____ dBm	-108
1 kHz	_____ dBm	-111
300 Hz	_____ dBm	-115
100 Hz	_____ dBm	-122
30 Hz	_____ dBm	-127
10 Hz	_____ dBm	-132
3 Hz	_____ dBm	-137

**ZERO RESPONSE TEST**

Test Limit < -15 dB Below Range

3585A reading = \_\_\_\_\_ dB

**LOW FREQUENCY RESPONSES**

<b>Description</b>	<b>Frequency</b>	<b>Harmonics</b>				
		<b>*1</b>	<b>*2</b>	<b>*3</b>	<b>*4</b>	<b>*5</b>
Line Frequency	60 Hz	_____	_____	_____	_____	_____
A/D Clock	5 kHz	_____	_____	_____	_____	_____
Fractional N Clock	100 kHz	_____	_____	_____	_____	_____
Step Loop Clock	1 MHz	_____	_____	_____	_____	_____
Internal Reference	10 MHz	_____	_____	_____	_____	_____
Power Supply	_____	_____	_____	_____	_____	_____
CRT Oscillator	_____	_____	_____	_____	_____	_____

**PERFORMANCE TEST CARD (Cont'd)**  
**LOCAL OSCILLATOR SIDEBANDS**

Test Limit > -80 dB Down From Signal

Frequency	Sideband Harmonics					
	-3	-2	-1	+1	+2	+3
60 Hz	_____	_____	_____	_____	_____	_____
5 kHz	_____	_____	_____	_____	_____	_____
100 kHz	_____	_____	_____	_____	_____	_____
1 MHz	_____	_____	_____	_____	_____	_____
Power Supply _____ Hz	_____	_____	_____	_____	_____	_____
CRT Oscillator _____ Hz	_____	_____	_____	_____	_____	_____

**RESIDUAL SPURS**

Test Limit < -120 dBm

Frequency	3585A Reading
39.825 MHz	_____ dBm
29.475 MHz	_____ dBm
23.1 MHz	_____ dBm
16.2 MHz	_____ dBm
14.7375 MHz	_____ dBm
9.5625 MHz	_____ dBm
37.2375 MHz	_____ dBm
32.0625 MHz	_____ dBm
9.72 MHz	_____ dBm
5.58 MHz	_____ dBm
27.72 MHz	_____ dBm

**HARMONIC DISTORTION TEST**

Test Limit < -80 dB Down From Signal

Fundamental Frequency	Harmonics		
	2	3	4
1 kHz	_____ dB	_____ dB	_____ dB
9 MHz	_____ dB	_____ dB	_____ dB

**INTERMODULATION DISTORTION TEST**

Synthesizer #1 Frequency	100 Hz Below Frequency Shown ( $2F_1 - F_2$ )	200 Hz Above Frequency Shown ( $2F_2 - F_1$ )	100 Hz ( $F_2 - F_1$ )
	1 kHz	_____ dB	_____ dB
33 MHz	_____ dB	_____ dB	_____ dB

**PERFORMANCE TEST CARD (Cont'd)**

**BANDWIDTH TESTS**

<b>3585A Res. BW</b>	<b>3 dB Bandwidth Test Limit <math>\pm 20\%</math> of BW</b>	<b>60 dB Bandwidth</b>	<b>Shape Factor Test Limit &lt; 11:1</b>
30 kHz	_____ Hz	_____ Hz	_____
10 kHz	_____ Hz	_____ Hz	_____
3 kHz	_____ Hz	_____ Hz	_____
1 kHz	_____ Hz	_____ Hz	_____
300 Hz	_____ Hz	_____ Hz	_____
100 Hz	_____ Hz	_____ Hz	_____
30 Hz	_____ Hz	_____ Hz	_____
10 Hz	_____ Hz	_____ Hz	_____
3 Hz	_____ Hz	_____ Hz	_____

**FRACTIONAL N API SPUR TEST**

Maximum Point On Displayed Trace \_\_\_\_\_ dB

**TRACKING GENERATOR FLATNESS TEST**

Test Limit <  $\pm 0.7$  dB

3585A Maximum Unflatness Reading \_\_\_\_\_ dB

## SECTION V ADJUSTMENTS

### 5-1. INTRODUCTION.

5-2. This section contains complete adjustment procedures for the Model 3585A Spectrum Analyzer. Table 5-1 lists the adjustments and their locations.

**Table 5-1. Adjustment Locations.**

Adjustment	Paragraph Location	Affected Components	Service Group
Low Voltage Power Supplies (A71-75)	5-11	A75R9,R15, A72R31, R19	I
90MHz Reference Board (A21)	5-13	A21R125	B-1
10MHz Oven Oscillator (A81)	5-15	A81R2	B - 1
Oven Output Shutdown	5-17	A81R9	B - 1
CRT Control and High Voltage Power Supply (A63,65,67)	5-19	A67R46,R6,R105,R116, A65R13,A63R4,R16, R38	D-2,4
CRT Graphics (A64,67)	5-20	A67R59,R85,R54,R80, R3,R2,R1	D-4
CRT Alphanumerics (A64)	5-21	A64R72,C23,R48,R62, R14,R16,R1	D-3
Fractional N (A31-34)	5-22	A34R32,A31L3, A32R49,R56	B-4,5
L.O. Step Loop (A23-26)	5-23	A23L1	B-3
First L.O. VTO and Sum Loop	5-24	A27R2,R11	B-2
Video Filter and A/D (A15,16)	5-25	A16R21,R19,A15R4	A-5,6
Log Amp and 30kHz Filter (A14)	5-26	A14L5,L7,R57,R53 A17R105,A15R7	A-3,4,5
Log Amp Slope Adjustment (A14)	5-27	A14R43,R17,R7,R8, R14,R21,R26	A-4
Reference Level DC Offset (A15)	5-28	A15R9,R7	A-5



Table 5-1. Adjustment Locations (Cont'd).

	Adjustment	Paragraph Location	Affected Components	Service Group
Δ2	IF Filters (A17-19)	5-29	A19C39,C41	A-3
	Fifth Crystal Stage	5-30	A19L7,C41	
	Fourth Crystal Stage	5-31	A19L6,C30	
	Fourth LC Stage	5-32	A19L5,R28	
	Fifth LC Stage	5-33	A19L4,R20	
	Third Crystal Stage	5-34	A18L6,C24,L4	
	Third LC Stage	5-35	A18L5,R15	
	Second Crystal Stage	5-36	A17L7,C39	
	First Crystal Stage	5-37	A17L6,C29,L8	
	First LC Stage	5-38	A17L5,R20	
Second LC Stage	5-39	A17L4,R12		
Δ2	Final IF Filter Adjustments (A17)	5-40	A17C27,C37,C22,C28, C39,R26,R28,R30,R32, R34	A-3
Δ2	16dB Amplifiers (A18)	5-41	A18R77,R71,R65	A-3
	Conversion Section	5-42	A2C3,L7,L8,L11,L12, A3L1,L3,L5,L7,C8, A4L7,C2,C3,A5L1-6,T3, T4	A-2
	Input Section	5-44	A-1	A-1
	Calibrator Symmetry	5-46	A1R52	
	Flatness	5-47	A1R131,C83,L18,C86, L19,C89,L21,C92	
	Range Up Detector	5-48	A1R173	
	Range Down Detector	5-49	A1R174	
	Top Of Screen Amplitude	5-50	A17R105	
	Calibrator Level	5-51	A1R39	
	1MΩ Amplitude	5-52	A1R108	
	1MΩ Flatness	5-53	A1C21,C27	
	1MΩ Input Capacitance	5-54	A1C18	
	Local Oscillator Feedthrough	5-55	A1R170	
	Harmonic Distortion	5-56	A1R110	
	Electrical Isolation	5-57		
	Tracking Generator	5-58	A52R68,C50,C16	E
	HP-IB	5-59	A44R9	F
	X-Y Plotter	5-60	A62R4	H

### 5-3. Equipment Required.

5-4. Table 5-2 lists the equipment required to perform the adjustments on the 3585A. Equipment that meets or exceeds the required characteristics given in the table may be substituted for the recommended models.

**Table 5-2. Recommended Adjustment Equipment.**

Equipment	Required Characteristics	Recommended Model
Digital Volt/Ohmmeter	DC Volts: 2V,20V,200V range Accuracy: $\pm 0.04\%$ Input Impedance $10M\Omega$ Ohms: 200 Accuracy: $\pm 0.07\%$	-hp- 3466A
High Frequency AC Voltmeter	AC Volts: 0.3V,3V range Frequency Response: 100Hz to 1MHz Input Impedance: $10M\Omega$ Accuracy: $\pm 1\%$	-hp- 400E
Oscilloscope	Bandwidth: dc to 100MHz Vertical Range: 5mV/div to 20V/div Horizontal Range: 50nsec/div to 100msec/div	-hp- 1740A
High Voltage Probe	Accuracy: $\leq 1\%$ Input Impedance: $\geq 10^9$ Ohms Measurement Range: $\geq 6kV$	-hp- 3440A-K05
Frequency Counter	Frequency Range: 10Hz to 150MHz Accuracy: $\pm 1$ count $\pm$ time base error Resolution: 0.1Hz	-hp- 5382A
Frequency Synthesizer	Frequency Range: 200Hz to 40MHz Amplitude Accuracy: $\pm 0.27dB$	-hp- 3335A
Attenuator 1dB/Step	Attenuation Range: 0 to 12dB Accuracy: $\pm 0.2dB$ Frequency Range: dc to 40MHz	-hp- 355C
Attenuator 10dB/Step	Attenuator Range: 0 to 100dB Accuracy: $\pm 0.5dB$ Frequency Range: dc to 40MHz	-hp- 355D
9MHz Low Pass Filter	(See Figure 4-14)	
10k $\Omega$ Resistor	$\pm 1\%$ , 1/8 Watt	-hp- P.N. 0757-0442
BNC-To-Seaelectro Adapter Cable	Supplied with instrument	-hp- P.N. 03585-61616
Optional _____ Spectrum Analyzer	Frequency Range: 100kHz to 150MHz Amplitude Accuracy: $\pm 3dB$	-hp- 8558B
Resistor Probe	20:1 Resistive Divider 1k $\Omega$ Input Resistance	-hp- 10020A

### 5-5. Test Point And Adjustment Locations.

5-6. Test point and adjustment location are shown on PC board component location diagrams in the Adjustment Procedures. The component location diagram for the Input and Conversion Section is shown in Figure 5-44 (foldout) at the end of this section.\* For many of the adjustments it is necessary to remove the PC board from the card nest. *Always set the 3585A LINE switch to off before removing or replacing a PC board unless instructed to do otherwise.* Some adjustments require power to be left on to retain the control settings. When instructed to leave the power on while removing or replacing a PC board be careful to keep the PC edge connector properly aligned. Misalignment of the PC edge connector during insertion can short the power supplies.

### 5-7. ADJUSTMENT SEQUENCE.

5-8. The adjustment procedures are presented in a logical sequence that will minimize interaction between adjustments. Although the performance tests might indicate that only one or two adjustments are needed, we recommend that you start at the beginning and do all of the adjustments in the order in which they are given. There are three exceptions to this rule: 1) The display section and 2) Oven Oscillator may be done independent of all other adjustments; and 3) the IF Filter adjustments are very time consuming and may be omitted if the instrument passes the Bandwidth Measurement Test. The Final IF Adjustment procedure should be done whether or not the IF Filter adjustments are omitted. Also note that any repair or adjustment made on the A1-A16 boards requires that all the adjustments for these boards be made.

### 5-9. Synthesizer Connections.

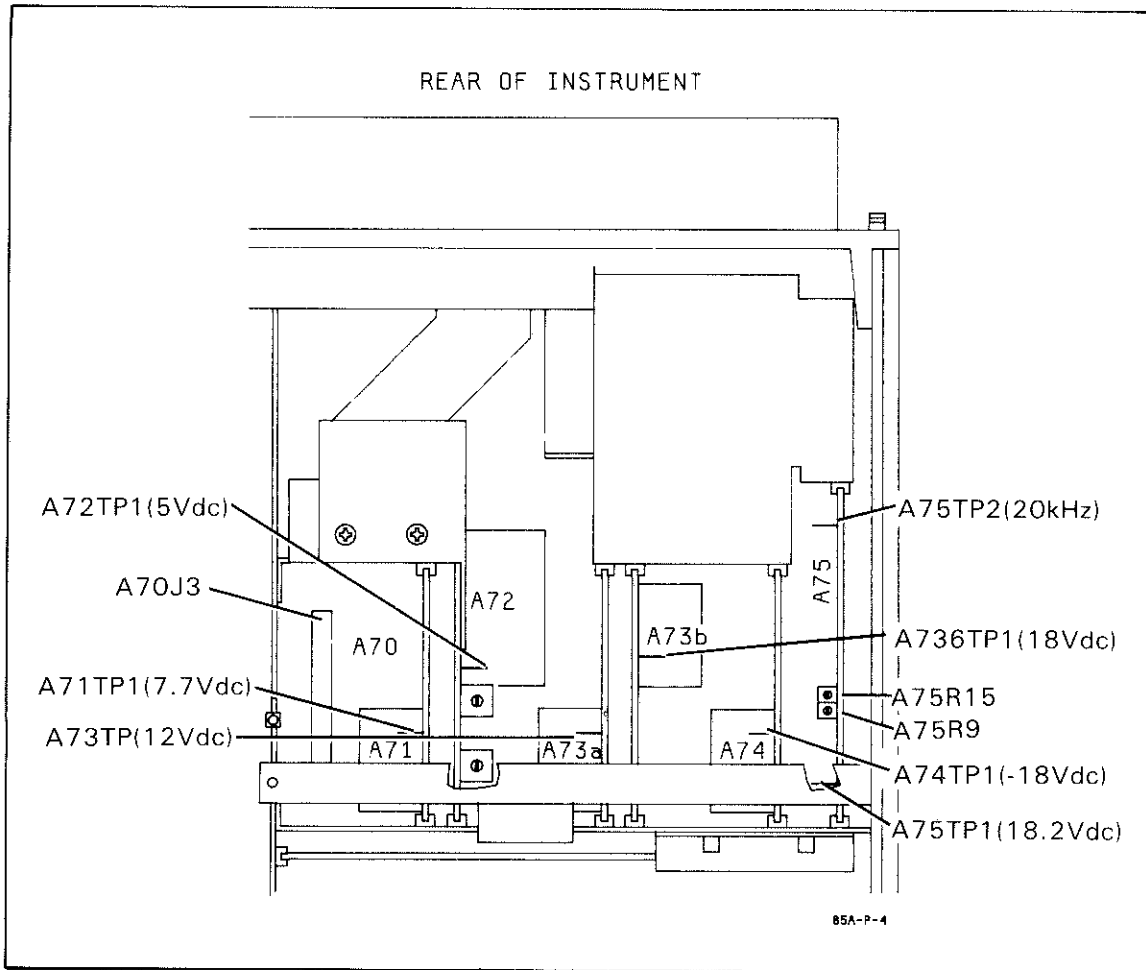
5-10. Unless otherwise noted the synthesizer used to perform the adjustments must be frequency locked to the 3585A's 10MHz REF OUTPUT. Failure to make this connection will degrade the accuracy of the adjustments.

### 5-11. Low Voltage Power Supply Adjustments (A71-75).

5-12. These adjustments set the 18V reference voltage, 20KHz oscillator and 5V supply associated with the Low Voltage Power supplies.

- a. Remove the plastic cover from the Low Voltage Power Supply Section.
- b. Remove the metal PC board hold-down bar.
- c. Connect a DVM to A75TP1.
- d. Adjust A75R9 for a voltage reading of  $+18.2V \pm 0.02V$ .
- e. Remove the DVM.
- f. Using a 10:1 scope probe, connect a Frequency Counter to A75TP2.

\*Also at the end of this section is Figure 5-45, which shows the location of all boards accessible from the top of the instrument.

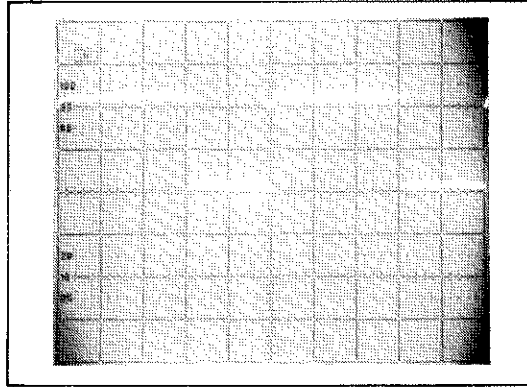


**Figure 5-1. Power Supply Adjustment Locations.**

- g. Adjust A75R15 for a frequency reading of 20KHz  $\pm$  10Hz.
- h. Using a 10:1 probe, connect an oscilloscope to A75TP2. Set the Oscilloscope controls as follows:

VERTICAL ..... 0.2V/Div.  
 HORIZONTAL ..... 10 $\mu$ sec/Div.  
 INPUT ..... DC coupled

- i. Verify that the observed waveform is within  $\pm$  10% of that shown in Figure 5-2.
- j. Connect the DVM to A72TP1. Adjust A72R31 for 5.4V  $\pm$  0.05V.
- k. Turn the 3585A power off. Remove PC boards A71 and A72.
- l. Disconnect the cable from A70J3. Replace PC boards A71 and A72.



**Figure 5-2. Power Supply Clock Output.**

- m. Connect a 1 $\Omega$ , 25W resistor from A72TP1 to chassis ground.

**WARNING**

*The 1 $\Omega$  resistor used for this adjustment can reach a temperature that will cause burns. Handle this resistor with caution.*

- n. Turn the 3585A power on. Adjust A72R19 so that the yellow current limit indicator just goes out.
- o. Turn the 3585A power off. Disconnect the resistor from A72.
- p. Remove the A71 and A72 board. Reconnect the cable associated with A70J3. Replace the A71 and A72 boards.
- q. Using a DVM, check each of the voltages below to verify that the various power supplies are working properly.

A74TP1	$-18V \pm 0.9V$
A73bTP1	$+18V \pm 0.9V$
A73aTP1	$+12V \pm 0.6V$
A71TP1	$+7.7V \pm 0.6V$

- r. Disconnect the DVM. Replace the PC board Hold-down bar and the plastic cover for the power supplies. This completes the Low Voltage Power Supply Adjustments.

**5-13. 90MHz Reference Board Adjustments (A21).**

5-14. This adjustment sets the frequency of the 90MHz crystal oscillator on the A21 board. This crystal oscillator is used during warm-up and in the absence of an EXT REF INPUT.

- a. Disconnect the cables from A21J1 and A21J7.
- b. Connect a frequency counter to A21J1.

- c. Adjust A21R125 (see Figure 5-45) for a frequency reading of  $90\text{MHz} \pm 20\text{Hz}$ .
- d. Reconnect the A21J1 and A21J7 cables.

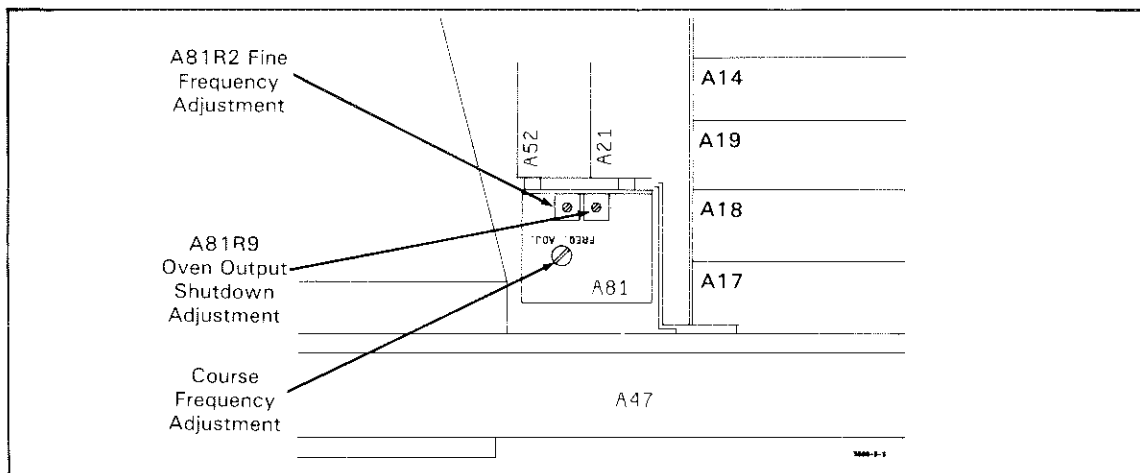
### 5-15. 10MHz Oven Oscillator Adjustments.

5-16. This adjustment sets the frequency of the 3585A oven oscillator. It is important that a frequency counter with greater accuracy and stability than that of the 3585A reference be used for this adjustment.

#### NOTE

*All instruments used for this adjustment should be turned on for at least 20 minutes (preferably longer) prior to beginning adjustments.*

- a. Remove any connections between the synthesizer reference connectors and the 3585A rear panel reference connectors.
- b. Connect both the 3585A and the synthesizer to their own internal references. For the 3585A, use the supplied BNC shorting bar to connect the OVEN REF OUT to the EXT REF IN.
- c. Connect the Frequency counter to A21J1.
- d. Remove the screw on the A81 Oven assembly that covers the course frequency adjustment (see Figure 5-3).
- e. Adjust A81R2 to the center of its range.
- f. Adjust the Course Frequency control on the A81 board so that the frequency counter reads  $90\text{MHz} \pm 1\text{Hz}$ . Allow time for the oven oscillator to stabilize after each adjustment.
- g. Disconnect the frequency counter from A21J1. Reconnect the proper cable to A21J1.



**Figure 5-3. Oven Oscillator Adjustment Locations.**

- h. Set the synthesizer for:

FREQUENCY.....9MHz  
 AMPLITUDE.....0dBm

- i. Set the 3585A controls for:

INSTRUMENT PRESET  
 CENTER FREQUENCY.....9MHz  
 COUNTER.....on  
 MANUAL SWEEP.....on

j. Using a BNC "Tee", connect the synthesizer output to the 3585A 50Ω input and the external Frequency Counter input.

k. Adjust the fine frequency adjustment, A81R2, (and the course frequency adjustment if necessary) so that the 3585A counter frequency matches the external Frequency Counter reading. Again, allow 5-10 minutes between adjustments so that the oven oscillator will stabilize.

- l. Replace the screw that covers the course Frequency Adjustment.

m. If other adjustments are to be made, reconnect the 3585A 10MHz REF OUTPUT to the synthesizer reference input.

### 5-17. Oven Output Shutdown Adjustment.

5-18. This adjustment sets the point where the Oven Oscillator will begin to be used as the 3585A's reference. During warm-up the Oven Oscillator's frequency is off far enough to cause the 3585A L.O. to come unlocked. This adjustment causes the OVEN REF OUT to be shut-off during this warm-up period.

#### NOTE

*Allow the instrument to warm up 20 minutes or more before beginning this adjustment.*

- a. Remove the jumper between the OVEN REF OUT and the EXT REF IN on the 3585A.
- b. Connect the OVEN REF OUT to the 3585A 50Ω input.
- c. After the 3585A has completed Autoranging, turn the AUTORANGE function off.
- d. Adjust A81R9 (SHUT) to the point where the 10MHz signal level just turns off (on ≈ +7 dBm off ≈ -35dBm).
- e. Adjust A81R9 one eighth turn counter-clockwise.
- f. Replace the jumper between the OVEN REF OUT and the EXT REF IN.
- g. Disconnect all inputs to the counter and the 3585A. Connect the 3585A 10MHz. Ref Output to the 3335 40/N Ref Input.

h. This completes the Reference Oscillator Adjustments.

**5-19. CRT Control And High Voltage Power Supply Adjustments.**

- a. Turn the 3585A power off. Turn the 3585A on its left side. Remove the bottom cover.
- b. Place the XYZ board (A67) on a PC extender board. The PC extender should be screwed in place for stability. Leave all cables connected to A67.
- c. Unplug the cables from the "Xin" and "Yin" connectors. Using clip leads, short the "Xin" pins together. Now short the "Yin" pins together.
- d. Move A67J11 to the "T" position and disconnect A67J6.

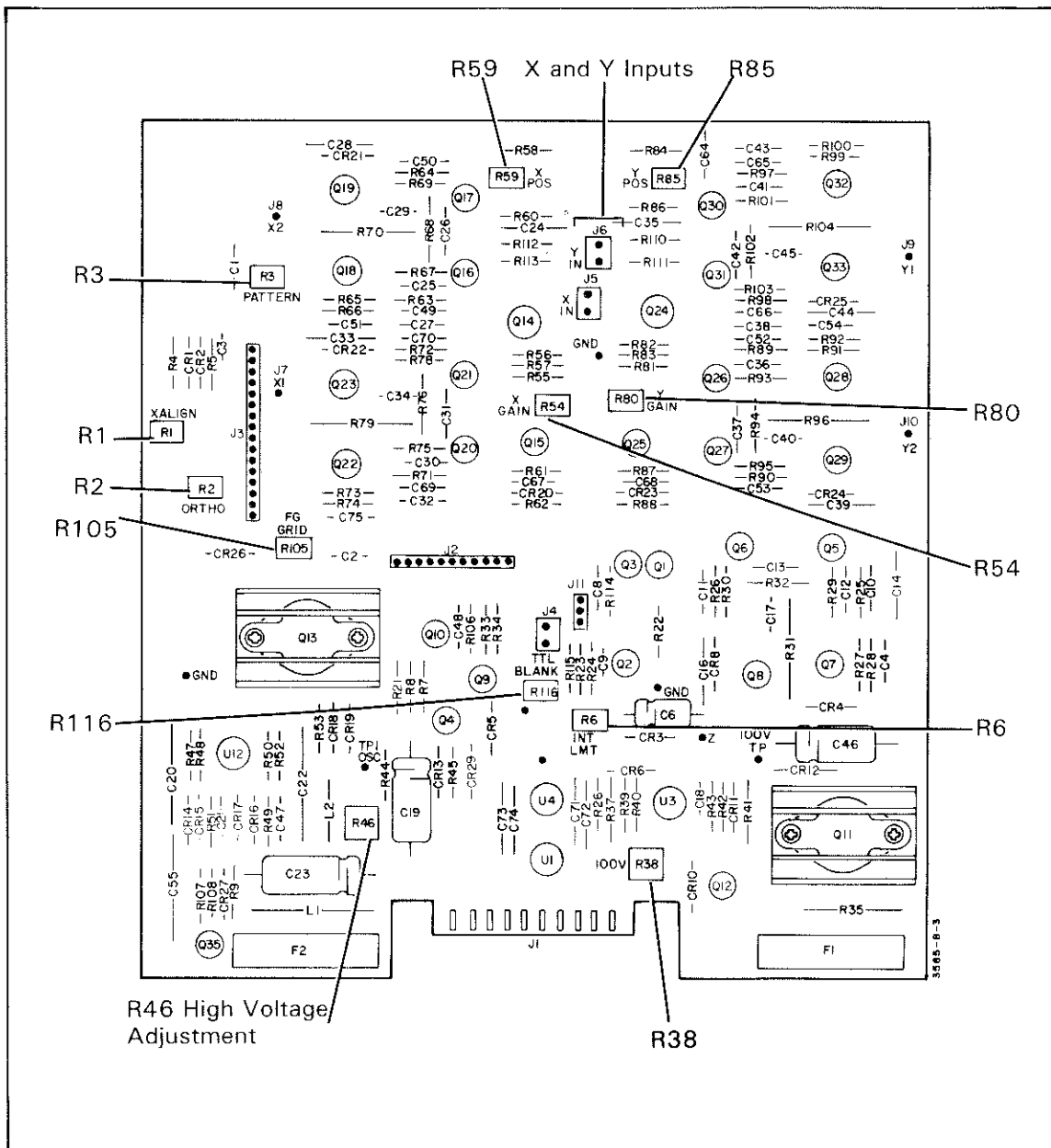


Figure 5-4. XYZ Board (A67).



- e. Set the oscilloscope controls for:

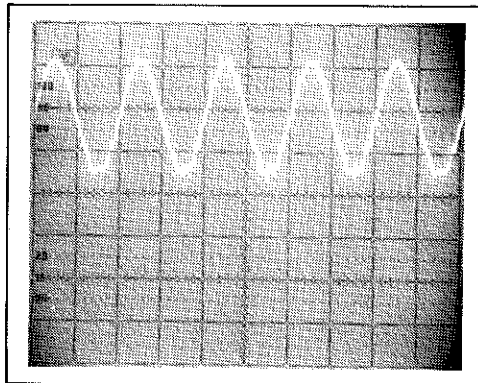
VERTICAL.....1V/Div (DC coupled)  
 HORIZONTAL..... 10ms/Div

- f. Using a 10:1 probe, connect the oscilloscope to the “OSC” test point (A67TP1).

**WARNING**

*The voltages involved in the following measurements may cause serious injury or even death. USE EXTREME CAUTION.*

- g. Turn the 3585A power on. Turn the front panel intensity control fully C.W. Verify that A67TP1 measures approximately 26Vp-p centered +18V above ground potential.



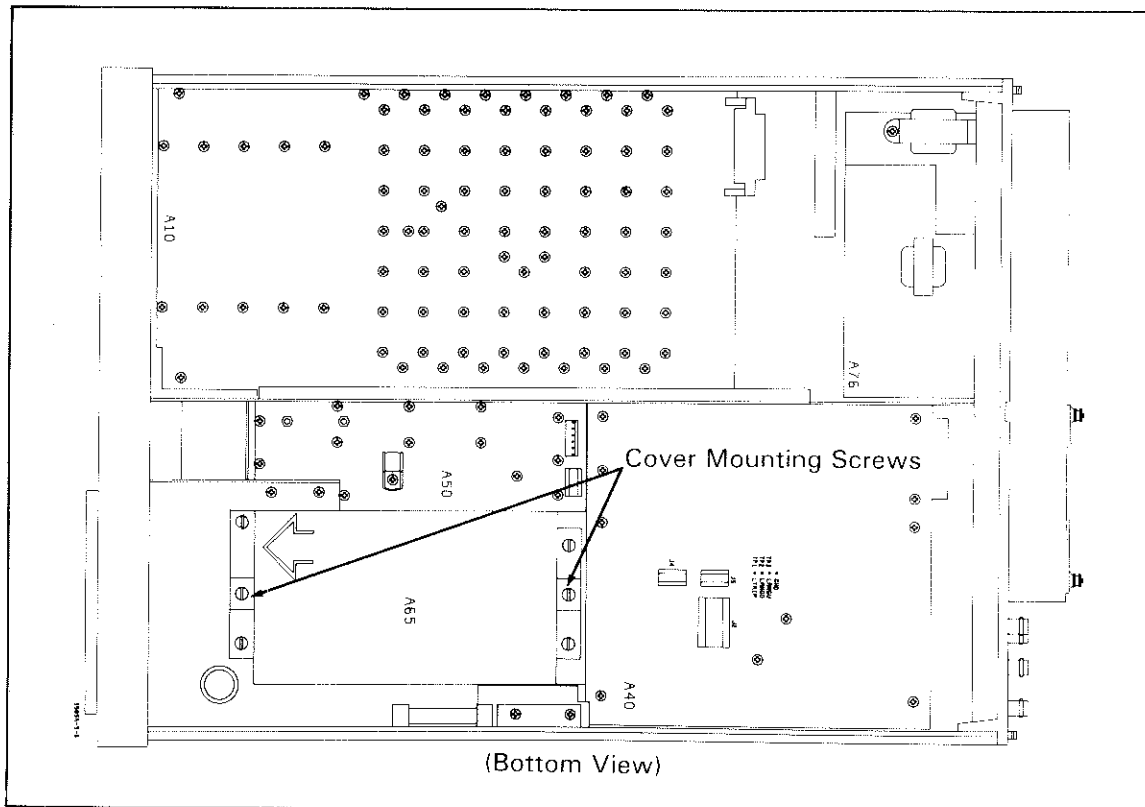
**Figure 5-5. High Voltage Oscillator Output.**

- h. Turn the front panel intensity control fully C.C.W. and verify that the A67TP1 output is +18V DC.
- i. Disconnect the scope probe.
- j. Connect a DVM (200V range) to the 100V A67TP2. Adjust A67R38 for a reading of  $100V \pm 0.25V$ .
- k. Turn the 3585A power off. Disconnect DVM.

**WARNING**

*The voltages present inside the high voltage power supply box can cause serious injury or death. **Never** place an uninsulated conductive tool or object inside this box.*

- l. Set the intensity control to the “9 o’clock” position.
- m. Remove the aluminum cover from high voltage section (see Figure 5-6 for screw locations) on the bottom side of the 3585A.



**Figure 5-6. High Voltage Cover Mounting Locations.**

**WARNING**

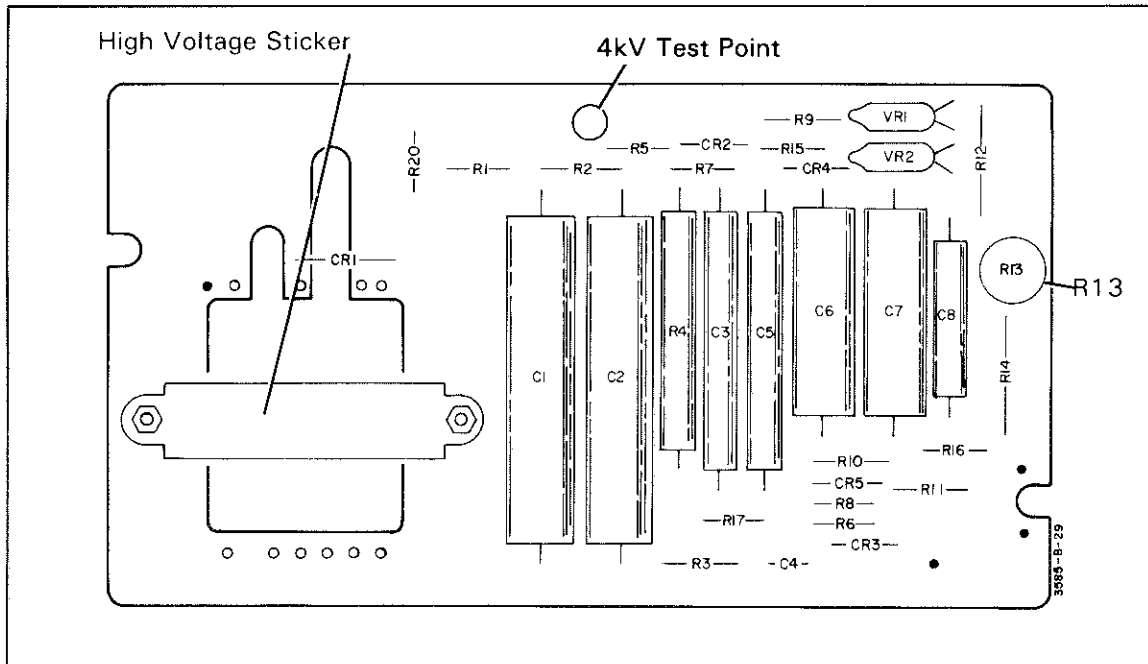
*Extremely dangerous voltages can remain on the High Voltage board (A65) even when the instrument is turned off. Injury or death may result if an uninsulated tool or object is placed on the board.*

- n. Connect the calibrated, high voltage probe to A65TP1 (plated through hole in PC board).

**WARNING**

*4kV will be measured when the instrument is turned on. USE EXTREME CAUTION to avoid serious injury or death.*

- o. Turn the 3585A power on.
- p. Adjust A67R46 for a voltage reading equal to the voltage marked on the high voltage sticker  $\pm 10V$ . See Figure 5-7 for the location of this sticker.
- q. Remove the high voltage probe from the test point.



**Figure 5-7. High Voltage Board (A65).**

r. Using the front panel focus control, focus the 3585A CRT display. If the round dot on the instrument's CRT can be focused with the focus control between the 10 o'clock and 2 o'clock positions, proceed at step v.

s. Set the focus control to the 12 o'clock position. Set the astigmatism control fully C.C.W.

t. Adjust the focus limit pot (A65R13) for the smallest, most symmetrical round dot on the 3585A CRT.

u. Turn the 3585A power off. Replace the high voltage cover and the instruments bottom cover. Set the 3585A back in a normal upright position.

v. Remove the shorts from the "Xin" and "Yin" inputs on the A67 board. Reconnect the proper cables to these inputs.

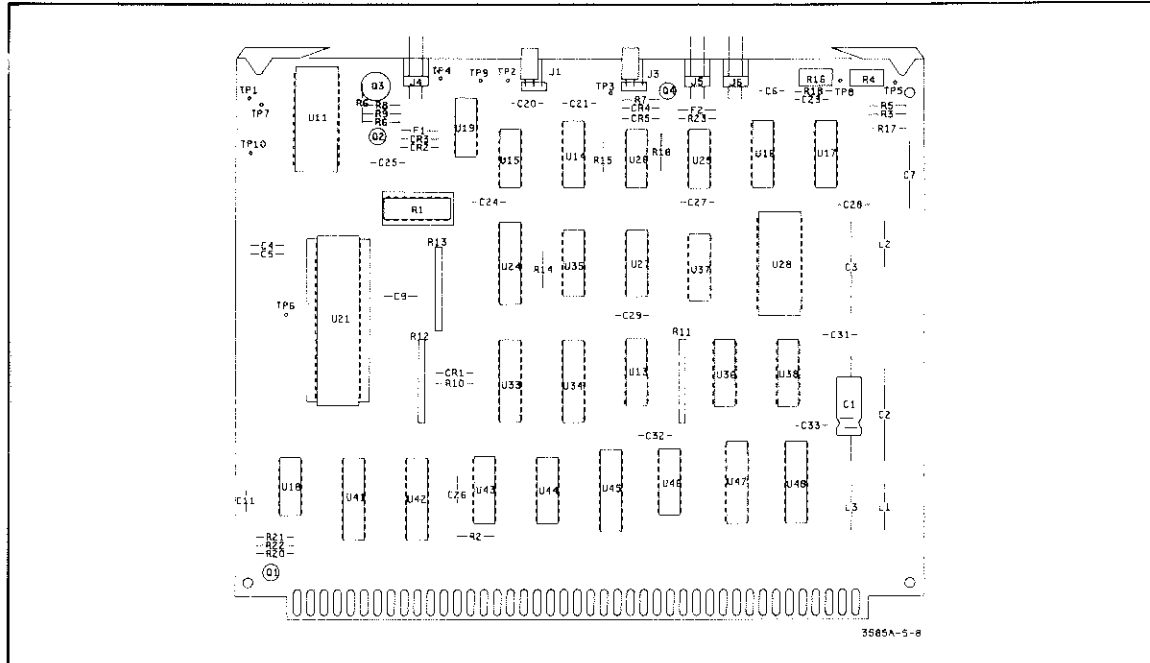
w. Move the test jumper A63J3 to the "T" position (see Figure 5-8).

x. Set the oscilloscope for:

Vertical Scale.....0.1V/Div (DC coupled)  
Horizontal Scale.....0.05 $\mu$ sec/Div

y. Connect a 10:1 scope probe to A63TP1. Verify that the signal amplitude is  $\leq 0.7V$  to  $\geq 3.5V$  minimum.

z. Verify that the rise and fall time of the waveform is between 10 and 70 nsec between the 10% and 90% points (see Figure 5-9).



**Figure 5-8. Display Processor Board (A63).**

aa. Connect a DVM to A63TP5 and adjust A63R4 for the voltage stamped on the A63U21 nanoprocessor  $\pm 0.2V$ .

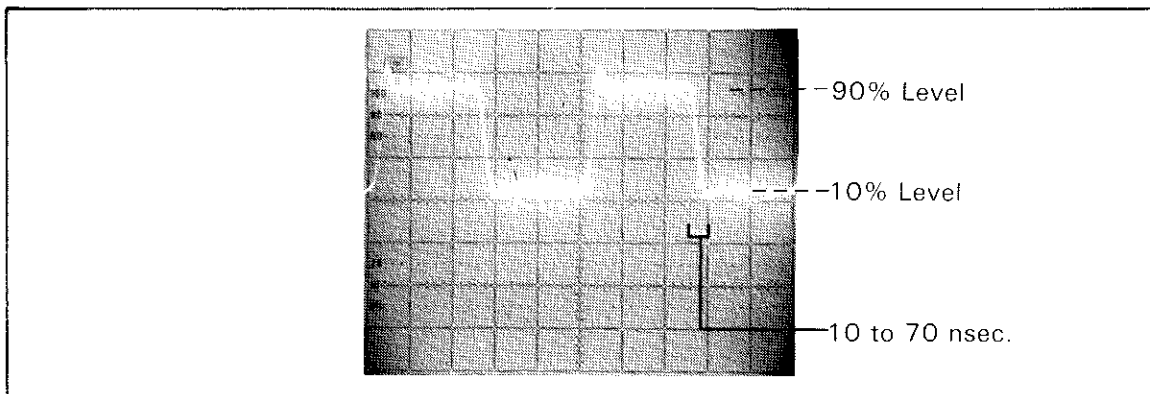
bb. Set the oscilloscope for:

Vertical Scale.....0.2V/Div (DC coupled)  
 Horizontal Scale.....0.05 $\mu$ sec/Div

cc. Connect a 10:1 scope probe to A63TP3 and adjust A63R16 for a pulse width of 250 nsec between the centers of the rising and falling edges. (See Figure 5-10)

**NOTE**

*If no pulse is observed on the oscilloscope, move A63J1 to the "T" position for a moment and then back to the "N" position.*



**Figure 5-9. Display Processor Clock Output.**

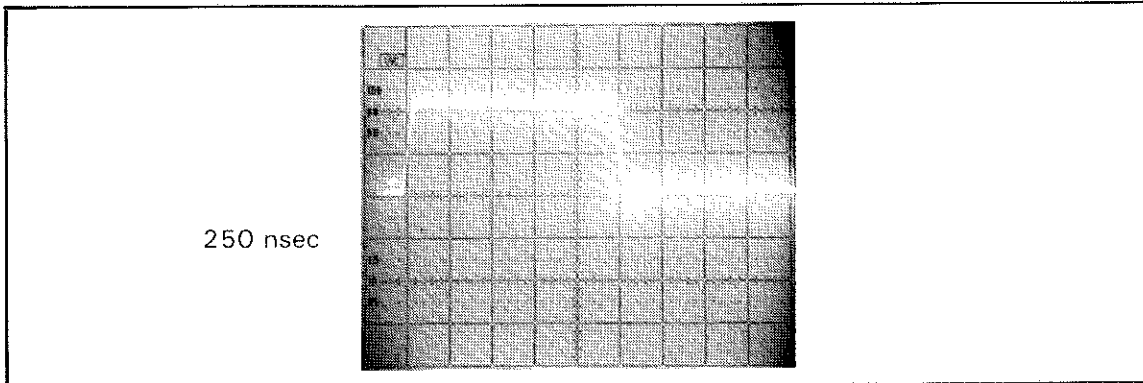


Figure 5-10. Sample Pulse Generator Output.

- dd. Turn the front panel intensity control fully C.W.
- ee. Adjust A67R6 so that there are no extra dots on the screen.

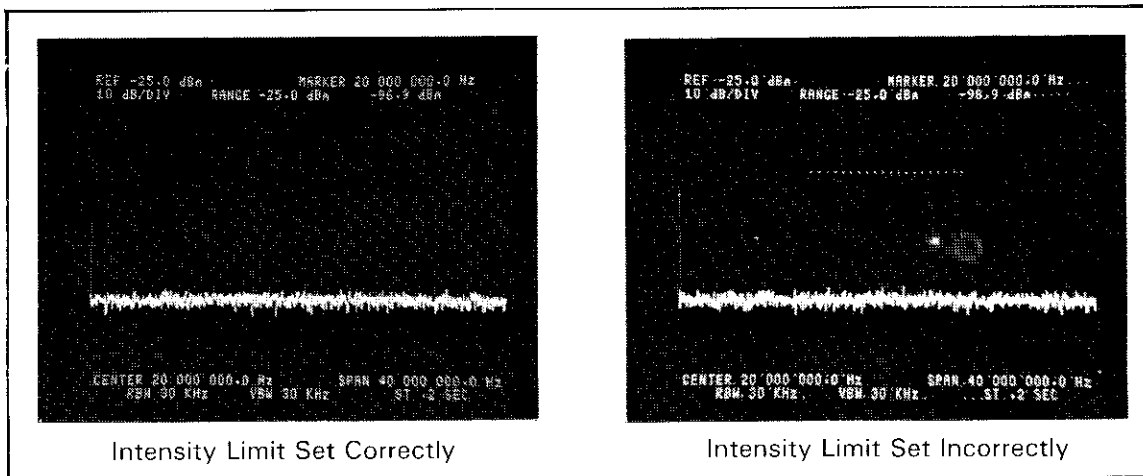


Figure 5-11. Location Of Extra CRT Dots.

- ff. Connect a DVM set for DC volts to A67TP6. Record the reading \_\_\_\_\_ V.
- gg. Connect the DVM to A67TP5. Record the reading \_\_\_\_\_ V.
- hh. Subtract the reading in step ff from those taken in step gg. The difference should be 8V or greater. If the difference is less than 8V, turn A67R6 slightly C.C.W. and continue at step ff. (Typically the voltage difference will be 20V or greater.)
- ii. Adjust the front panel intensity control so that the trace is just visible.
- jj. Turn the front panel graticule control fully C.W.
- kk. Adjust A67R105 for uniform brightness across the CRT display.
- ll. Adjust A67R116 for the maximum desired graticule illumination.
- mm. Turn the 3585A power off. Move test jumper A67J11 to the "N" position.

nn. Replace the A67 board. Replace the screws that hold the board to the chassis and the protective plastic cover over the board.

oo. This completes the CRT control and high voltage power supply adjustments.

#### **5-20. CRT Graphics Adjustment.**

- a. Attach a DVM to A64TP8. Adjust A64R72 for  $5.00\text{Vdc} \pm .005\text{V}$ . Disconnect DVM.
- b. Move the test jumper A63J3 to the "T" position.
- c. The display should now appear roughly similar to Figure 5-12.

#### **NOTE**

*Refer to Figure 5-13 (foldout) for pictures of the effect of each Graphic Adjustment.*

d. Adjust A67R59 (X position), A67R85 (Y position), A67R54 (X gain) and A67R80 (Y gain) so that the displayed pattern is vertically and horizontally aligned with the CRT graticule. (Preliminary adjustment.) See Figure 5-14 for adjustment locations.

- e. Adjust A67R3 (pattern) for the best vertical alignment.
- f. Adjust A67R2 (orthogonality) for the best vertical alignment.
- g. Adjust A67R1 (X align) for the best alignment along the X axis.
- h. Repeat Steps d thru g until alignment matches that of Figure 5-12.
- i. Observe the retrace line very carefully. If the line is wiggly as shown in Figure 5-12, adjust A64C23 (comp) for a straight retrace line.
- j. Move test jumper A64J1 to the "T" position.
- k. Adjust A64R48 (LD OFS) so that any bumps on the retrace line are gone. A straight retrace line should be the resulting display.
- l. Move test jumper A64J1 to the "N" position.
- m. Adjust A64R62 (LD gain) for an overshoot condition (see Figure 5-13).
- n. Adjust A64R62 so that the overshoot condition just disappears.
- o. Adjust A67R59 (X position) and A67R54 (X gain) so that the ends of the retrace line and bottom pattern line are aligned with the vertical lines of the CRT graticule (see Figure 5-12).
- p. Adjust A67R85 (Y position) and A67R80 (Y gain) so that the CRT graticule lines cut through the upper and lower lines of the displayed pattern (see Figure 5-12).

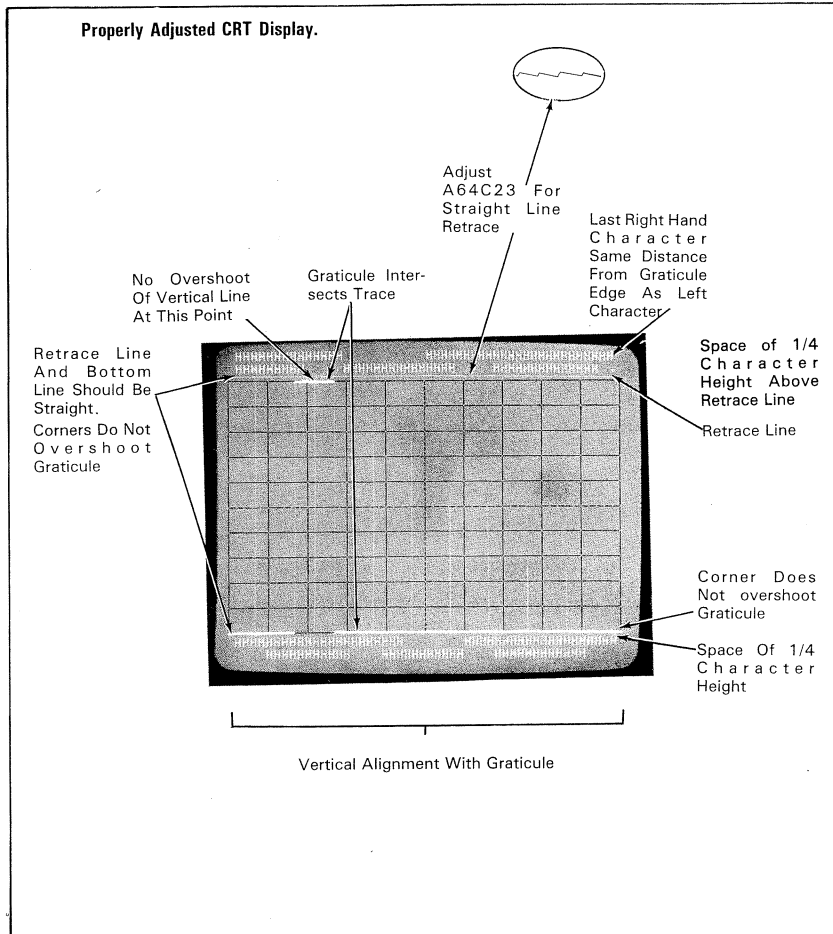


Figure 5-12. CRT Test Pattern.

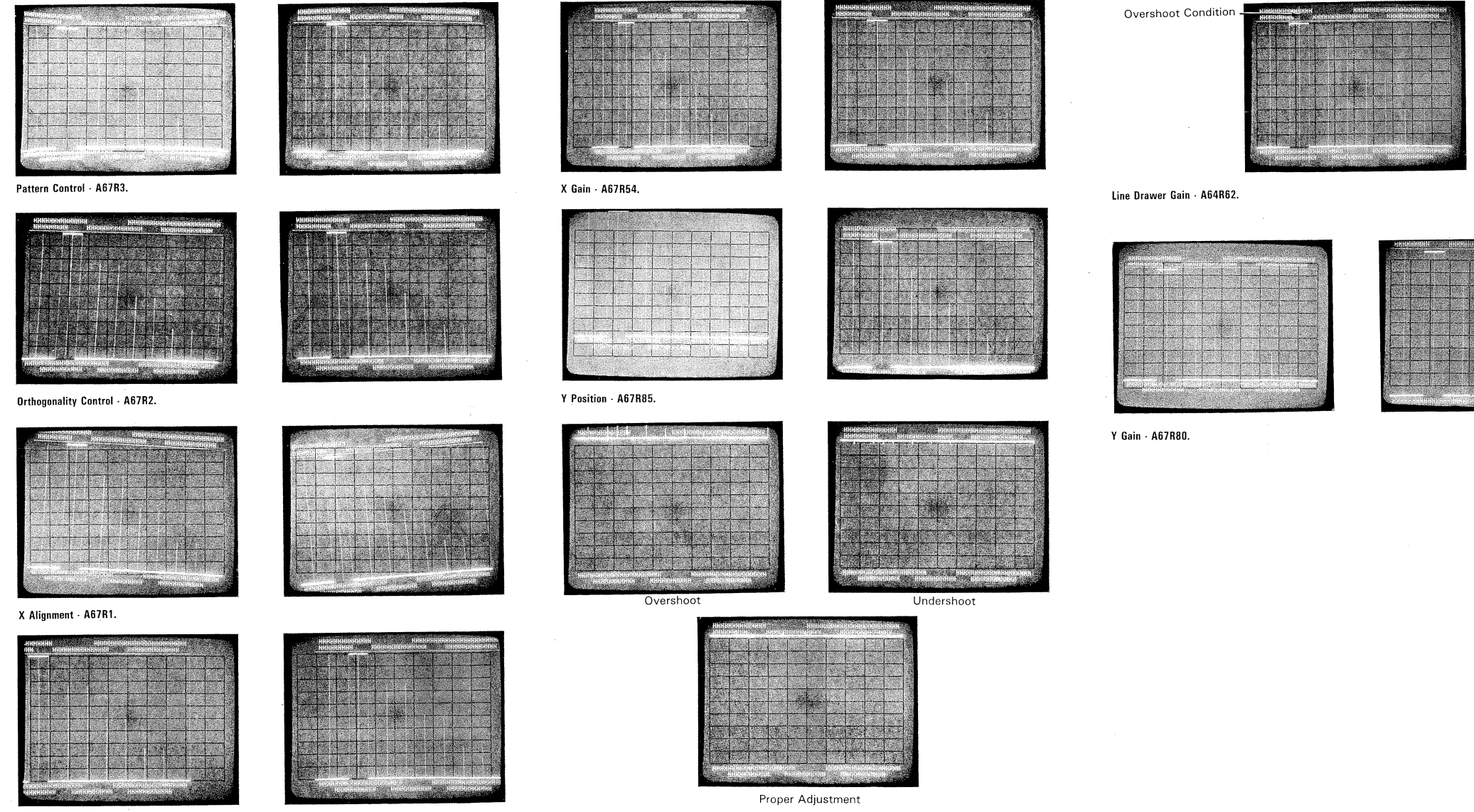


Figure 5-13. Graphics Adjustments.  
5-17

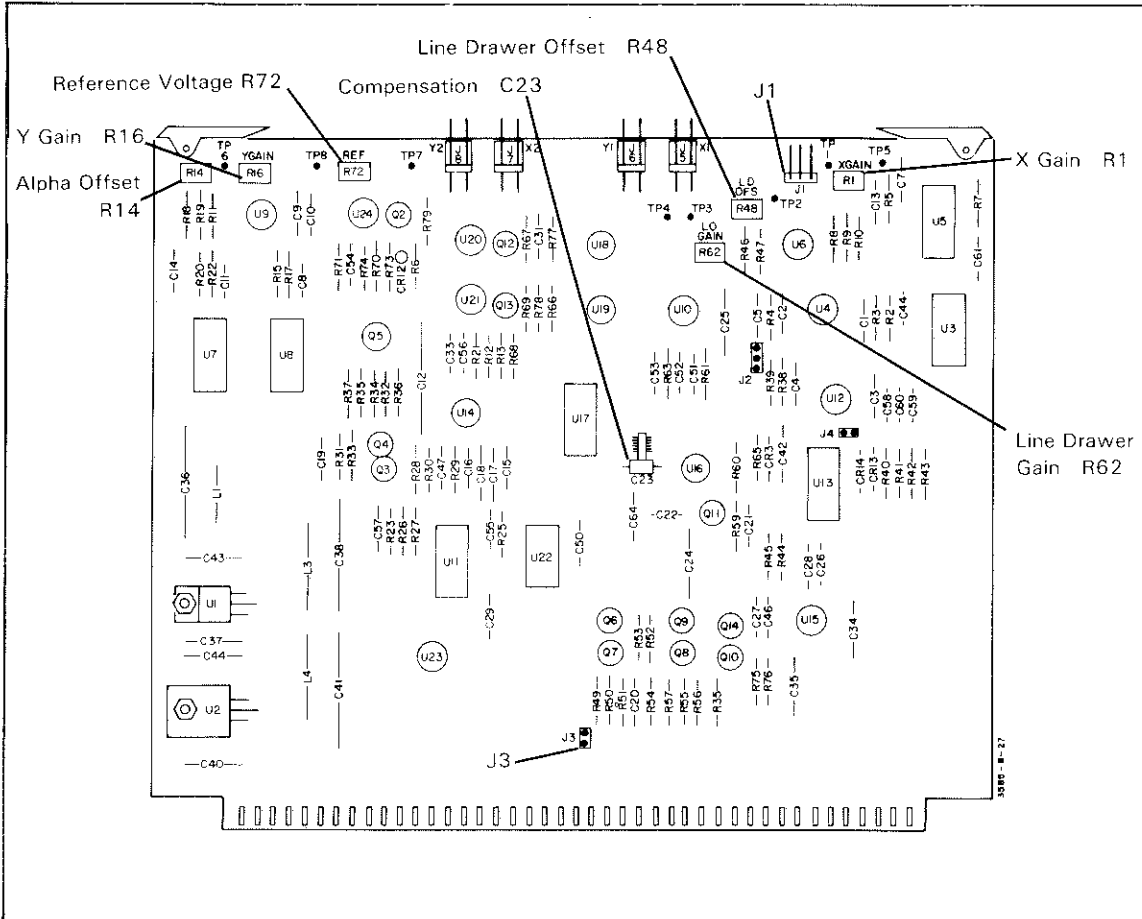


Figure 5-14. Analog Display Driver Board (A64).

5-21. CRT Alphanumeric Alignment.

- a. Be sure test jumper A63J3 is in the "T" position.

**NOTE**

*Refer to Figure 5-15 for pictures of the effect of Alphanumeric Adjustment.*

- b. Adjust A64R14 (A OFS) so that the second line of alphanumeric characters is about 1/4 of one character height above the top graticule line.
- c. Adjust A64R16 (Y gain) so that the third line of alphanumeric characters is 1/4 of one character height below the bottom graticule line.
- d. Adjust A64R1 (X gain) so that the last alphanumeric character is the same distance from the right-hand edge of the trace as the first alphanumeric character is from the left-hand edge of the trace.
- e. Move the test jumper A63J3 to the "N" position. This completes the graphics and alphanumeric adjustments.



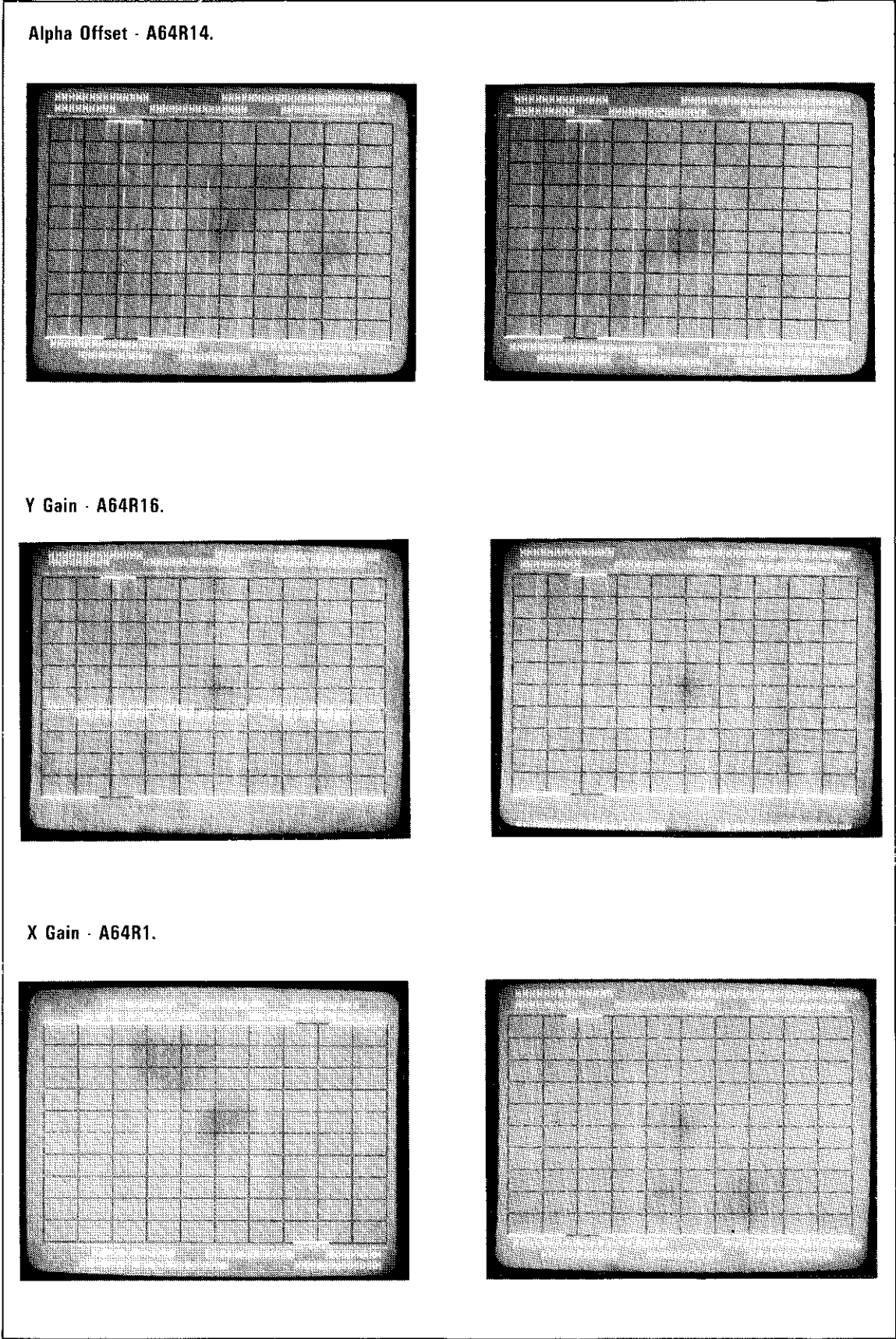


Figure 5-15. CRT Alphanumeric Adjustments.

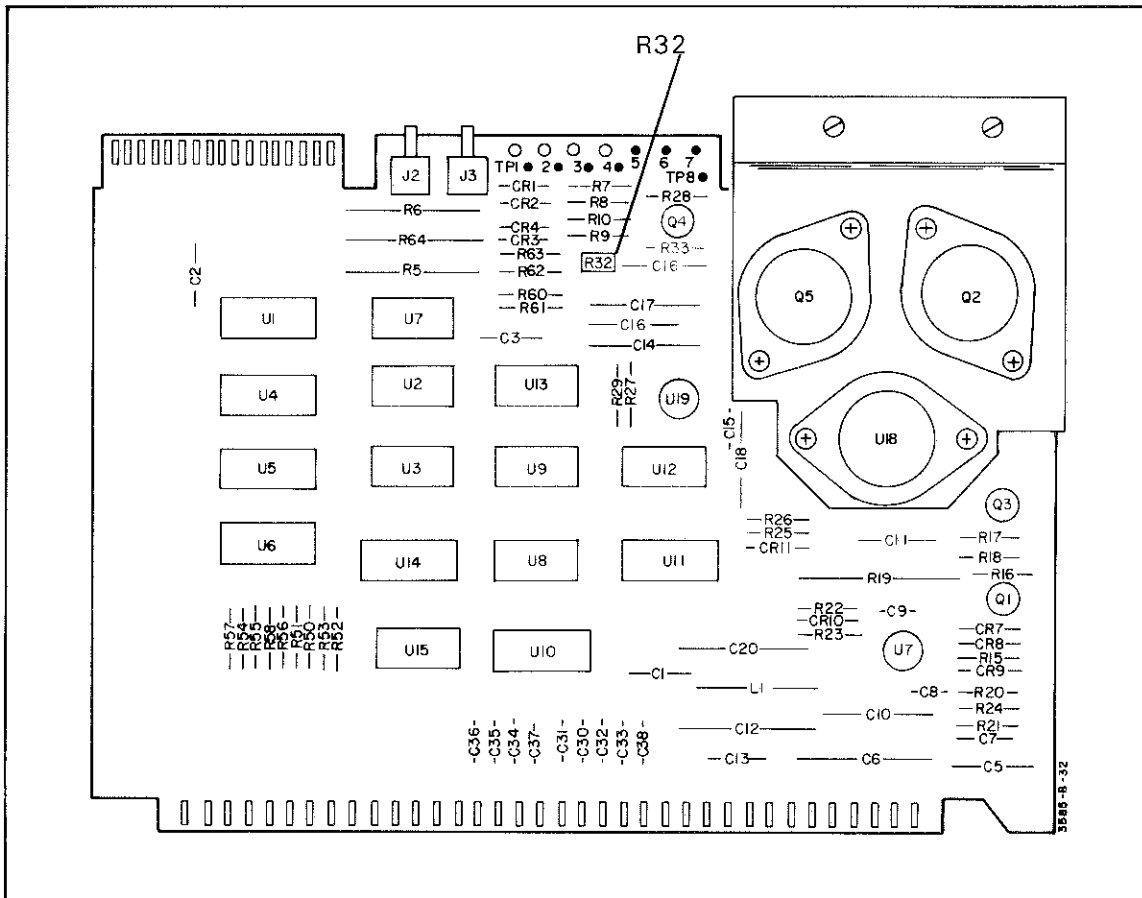
**5-22. Fractional N Adjustments.**

- a. Connect a DVM set for DC volts to A34TP5. Adjust A34R32 for  $5.3V_{dc} \pm 0.05V$ .
- b. Verify that A34TP6 measures  $+15.0V_{dc} \pm 0.8V$  and that A34TP8 measures  $-15.0V_{dc} \pm 0.8V$ .
- c. Disconnect the DVM.
- d. Turn the 3585A power off. Place the A31 board on a PC board extender. Turn the 3585A power on.
- e. Set the 3585A controls for:

```

RECALL 601
INSTRUMENT PRESET
RES. BW.....3KHz
RES. BW HOLD.....on
START FREQUENCY.....0.4MHz
STOP FREQUENCY.....1.65MHz
MANUAL ENTRY.....0.4MHz
    
```

- f. Connect the DVM to A31TP1 and adjust A31L3 for  $+7.70V_{dc} \pm 0.05V$ .



**Figure 5-16. LO Control Board (A34).**

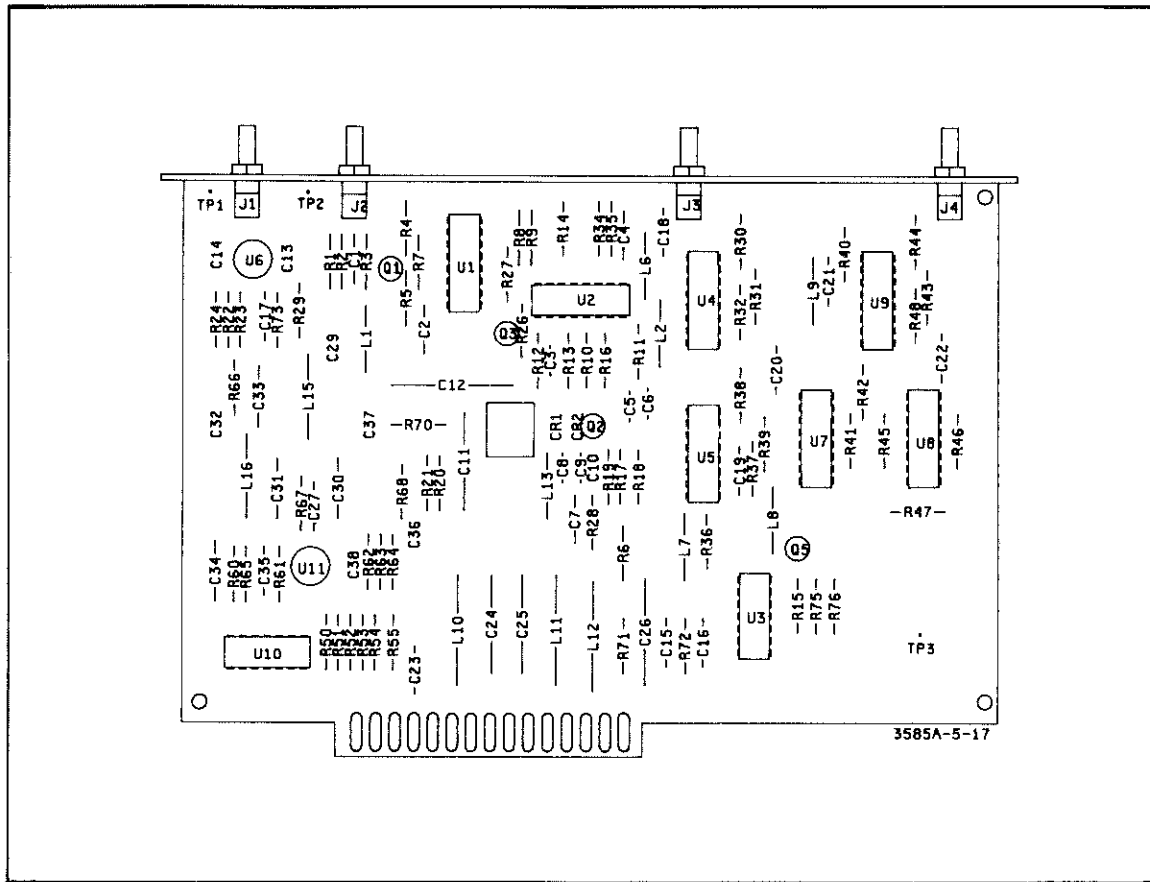



Figure 5-17. Fractional N VTO (A31).

- g. Disconnect the DVM.
- h. Turn the 3585A power off. Return the A31 board to its proper place in the card nest. Turn the 3585A power on.
- i. Set the 3585A controls for:
  - RECALL 601
  - INSTRUMENT PRESET
  - RES. BW .....3KHz
  - MANUAL ENTRY.....1MHz
  - CF STEP SIZE.....500Hz
  - MANUAL FREQUENCY..... 
- j. Verify that the MANUAL frequency reads 1,000,500Hz on the CRT display.
- k. Set your oscilloscope controls for:
  - Vertical Scale.....0.01V/Div. (AC coupled)
  - Horizontal Scale.....50µsec/Div.
  - Trigger.....external
- l. Connect a 10:1 probe to the input of the scope. Connect the scope probe to A31TP2.

m. Connect a second 10:1 probe to the External Trigger input. Connect this probe to A33TP1.

n. Adjust A32R49 (API1, see Figure 5-45) for a minimum amount of ripple on the scope waveform. (See Figure 5-18.)

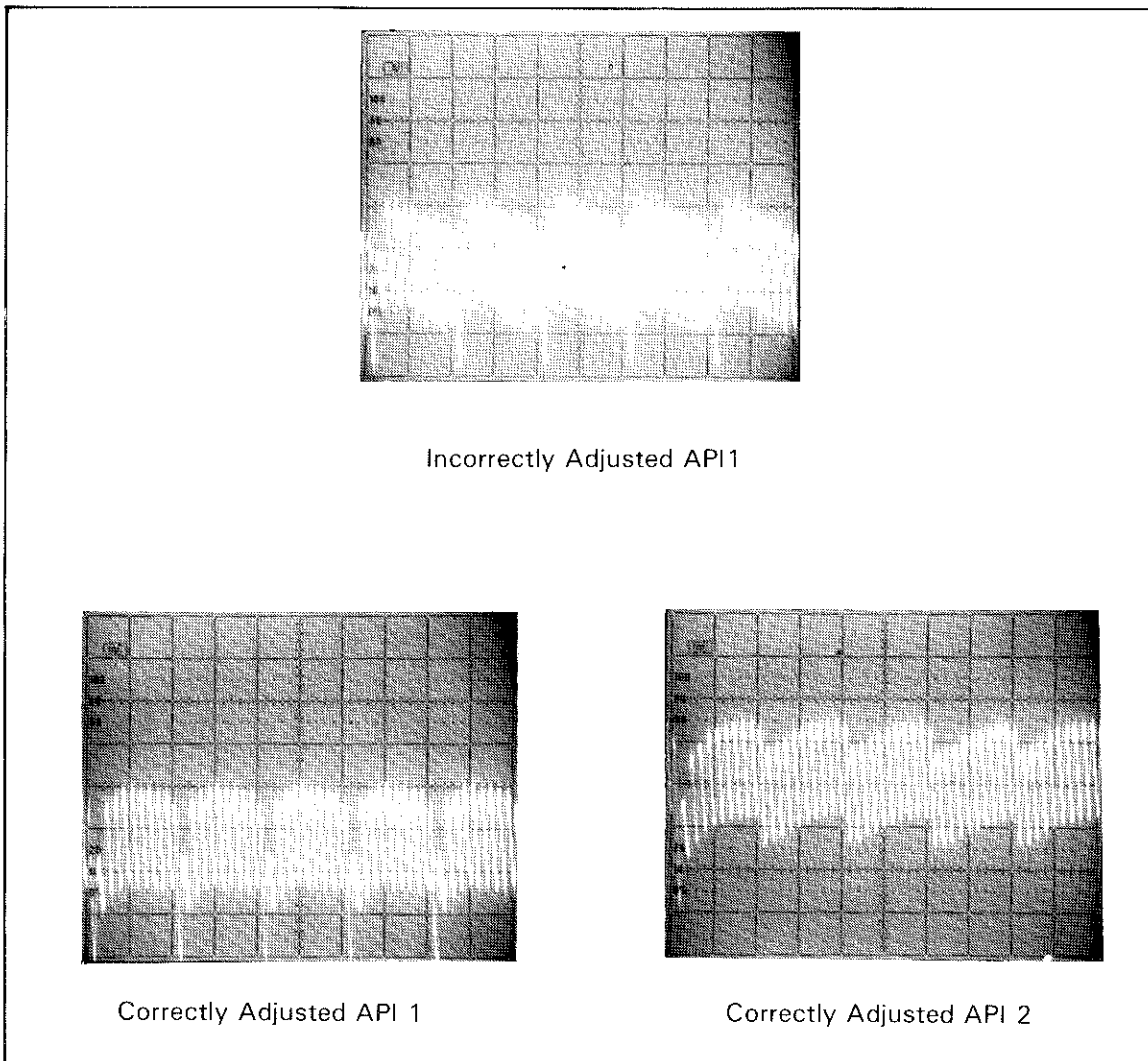
o. Set the 3585A controls for:

MANUAL FREQUENCY.....  
 CF STEP SIZE.....50Hz  
 MANUAL FREQUENCY.....

p. Verify that the MANUAL frequency now reads 1,000,050 Hz on the CRT display.

q. Adjust A32R56 (API2, see Figure 5-45) for a minimum amount of ripple on the scope waveform. (See Figure 5-18.)

r. Disconnect the oscilloscope connections. This completes the Fractional N adjustments.



**Figure 5-18. API Adjustment Waveforms.**

**5-23. L.O. Step Loop Adjustments.**

- a. Turn the 3585A power off. Place the Step VTO board (A23) on a PC extender. Turn the power back on.

**NOTE**

*Steps b. thru g. are functional checks. If a Spectrum Analyzer is not available these steps may be omitted.*

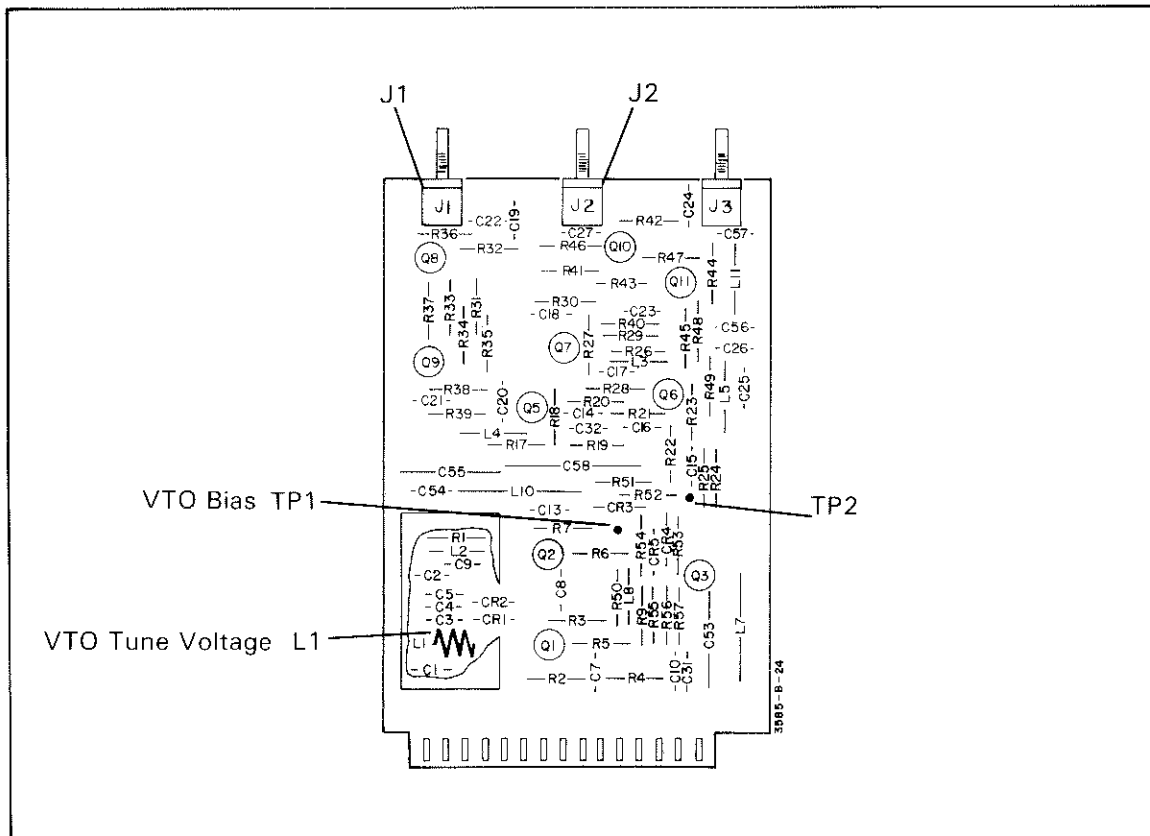
- b. Set the 3585A controls as follows:

RECALL 601  
 INSTRUMENT PRESET  
 CENTER FREQUENCY.....0Hz  
 FREQUENCY SPAN.....0Hz  
 CF STEP SIZE.....40MHz  
 RES. BW.....3KHz

- c. Disconnect the cable at A23J2. Connect a spectrum analyzer to A23J2 and verify that the signal level is approximately -6dBm or greater (typically -4dBm).

- d. Remove the spectrum analyzer from A23J2.

- e. Disconnect the cable at A23J1 and connect it at A23J2.




**Figure 5-19. Step Loop VTO Board (A23).**

f. Connect the spectrum analyzer to A23J1 and verify that the signal level is approximately -10dBm or greater (typically -7dBm).

g. Remove the spectrum analyzer from A23J1. Connect the proper cables to A23J1 and A23J2 (A23J1 to A26J2; A23J2 to A25J3)

h. Using a DVM, check the Bias voltage at A23TP1. This test point should read -4.6Vdc  $\pm$  0.2V.

i. Move the DVM to A23TP2. Squeeze or expand the oscillator coil (A23L1) to obtain a voltage of -2.0Vdc  $\pm$  0.1V.

j. Press “MANUAL FREQUENCY. . . .  ” on the 3585A and verify that the voltage at A23TP2 is  $\geq$  +5.0Vdc.

k. Turn the 3585A power off. Remove the Step VTO (A23) board from its PC extender and return it to the card nest. Turn the 3585A power on.

l. Set the 3585A controls for:


```

RECALL 601
INSTRUMENT PRESET
CENTER FREQUENCY.....0Hz
FREQUENCY SPAN.....0Hz
RES. BW.....3KHz
CF STEP SIZE.....40MHz

```

m. Connect a frequency counter to A23J2. The frequency reading should be 98MHz  $\pm$  10Hz.

n. Enter:

Center Frequency 

o. The Frequency Counter reading should be 138MHz  $\pm$  10Hz.

p. Disconnect the cable at A23J1. If the frequency counter now reads 144MHz  $\pm$  0.5MHz, continue at step u.

q. If the frequency counter reading is not within the limits of 144MHz  $\pm$  0.5MHz, turn the 3585A power off. Place the Step Phase Detector board (A26) on a PC extender. Turn the 3585A power back on.

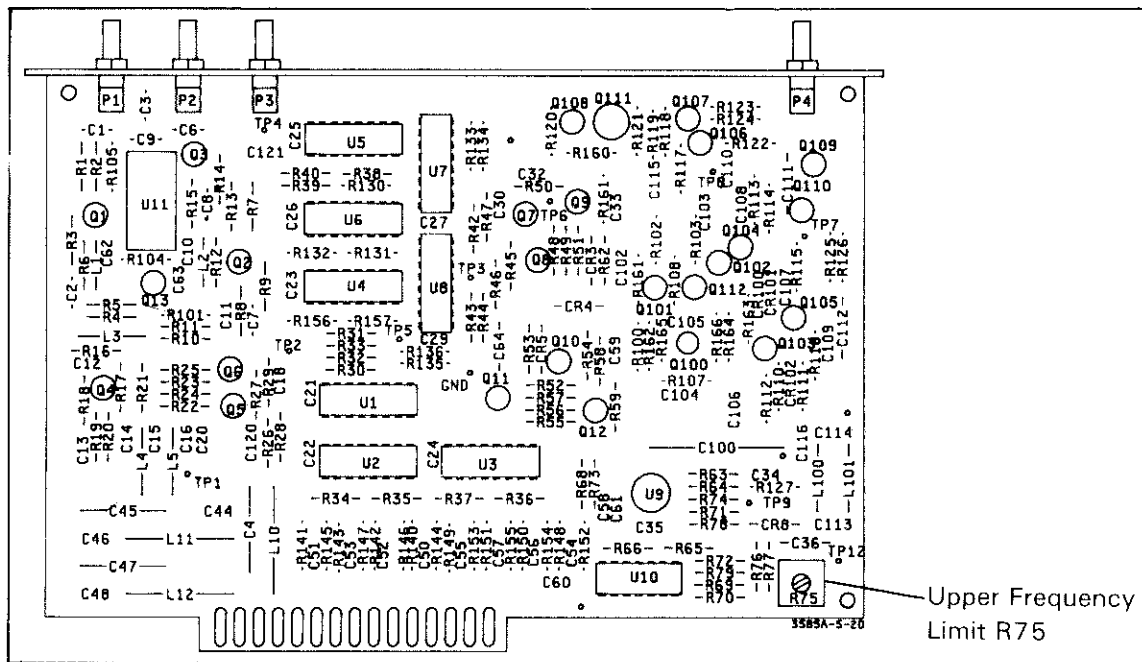
r. Set the 3585A controls for:

```

RECALL 601
INSTRUMENT PRESET
CENTER FREQUENCY.....0Hz
FREQUENCY SPAN.....0Hz

```

s. With the cable at A23J1 still disconnected, adjust A26R75 so that the frequency counter reads 144MHz  $\pm$  0.5 MHz.



**Figure 5-20. Step Loop Phase Detector Board.**

- t. Turn the 3585A power off. Replace the A26 board in the card nest and restore power to the 3585A.
- u. Verify that the “STEP” light on the A34 board goes on when the A23J1 cable is disconnected.
- v. Reconnect the proper cable to A23J1 (A23J1 to A26J2).
- w. Verify that the “STEP” and “SUM” lights on the A34 board go on when the A26J3 cable is disconnected.
- x. Reconnect the proper cable to A26J3 (A26J3 to A21J6).
- y. Set the 3585A controls for:

INSTRUMENT PRESET  
 RES. BW.....3KHz  
 SWEEP TIME......36 sec.

- z. Verify that the frequency counter is now changing in 1MHz increments from 98MHz to 138MHz.
- aa. Reconnect the proper cable to A23J2 (A23J2 to A25J3). This completes the L.O. Step Loop Adjustments.

**5-24. First L.O. VTO And Sum Loop Adjustments.**

- a. Turn the 3585A power off. Place the First L.O. VTO (A22) on a PC extender board and turn the power back on.

b. Set the 3585A controls for:


RES. BW HOLD.....ON  
 CENTER FREQUENCY.....0Hz  
 FREQUENCY SPAN.....0Hz  
 CF STEP SIZE.....40MHz  
 RES. BW.....30KHz

c. Connect a frequency counter to A22J1.

d. Verify that the frequency counter now reads 100.35MHz.

e. Using a DVM, check that the voltage at A22TP1 measures -5.0Vdc  $\pm$  0.1V.

f. Adjust the voltage at A22TP2 by squeezing or expanding oscillator coil A22L1. The voltage reading should be -2.0Vdc  $\pm$  0.1V. Be sure to remove any tools from A22L1 before making your voltage reading.

g. Enter CENTER FREQUENCY . . . STEP  on the 3585A keyboard.

h. The frequency counter should now read 140.35MHz.

i. Turn the 3585A power off. Replace the A22 board in the card nest and turn the 3585A power back on.

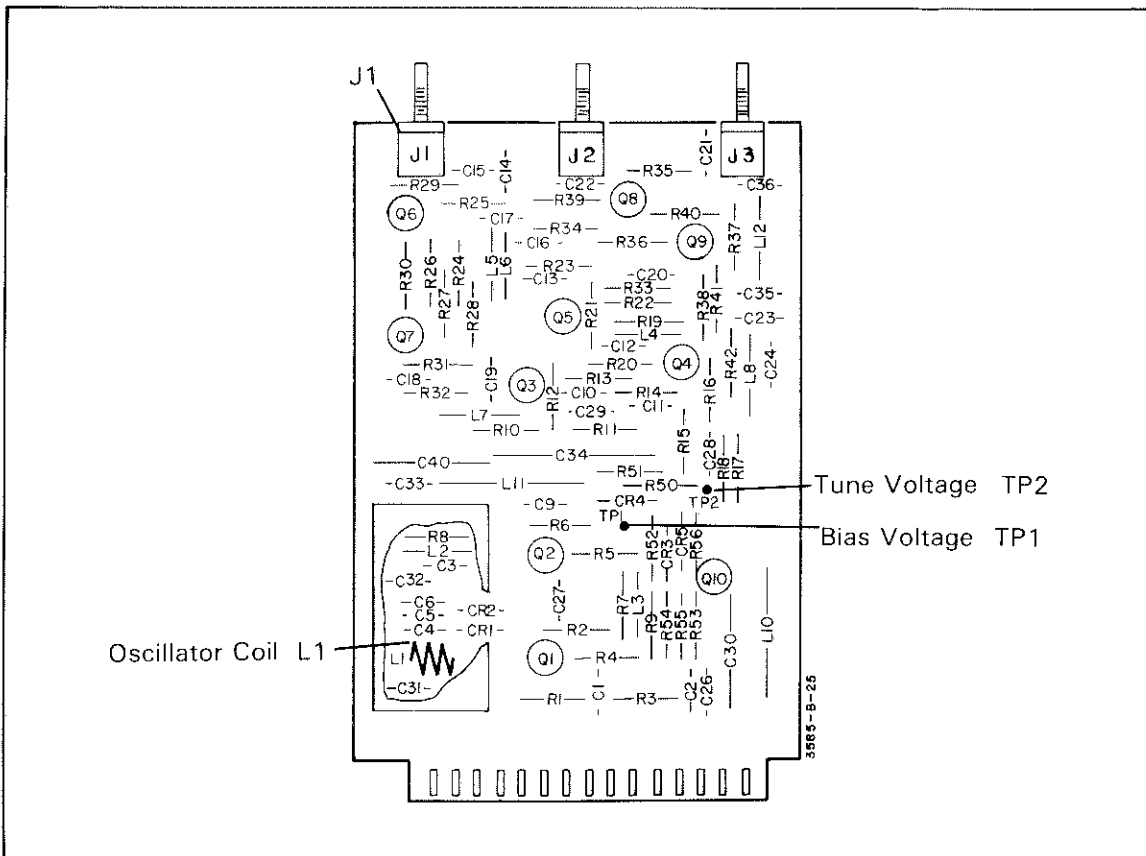


Figure 5-21. First LO VTO Board.



j. Set the 3585A controls for:

RES. BW HOLD.....ON  
 CENTER FREQUENCY.....0Hz  
 FREQUENCY SPAN.....0Hz  
 CF STEP SIZE.....40MHz  
 RES. BW.....3KHz

k. Adjust your oscilloscope controls for:


Vertical Scale.....0.01V/Div. (dc coupled)  
 Horizontal Scale.....0.1msec/Div. (internal trigger)

l. Connect the scope probe to A28TP4 ( $\Sigma$  Loop Error, see Figure 5-45).

m. Adjust A27R2 (Offset, see Figure 5-45) for an average value of 0 Vdc on the oscilloscope.

n. Press CENTER FREQUENCY . . . STEP  on the 3585A keyboard.

o. Adjust A27R11 (slope, see Figure 5-45) for an average value of 0 Vdc on the oscilloscope.

p. Press CENTER FREQUENCY . . . STEP  . Repeat steps m thru p until the voltage displayed on the oscilloscope at this time equals 0 Vdc  $\pm$  0.05V (half of one vertical division).

q. Set the 3585A controls for:

START FREQUENCY.....0Hz  
 STOP FREQUENCY.....40MHz

r. Adjust A27R2 (offset) so that the waveform displayed on the scope varies less than 150mVp-p.

s. Verify that the “FRN” and “SUM” lights on the A34 board are blinking.

t. Verify that the “SUM” light on the A34 board stays on when the cable connected to A23J2 is removed.

u. Reconnect the proper cable to A23J2 (A23J2 to A25J3).

v. This completes the First L.O. and Sum Loop Adjustments.

**5-25. Video Filter And A/D Converter Adjustments.**

a. Set the 3585A controls for:

RECALL 601  
 INSTRUMENT PRESET  
 RANGE ..... + 30dBm

b. Using short clip leads, connect A16TP1 to ground. Adjust A16R21 for a 3585A marker reading of -69.9dBm. Now adjust A16R21 so that the marker reading is -70.0dBm, which will be *just slightly* below the -69.9dBm adjustment point.

c. Remove the clip lead from A16TP1.

d. Connect A15TP1 to A15TP5 using a short clip lead.

e. Connect A DVM to A15TP1. Adjust A15R4 for a reading of  $5.000V \pm 0.001V$ .

f. Set the 3585A controls for:

dB/DIV ..... 1dB

g. Adjust A16R19 for a 3585A marker reading of +30.00dBm.

h. Remove the shorting clip between A15TP1 and A15TP5. This completes the Video Filter and A/D Converter Adjustments.

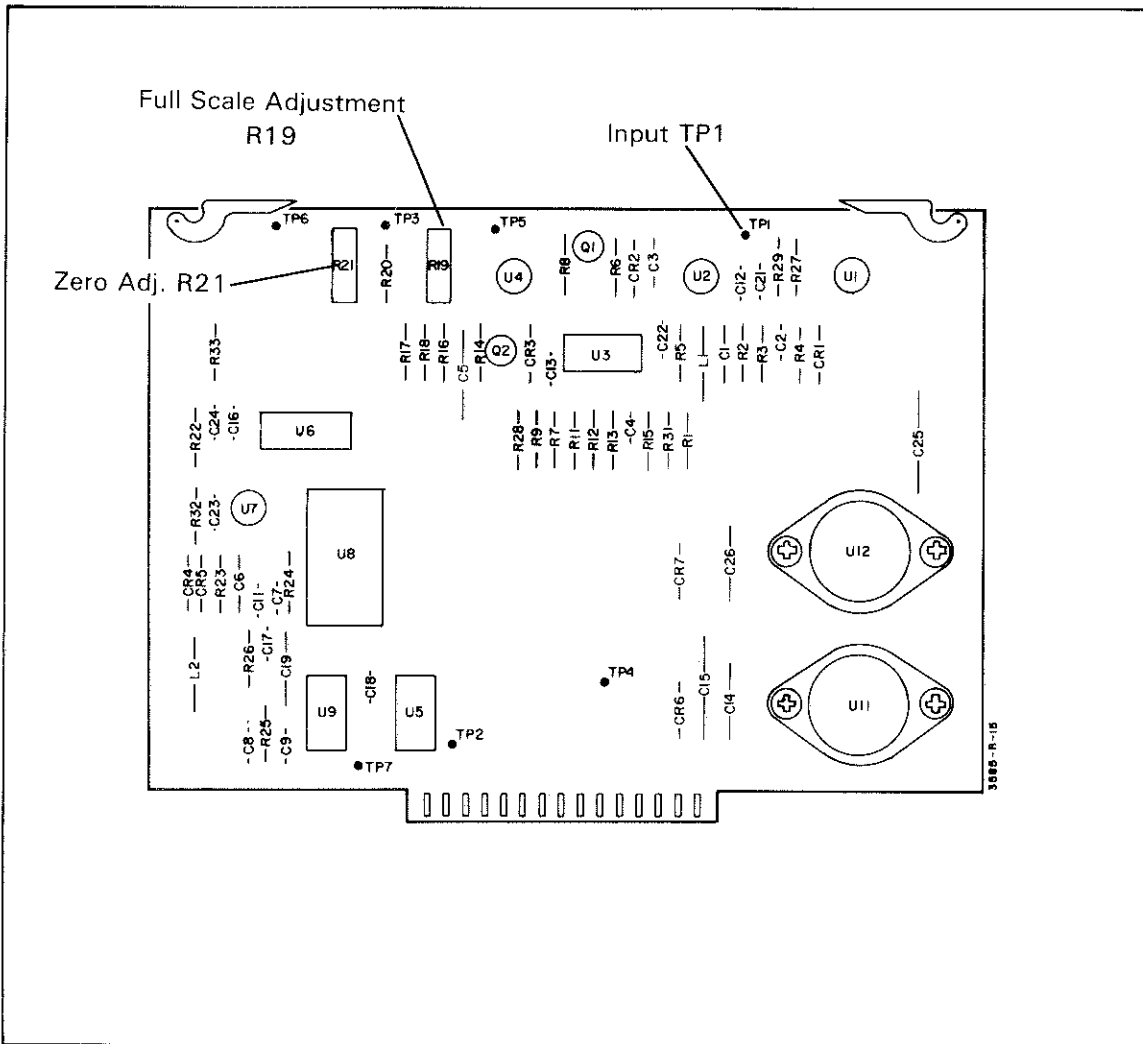


Figure 5- 22. A/D Converter Board (A16).

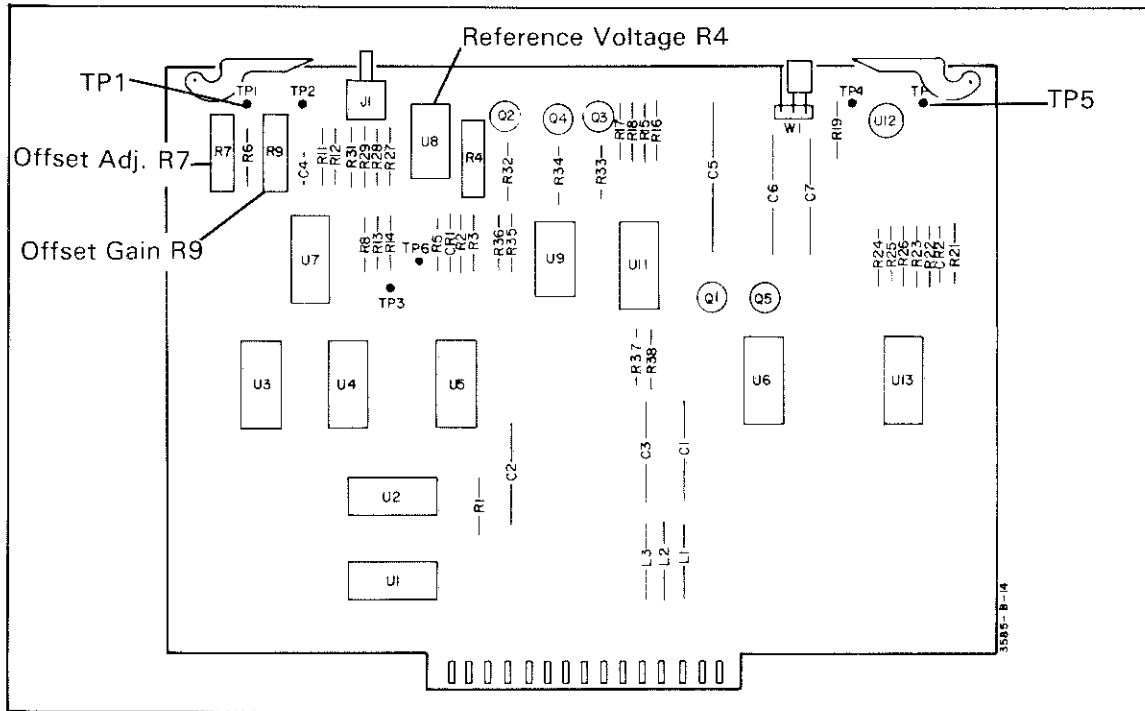


Figure 5-23. Video Filter Board.

**5-26. Log Amp And 30KHz Filter Adjustments.**

- a. Turn the 3585A power off. Remove the metal covers on the A14 thru A19 boards.
- b. Place the A14 board on a PC extender. Restore power to the 3585A.
- c. Set the 3585A controls for:

```

RECALL 601
INSTRUMENT PRESET
CENTER FREQUENCY.....350KHz
FREQUENCY SPAN.....100KHz
RES BW.....30KHz
dB/DIV ..... 1dB
MANUAL SWEEP.....on
    
```

d. Terminate the Tracking Generator output with a 50Ω feedthrough termination. Using the BNC to Sealectro adapter cable, connect the termination output to A17J1.

e. Adjust the Tracking Generator Amplitude control so that the peak of the trace is near the center of the screen.

f. Turn the 3585A COUNTER on. Once the Counter reading has stabilized press the MKR → CF key. Turn the COUNTER function off.

g. Adjust A14L5 and L7 for a maximum marker amplitude reading. Continue adjusting these inductors until no further improvement can be obtained. Look for a symmetrical wave shape and maximum amplitude when adjusting.

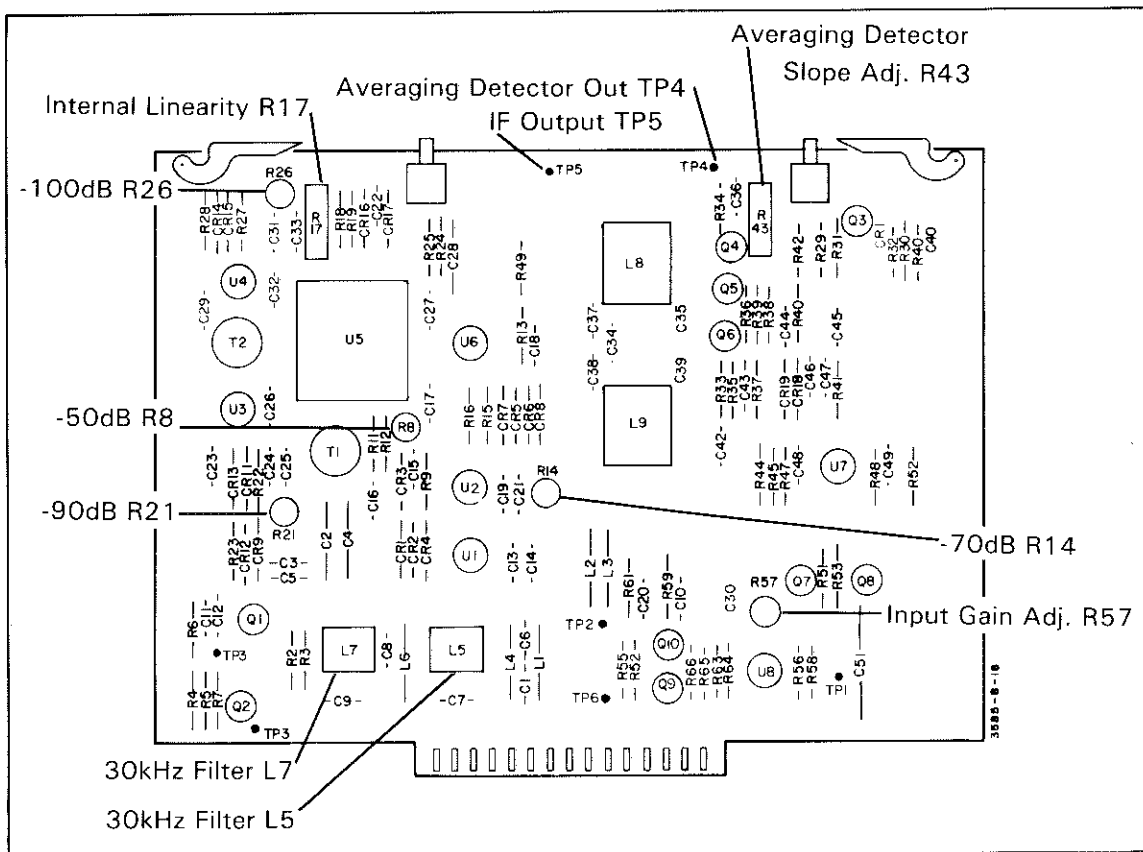


Figure 5-24. Log Amp Board.

h. Disconnect the cable from the Tracking Generator to A17J1.

i. Set the 3585A controls for:

```

RECALL 601
INSTRUMENT PRESET
CENTER FREQUENCY..... 350KHz
RANGE ..... + 30dBm
AUTORANGE ..... off
REFERENCE LEVEL..... + 27dBm
dB/DIV ..... 5dB
MANUAL SWEEP..... on
CLEAR A
    
```

j. Set the Synthesizer controls for:

```

FREQUENCY ..... 350KHz
AMPLITUDE.....-3.0dBm
    
```

k. Connect the output of the Synthesizer to a 50Ω termination. Using the BNC to Sealec-tro adapter cable, connect the output of the 50Ω termination to A17J1.

l. Using a 1:1 probe connect a high frequency ac voltmeter to A17TP2 and adjust A17R105 for a reading of 280mV RMS ± 3mV.

- m. Again using the high frequency ac voltmeter, adjust A14R57 for a reading of 270mV RMS  $\pm$  2mV at A14TP5.
- n. Disconnect the high frequency voltmeter.
- o. Measure the dc voltage at A14TP4 and adjust A14R53 for a voltage reading of -5.7Vdc  $\pm$  0.1V.
- p. Adjust A15R7 for a marker reading of +27.0dBm.
- q. Set the 3585A controls for 1dB/DIV.
- r. Again adjust A15R7 for a marker reading of +27.00dBm.

**5-27. Log Amp Slope Adjustment.**

- a. Place the A14 board in the card nest.

**NOTE**

*The Log amp linearity is affected by the card nest shielding. Therefore, the procedure for adjusting the A14 board is as follows:*

1. *Take a reading according to the instructions.*
2. *Remove the A14 board (power should remain on).*
3. *Make a slight adjustment of the specified resistor. (R43,R17,R8,R14,R21,R26)*
4. *Replace the A14 board.*
5. *Repeat until the required reading is obtained.*

- b. Set the synthesizer controls for:

FREQUENCY ..... 350KHz  
 AMPLITUDE ..... -3.0dBm

- c. Connect the 50 $\Omega$  output of the Synthesizer to a 10dB/step attenuator. Connect the output of the attenuator to a 50 $\Omega$  termination and the output of the 50 $\Omega$  termination to A11J1 using the BNC to Sealectro adapter cable. Set the attenuator for 0 dB of attenuation.

- d. Set the 3585A controls for:

RECALL 601  
 INSTRUMENT PRESET  
 CENTER FREQUENCY ..... 350KHz  
 RANGE ..... + 30dBm  
 AUTORANGE ..... off

REFERENCE LEVEL..... + 27dBm  
 dB/DIV ..... 5dB  
 MANUAL SWEEP..... on  
 OFFSET..... on  
 ENTER OFFSET

e. Check that the marker amplitude now reads .00dB. If it does not read this value, again press ENTER OFFSET.

f. Set the attenuator for 30dB of attenuation.

g. Algebraically subtract the 3585A marker amplitude reading from the corrected -30dB reading (column D, Table 5-3). Multiply the difference by three, change the polarity and record the result; \_\_\_\_dB. In formula form:

$$(\text{marker reading} + 30) \times 3 = \text{correction factor}$$

h. Set the attenuator for 0dB of attenuation.

i. Adjust A14R43 for the correction factor calculated in step g.

j. Set the 3585A controls for:

dB/DIV ..... 2dB  
 ENTER OFFSET

k. Set the attenuator for 10dB of attenuation.

l. Algebraically subtract the 3585A marker amplitude reading from the corrected -10dB reading (column D, Table 5-3). Multiply the result by ten, change the sign and record the result; \_\_\_\_dB. In formula form:

$$-(\text{marker reading} + 10) \times 10 = \text{correction factor}$$

**Table 5-3. Log Amplifier Adjustments.**

(A) Variable Attenuator	(B) Correction Factor*	(C) Ideal Reading	(D) Correct Reading	(E) Adjustment Tolerance
-30dB	_____	-30.00dB	_____ dB	± 0.05
-10dB	_____	-10.00dB	_____ dB	± 0.02
0dB**	_____	-50.0dB	_____ dB	± 0.1
-20dB**	_____	-70.0dB	_____ dB	± 0.1
-40dB**	_____	-90.0dB	_____ dB	± 0.1
-50dB**	_____	-100.0dB	_____ dB	± 0.1


\*Correction factor must be obtained from attenuator calibration data.  
 \*\*For these adjustments, the synthesizer amplitude is lowered to give the proper input level.

- m. Set the attenuator for 0 dB of attenuation.
- n. Adjust A14R17 for the correction factor calculated in step l.
- o. Repeat steps f thru n until the 3585A marker amplitude readings are  $-30\text{dB} \pm 0.05\text{dB}$  when the attenuator is set for 30dB and  $-10\text{dB} \pm 0.02\text{dB}$  when the attenuator is set for 10dB.
- p. Set the attenuator for 0 dB of attenuation.
- q. Turn the 3585A OFFSET function off.
- r. Enter: 1dB/Div.
- s. Adjust A15R7 for a marker amplitude reading of +27.00dBm.
- t. When adjusting the -50, -70, -90 and -100dB points on the Log Linearity curve it is important to have the A14 board in the card nest. To do the required adjustments simply remove the A14 board, adjust the variable resistor and replace the board in the card nest to check the results of the adjustment.
- u. Set the 3585A controls for:

```

VIDEO BW .....1Hz
dB/DIV ..... 10dB
OFFSET ..... on
ENTER OFFSET
    
```

- v. Verify that the marker amplitude reading is 0.0dB.
  - w. Set the Synthesizer controls for:
- ```

AMPLITUDE INCREMENT .....50dB
AMPLITUDE ..... 
    
```
- x. Adjust A14R8 for a 3585A marker amplitude reading of  $-50.0\text{dB} \pm 0.1\text{dB}$ .
  - y. Set the external attenuator for 20dB of attenuation.
  - z. Adjust A14R14 for a 3585A marker amplitude reading of  $-70.0\text{dB} \pm 0.1\text{dB}$ .
  - aa. Set the external attenuator for 40dB of attenuation.
  - bb. Adjust A14R21 for a 3585A marker amplitude reading of  $-90.0\text{dB} \pm 0.1\text{dB}$ .
  - cc. Set the external attenuator for 50dB of attenuation.
  - dd. Adjust A14R26 for a 3585A marker amplitude reading of  $-100.0\text{dB} \pm 0.1\text{dB}$ . This will be *just slightly* below the -99.9dB point.
  - ee. Set the external attenuator for 0 dB of attenuation. Enter AMPLITUDE . . .STEP UP on the frequency Synthesizer (synthesizer amplitude -3.0dBm).

ff. Verify that the marker amplitude reading is  $0.0\text{dB} \pm 0.1\text{dB}$ . If it is outside of the stated limits, press ENTER OFFSET and continue at step v.

gg. Verify that the voltage at A14TP4 measures  $-5.7\text{Vdc} \pm 0.1\text{V}$ .

### 5-28. Reference Level DC Offset Adjustment.

a. Using short clip leads, short A14TP4 to ground.

b. Set the 3585A controls for:

```
REFERENCE LEVEL.....-25dBm
SAVE 1
REFERENCE LEVEL.....-24.9dBm
SAVE 2
```

c. Using a DVM measure the dc voltage at A15TP5. Record the voltage reading: \_\_\_\_ V.

d. Enter RECALL 1 on the 3585A keyboard.

e. Measure the dc voltage at A15TP5. Record the reading: \_\_\_\_ V.

f. Subtract the first reading from the second reading. The difference should be 195mV. If the difference voltage is not 195mV, set the 3585A controls for:

```
RECALL 2
```

Adjust A15R9 slightly.

g. Repeat steps c thru f until the difference voltage reads 195mV.

h. Remove the shorting lead from A14TP5 to ground.

i. Set the 3585A controls for:

```
RECALL 601
INSTRUMENT PRESET
RANGE ..... + 30dBm
REFERENCE LEVEL..... + 27dBm
dB/DIV ..... 1dB
MANUAL ENTRY..... 350KHz
```

j. Check that the attenuator is set for  $0\text{dB}$  of attenuation and that the Synthesizer is set at  $-3.0\text{dBm}$ .

k. Adjust A15R7 for a marker amplitude reading of  $+27.00\text{dBm}$ .

f. Replace the metal cover on the A14 thru A16 boards and tighten down the associated screws.



Δ2 5-29. I.F. Filter Adjustments.

**NOTE**

*Use a non-metallic adjusting tool for all I.F. Filter adjustments.*

- a. Turn the 3585A power off. Remove the aluminum cover on the A17, A18 and A19 boards.
- b. Place the A19 board on a PC extender. Restore power to the 3585A.
- c. Move the test jumper A19J1 to the "T" position.

**NOTE**

*The component locators for the IF boards (A17-A19) are contained on Figure 5-34.*

- d. Set the synthesizer for a Frequency of 350KHz and an Amplitude of -2.0dBm.
- e. Remove the cable from the A17J1 connector.
- f. Connect the output of the synthesizer to a 50Ω termination. Connect the output of the termination to the A17J1 connector.
- g. Set the 3585A controls for:

```

RECALL 609
INSTRUMENT PRESET
CENTER FREQUENCY.....350KHz
CF STEP SIZE.....1.3Hz
RES. BW.....
RES. BW.....3Hz
dB/DIV ..... 1dB
MANUAL SWEEP.....on
CLEAR A

```

- h. Adjust A19C29 and A19C39 for a maximum marker amplitude reading. Adjust the REF LEVEL as necessary to keep the marker within the graticule area. (See Figure 5-25.)
- i. Press the 3585A STORE A → B key.
- j. Disconnect the synthesizer.
- k. Connect the output of the Tracking Generator to a 50Ω termination. Connect the output of the 50Ω termination to the A17J1 connector.

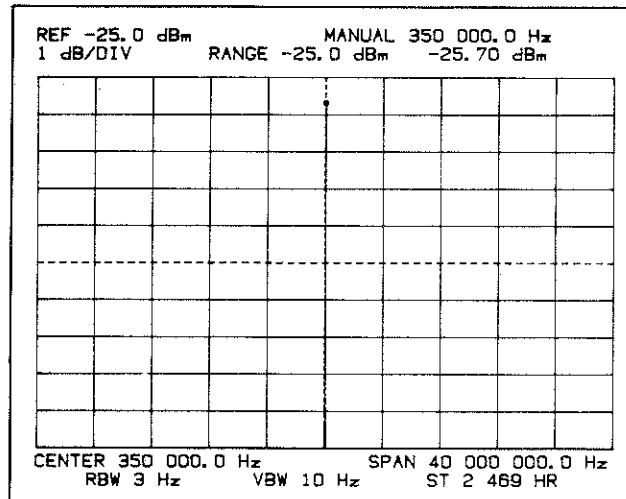


Figure 5-25. IF Adjustment Display #1.

l. Set the 3585A controls for:

FREQUENCY SPAN.....50KHz  
 RES BW.....300Hz  
 SWEEP.....cont  
 dB/DIV.....10dB

m. Move the marker to the peak of the trace and press MKR → CF.

n. Adjust A19C41 so that the displayed trace is symmetrical about the marker.

o. Using the STEP keys, start narrowing the FREQUENCY SPAN. As you narrow the span the peak of the response will move to the left or the right. When this occurs, move the marker to the peak of the response and press MKR → CF. continue narrowing the span until a frequency span of 10Hz is reached.

p. Set the 3585A controls for:

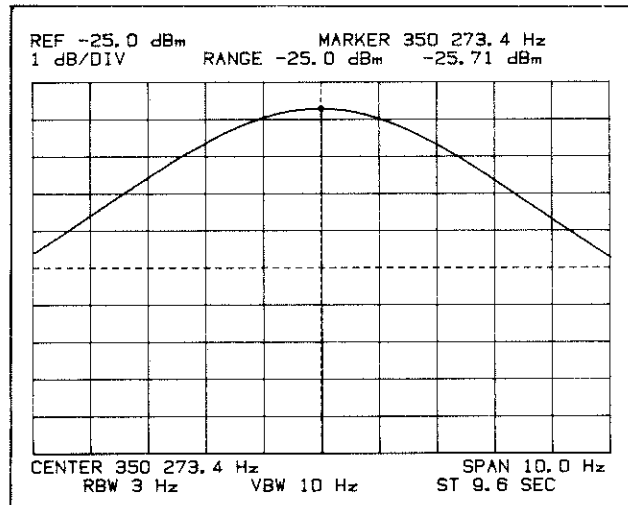
dB/DIV.....1dB  
 SWEEP TIME.....9.6sec  
 B Trace.....on

q. Move the marker to the most positive point on the trace and press MKR → CF.

r. Adjust the Tracking Generator amplitude control so that the peak of the A trace and the peak of the B trace are of equal amplitude.

s. Repeat the previous two steps until the A trace is symmetrical and equal to the amplitude of the B trace. (See Figure 5-26.)

t. Press the STORE A → B key of the 3585A. The stored trace will now serve as the reference trace for the rest of the I.F. Filter adjustments.



**Figure 5-26. IF Adjustment Display #2.**

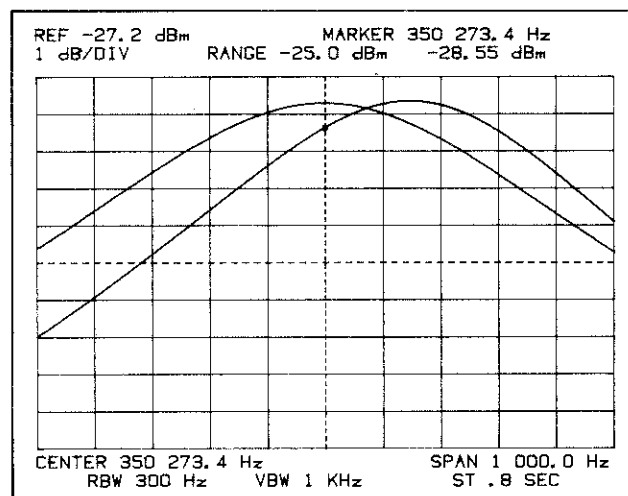
**Δ2 5-30. Fifth Crystal Stage Adjustment.**

a. DO NOT TURN THE 3585A POWER OFF. Remove the PC extender and place the A19 board in the card nest.

b. Make the following keyboard entries on the 3585A:

```
RES BW.....300Hz
RES BW HOLD.....on
FREQUENCY SPAN.....1KHz
```

c. Both the A and B traces should now be displayed as in Figure 5-27.



**Figure 5-27. Off-Center IF Stage.**

d. Press the REF LVL key of the Marker/Continuous Entry group. Using the Continuous Entry control, adjust the reference level until the peak of the A trace is equal in amplitude to the peak of the B trace.

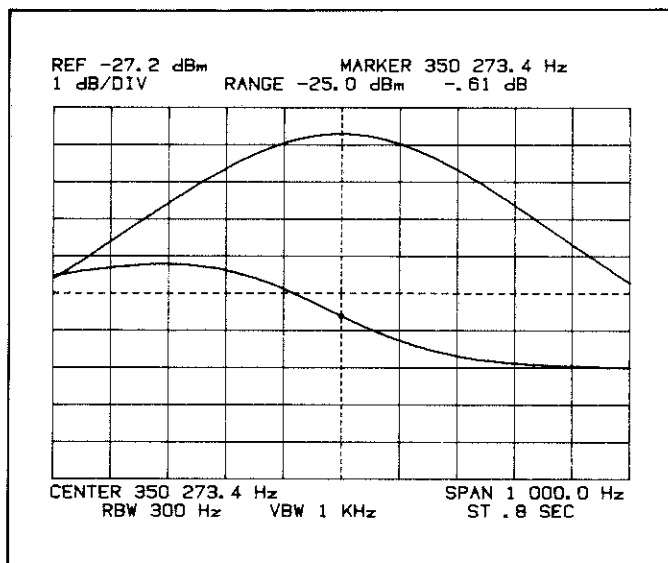


Figure 5-28. Off-Center IF Stage, A-B Mode.

e. Set the 3585A controls for:

MARKER.....on  
 A-B.....on  
 SWEEP.....cont  
 dB/DIV.....10dB

f. Adjust A19C67 so that the A trace approximates a straight, horizontal line.

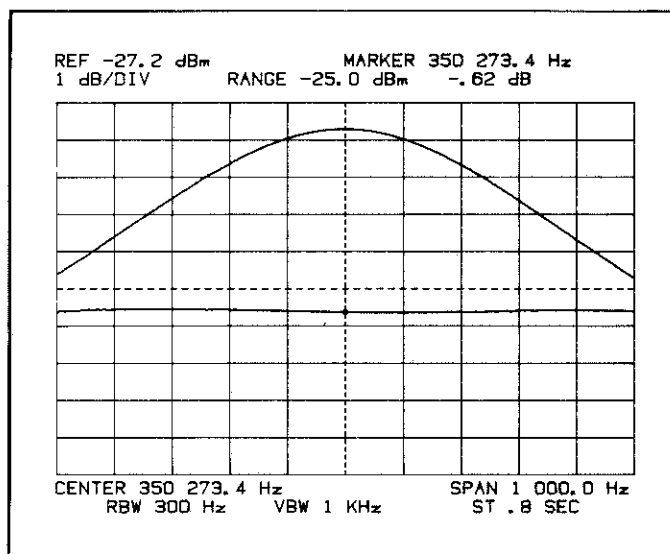
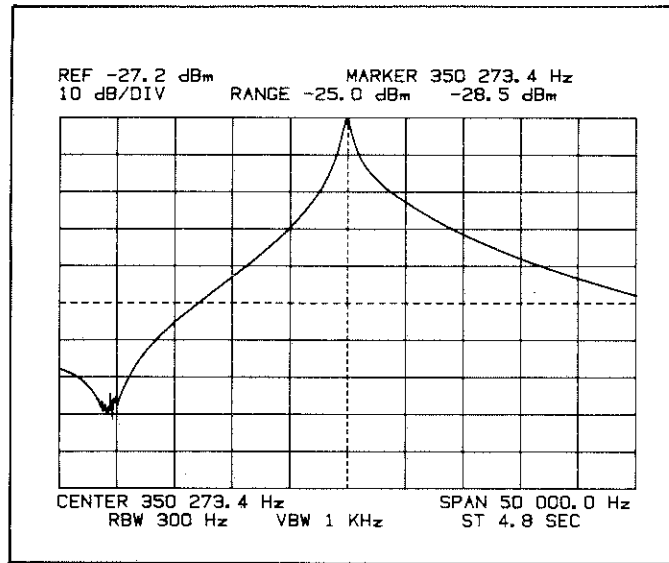


Figure 5-29. Correctly Adjusted IF Stage, A-B Mode.

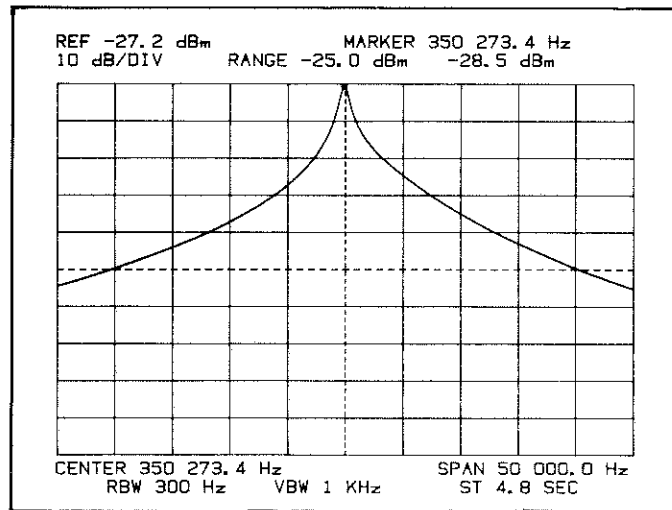
g. On the 3585A keyboard enter the following commands:

A-B.....off  
 FREQUENCY SPAN.....50KHz  
 dB/Div.....10dB



**Figure 5-30. Unsymmetrical IF Display.**

h. Adjust A19C41 for the best possible trace symmetry.



**Figure 5-31. Symmetrical IF Display.**

**Δ2 5-31. Fourth Crystal Stage Adjustment.**

- a. DO NOT TURN THE 3585A POWER OFF. Remove the A17 board. Move test jumper A19J1 to the "OP" position and test jumper A19J2 to the "T" position.
- b. Set the 3585A controls for:

FREQUENCY SPAN.....1KHz  
 RES BW.....300Hz  
 dB/DIV ..... 1dB  
 A-B ..... on

c. Adjust A19C66 so that the A trace approximates a straight, horizontal line.

d. Set the 3585A controls for:

A-B.....off  
 FREQUENCY SPAN.....50KHz  
 dB/DIV ..... 10dB

e. Adjust A19C30 for the best possible trace symmetry.

**Δ2 5-32. Fourth LC Stage Adjustment.**

a. DO NOT TURN THE 3585A POWER OFF. Place the A19 board on a PC extender.

b. Move test jumper A19J2 to the “OP” position and test jumper A19J3 to the “T” position. Check that A19J4 is in the “OP” position.

c. Enter the following 3585A keyboard settings:

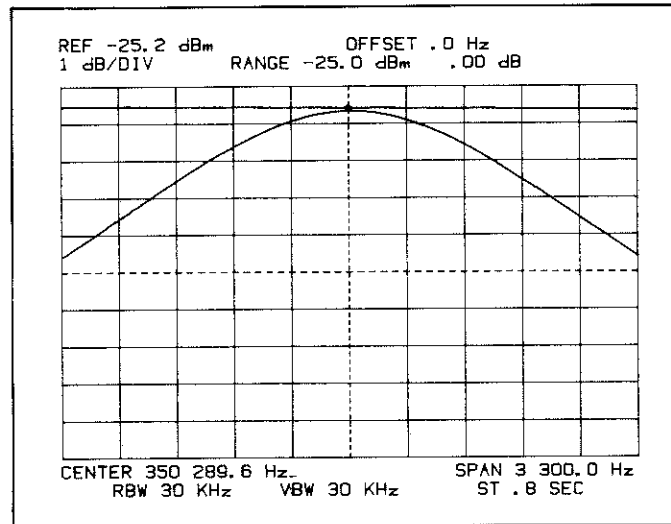
RES BW.....1KHz  
 FREQUENCY SPAN.....3.3KHz  
 dB/DIV ..... 1dB  
 A-B..... on

d. Adjust A19L5 so that the A trace approximates a straight, horizontal line.

e. Set the 3585A controls for:

A-B.....off  
 RES BW.....30KHz  
 OFFSET..... on

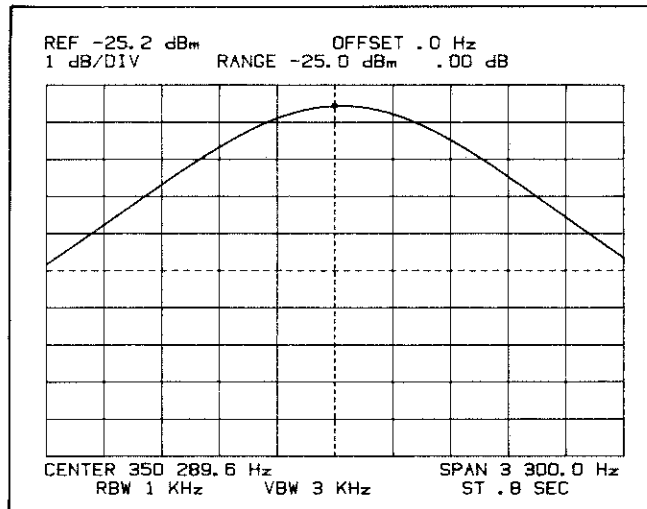
f. Allow a complete sweep to occur, then press ENTER OFFSET.



**Figure 5-32. LC Stage, 30kHz Amplitude Reference.**

g. Enter a RES BW of 1KHz on the 3585A.

h. Adjust A19R28 so that the marker amplitude reading equals .00dB.



**Figure 5-33. LC Stage, 1kHz Amplitude Adjustment.**

**Δ2 5-33. Fifth LC Stage Adjustment.**

a. Move test jumper A19J3 to the “OP” position and test jumper A19J4 to the “T” position.

b. Enter the following 3585A keyboard settings:

```

OFFSET ..... off
FREQUENCY SPAN.....3.3KHz
A-B ..... on
    
```

c. Adjust A19L4 so that the A trace approximates a straight, horizontal line.

d. Set the 3585A controls for:

```

A-B.....off
RES BW.....30KHz
OFFSET ..... on
    
```

e. Allow a complete sweep to occur, then press ENTER OFFSET.

f. Set the 3585A controls for a RES BW of 1KHz.

g. Adjust A19R20 for a marker amplitude reading of .00dB.

h. Move test jumper A19J4 to the “OP” position.



**Δ2 5-34. Third Crystal Stage Adjustment.**

a. DO NOT TURN THE 3585A POWER OFF. The stored trace and center frequency information must not be lost when the A17 or A18 boards are placed on PC extenders.

b. Leaving the 3585A power on, remove the A18 board, A19 board and the PC extender from the instrument.

- c. CAREFULLY put the A19 board back in the correct slot of the card nest.
- d. Being careful not to short the PC connector pins together, insert the PC extender in the A18 board position of the card nest.
- e. Place the A18 board on the PC extender.
- f. Check that the B trace is still intact. The A trace may have glitches on it, but this does not cause a problem. If the B trace information is good, proceed with the adjustments. If the B trace has been lost or altered, go back to the beginning of the I.F. filter adjustment and complete all the adjustments up to Fifth Crystal Filter Adjustment. This will re-establish your reference trace. You may then continue at the Third Crystal Stage Adjustment.
- g. Enter the following 3585A keyboard settings:



```

OFFSET ..... off
CF STEP SIZE ..... 1.2Hz
RES BW .....  
RES BW ..... 300Hz
FREQUENCY SPAN ..... 1KHz
dB/DIV ..... 1dB

```

- h. Adjust A18L6 for the maximum possible marker amplitude reading.
- i. **DO NOT TURN THE 3585A POWER OFF.** Remove the A18 board and the PC extender. Replace the A18 board in the card nest.
- j. Enter the following 3585A keyboard setting:

```

RES. BW .....  
A-B ..... on

```

- k. Adjust A18L4 so that the A trace approximates a straight, horizontal line.
- l. Set the 3585A controls for:

```

A-B ..... off
FREQUENCY SPAN ..... 50KHz
dB/DIV ..... 10dB

```

- m. Adjust A18C24 for the best possible trace symmetry.
- n. Set the 3585A controls for:

```



MANUAL SWEEP ..... on
dB/DIV ..... 1dB
OFFSET ..... on
ENTER OFFSET
CLEAR A

```



**Δ1 5-35. Third LC Stage Adjustment.**

- a. DO NOT TURN THE 3585A POWER OFF. Place the A18 board on a PC extender.
- b. Set the 3585A controls for:

```
RES. BW .....  
SWEEP ..... Cont
RES BW ..... 1KHz
FREQUENCY SPAN ..... 3.3KHz
A-B ..... on
```



- c. Adjust A18L5 so that the A trace approximates a straight, horizontal line.
- d. Enter the following 3585A keyboard settings:

```
A-B ..... off
RES BW ..... 30KHz
OFFSET ..... on
```

- e. Allow time for a complete sweep to occur, then press ENTER OFFSET.
- f. Set the 3585A controls for a RES BW of 1KHz.
- g. Adjust A18R15 for a marker amplitude reading of .00dB.

**Δ2 5-36. Second Crystal Stage Adjustment.**

- a. DO NOT TURN THE 3585A POWER OFF.
- b. Remove the A17 board, A18 board and the PC extender from the instrument.
- c. CAREFULLY put the A18 board back in the correct slot of the card nest.
- d. Move test jumper A17J4 to the “T” position and place the A17 board on the PC extender.
- e. Check that the B trace is still intact. The A trace may have glitches on it, but this does not cause a problem. If the B trace information is good, proceed with the adjustments. If it has been lost or altered, go back to the beginning of the I.F. Filter Adjustments and complete all the adjustments up to the Fifth Crystal Stage Adjustment. This will re-establish your reference trace. You may then continue at the Second Crystal Stage Adjustment.
- f. Set the 3585A controls for:

```
CF STEP SIZE ..... 1.1Hz
RES BW .....  
RES BW ..... 300Hz
FREQUENCY SPAN ..... 1KHz
dB/DIV ..... 1dB
A-B ..... on
```

g. Adjust A17C71 so that the A trace approximates a straight, horizontal line.



h. Enter the following 3585A keyboard settings:

```
A-B..... off
FREQUENCY SPAN..... 50KHz
dB/DIV ..... 10dB
```

i. Adjust A17C39 for the best possible trace symmetry.

j. DO NOT TURN THE 3585A POWER OFF. Remove the A17 board and place it on a PC extender.

k. Enter:



```
RES. BW.....  
dB/DIV ..... 1dB
FREQUENCY SPAN..... 1kHz
```

l. Adjust A17L8 for the maximum possible marker amplitude.

#### **Δ2 5-37. First Crystal Stage Adjustment.**

a. DO NOT TURN THE 3585A POWER OFF. Move test jumper A17J4 to the “OP” position and test jumper A17J5 to the “T” position. Remove the PC extender and replace the A17 board back in the card nest.

b. Set the 3585A controls for:

```
RES. BW.....  
FREQUENCY SPAN..... 1KHz
dB/DIV ..... 1dB
A-B ..... on
```

c. Adjust A17C70 so that the A trace approximates a straight, horizontal line.

d. Set the 3585A controls for:



```
A-B..... off
FREQUENCY SPAN..... 50KHz
dB/DIV ..... 10dB
```

e. Adjust A17C29 for the best possible trace symmetry.

#### **Δ2 5-38. Second LC Stage Adjustment.**

a. DO NOT TURN THE 3585A POWER OFF. Remove the A17 board and place it on a PC extender. Move test jumper A17J5 to the “OP” position and test jumper A17J2 to the “T” position.

b. Set the 3585A controls for:

```
RES BW.....
RES BW.....1KHz
FREQUENCY SPAN.....3.3KHz
dB/DIV ..... 1dB
A-B ..... on
```

c. Adjust A17L5 so that the A trace approximates a straight, horizontal line.

d. Set the 3585A controls for:

```
A-B.....off
RES BW.....30KHz
OFFSET.....on
```

e. Allow a complete sweep to occur, then enter:

```
ENTER OFFSET
RES BW.....1KHz
```

f. Adjust A17R20 for a marker amplitude reading of .00dB.

**Δ2 5-39. First LC Stage Adjustment.**

a. Move test jumper A17J2 to the “OP” position and test jumper A17J3 to the “T” position.

b. Set the 3585A controls for:

```
FREQUENCY SPAN.....3.3KHz
dB/DIV ..... 1dB
A-B ..... on
```

c. Adjust A17L4 so that the A trace approximates a straight, horizontal line.

d. Set the 3585A controls for:

```
A-B.....off
RES BW.....30KHz
OFFSET.....on
```

e. Allow a complete sweep to occur, then enter:

```
ENTER OFFSET
RES BW.....1KHz
```

f. Adjust A17R12 for a marker amplitude reading of .00dB.

g. Move test jumper A17J3 to the “OP” position. Check that all test jumpers on the A17 board are in the “OP” position.

- h. Turn the 3585A power off. Remove the A17 board from the PC extender and replace it in the card nest.
- i. Replace the metal cover over the A17 - A19 boards. Insert and tighten down all screws that hold down the cover. Restore power to the 3585A.

#### Δ2 5-40. Final I.F. Filter Adjustments.

##### NOTE

*Make the following I.F. adjustments only after the I.F. board cover is properly screwed down.*

- a. Set the synthesizer controls for:

FREQUENCY ..... 350KHz  
 AMPLITUDE ..... -2.0dBm

- b. Connect the output of the synthesizer to a 50Ω termination. Connect the output of the termination to the A17J1 connector.



- c. Set the 3585A controls for:

RECALL 609  
 INSTRUMENT PRESET  
 CF STEP SIZE ..... 1.1Hz  
 RES BW ..... 3Hz  
 MANUAL SWEEP ..... on  
 dB/DIV ..... 1dB  
 CLEAR A

- d. Adjust A17C27 for the maximum possible marker amplitude reading. Adjust the REF LEVEL as necessary to keep the marker below the top of the screen.



- e. Adjust A17C37 for the maximum possible marker amplitude reading.

- f. Set the 3585A controls for:

CF STEP SIZE ..... 1.2Hz  
 RES BW .....  

- g. Adjust A18C22 for the maximum possible marker amplitude reading.

- h. Set the 3585A controls for:

CF STEP SIZE ..... 1.3Hz  
 RES BW .....  

- i. Adjust A19C28 and A19C39 for the maximum possible marker amplitude reading.

j. Set the 3585A controls for:

```

RECALL 601
INSTRUMENT PRESET
MANUAL SWEEP.....on
dB/DIV ..... 1dB
CLEAR A
OFFSET ..... on
ENTER OFFSET
RES BW.....300Hz
    
```

k. Adjust the REF LEVEL as necessary to keep the marker below the top of the screen.

l. Adjust A17R26 for a .00dB marker reading.

m. Enter RES BW Step  on the 3585A keyboard.

n. Adjust A17R28 for a .00dB marker reading.

o. Enter RES BW Step  on the 3585A keyboard.

p. Adjust A17R30 for a .00dB marker reading.

q. Enter RES BW Step  on the 3585A keyboard.

r. Adjust A17R32 for a .00dB marker reading.

s. Enter RES BW Step  on the 3585A keyboard.

t. Adjust A17R34 for a .00dB marker reading.

**Δ2 5-41. 16dB Amplifier Adjustment.**

a. Disconnect the synthesizer from the A17J1 connector.

b. Connect the Tracking Generator output to a 10dB/step attenuator. Connect the 10dB/step attenuator to a 1dB/step attenuator and place a 50Ω termination on the output of the 1dB/step attenuator. Connect the output of the termination to the A17J1 connector.

c. Set the 3585A controls for:

```

INSTRUMENT PRESET
CENTER FREQUENCY.....350KHz
FREQUENCY SPAN.....100KHz
RES BW.....10KHz
dB/DIV ..... 2dB
MANUAL SWEEP..... on
RANGE.....-25dBm
REFERENCE LEVEL.....-28dBm
    
```

d. Adjust the Tracking Generator amplitude for a marker amplitude reading of -28.00dBm.

e. Set the 3585A controls for:

OFFSET ..... on  
ENTER OFFSET

f. Set the external attenuators for 16dB of attenuation.

g. Set the 3585A REFERENCE LEVEL to -44dBm.

h. Adjust A18R77 for an offset marker amplitude reading of -16.00dB.

i. Set the external attenuators for 32dB of attenuation.

j. Set the 3585A REFERENCE LEVEL to -60dBm.

k. Adjust A18R71 for an offset marker amplitude reading of -32.00dBm.

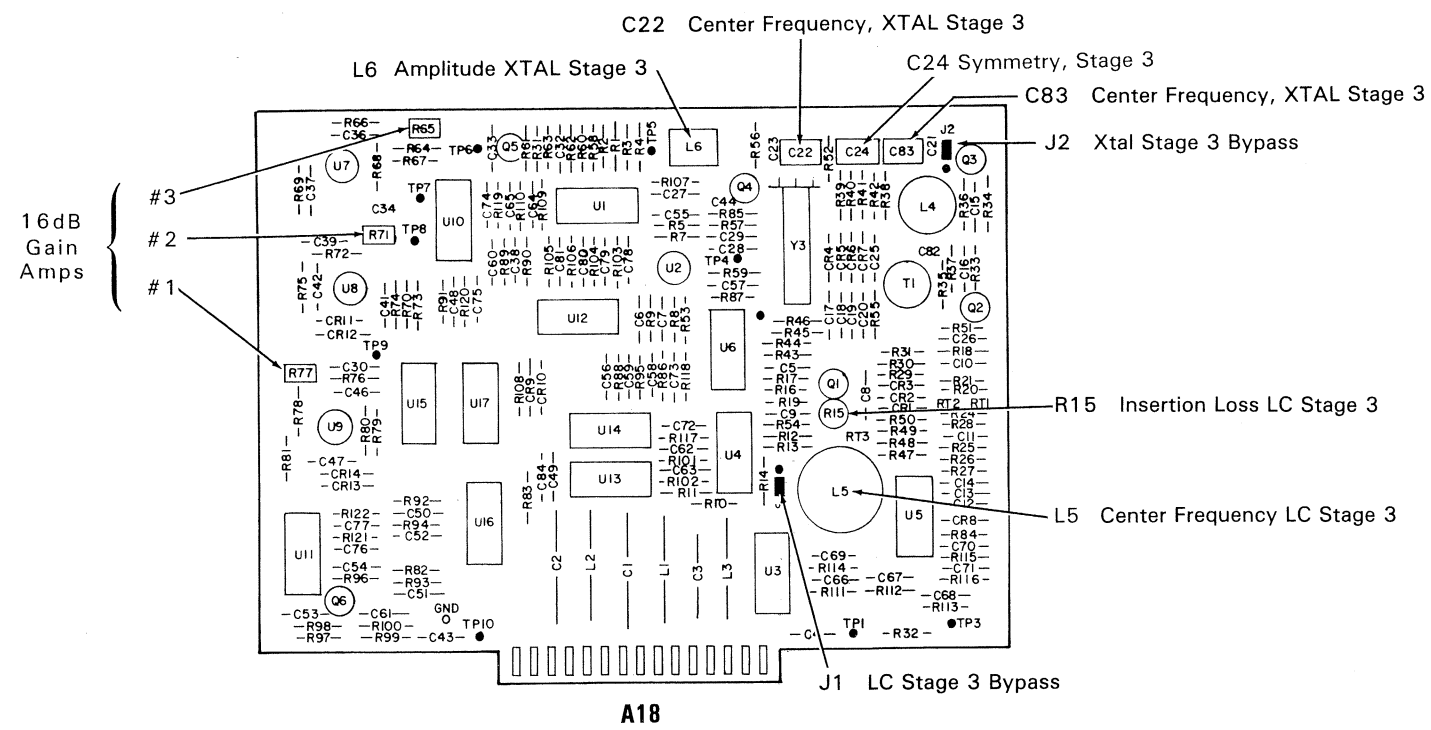
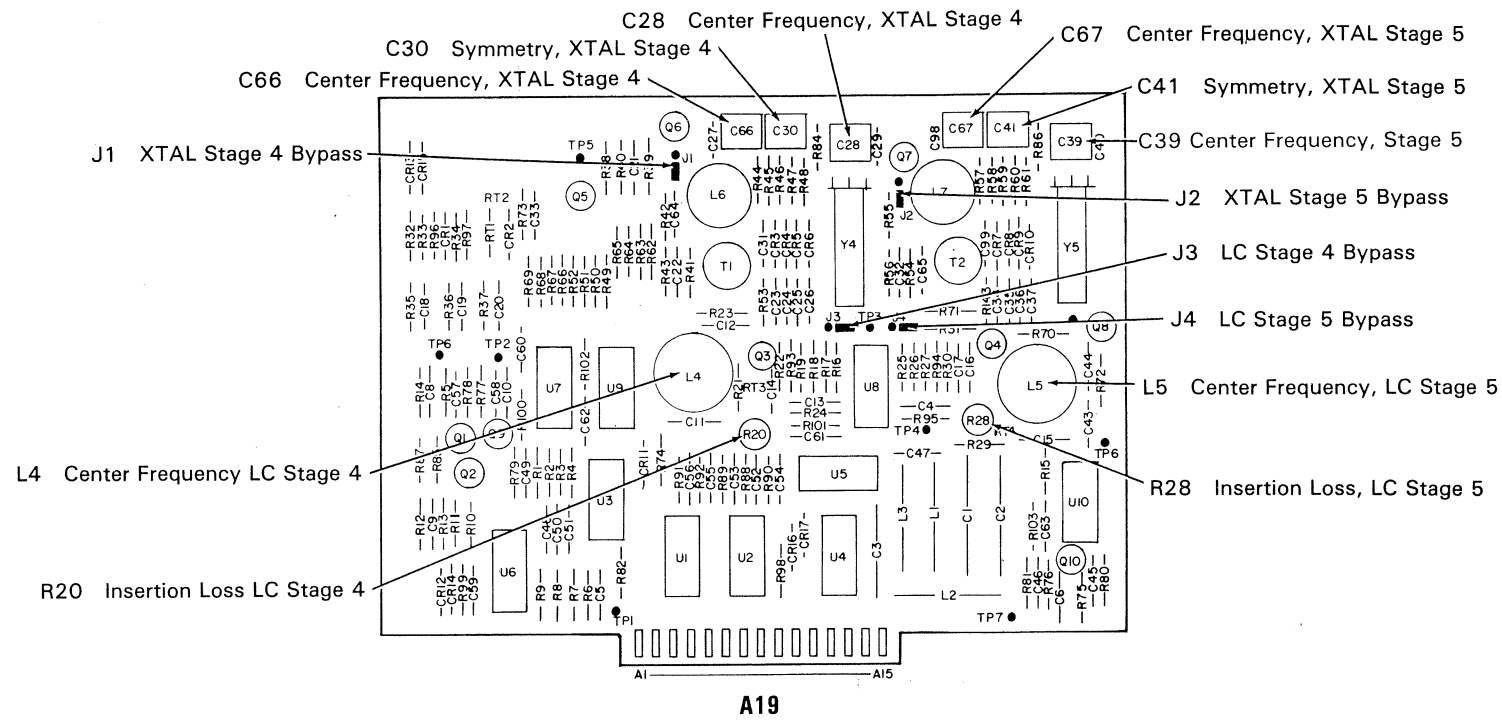
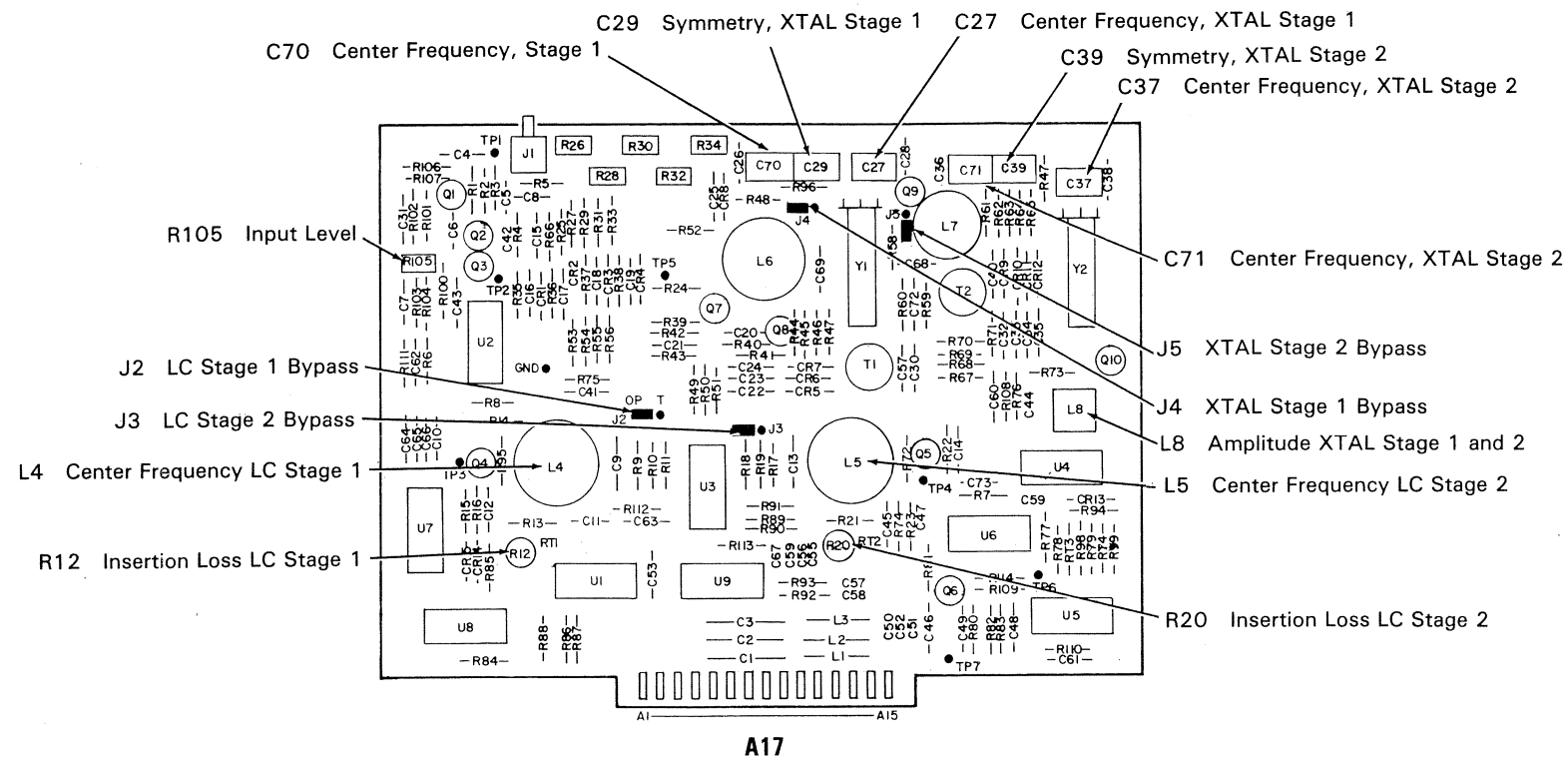


Figure 5-34. IF Boards (A17-A19).  
5-49/5-50

- l. Set the external attenuators for 48dB of attenuation.
- m. Set the 3585A REFERENCE LEVEL to -76dBm.
- n. Adjust A18R65 for an offset marker amplitude reading of -48.00dB.
- o. Disconnect the Tracking Generator from A17J1. Reconnect the cable from A6CJ1 to A17J1.

#### 5-42. CONVERSION SECTION ADJUSTMENTS.

5-43. This section adjusts the filters associated with the first, second and third mixers. These filters are of two basic types, peak and notch. Peak filters will be adjusted for a maximum amplitude and notch filters for a minimum.

#### NOTE

*The Source used for these adjustments must be frequency locked to the 3585A with the 10MHz REF OUTPUT.*

#### NOTE

*All top, bottom and side screws on the input section must be in place and tight before making these adjustments.*

- a. Turn the 3585A power off.
- b. Set the 3585A on its left side and remove the bottom cover.
- c. Adjustment of the Conversion Section requires its removal from the instrument; therefore, disconnect all cables connected to the Input/Conversion Section.
- d. Collect a stack of books approximately eight inches high. This stack of books will be used as a support for the Input/Conversion Section.
- e. Place the stack of books in the position shown in Figure 5-35. Be careful not to touch the high voltage section.
- f. Remove the seven screws which hold the Input/Conversion Section in the instrument.
- g. Carefully remove the input section by moving it toward the rear of the instrument until the input connectors clear the front panel.
- h. Place the Input/Conversion Section on the stack of books, bottom side down (Conversion side up).
- i. Connect a Spectrum Analyzer to the A50J1 90MHz output with the BNC-to-Sealelectro adapter cable. This output is located on the bottom side of the Tracking Generator Motherboard.
- j. Verify that the 90MHz output level is  $+15\text{dBm} \pm 3\text{dB}$ .



- k. Connect the Spectrum Analyzer to the A50J2 10MHz output. This output is also located on the bottom of the Tracking Generator Motherboard.
- l. Verify that the 10MHz output level is  $+18\text{dBm} \pm 3\text{dB}$ .
- m. Reconnect all cables to the Input/Conversion Section.
- n. Turn the 3585A power on.
- o. Check that the instrument down ranges to the  $-25\text{dBm}$  Range with no input signal.
- p. Press the INSTRUMENT PRESET key of the 3585A.
- q. Connect an Ohmmeter to the  $50\Omega$  input. Ground lead to the outer shell of the  $50\Omega$  input connector and the ohms lead to the center pin of the input connector.
- r. The Ohmmeter should now read  $50\Omega \pm 2\Omega$ .
- s. Press the  $1\text{M}\Omega$  Impedance key. This action terminates the input with a  $50\Omega$  load.
- t. The Ohmmeter should now read  $50\Omega \pm 2\Omega$ . (This reading should be slightly different than the previous  $50\Omega$  reading.)
- u. Press the  $75\Omega$  Impedance key on the 3585A.
- v. The Ohmmeter should now read  $75\Omega \pm 2\Omega$ .
- w. Press the  $1\text{M}\Omega$  Impedance key. This action terminates the input with a  $75\Omega$  load.
- x. The Ohmmeter should now read  $75\Omega \pm 2\Omega$ . (This reading should be slightly different than the previous  $5\Omega$  reading.)
- y. Set the 3585A controls for:

```

RECALL 601
INSTRUMENT PRESET
MANUAL ENTRY.....9MHz
dB/DIV ..... 1dB

```

- z. Set the synthesizer controls for:

```

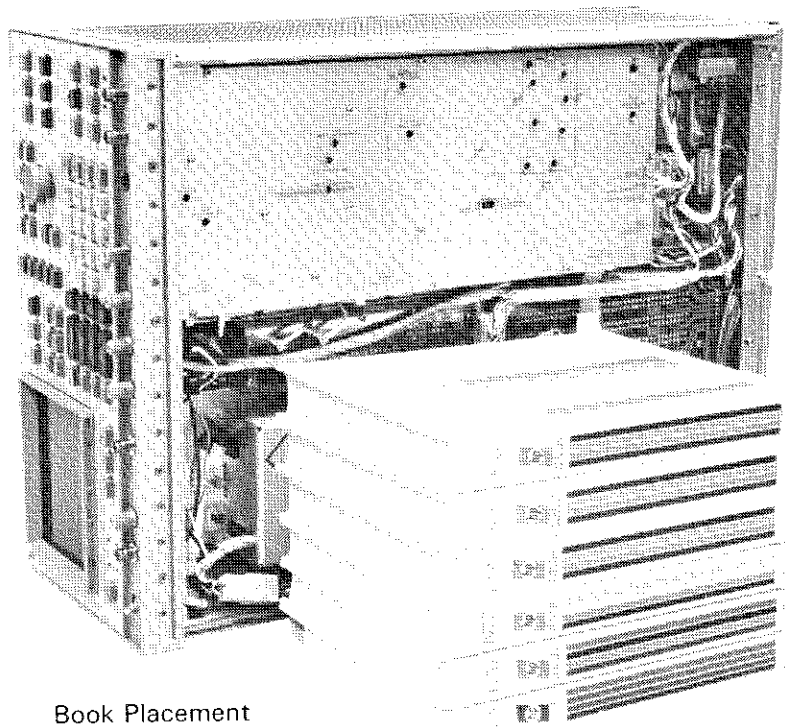
FREQUENCY.....9MHz
AMPLITUDE ..... 0dBm

```

- aa. Connect the synthesizer output to the 3585A  $50\Omega$  input.

#### NOTE

*Use a non-metallic adjusting tool for all Conversion section adjustments.*



Book Placement

Conversion Section In Position For Adjustment

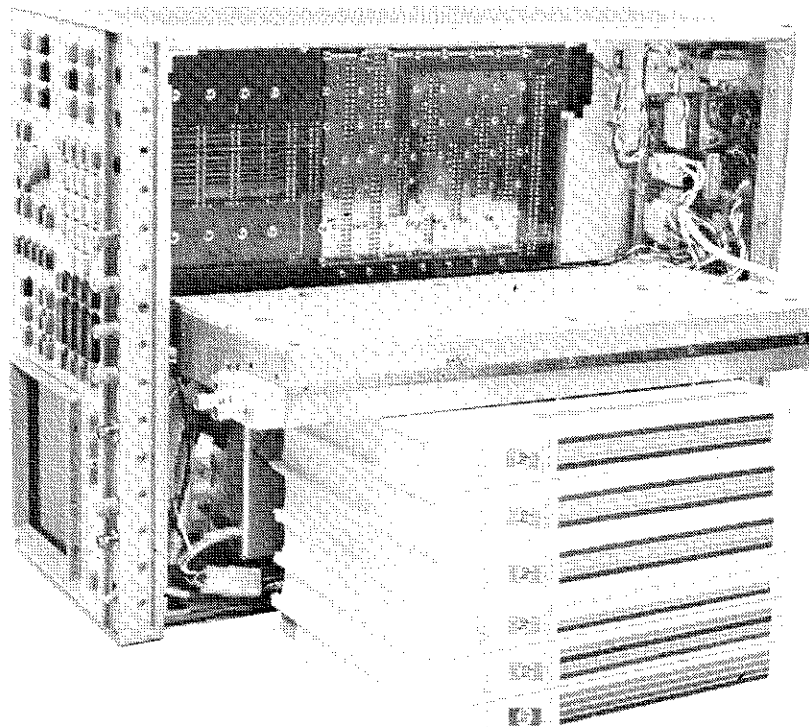
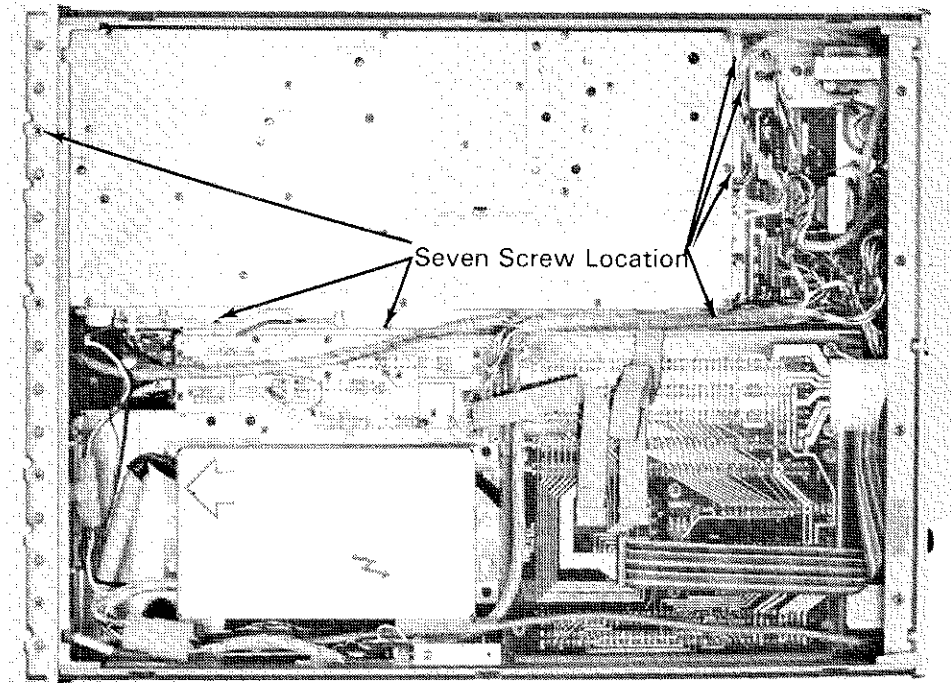
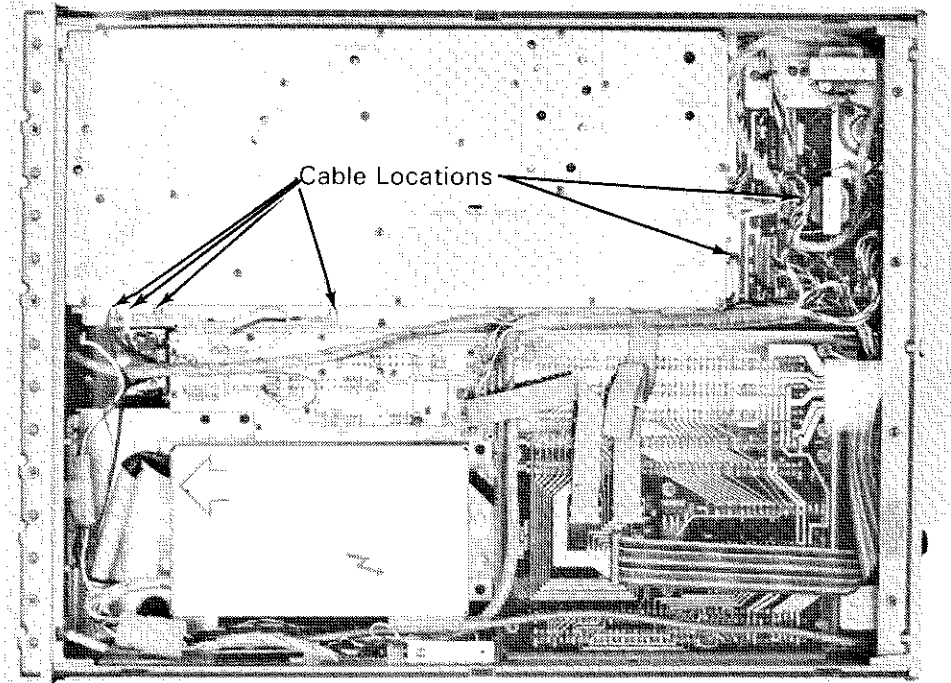
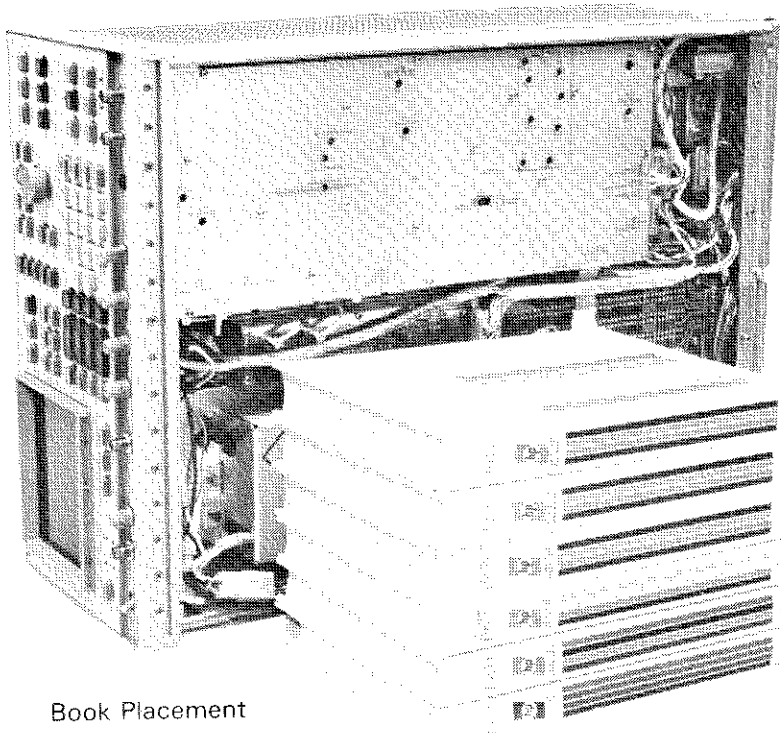


Figure 5-35. Removal Of The Input/Conversion Section.  
5-53/5-54





Book Placement

Conversion Section In Position For Adjustment

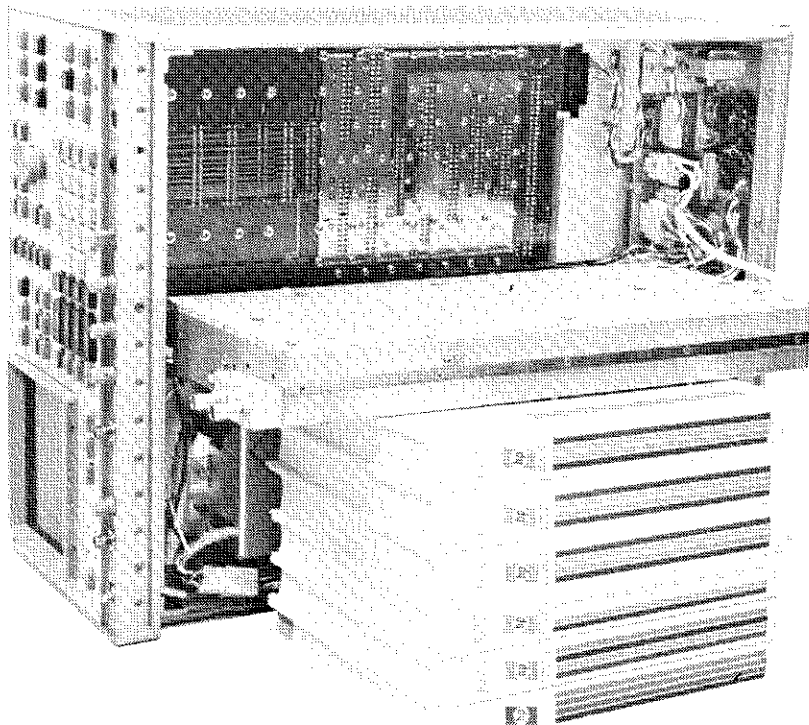


Figure 5-35. Removal Of The Input/Conversion Section.  
5-53/5-54

**NOTE**

*When more than one component is called out for adjustment in any given step, adjust them in the order listed.*

**NOTE**

*Figure 5-45 shows the location of the Input/Conversion section adjustments.*

- bb. Adjust the REF LEVEL as necessary to keep the marker near the center of the screen.
- cc. Adjust the 100.35MHz Passband Filter using A3L7, L5, L3 and L1. Adjust for the maximum marker amplitude possible.
- dd. Adjust the 10.35MHz Passband Filter using A5L6, L4, L2 and A4L7. Adjust these controls for the most positive marker amplitude reading possible.
- ee. Set the 3585A controls for:

CENTER FREQUENCY.....8.3MHz  
 RANGE.....-10dBm  
 dB/DIV..... 10dB  
 MANUAL SWEEP..... on  
 RES BW.....100Hz  
 VIDEO BW.....1Hz

- ff. Adjust the Stopband of the 10.35MHz Filter using A5L5, L3 and L1. Adjust for a *minimum* marker amplitude reading. Adjustment should yield a marker amplitude reading less than -95dBm.

- gg. Set the 3585A controls for:

PRESET (RBW-VBW-ST)  
 CENTER FREQUENCY.....9MHz  
 MANUAL SWEEP..... on  
 RANGE..... 0dBm  
 dB/DIV..... 1dB  
 CLEAR A

- hh. Adjust the 350kHz filter using A5T3 and T4. Adjust for a maximum marker amplitude reading.
- ii. Move test jumper A2J5 to the “TEST” position.
- jj. Adjust the REFERENCE LEVEL as necessary to keep the marker near midscreen.
- kk. Adjustment of the first half of the 100.35MHz Passband Filter is accomplished using A2L7, L8, L11 and L12. Adjust these components for a maximum marker amplitude reading. A2L7 and L8 are bendable wire inductor adjustments.

- ll. Move test jumper A2J5 back to the "NORM" position.
- mm. Adjust the REFERENCE LEVEL as necessary to keep the marker near midscreen.
- nn. Set the synthesizer for a FREQUENCY of 33MHz.
- oo. Set the 3585A controls for:

MANUAL ENTRY.....12.3MHz  
 dB/DIV ..... 10dB  
 RES BW.....100Hz  
 VIDEO BW.....1Hz  
 RANGE.....-10dBm

pp. Adjust A3L2 and C8 for a minimum marker amplitude reading. Proper adjustment will yield a marker amplitude reading of less than -95dBm.

- qq. Set the 3585A controls for:

PRESET (RBW-VBW-ST)  
 MANUAL ENTRY.....33MHz  
 RANGE ..... 0dBm  
 dB/DIV ..... 1dB

- rr. Adjust the REFERENCE LEVEL as necessary to keep the marker near midscreen.
- ss. Adjust A3L7, L5, L3 and L1 for a maximum marker amplitude reading. Adjust this group of inductors several times to insure that the peak of the 100.35MHz filter has been obtained. (If necessary adjust the Reference Level to keep the marker on screen.)

#### Δ1 NOTE

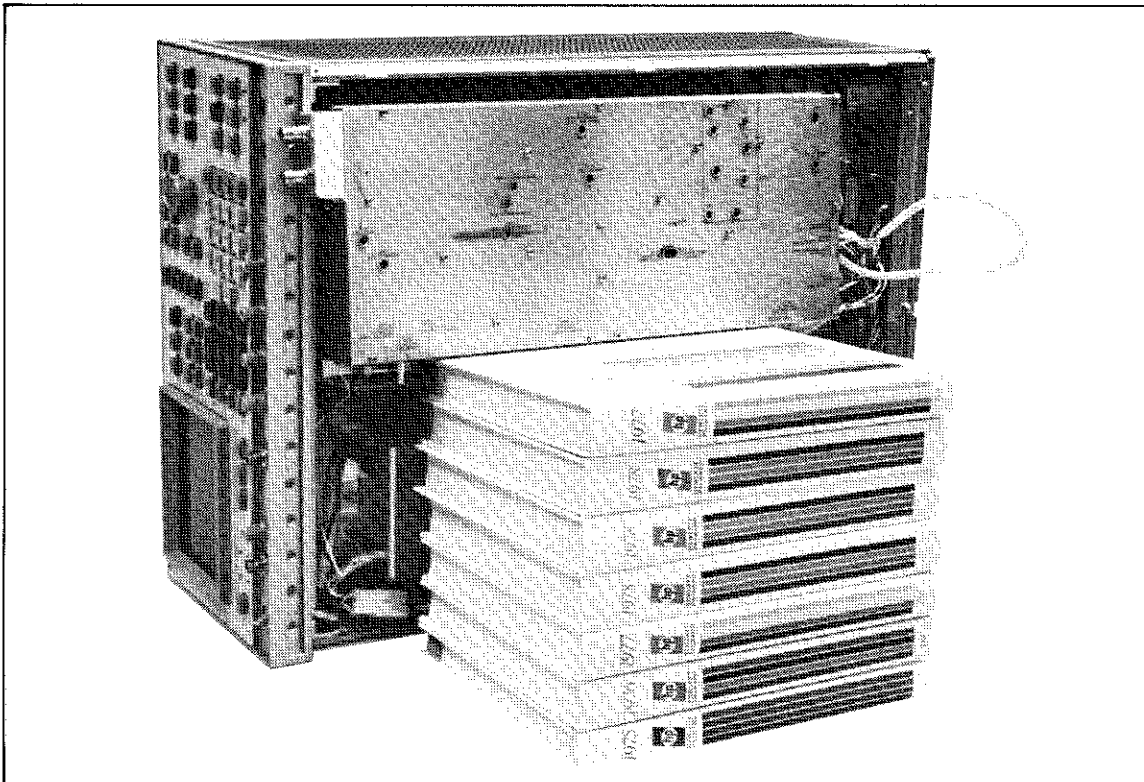
**Do not adjust A4C2 and C3 (steps tt thru xx) unless repairs have been made on the A4 board.**

- Δ1 tt. Using a 20:1, 1KΩ resistive probe (-hp- 10020A) and a Spectrum Analyzer, place the probe tip on the exposed portion of A4C3. The 90MHz IF signal is available on this portion of C3.
- Δ1 uu. Adjust A4C2 for a maximum amplitude on the Spectrum Analyzer.
- Δ1 vv. Observe the amplitude on the Spectrum Analyzer. Remove the probe from A4C3.
- Δ1 ww. Adjust A4C3 slightly. Place the probe tip on A4C3 and check the amplitude. Continue adjusting A4C3 until a maximum amplitude response is obtained.
- Δ1 xx. This complete the Conversion Section Adjustments.

**5-44. INPUT SECTION.**

5-45. This section contains procedures to make the required adjustments on the Input board. These adjustments include Calibrator Symmetry, Input flatness, Autorange trip points, Calibrator Output Level, 1MΩ flatness, Amplitude and Input capacitance, LO Feed-through and Harmonic Distortion.

- a. Being careful not to harm any of the cables connected to the Input/Conversion Section, turn the Input box on its side so that the bottom (Input Section, A1 board) is accessible (see Figure 5-36.).



**Figure 5-36. Input/Conversion Box Positioning For Adjustment.**

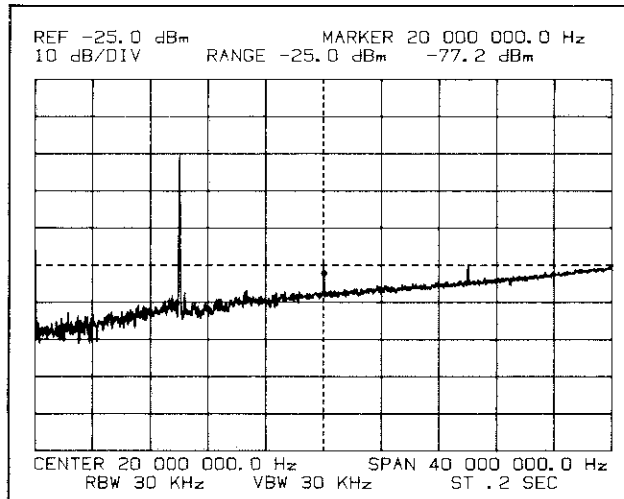
**5-46. Calibrator Symmetry Adjustment.**

- a. Set the 3585A controls for:

```

RECALL 605
INSTRUMENT PRESET
RANGE.....-25dBm
AUTORANGE..... off
    
```

- b. Remove the cable from A1J3.
- c. Slowly replace the cable until a display similar to figure 5-37 is obtained. When this display is obtained, do not push the cable in any further.
- d. Adjust the CAL SYMMETRY control, R52, for the maximum possible marker amplitude.



**Figure 5-37. Calibrator Symmetry Adjustment (A2R52).**

e. Push the cable completely onto A1J3. check that a display similar to Figure 5-38 is obtained.

**NOTE**

*If the instrument passes the Calibrator Accuracy test in the Performance Test section, go on to paragraph 5-47. Only if the Calibrator Accuracy Test has failed and you are certain your source is not at fault should you perform the following steps.*

f. Using the results of the Calibrator Accuracy Test, determine if the 40MHz point is higher or lower than the 10MHz point.

g. Select a new A1C50\* from the list below. Choose a smaller value to raise the 40MHz point and a larger value to lower the 40MHz point. (This capacitor affects the Calibrator's frequency response above 20MHz.)

| Capacitor Value | -hp- Part Number |
|-----------------|------------------|
| 10pf            | 0160-2257        |
| 12pf            | 0160-2259        |
| 16pf            | 0160-2262        |

h. Remove the Input/Conversion box from the 3585.

i. Remove the cover on the Input board side.

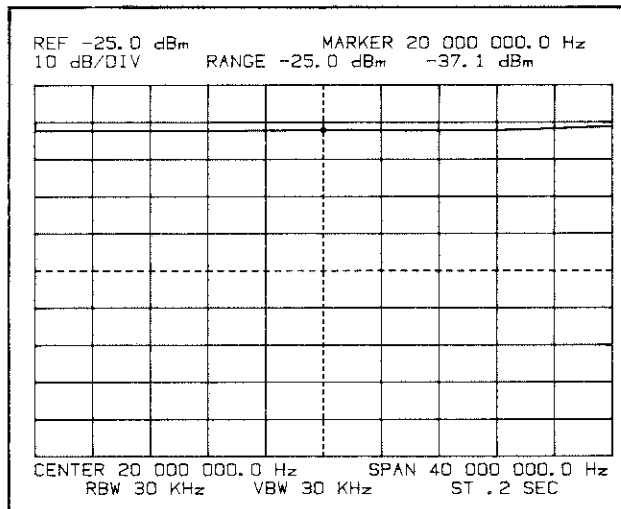
j. Replace A1C50\*.

k. Replace the cover and all screws.

l. Replace the Input/Conversion box in the instrument.

m. Retest the Calibrator Flatness with the Calibrator Accuracy Test.





**Figure 5-38. Normal Display For Test Mode 05.**

**5-47. Flatness Adjustment.**

- a. Move test jumper A15W1 to the “TEST” position.
- b. Set the 3585A controls for:

```

RECALL 605
INSTRUMENT PRESET
CENTER FREQUENCY.....20.1MHz
dB/DIV ..... 2dB
RANGE ..... - 25dBm
AUTORANGE.....off
    
```

- c. Using the Continuous Entry control, adjust the REF LVL so that the trace is centered on the CRT.
- d. The 3585A is now in its 0.2dB/DIV mode. This allows very fine adjustment of the instruments flatness.
- e. Adjust the input flatness with the following components in the order shown.

A1R131, C83, L18, C86, L19, C89, L21, C92

The input flatness of the instrument should resemble Figure 5-39 when completely adjusted. The effect of each adjustment is shown in Figure 5-40 (foldout). Continue adjustment of the instrument flatness until the peak to peak variation of the trace is less than 0.2dB (1 division).

- f. Move test jumper A15W1 to the “NORM” position.

**5-48. Range Up Detector Adjustment.**

- a. Set the synthesizer controls for:

```

FREQUENCY ..... 30kHz
AMPLITUDE ..... -24dBm
    
```

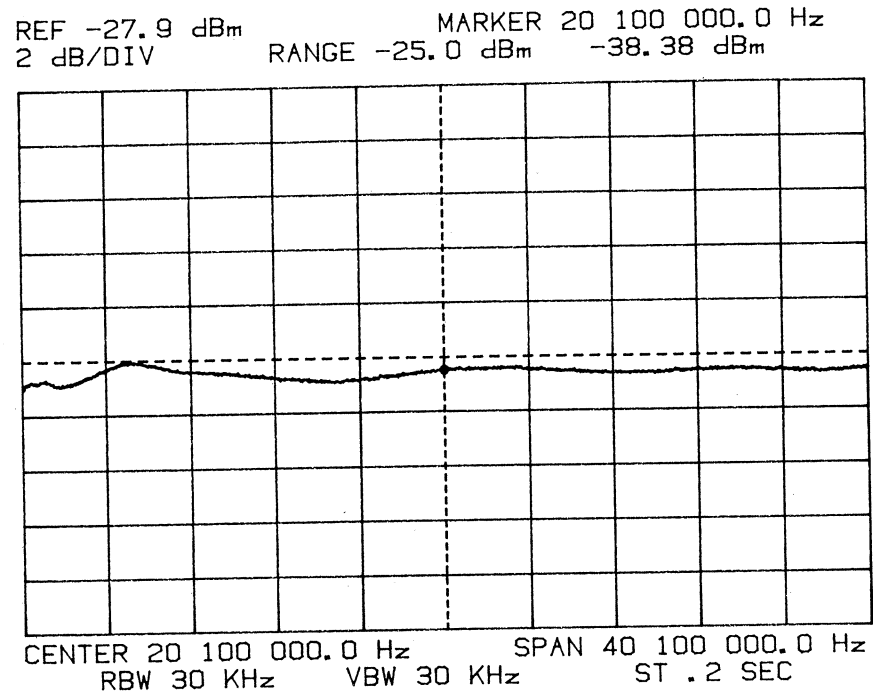
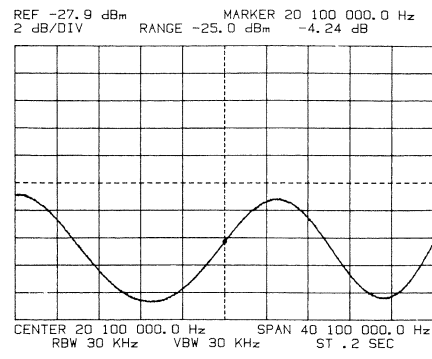
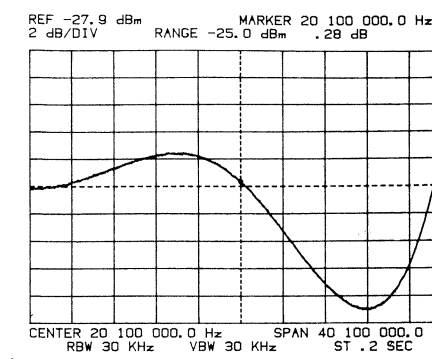
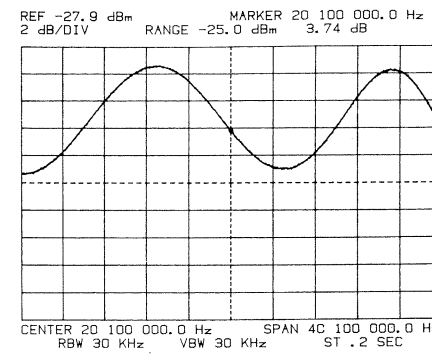


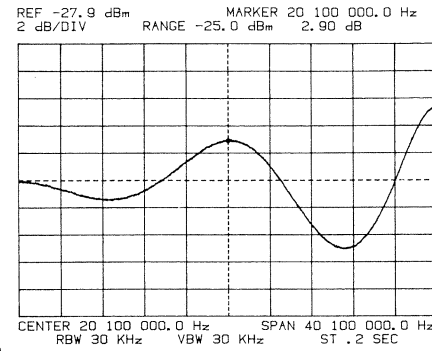
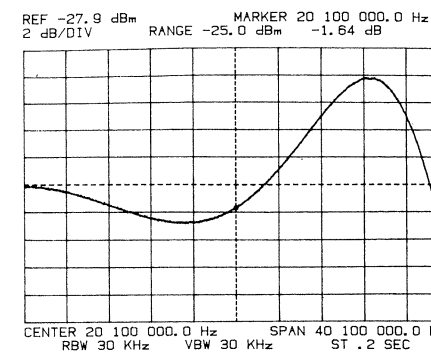
Figure 5-39. Properly Adjusted Input Flatness.



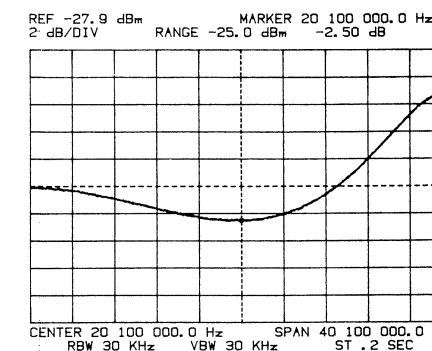
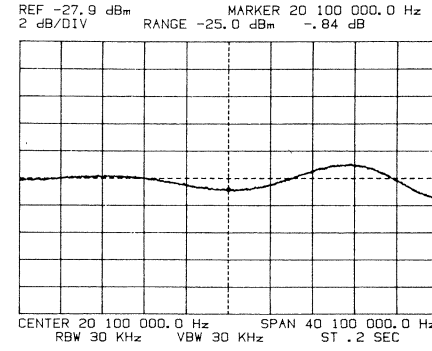
R31



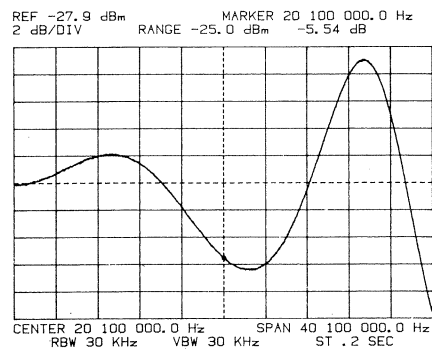
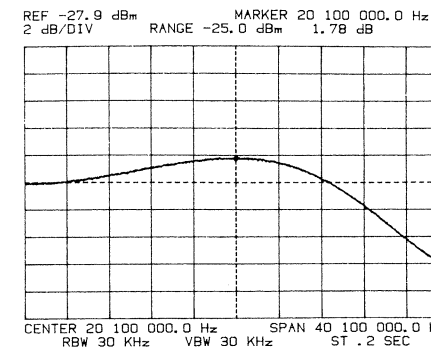
L19



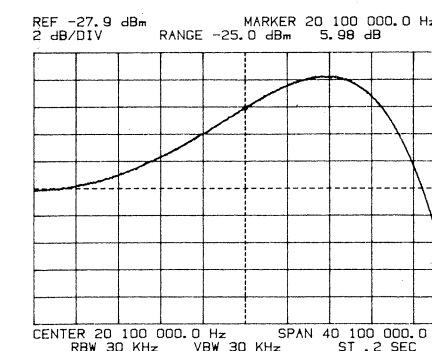
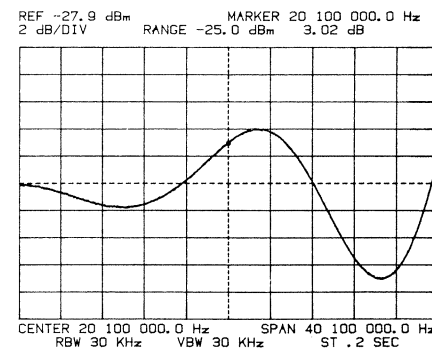
C83



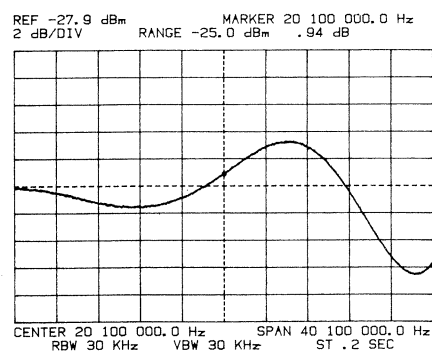
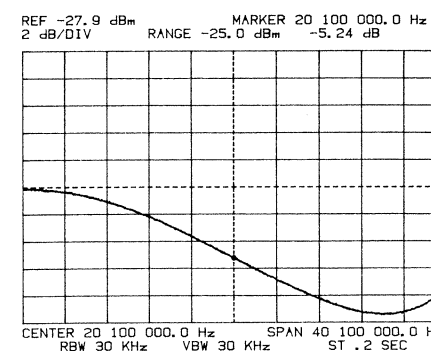
C89



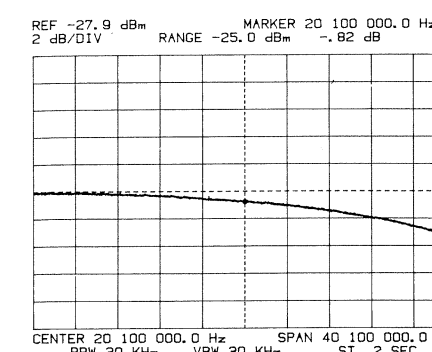
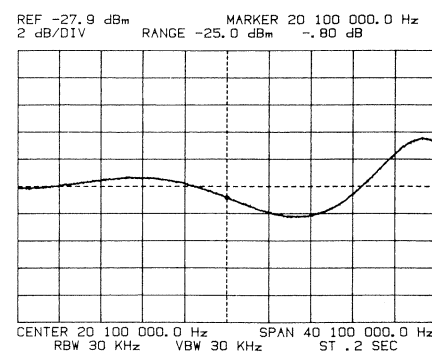
L18



L21



C86



C92

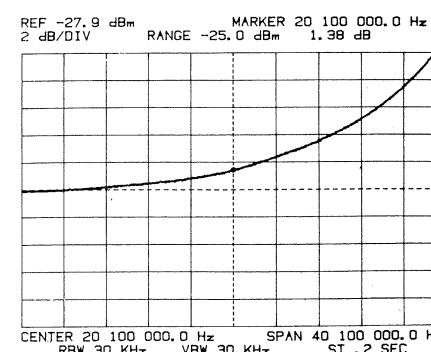


Figure 5-40. Input Flatness Adjustments.  
 5-61/5-62

- b. Set the 3585A controls for:

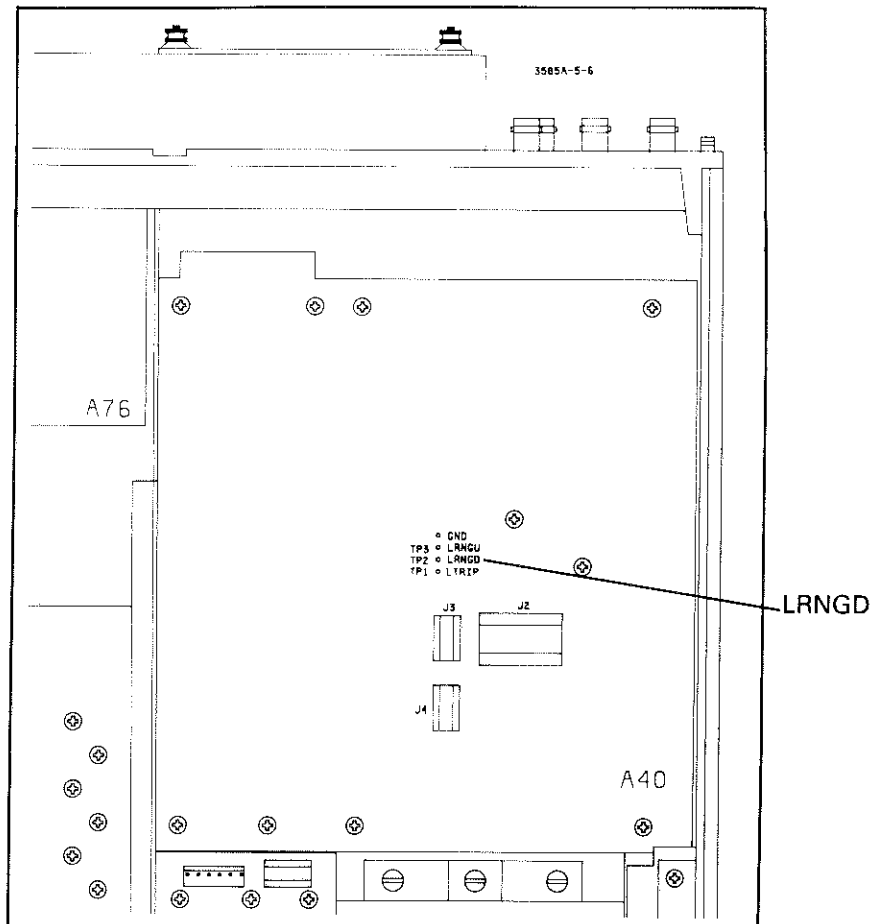
```

RECALL 601
INSTRUMENT PRESET
RANGE.....-25dBm
AUTORANGE.....off
    
```

- c. Adjust the RANGE UP THRESHOLD, A1R173, so that the front panel OVERLOAD light is lit. Now adjust A1R173 so that the OVERLOAD light just goes out.

**5-49. Range Down Detector Adjustment.**

- a. Set the 3585A to the 0dBm RANGE.
- b. Set the synthesizer for an AMPLITUDE of -6dBm.
- c. Connect a dc voltmeter (10V range) to the Digital motherboard, pin A45B19 or A40TP2 (LRNGD). This is accessible from the bottom of the instrument as shown in Figure 5-41.



**Figure 5-41. Range Down Monitor Point (LRNGD).**

- d. Adjust the Range Down Threshold, A1R174, so that the voltmeter reading just goes to a low logic level (<0.5V).
- e. Remove the voltmeter.

**5-50. Top Of Screen Amplitude Adjustment.**

- a. Set the synthesizer controls for:

```
FREQUENCY ..... 150kHz
AMPLITUDE ..... -25dBm
```

- b. Set the 3585A controls for:

```
RECALL 601
INSTRUMENT PRESET
CENTER FREQUENCY.....150kHz
RANGE.....-25dBm
AUTORANGE.....off
RES BW.....30kHz
dB/DIV ..... 1dB
MANUAL SWEEP.....on
```

- c. Adjust A17R105 for a marker amplitude reading of  $-25.00\text{dBm}$ .
- d. Enter SAVE 1 on the 3585A.

**5-51. Calibrator Level Adjustment.****NOTE**

*It is important that the amplitude accuracy of the source used for this adjustment is excellent. The amplitude accuracy of the 3585A depends on the amplitude accuracy of this source.*

- a. Set the 3585A control for:

```
INSTRUMENT PRESET
RECALL 1 (same settings as in top of Screen
Amplitude Adjustments)
```

- b. Adjust A1R39 so that the marker amplitude reads exactly  $-25.00\text{dBm}$ . The results of this adjustment can only be analyzed after performing the next two steps.
- c. Enter RECALL 4 on the 3585A keyboard.
- d. View the results of your adjustment. Repeat the two previous steps until a marker reading of exactly  $-25.00\text{dBm}$  is obtained after a calibration (RECALL 4).

**5-52.  $1\text{M}\Omega$  Amplitude Adjustment.**

- a. Terminate the  $1\text{M}\Omega$  3585A input with a  $50\Omega$  feedthrough termination. Move the synthesizer output from the 3585A  $50\Omega$  input to the  $50\Omega$  termination on the  $1\text{M}\Omega$  input.
- b. Press the  $1\text{M}\Omega$  IMPEDANCE key on the 3585A.
- c. Adjust A1R108 for a marker amplitude reading of  $-25.20\text{dBm}$ .

**5-53. 1MΩ Flatness Adjustment.**

- a. Connect a 10dB/step attenuator to the output of the Tracking Generator. Connect the output of the Attenuator to the 50Ω termination on the 1MΩ input.
- b. Set the attenuator for 40dB of attenuation.
- c. Turn the Tracking Generator Amplitude control fully clockwise.
- d. Set the 3585A controls for:

```

START FREQUENCY.....1kHz
STOP FREQUENCY.....100kHz
RANGE.....-25dBm
AUTORANGE.....off
dB/DIV ..... 2dB
    
```

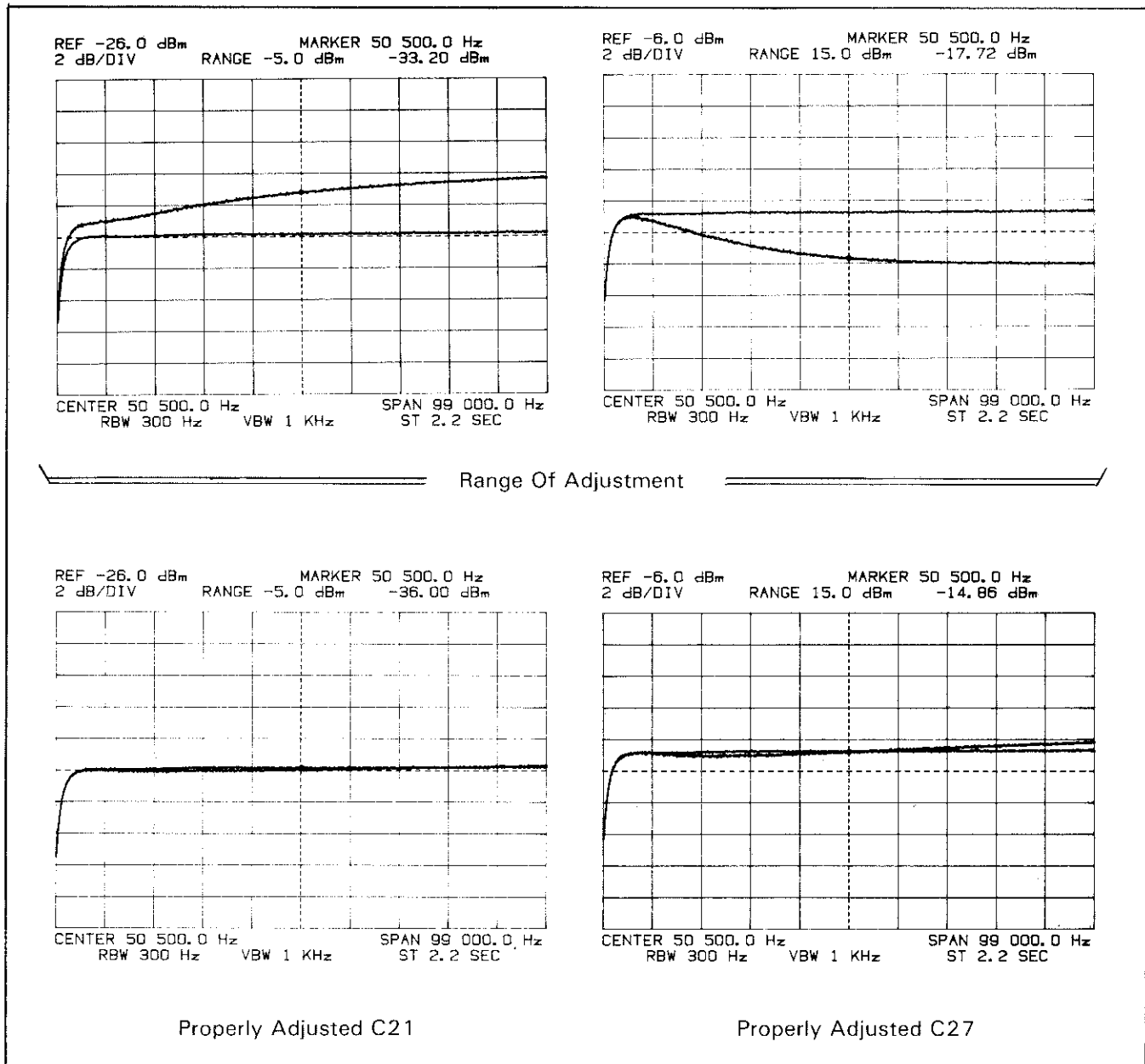
- e. Move test jumper A15W1 to the “TEST” position.
- f. Using the Continuous Entry Control, adjust the REF LVL so that the trace is centered on the display.
- g. Press STORE A → B on the 3585A.
- n. Set the 3585A to the -5dBm RANGE.
- i. Set the external attenuator for 20dB.
- j. Adjust A1C21 so that the A trace overlaps the B trace as closely as possible (see Figure 5-42).
- k. Set the 3585A for the +15dBm RANGE.
- l. Set the external attenuator for 0dB.
- m. Adjust A1C27 so that the A trace overlaps the B trace as closely as possible.

**5-54. 1MΩ Input Capacitance Adjustment.**

- a. Using the same connections as before, set the external attenuator for 40dB of attenuation.
- b. Replace the 50Ω termination with a 10kΩ series resistor (±1%, 1/8W, -hp- Part Number 0757-0442). This resistor should be connected as shown in Figure 5-43. Use short clip leads to connect the resistor to the attenuator and the 3585A 50Ω input.
- c. Set the 3585A controls for:

```

RANGE.....-25dBm
START FREQUENCY.....100Hz
STOP FREQUENCY.....1MHz
dB/DIV ..... 1dB
    
```



**Figure 5-42. 1MΩ Low Frequency Flatness Adjustment.**

- d. Using the Continuous entry Control, adjust the REF LVL so that the trace is centered on the display.
- e. Press the STORE A → B key on the 3585A.
- f. Set the 3585A for a RANGE of -5dBm.
- g. Adjust the attenuator for 20dB.
- h. Adjust A1C18 so that the A trace overlaps the B trace as closely as possible (see Figure 5-44).
- i. Remove all inputs to the 3585A.

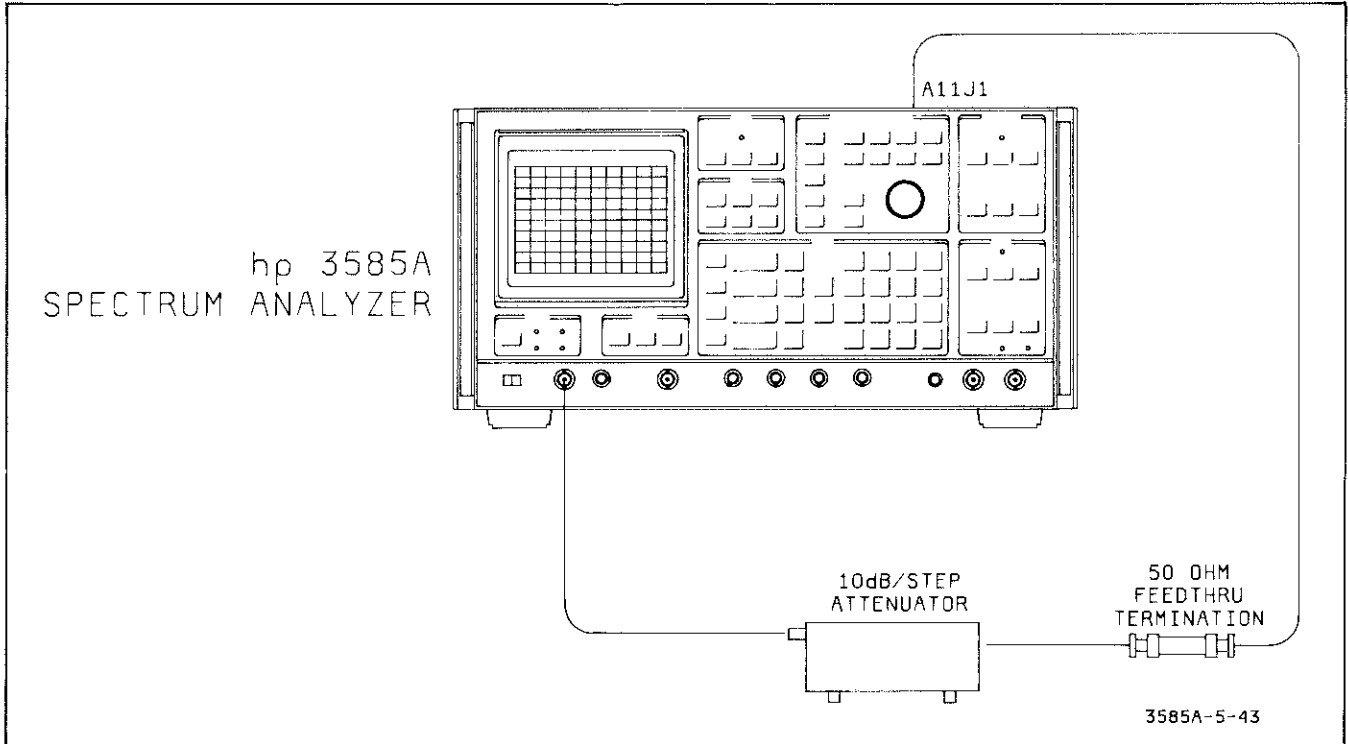


Figure 5-43. 1MΩ Input Capacitance Adjustment Set-Up.

5-55. Local Oscillator Feedthrough Adjustment.

a. Enter:

```

INSTRUMENT PRESET
RANGE ..... 0dBm
MANUAL ENTRY.....0Hz

```

b. Adjust A1R170 for a minimum marker reading (minimum LO feedthrough). Verify that the marker reads ≤ -15dBm.

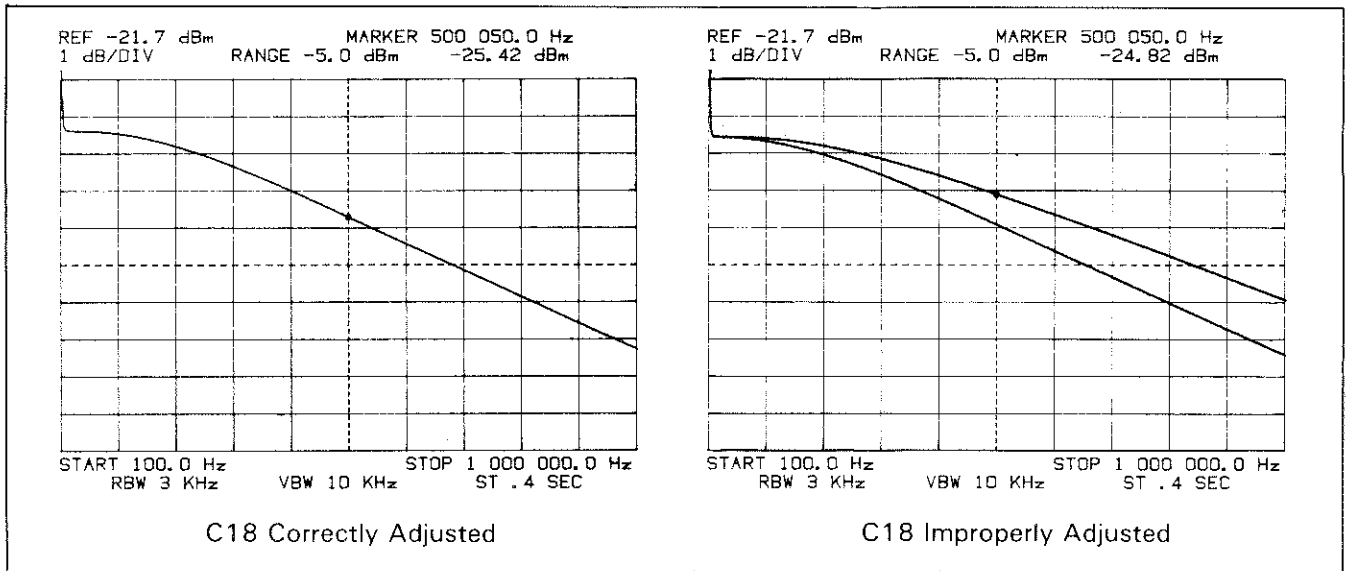


Figure 5-44. 1MΩ Input Capacitance Display.

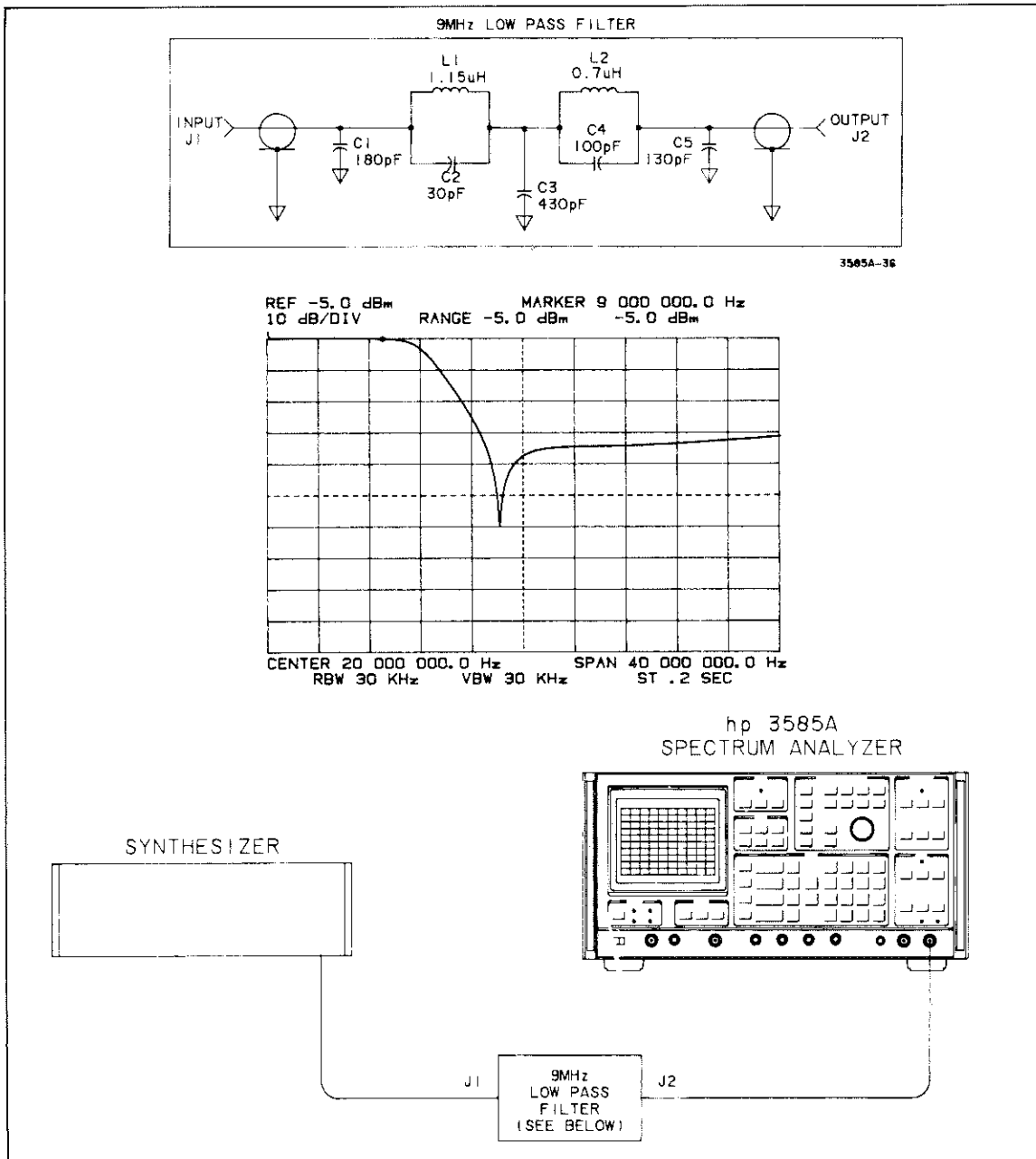
**5-56. Harmonic Distortion Adjustment.**

a. Make sure that the Frequency Synthesizer's reference is locked to the 3585A's 10MHz REF OUTPUT.

b. Set the Frequency Synthesizer for:

FREQUENCY.....9MHz  
 AMPLITUDE ..... -25dBm

c. Connect the Frequency Synthesizer, 9MHz, Low Pass Filter and 3585A as shown in Figure 5-45.



**Figure 5-45. Harmonic Distortion Adjustment Set-Up.**



d. Set the 3585A controls for:

```

INSTRUMENT PRESET
MANUAL ENTRY.....9MHz
RES BW.....3Hz
VIDEO BW.....1Hz
MKR → REF LVL
OFFSET.....on
ENTER OFFSET
    
```

e. The marker is presently on the fundamental frequency. The marker amplitude has been entered as a reference (marker reading should be .0dBm).

f. Enter:

```

MANUAL SWEEP.....18MHz
    
```

g. Adjust A1R110 for a minimum marker reading. This adjustment changes the bias of the 11dB Gain Amp so that Second Harmonic Distortion is minimized.

h. Verify that the marker reading is < -80dB. If not, go to the Distortion and Spurs Service Group (Service Group J) to repair the problem.

i. Disconnect the Synthesizer and 9MHz filter.

**5-57. Electrical Isolation Test.**

a. Turn the 3585A power off.

b. Carefully replace the Input/Conversion Section in the 3585A mainframe. Replace and tighten the seven mounting screws.

c. Connect all the *coaxial* cables to the Input/Conversion Section.

d. Before connecting the power supply cable, connect an ohmmeter between the 3585A frame and the screw closest to A1R108.

e. The ohmmeter should read infinite resistance. This indicates that the Input/Conversion Section is properly isolated from dc ground loops. If the ohmmeter shows a shorted condition, check the capacitors on A6a,b,c or d.

f. Remove the ohmmeter.

g. Connect the power supply cable to the Input/Conversion Section.

h. Turn the 3585A power on.

i. Press INSTRUMENT PRESET and check that the instrument calibrates. If it does not, recheck all cable connections to the Input/Conversion Section.

j. Turn the 3585A power off and replace the bottom cover.

**5-58. Tracking Generator Adjustments.**

- a. Connect a Digital Voltmeter to A51TP2.
- b. Adjust A52C50 for  $+4\text{Vdc} \pm 0.5\text{V}$ .
- c. Disconnect the Digital Voltmeter.
- d. Using a short length of shielded cable, connect the Tracking Generator output to the Terminated ( $50\Omega$ ) input.
- e. Set the Tracking Generator Amplitude control fully clockwise to the detent position (0dBm).
- f. Enter:

```

INSTRUMENT PRESET
RANGE ..... 0dBm
dB/DIV ..... 1dB
REFERENCE LEVEL.....2dBm

```

- g. Adjust A52C16 for the flattest amplitude response of the Tracking Generator output.
- h. Enter:

```

REFERENCE LEVEL.....0dBm
RECALL 4

```

- i. Adjust A52R68 for a marker reading of .00dBm.
- j. Disconnect the cable connecting the Tracking Generator to the input. This completes the Tracking Generator Adjustments.

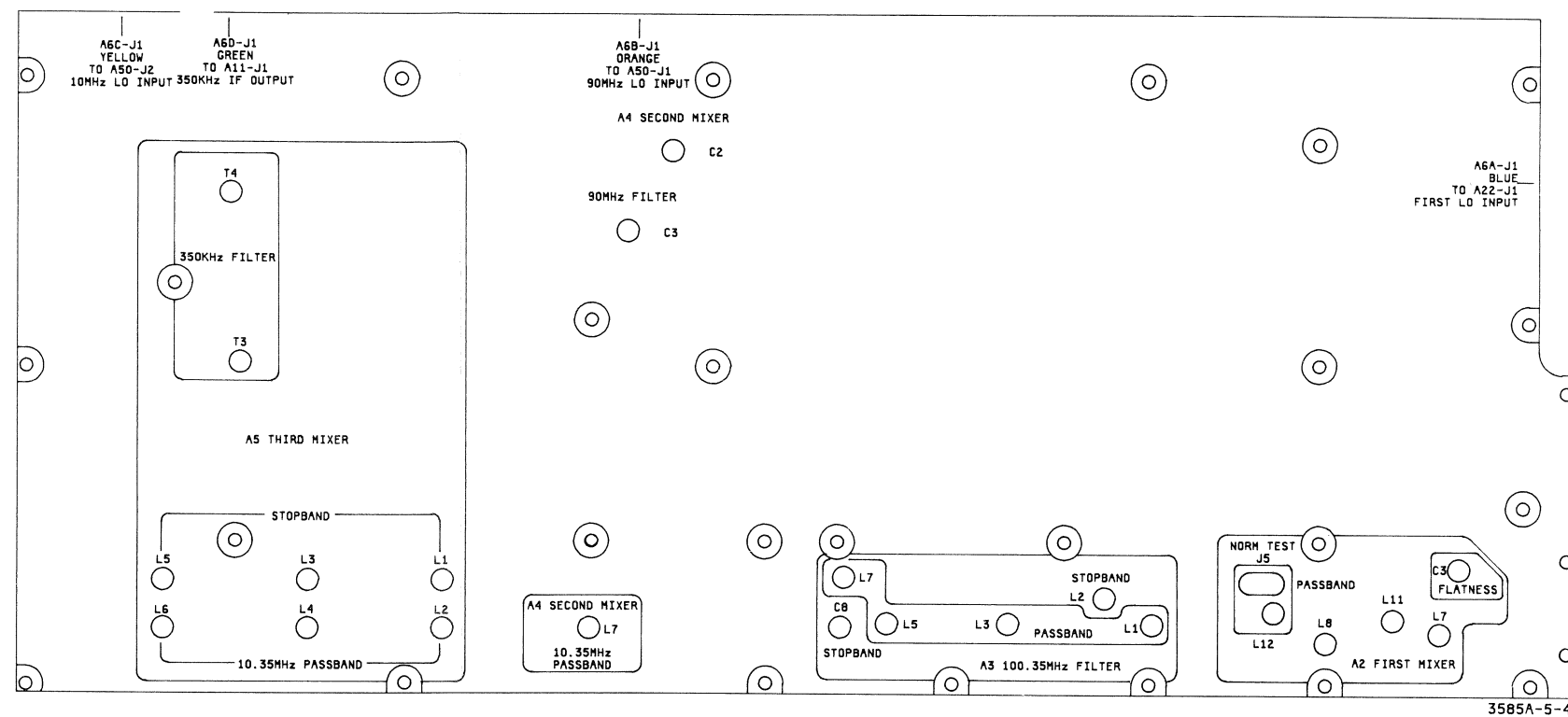
**5-59. HP-IB Adjustment.**

- a. Turn the 3585A power off.
- b. Remove the HP-IB board (A44, tabs = yellow, yellow) from the card nest.
- c. Note the voltage stamped on the Processor (U16), \_\_\_\_\_Vdc.
- d. Replace the HP-IB board back in the card nest.
- e. Turn the 3585A power on.
- f. Connect a DVM to A44TP5. Set the DVM for the 20Vdc range.
- g. Adjust A44R9 (see Figure 5-47) for the voltage stamped on A44U16  $\pm 0.2\text{V}$ .
- h. Disconnect the DVM. This completes the HP-IB Adjustments.

**5-60. X-Y Plotter Adjustment.**

- a. Connect a DVM to A62TP1 (REF). Set the DVM to the 20Vdc range.
- b. Adjust A62R4 (see Figure 5-47) for a dc voltage reading of  $-10.24\text{Vdc} \pm 0.02\text{V}$ .
- c. Disconnect the DVM. This completes the X-Y Plotter Adjustments.

Conversion Side (A2-A5)



Input Side (A1)

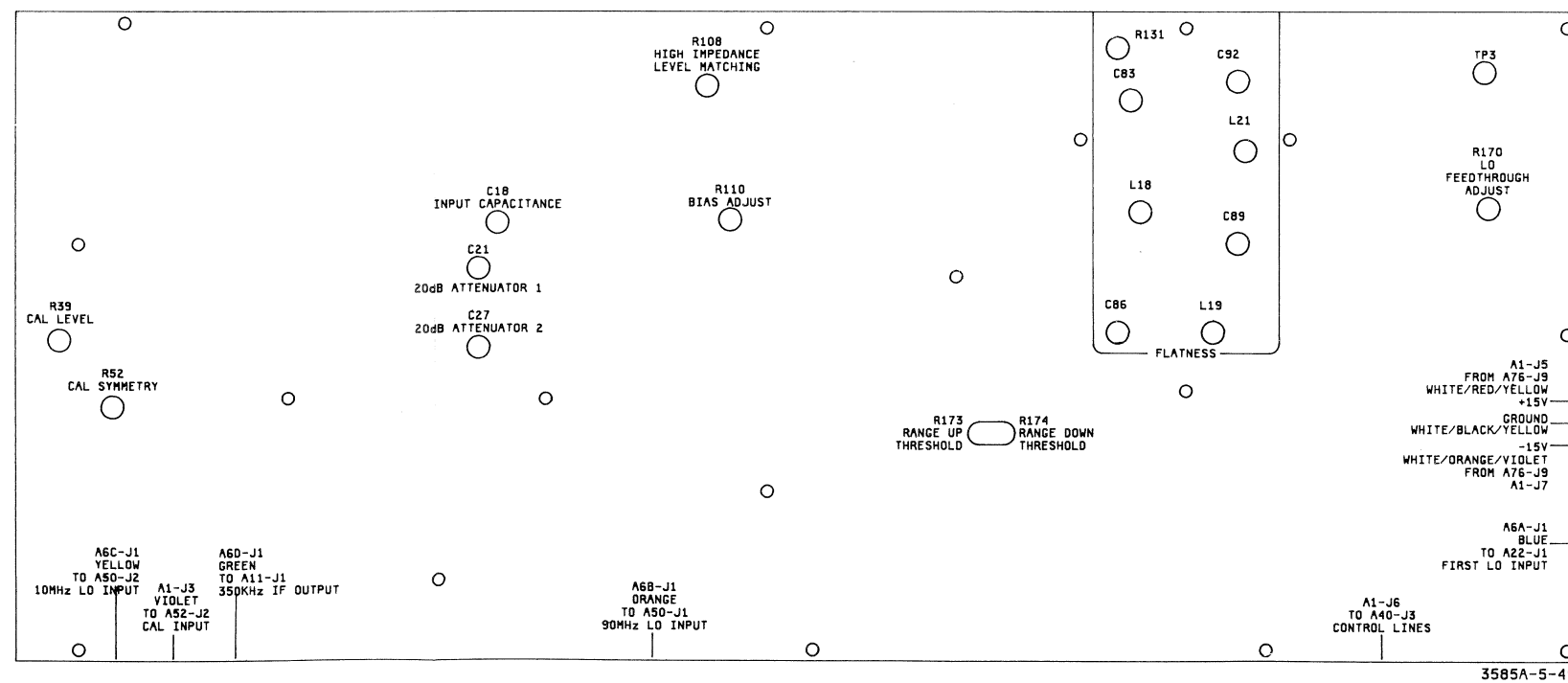


Figure 5-46. Input/Conversion Section Adjustment Locations.  
5-73/5-74



## **SECTION VI**

### **REPLACEABLE PARTS**

#### **6-1. INTRODUCTION.**

6-2. This section contains information for ordering replacement parts. Table 6-3 lists the parts in alphanumeric order of their reference designators and provides the following information:

- a. -hp- Part Number.
- b. Total quantity used in the instrument (Qty column). The total quantity of a part is given the first time the part number appears.
- c. Description of the part. (See Table 6-1 for abbreviations.)
- d. Typical manufacturer of the part in a five-digit code. (See Table 6-2 for list of manufacturers.)
- e. Manufacturer's part number.

#### **6-3. Chassis Mounted and Miscellaneous Parts.**

6-4. Chassis mounted components, mechanical parts and miscellaneous parts not having reference designators are listed near the end of Table 6-3. Exploded view drawings showing chassis and chassis mounted parts are at the end of this manual section.

#### **6-5. ORDERING INFORMATION.**

6-6. To obtain replacement parts, address your order or inquiry to the nearest Hewlett-Packard Sales and Service Office located in the back of the book. Identify parts by their -hp- Part Numbers. Include the instrument model and serial number.

#### **6-7. Non-Listed Parts.**

6-8. To obtain a part this is not listed, include:

- a. Instrument model number.
- b. Instrument serial number.
- c. Description of the part.
- d. Function and location of the part.

Table 6-1. Standard Abbreviations.

| ABBREVIATIONS |                                    |                  |                                                                              |
|---------------|------------------------------------|------------------|------------------------------------------------------------------------------|
| Ag            | silver                             | Hz               | hertz (cycle(s) per second)                                                  |
| Al            | aluminum                           | ID               | inside diameter                                                              |
| A             | ampere(s)                          | imp              | impregnated                                                                  |
| Au            | gold                               | incd             | incandescent                                                                 |
| C             | capacitor                          | ins              | insulation(ied)                                                              |
| cer           | ceramic                            | kΩ               | kiloohm(s) = 10 <sup>+3</sup> ohms                                           |
| coef          | coefficient                        | KHz              | kilohertz = 10 <sup>+3</sup> hertz                                           |
| com           | common                             | L                | inductor                                                                     |
| comp          | composition                        | lin              | linear taper                                                                 |
| conn          | connection                         | log              | logarithmic taper                                                            |
| dep           | deposited                          | mA               | milliamperes(s) = 10 <sup>-3</sup> amperes                                   |
| DPDT          | double-pole double-throw           | MHz              | megahertz = 10 <sup>+6</sup> hertz                                           |
| DPST          | double-pole single-throw           | MΩ               | megohm(s) = 10 <sup>+6</sup> ohms                                            |
| elect         | electrolytic                       | met flm          | metal film                                                                   |
| encap         | encapsulated                       | mfr              | manufacturer                                                                 |
| F             | farad(s)                           | ms               | millisecond                                                                  |
| FET           | field effect transistor            | mtg              | mounting                                                                     |
| fxd           | fixed                              | mV               | millivolt(s) = 10 <sup>-3</sup> volts                                        |
| GaAs          | gallium arsenide                   | μF               | microfarad(s)                                                                |
| GHz           | gigahertz = 10 <sup>+9</sup> hertz | μs               | microsecond(s)                                                               |
| gd            | guard(ied)                         | μV               | microvolt(s) = 10 <sup>-6</sup> volts                                        |
| Ge            | germanium                          | my               | Mylar ®                                                                      |
| gnd           | ground(ied)                        | nA               | nanoperes(s) = 10 <sup>-9</sup> amperes                                      |
| H             | henry(ies)                         | NC               | normally closed                                                              |
| Hg            | mercury                            | Ne               | neon                                                                         |
|               |                                    | NO               | normally open                                                                |
|               |                                    | NPO              | negative positive zero (zero temperature coefficient)                        |
|               |                                    | ns               | nanosecond(s) = 10 <sup>-9</sup> seconds                                     |
|               |                                    | nr               | not separately replaceable                                                   |
|               |                                    | Ω                | ohm(s)                                                                       |
|               |                                    | obd              | order by description                                                         |
|               |                                    | OD               | outside diameter                                                             |
|               |                                    | p                | peak                                                                         |
|               |                                    | pA               | picoampere(s)                                                                |
|               |                                    | pc               | printed circuit                                                              |
|               |                                    | pF               | picofarad(s) 10 <sup>-12</sup> farads                                        |
|               |                                    | piv              | peak inverse voltage                                                         |
|               |                                    | p/o              | part of                                                                      |
|               |                                    | pos              | position(s)                                                                  |
|               |                                    | poly             | polystyrene                                                                  |
|               |                                    | pot              | potentiometer                                                                |
|               |                                    | p-p              | peak-to-peak                                                                 |
|               |                                    | ppm              | parts per million                                                            |
|               |                                    | prec             | precision (temperature coefficient, long term stability and/or tolerance)    |
|               |                                    | R                | resistor                                                                     |
|               |                                    | Rh               | rhodium                                                                      |
|               |                                    | rms              | root-mean-square                                                             |
|               |                                    | rot              | rotary                                                                       |
|               |                                    | Se               | selenium                                                                     |
|               |                                    | sect             | section(s)                                                                   |
|               |                                    | Si               | silicon                                                                      |
|               |                                    | sl               | slide                                                                        |
|               |                                    | SPDT             | single-pole double-throw                                                     |
|               |                                    | SPST             | single-pole single-throw                                                     |
|               |                                    | Ta               | tantalum                                                                     |
|               |                                    | TC               | temperature coefficient                                                      |
|               |                                    | TiO <sub>2</sub> | titanium dioxide                                                             |
|               |                                    | tog              | toggle                                                                       |
|               |                                    | tol              | tolerance                                                                    |
|               |                                    | trim             | trimmer                                                                      |
|               |                                    | TSTR             | transistor                                                                   |
|               |                                    | V                | volt(s)                                                                      |
|               |                                    | vacw             | alternating current working voltage                                          |
|               |                                    | var              | variable                                                                     |
|               |                                    | vdcw             | direct current working voltage                                               |
|               |                                    | W                | watt(s)                                                                      |
|               |                                    | w/               | with                                                                         |
|               |                                    | w/w              | working inverse voltage                                                      |
|               |                                    | w/o              | without                                                                      |
|               |                                    | ww               | wirewound                                                                    |
|               |                                    | *                | optimum value selected at factory, average value shown (part may be omitted) |
|               |                                    | **               | no standard type number assigned selected or special type                    |
|               |                                    | ®                | Dupont de Nemours                                                            |
| DESIGNATORS   |                                    |                  |                                                                              |
| A             | assembly                           | FL               | filter                                                                       |
| B             | motor                              | HR               | heater                                                                       |
| BT            | battery                            | IC               | integrated circuit                                                           |
| C             | capacitor                          | J                | jack                                                                         |
| CR            | diode or thyristor                 | K                | relay                                                                        |
| DL            | delay line                         | L                | inductor                                                                     |
| DS            | lamp                               | M                | meter                                                                        |
| E             | misc electronic part               | MP               | mechanical part                                                              |
| F             | fuse                               | P                | plug                                                                         |
|               |                                    | Q                | transistor                                                                   |
|               |                                    | OCR              | transistor diode                                                             |
|               |                                    | R(p)             | resistor(pack)                                                               |
|               |                                    | RT               | thermistor                                                                   |
|               |                                    | S                | switch                                                                       |
|               |                                    | T                | transformer                                                                  |
|               |                                    | TB               | terminal board                                                               |
|               |                                    | TC               | thermocouple                                                                 |
|               |                                    | TP               | test point                                                                   |
|               |                                    | TS               | terminal strip                                                               |
|               |                                    | U                | microcircuit                                                                 |
|               |                                    | V                | vacuum tube, neon bulb, photocell, etc.                                      |
|               |                                    | W                | wire                                                                         |
|               |                                    | X                | socket                                                                       |
|               |                                    | XDS              | lampholder                                                                   |
|               |                                    | XF               | fuseholder                                                                   |
|               |                                    | Y                | crystal                                                                      |
|               |                                    | Z                | network                                                                      |

Table 6-2. Code List of Manufacturers.

| Manufacturer Number | Manufacturer Name                   | Address                 |
|---------------------|-------------------------------------|-------------------------|
| 00853               | Sangamo Elec co S Carolina Div      | Pickens, SC 29671       |
| 01121               | Allen-Bradley Co                    | Milwaukee, WI 53204     |
| 01295               | Texas Instr Inc Semicond Cmpnt Div  | Dallas, TX 75222        |
| 01928               | RCA Corp Solid State Div            | Somerville, NJ 08876    |
| 02111               | Spectrol Electronics Corp           | City of Ind, CA 91745   |
| 02660               | Amphenol Sales Div of Bunker-Ramo   | Broadview, IL 60153     |
| 03888               | DKI Pyrofilm Corp                   | Whippany, NJ 07981      |
| 04713               | Motorola Semiconductor Products     | Phoenix, AZ 85062       |
| 06001               | GE Co Elek Cap & Bat Prod Dept      | Irmo, SC 29063          |
| 06915               | Richco Plastic Co                   | Chicago, IL 60646       |
| 07263               | Fairchild Semiconductor Div         | Mountain View, CA 94042 |
| 07716               | TRW Inc Burlington Div              | Burlington, IA 52601    |
| 12954               | Stemens Corp Components Group       | Scottsdale, AZ 95252    |
| 12969               | Unitrode Corp                       | Watertown, MA 02172     |
| 13606               | Sprague Elect Co Semiconductor Div  | concord, NH 03301       |
| 14099               | Semtech Corp                        | Newbury Park, CA 91320  |
| 16299               | Corning GI Wk Elec Cmpnt Div        | Raleigh, NC 27604       |
| 17856               | Siliconix Inc                       | Santa Clara, CA 95054   |
| 18324               | Signetics Corp                      | Sunnyvale, CA 94086     |
| 19701               | Mepco/Electra Corp                  | Mineral Wells, TX 76067 |
| 22526               | Berg Electronic Inc                 | Cumberland, PA 17070    |
| 23936               | Pamotor Div William J Purdy         | Burlingame, CA 94010    |
| 24355               | Analog Devices Inc                  | Norwood, MA 02062       |
| 24546               | corning Glass Works (Bradford)      | Bradford, PA 16701      |
| 26654               | Varadyne Inc                        | Santa Monica, CA 90404  |
| 27014               | National Semiconductor Corp         | Santa Clara, CA 95051   |
| 27167               | Corning Glass Works (Wilmington)    | Wilmington, NC 28401    |
| 28480               | Hewlett-Packard Co Corporate HQ     | Palo Alto, CA 94304     |
| 29832               | Teledyne Philbrick Nexus            | Dedham, MA 02026        |
| 32997               | Bourns Inc Trimpot Prod Div         | Riverside, CA 92507     |
| 34335               | Advanced Micro Devices Inc          | Sunnyvale, CA 94086     |
| 34371               | Harris Semicon Div Harris-Intertype | Melbourne, FL 32901     |
| 34785               | Dek Inc                             | Chicago, IL 60185       |
| 51642               | Centre Engineering Inc              | State College, OA 16801 |
| 52763               | Stettner-Trush Inc                  | Cazenovia, NY 13035     |
| 53021               | Sangamo Electric Co                 | Springfield, IL 62702   |
| 54294               | Cutler-Hammer-Inc Shallcross Mfg Co | Selma, NC 27576         |
| 55576               | Synertek                            | Santa Clara, CA 95051   |
| 56289               | Sprague Electric Co                 | North Adams, MA 01247   |
| 72136               | Electro Motive Corp Sub IEC         | Willimantic, CT 06226   |
| 72982               | Erie Technological Products Inc     | Erie, PA 16512          |
| 73138               | Beckman Instruments Inc Helipot Div | Fullerton, CA 92634     |
| 74970               | Johnson E F Co                      | Waseca, MN 56093        |
| 75915               | Littelfuse Inc                      | Des Plaines, IL 60016   |
| 80103               | Lambda Electronics Corp             | Melville, NY 11746      |
| 84411               | TRW Capacitor Div                   | Ogallala, NE 69153      |
| 91637               | Dale Electronics Inc                | Columbus, NE 68601      |





Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|-----------------|
| A1                    | 03585-66501    | 2   | 1   | INPUT ASSEMBLY                           | 28480    | 03585-66501     |
| A1C1                  | 0160-3622      | 8   | 168 | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C2                  | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C3                  | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C4                  | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C5                  | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C6                  | 0160-2055      | 9   | 61  | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055       |
| A1C7                  | 0160-2257      | 3   | 10  | CAPACITOR-FXD 10PF +-5% 500VDC CER 0+-60 | 28480    | 0160-2257       |
| A1C8                  | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055       |
| A1C9                  | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C10                 | 0160-2262      | 0   | 2   | CAPACITOR-FXD 16PF +-5% 500VDC CER 0+-30 | 28480    | 0160-2262       |
| A1C11                 | 0160-2055      | 8   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055       |
| A1C12                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C13                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C14                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055       |
| A1C15                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055       |
| A1C16                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055       |
| A1C17                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055       |
| A1C18                 | 0121-0451      | 3   | 10  | CAPACITOR-V TRMR-AIR 1.7-11PF 250V       | 74970    | 187-0106-005    |
| A1C19                 | 0160-2266      | 4   | 6   | CAPACITOR-FXD 24PF +-5% 500VDC CER 0+-30 | 28480    | 0160-2266       |
| A1C20                 | 0160-2255      | 1   | 2   | CAPACITOR-FXD 8.2PF +-25PF 500VDC CER    | 28480    | 0160-2255       |
| A1C21                 | 0121-0451      | 3   |     | CAPACITOR-V TRMR-AIR 1.7-11PF 250V       | 74970    | 187-0106-005    |
| A1C22                 | 0160-2250      | 6   | 3   | CAPACITOR-FXD 5.1PF +-25PF 500VDC CER    | 28480    | 0160-2250       |
| A1C23                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055       |
| A1C24                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C25                 | 0160-2254      | 0   | 1   | CAPACITOR-FXD 7.5PF +-25PF 500VDC CER    | 28480    | 0160-2254       |
| A1C26                 | 0160-2306      | 3   | 4   | CAPACITOR-FXD 27PF +-5% 300VDC MICA      | 28480    | 0160-2306       |
| A1C27                 | 0121-0451      | 3   |     | CAPACITOR-V TRMR-AIR 1.7-11PF 250V       | 74970    | 187-0106-005    |
| A1C28                 | 0160-2250      | 6   |     | CAPACITOR-FXD 5.1PF +-25PF 500VDC CER    | 28480    | 0160-2250       |
| A1C29                 | 0160-0128      | 3   | 13  | CAPACITOR-FXD 2.2UF +-20% 50VDC CER      | 28480    | 0160-0128       |
| A1C31                 | 0160-2260      | 8   | 2   | CAPACITOR-FXD 13PF +-5% 500VDC CER 0+-30 | 28480    | 0160-2260       |
| A1C32                 | 0160-0128      | 3   |     | CAPACITOR-FXD 2.2UF +-20% 50VDC CER      | 28480    | 0160-0128       |
| A1C33                 | 0150-0050      | 0   | 94  | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A1C34                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C35                 | 0160-0205      | 7   | 1   | CAPACITOR-FXD 10PF +-5% 500VDC MICA      | 28480    | 0160-0205       |
| A1C36                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C37                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C38                 | 0180-0197      | 8   | 29  | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X0020A2  |
| A1C39                 | 0160-0128      | 3   |     | CAPACITOR-FXD 2.2UF +-20% 50VDC CER      | 28480    | 0160-0128       |
| A1C40                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A1C41                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055       |
| A1C42                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055       |
| A1C43                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055       |
| A1C44                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055       |
| A1C45                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055       |
| A1C46                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055       |
| A1C47                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055       |
| A1C48                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C49                 | 0180-0210      | 6   | 19  | CAPACITOR-FXD 3.3UF+-20% 15VDC TA        | 56289    | 150D335X0015A2  |
| A1C50                 | 0160-2262      | 3   |     | CAPACITOR-FXD 16PF +-5% 500VDC CER 0+-60 | 28480    | 0160-2262       |
| A1C51                 | 0180-0210      | 6   |     | CAPACITOR-FXD 3.3UF+-20% 15VDC TA        | 56289    | 150D335X0015A2  |
| A1C52                 | 0180-1701      | 2   | 2   | CAPACITOR-FXD 6.8UF+-20% 6VDC TA         | 56289    | 150D685X0006A2  |
| A1C53                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C54                 | 0180-0210      | 6   |     | CAPACITOR-FXD 3.3UF+-20% 15VDC TA        | 56289    | 150D335X0015A2  |
| A1C55                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C56                 | 0180-0210      | 6   |     | CAPACITOR-FXD 3.3UF+-20% 15VDC TA        | 56289    | 150D335X0015A2  |
| A1C57                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C58                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C59                 | 0160-0128      | 3   |     | CAPACITOR-FXD 2.2UF +-20% 50VDC CER      | 28480    | 0160-0128       |
| A1C61                 | 0160-2150      | 5   | 4   | CAPACITOR-FXD 33PF +-5% 300VDC MICA      | 28480    | 0160-2150       |
| A1C62                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C63                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C64                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C65                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C66                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z |
| A1C67                 | 0180-0375      | 4   | 2   | CAPACITOR-FXD 68UF+-10% 20VDC TA         | 56289    | 150D685X0020B2  |
| A1C68                 | 0180-0210      | 6   |     | CAPACITOR-FXD 3.3UF+-20% 15VDC TA        | 56289    | 150D335X0015A2  |
| A1C69                 | 0180-0210      | 6   |     | CAPACITOR-FXD 3.3UF+-20% 15VDC TA        | 56289    | 150D335X0015A2  |
| A1C70                 | 0180-0375      | 4   |     | CAPACITOR-FXD 68UF+-10% 20VDC TA         | 56289    | 150D685X0020B2  |
| A1C72                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055       |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number    |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|--------------------|
| A1C73                 | 0180-1714      | 7   | 2   | CAPACITOR-FXD 330UF+-10% 6VDC TA         | 56289    | 1500337X900682     |
| A1C74                 | 0180-1714      | 7   |     | CAPACITOR-FXD 330UF+-10% 6VDC TA         | 56289    | 1500337X900682     |
| A1C75                 | 0180-0228      | 6   | 10  | CAPACITOR-FXD 22UF+-10% 15VDC TA         | 56289    | 1500226X901582     |
| A1C76                 | 0180-0228      | 6   |     | CAPACITOR-FXD 22UF+-10% 15VDC TA         | 56289    | 1500226X901582     |
| A1C77                 | 0180-0210      | 6   |     | CAPACITOR-FXD 3.3UF+-20% 15VDC TA        | 56289    | 1500335X001542     |
| A1C78                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A1C79                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 26480    | 0160-2055          |
| A1C80                 | 0160-3558      | 9   | 15  | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 26480    | 0160-3558          |
| A1C81                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 26480    | 0160-2055          |
| A1C82                 | 0160-2261      | 9   | 4   | CAPACITOR-FXD 15PF +-5% 500VDC CER 0+-30 | 26480    | 0160-2261          |
| A1C83                 | 0121-0451      | 3   |     | CAPACITOR-V TRMR=AIR 1.7-11PF 250V       | 74970    | 187-0106-005       |
| A1C84                 | 0160-2262      | 0   |     | CAPACITOR-FXD 16PF +-5% 500VDC CER 0+-30 | 26480    | 0160-2262          |
| A1C85                 | 0160-2200      | 6   | 8   | CAPACITOR-FXD 43PF +-5% 300VDC MICA      | 26480    | 0160-2200          |
| A1C86                 | 0121-0451      | 3   |     | CAPACITOR-V TRMR=AIR 1.7-11PF 250V       | 74970    | 187-0106-005       |
| A1C87                 | 0160-2241      | 5   | 3   | CAPACITOR-FXD 2.2PF +--.25PF 500VDC CER  | 26480    | 0160-2241          |
| A1C88                 | 0140-0204      | 4   | 10  | CAPACITOR-FXD 47PF +-5% 500VDC MICA      | 72136    | DM15E470J0500MV1CR |
| A1C89                 | 0121-0451      | 3   |     | CAPACITOR-V TRMR=AIR 1.7-11PF 250V       | 74970    | 187-0106-005       |
| A1C90                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A1C91                 | 0160-2306      | 3   |     | CAPACITOR-FXD 27PF +-5% 300VDC MICA      | 26480    | 0160-2306          |
| A1C92                 | 0121-0451      | 3   |     | CAPACITOR-V TRMR=AIR 1.7-11PF 250V       | 74970    | 187-0106-005       |
| A1C93                 | 0160-0229      | 7   | 8   | CAPACITOR-FXD 33UF+-10% 10VDC TA         | 56289    | 1500336X901062     |
| A1C94                 | 0160-0210      | 6   |     | CAPACITOR-FXD 3.3UF+-20% 15VDC TA        | 56289    | 1500335X001542     |
| A1C95                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A1C96                 | 0180-0210      | 6   |     | CAPACITOR-FXD 3.3UF+-20% 15VDC TA        | 56289    | 1500335X001542     |
| A1C97                 | 0180-0166      | 9   | 1   | CAPACITOR-FXD 60UF+-20% 6VDC TA          | 56289    | 1500606X000682     |
| A1C98                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A1C99                 | 0160-3829      | 7   | 1   | CAPACITOR-FXD .47UF +-10% 50VDC          | 26480    | 0160-3829          |
| A1C100                | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 26480    | 0160-2055          |
| A1C101                | 0160-2150      | 5   |     | CAPACITOR-FXD 33PF +-5% 300VDC MICA      | 26480    | 0160-2150          |
| A1C102                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A1C103                | 0180-0210      | 6   |     | CAPACITOR-FXD 3.3UF+-20% 15VDC TA        | 56289    | 1500335X001542     |
| A1C104                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A1C105                | 0180-0210      | 6   |     | CAPACITOR-FXD 3.3UF+-20% 15VDC TA        | 56289    | 1500335X001542     |
| A1C106                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A1C107                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A1C108                | 0160-0128      | 3   |     | CAPACITOR-FXD 2.2UF +-20% 50VDC CER      | 26480    | 0160-0128          |
| A1C109                | 0160-2605      | 5   | 1   | CAPACITOR-FXD .02UF +80-20% 25VDC CER    | 26480    | 0160-2605          |
| A1C110                | 0160-2241      | 5   |     | CAPACITOR-FXD 2.2PF +--.25PF 500VDC CER  | 26480    | 0160-2241          |
| A1C111                | 0160-0128      | 3   |     | CAPACITOR-FXD 2.2UF +-20% 50VDC CER      | 26480    | 0160-0128          |
| A1C112                | 0180-1701      | 2   |     | CAPACITOR-FXD 6.8UF+-20% 6VDC TA         | 56289    | 1500685X000682     |
| A1C113                | 0160-0174      | 9   | 5   | CAPACITOR-FXD .47UF +80-20% 25VDC CER    | 26480    | 0160-0174          |
| A1C114                | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 26480    | 0160-2055          |
| A1C115                | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 26480    | 0160-2055          |
| A1C116                | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 26480    | 0160-2055          |
| A1C117                | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 26480    | 0160-2055          |
| A1C118                | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 26480    | 0160-2055          |
| A1C119                | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 26480    | 0160-2055          |
| A1C120                | 0160-3874      | 2   | 2   | CAPACITOR-FXD 10PF +-5PF 200VDC CER      | 26480    | 0160-3874          |
| A1C121                | 0180-0098      | 8   | 3   | CAPACITOR-FXD 100UF+-20% 20VDC TA        | 56289    | 150D107X002052     |
| A1C122                | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X902042     |
| A1C123                | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X902042     |
| A1C124                | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 26480    | 0160-2055          |
| A1C125                | 0180-0098      | 8   |     | CAPACITOR-FXD 100UF+-20% 20VDC TA        | 56289    | 150D107X002052     |
| A1CR1                 | 1901-0040      | 1   | 58  | DIODE-SWITCHING 30V 50MA 2NS DO-35       | 26480    | 1901-0040          |
| A1CR2                 | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35       | 26480    | 1901-0040          |
| A1CR3                 | 1901-0025      | 2   | 2   | DIODE-GEN PRP 100V 200MA DO-7            | 26480    | 1901-0025          |
| A1CR4                 | 1901-0025      | 2   |     | DIODE-GEN PRP 100V 200MA DO-7            | 26480    | 1901-0025          |
| A1CR5                 | 1902-9777      | 3   | 6   | DIODE-ZNR 1N825 6.2V 5% DO-7 PDS.4W      | 04713    | 1N825              |
| A1CR6                 | 1902-3182      | 0   | 2   | DIODE-ZNR 12.1V 5% DO-7 PDS.4W TC+-.064% | 26480    | 1902-3182          |
| A1CR7                 | 1902-3182      | 0   |     | DIODE-ZNR 12.1V 5% DO-7 PDS.4W TC+-.064% | 26480    | 1902-3182          |
| A1CR8                 | 1901-0050      | 3   | 20  | DIODE-SWITCHING 80V 200MA 2NS DO-35      | 26480    | 1901-0050          |
| A1CR9                 | 1901-0050      | 3   |     | DIODE-SWITCHING 80V 200MA 2NS DO-35      | 26480    | 1901-0050          |
| A1CR10                | 1902-0064      | 1   | 5   | DIODE-ZNR 7.5V 5% DO-7 PDS.4W TC+-.05%   | 26480    | 1902-0064          |
| A1CR13                | 1901-0050      | 3   |     | DIODE-SWITCHING 80V 200MA 2NS DO-35      | 26480    | 1901-0050          |
| A1CR15                | 1901-0050      | 3   |     | DIODE-SWITCHING 80V 200MA 2NS DO-35      | 26480    | 1901-0050          |
| A1CR16                | 1902-3085      | 2   | 1   | DIODE-ZNR 4.75V 5% DO-7 PDS.4W TC+-.019% | 26480    | 1902-3085          |
| A1CR17                | 1901-0050      | 3   |     | DIODE-SWITCHING 80V 200MA 2NS DO-35      | 26480    | 1901-0050          |
| A1CR18                | 1901-0518      | 8   | 8   | DIODE-SCHOTTKY                           | 26480    | 1901-0518          |
| A1CR19                | 1901-0518      | 8   |     | DIODE-SCHOTTKY                           | 26480    | 1901-0518          |
| A1CR20                | 1901-0518      | 8   |     | DIODE-SCHOTTKY                           | 26480    | 1901-0518          |
| A1CR21                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35       | 26480    | 1901-0040          |
| A1CR22                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35       | 26480    | 1901-0040          |
| A1CR23                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35       | 26480    | 1901-0040          |
| A1CR24                | 1902-0064      | 1   |     | DIODE-ZNR 7.5V 5% DO-7 PDS.4W TC+-.05%   | 26480    | 1902-0064          |
| A1CR25                | 1902-0064      | 1   |     | DIODE-ZNR 7.5V 5% DO-7 PDS.4W TC+-.05%   | 26480    | 1902-0064          |
| A1CR26                | 1902-0064      | 1   |     | DIODE-ZNR 7.5V 5% DO-7 PDS.4W TC+-.05%   | 26480    | 1902-0064          |
| A1CR27                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35       | 26480    | 1901-0040          |
| A1CR28                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35       | 26480    | 1901-0040          |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|-----------------|
| A1CR29                | 1902-0057      | 2   | 1   | DIODE-ZNR 6.49V 5% DO-7 PD=.4W TC=+.029X | 28480    | 1902-0057       |
| A1CR30                | 1990-0486      | 6   | 9   | LED-VISIBLE LUM-INT=1MCD IF=20MA=MAX     | 28480    | 5082-4684       |
| A1CR31                | 1902-3190      | 0   | 2   | DIODE-ZNR 13V 5% DO-7 PD=.4W TC=+.06X    | 28480    | 1902-3190       |
| A1CR32                | 1902-3190      | 0   |     | DIODE-ZNR 13V 5% DO-7 PD=.4W TC=+.06X    | 28480    | 1902-3190       |
| A1CR33                | 1901-0662      | 3   | 4   | DIODE-PWR RECT 100V 6A                   | 04713    | MR751           |
| A1CR34                | 1901-0662      | 3   |     | DIODE-PWR RECT 100V 6A                   | 04713    | MR751           |
| A1J1                  | 1250-1596      | 3   | 1   | CONNECTOR-BNC SPES                       | 28480    | 1250-1596       |
| A1J3                  | 1250-1368      | 7   | 10  | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1368       |
| A1J4                  | 1251-1636      | 4   | 8   | CONNECTOR=SGL CONT SKT .04-IN-BSC-SZ RND | 28480    | 1251-1636       |
| A1J5                  | 1251-1636      | 4   |     | CONNECTOR=SGL CONT SKT .04-IN-BSC-SZ RND | 28480    | 1251-1636       |
| A1J6                  | 1200-0474      | 9   |     | SOCKET-IC 14-CONT DIP-SLDR               | 28480    | 1200-0474       |
| A1J7                  | 1251-1636      | 4   |     | CONNECTOR=SGL CONT SKT .04-IN-BSC-SZ RND | 28480    | 1251-1636       |
| A1K1                  | 0490-0508      | 2   | 13  | RELAY 2C 12VDC-COIL .5A 28VDC            | 28480    | 0490-0508       |
| A1K2                  | 0490-0508      | 2   |     | RELAY 2C 12VDC-COIL .5A 28VDC            | 28480    | 0490-0508       |
| A1K3                  | 0490-0508      | 2   |     | RELAY 2C 12VDC-COIL .5A 28VDC            | 28480    | 0490-0508       |
| A1K4                  | 0490-0508      | 2   |     | RELAY 2C 12VDC-COIL .5A 28VDC            | 28480    | 0490-0508       |
| A1K5                  | 0490-0508      | 2   |     | RELAY 2C 12VDC-COIL .5A 28VDC            | 28480    | 0490-0508       |
| A1K6                  | 0490-0508      | 2   |     | RELAY 2C 12VDC-COIL .5A 28VDC            | 28480    | 0490-0508       |
| A1K7                  | 0490-0508      | 2   |     | RELAY 2C 12VDC-COIL .5A 28VDC            | 28480    | 0490-0508       |
| A1K8                  | 0490-0508      | 2   |     | RELAY 2C 12VDC-COIL .5A 28VDC            | 28480    | 0490-0508       |
| A1K9                  | 0490-0508      | 2   |     | RELAY 2C 12VDC-COIL .5A 28VDC            | 28480    | 0490-0508       |
| A1K11                 | 0490-0508      | 2   |     | RELAY 2C 12VDC-COIL .5A 28VDC            | 28480    | 0490-0508       |
| A1K12                 | 0490-0508      | 2   |     | RELAY 2C 12VDC-COIL .5A 28VDC            | 28480    | 0490-0508       |
| A1K13                 | 0490-0508      | 2   |     | RELAY 2C 12VDC-COIL .5A 28VDC            | 28480    | 0490-0508       |
| A1K14                 | 0490-0508      | 2   |     | RELAY 2C 12VDC-COIL .5A 28VDC            | 28480    | 0490-0508       |
| A1L1                  | 9140-0308      | 8   | 1   | COIL-MLD 120NH 5% Q=50 .155DX,375LG-NOM  | 28480    | 9140-0308       |
| A1L2                  | 9100-3560      | 6   | 17  | COIL-MLD 5.6UH 5% Q=45 .155DX,375LG-NOM  | 28480    | 9100-3560       |
| A1L3                  | 9140-0144      | 0   | 51  | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L4                  | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L5                  | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L6                  | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L7                  | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L8                  | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L9                  | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L11                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L12                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L13                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L14                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L15                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L16                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L18                 | 9100-0685      | 0   | 1   | COIL .156DX,625LG-NOM                    | 28480    | 9100-0685       |
| A1L19                 | 9100-4041      | 0   | 3   | COIL 11-ST                               | 28480    | 9100-4041       |
| A1L20                 | 9100-2247      | 4   | 13  | COIL-MLD 100MH 10% Q=34 .095DX,25LG-NOM  | 28480    | 9100-2247       |
| A1L21                 | 9100-4041      | 0   |     | COIL 11-ST                               | 28480    | 9100-4041       |
| A1L22                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L23                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L24                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L25                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L26                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L27                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1L28                 | 9100-3560      | 6   |     | COIL-MLD 5.6UH 5% Q=45 .155DX,375LG-NOM  | 28480    | 9100-3560       |
| A1L29                 | 9100-3560      | 6   |     | COIL-MLD 5.6UH 5% Q=45 .155DX,375LG-NOM  | 28480    | 9100-3560       |
| A1L30                 | 9140-0158      | 6   | 7   | COIL-MLD 1UH 10% Q=32 .095DX,25LG-NOM    | 28480    | 9140-0158       |
| A1L31                 | 9100-3560      | 6   |     | COIL-MLD 5.6UH 5% Q=45 .155DX,375LG-NOM  | 28480    | 9100-3560       |
| A1L32                 | 9100-3560      | 6   |     | COIL-MLD 5.6UH 5% Q=45 .155DX,375LG-NOM  | 28480    | 9100-3560       |
| A1L33                 | 9100-3560      | 6   |     | COIL-MLD 5.6UH 5% Q=45 .155DX,375LG-NOM  | 28480    | 9100-3560       |
| A1L34                 | 9100-3560      | 6   |     | COIL-MLD 5.6UH 5% Q=45 .155DX,375LG-NOM  | 28480    | 9100-3560       |
| A1L35                 | 9100-3560      | 6   |     | COIL-MLD 5.6UH 5% Q=45 .155DX,375LG-NOM  | 28480    | 9100-3560       |
| A1L36                 | 9100-3560      | 6   |     | COIL-MLD 5.6UH 5% Q=45 .155DX,375LG-NOM  | 28480    | 9100-3560       |
| A1L37                 | 9100-3560      | 6   |     | COIL-MLD 5.6UH 5% Q=45 .155DX,375LG-NOM  | 28480    | 9100-3560       |
| A1L38                 | 9100-3560      | 6   |     | COIL-MLD 5.6UH 5% Q=45 .155DX,375LG-NOM  | 28480    | 9100-3560       |
| A1L39                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX,25LG-NOM  | 28480    | 9140-0144       |
| A1Q1                  | 1853-0066      | 7   | 6   | TRANSISTOR PNP SI TO-92 PD=625MW         | 28480    | 1853-0066       |
| A1Q2                  | 1854-0071      | 8   | 24  | TRANSISTOR NPN SI PD=300MW FT=200MHZ     | 28480    | 1854-0071       |
| A1Q3                  | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ     | 28480    | 1854-0071       |
| A1Q4                  | 1853-0066      | 8   |     | TRANSISTOR PNP SI TO-92 PD=625MW         | 28480    | 1853-0066       |
| A1Q5                  | 1853-0066      | 8   |     | TRANSISTOR PNP SI TO-92 PD=625MW         | 28480    | 1853-0066       |
| A1Q6                  | 1855-026A      | 6   | 1   | TRANSISTOR J-FET N-CHAN D-MODE TO-92 SI  | 17856    | J309            |
| A1Q7                  | 1854-0296      | 8   | 5   | TRANSISTOR NPN SI TO-92 PD=310MA         | 28480    | 1854-0296       |
| A1Q8                  | 1854-0401      | 7   | 1   | TRANSISTOR NPN SI TO-72 PD=175MA         | 28480    | 1854-0401       |
| A1Q9                  | 1853-0354      | 7   | 6   | TRANSISTOR PNP SI TO-92 PD=550MW         | 28480    | 1853-0354       |
| A1Q10                 | 1854-0351      | 6   | 12  | TRANSISTOR NPN SI TO-18 PD=360MW         | 28480    | 1854-0351       |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                             | Mfr Code | Mfr Part Number     |
|-----------------------|----------------|-----|-----|-----------------------------------------|----------|---------------------|
| A1Q1                  | 1853-0354      | 7   |     | TRANSISTOR PNP SI TO-92 PD=350MW        | 28480    | 1853-0354           |
| A1Q2                  | 1854-0305      | 0   | 7   | TRANSISTOR NPN SI TO-18 PD=400MW        | 28480    | 1854-0305           |
| A1Q3                  | 1854-0404      | 7   | 4   | TRANSISTOR NPN 2N930 SI TO-39 PD=1W     | 01928    | 2N930               |
| A1Q4                  | 1854-0305      | 0   |     | TRANSISTOR NPN SI TO-18 PD=400MW        | 28480    | 1854-0305           |
| A1Q15                 | 1854-0247      | 9   | 2   | TRANSISTOR NPN SI TO-39 PD=1W FT=800MHZ | 28480    | 1854-0247           |
| A1Q16                 | 1854-0485      | 7   | 11  | TRANSISTOR NPN SI TO-104 PD=175MW       | 28480    | 1854-0485           |
| A1Q17                 | 1854-0296      | 8   |     | TRANSISTOR NPN SI TO-92 PD=310MW        | 28480    | 1854-0296           |
| A1Q18                 | 1854-0305      | 0   |     | TRANSISTOR NPN SI TO-18 PD=400MW        | 28480    | 1854-0305           |
| A1Q19                 | 1853-0354      | 7   |     | TRANSISTOR PNP SI TO-92 PD=350MW        | 28480    | 1853-0354           |
| A1Q20                 | 1853-0066      | 8   |     | TRANSISTOR PNP SI TO-92 PD=625MW        | 28480    | 1853-0066           |
| A1Q21                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ    | 28480    | 1854-0071           |
| A1Q22                 | 1853-0066      | 8   |     | TRANSISTOR PNP SI TO-92 PD=625MW        | 28480    | 1853-0066           |
| A1Q23                 | 1853-0066      | 8   |     | TRANSISTOR PNP SI TO-92 PD=625MW        | 28480    | 1853-0066           |
| A1Q24                 | 1853-0051      | 1   | 1   | TRANSISTOR PNP 2N4037 SI TO-5 PD=1W     | 01928    | 2N4037              |
| A1Q25                 | 1854-0039      | 7   |     | TRANSISTOR NPN 2N3053S SI TO-39 PD=1W   | 01928    | 2N3053S             |
| A1R1                  | 0760-0026      | 2   | 1   | RESISTOR 75 2% 1W MO TC=0+200           | 28480    | 0760-0026           |
| A1R2                  | 0757-0801      | 4   | 1   | RESISTOR 150 1% .5W F TC=0+100          | 28480    | 0757-0801           |
| A1R3                  | 0683-6805      | 3   | 18  | RESISTOR 68 5% .25W FC TC=400/+500      | 01121    | C86805              |
| A1R4                  | 0683-1025      | 9   | 169 | RESISTOR 1K 5% .25W FC TC=400/+600      | 01121    | C81025              |
| A1R5                  | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600      | 01121    | C81025              |
| A1R6                  | 0683-6805      | 3   |     | RESISTOR 68 5% .25W FC TC=400/+500      | 01121    | C86805              |
| A1R7                  | 0683-4735      | 4   | 14  | RESISTOR 47K 5% .25W FC TC=400/+800     | 01121    | C84735              |
| A1R8                  | 0683-4735      | 4   |     | RESISTOR 47K 5% .25W FC TC=400/+800     | 01121    | C84735              |
| A1R9                  | 0683-6805      | 3   |     | RESISTOR 68 5% .25W FC TC=400/+500      | 01121    | C86805              |
| A1R11                 | 0698-4840      | 3   | 1   | RESISTOR 115 1% .5W F TC=0+100          | 28480    | 0698-4840           |
| A1R12                 | 0757-0003      | 8   | 1   | RESISTOR 26.1 1% .5W F TC=0+100         | 28480    | 0757-0003           |
| A1R13                 | 0698-5019      | 0   | 1   | RESISTOR 32.4 1% .5W F TC=0+100         | 28480    | 0698-5019           |
| A1R14                 | 0683-6805      | 3   |     | RESISTOR 68 5% .25W FC TC=400/+500      | 01121    | C86805              |
| A1R15                 | 0757-0167      | 5   | 1   | RESISTOR 143 1% .25W F TC=0+100         | 24546    | C5-1/4-T0-143R-F    |
| A1R16                 | 0698-8154      | 0   | 1   | RESISTOR 75 .1% 1W F TC=0+25            | 07716    | BRS-1-T9-75R0-B     |
| A1R17                 | 0757-0410      | 1   | 2   | RESISTOR 301 1% .125W F TC=0+100        | 24546    | C4-1/8-T0-301R-F    |
| A1R18                 | 0683-7505      | 2   | 6   | RESISTOR 75 5% .25W FC TC=400/+500      | 01121    | C87505              |
| A1R19                 | 0683-6805      | 3   |     | RESISTOR 68 5% .25W FC TC=400/+500      | 01121    | C86805              |
| A1R20                 | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=400/+700    | 01121    | C82225              |
| A1R21                 | 0683-7505      | 2   |     | RESISTOR 75 5% .25W FC TC=400/+500      | 01121    | C87505              |
| A1R22                 | 0757-0410      | 1   |     | RESISTOR 301 1% .125W F TC=0+100        | 24546    | C4-1/8-T0-301R-F    |
| A1R23                 | 0683-7505      | 2   |     | RESISTOR 75 5% .25W FC TC=400/+500      | 01121    | C87505              |
| A1R24                 | 0683-6805      | 3   |     | RESISTOR 68 5% .25W FC TC=400/+500      | 01121    | C86805              |
| A1R25                 | 0683-6805      | 3   |     | RESISTOR 68 5% .25W FC TC=400/+500      | 01121    | C86805              |
| A1R26                 | 0698-6979      | 3   | 2   | RESISTOR 111.1K .1% .125W F TC=0+25     | 28480    | 0698-6979           |
| A1R27                 | 0698-6305      | 9   | 2   | RESISTOR 900K .1% .25W F TC=0+25        | 28480    | 0698-6305           |
| A1R28                 | 0683-6805      | 3   |     | RESISTOR 68 5% .25W FC TC=400/+500      | 01121    | C86805              |
| A1R29                 | 0698-6979      | 3   |     | RESISTOR 111.1K .1% .125W F TC=0+25     | 28480    | 0698-6979           |
| A1R31                 | 0698-6305      | 9   |     | RESISTOR 900K .1% .25W F TC=0+25        | 28480    | 0698-6305           |
| A1R32                 | 0683-2205      | 9   | 30  | RESISTOR 22 5% .25W FC TC=400/+500      | 01121    | C82205              |
| A1R33                 | 0698-3225      | 6   | 1   | RESISTOR 1.43K 1% .125W F TC=0+100      | 24546    | C4-1/8-T0-1431-F    |
| A1R34                 | 0683-1045      | 3   | 26  | RESISTOR 100K 5% .25W FC TC=400/+800    | 01121    | C81045              |
| A1R35                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600      | 01121    | C81025              |
| A1R36                 | 0698-4467      | 0   | 1   | RESISTOR 1.05K 1% .125W F TC=0+100      | 24546    | C4-1/8-T0-1051-F    |
| A1R37                 | 0698-4375      | 9   | 1   | RESISTOR 30.9 1% .125W F TC=0+100       | 03888    | PME55-1/8-T0-30R9-F |
| A1R38                 | 0698-3262      | 1   | 1   | RESISTOR 40.2 1% .125W F TC=0+100       | 24546    | C4-1/8-T0-4022-F    |
| A1R39                 | 2100-3296      | 8   | 2   | RESISTOR-TRMR 1% 10% C TOP-ADJ 17-TRN   | 28480    | 2100-3296           |
| A1R40                 | 0683-6225      | 1   | 3   | RESISTOR 6.2K 5% .25W FC TC=400/+700    | 01121    | C86225              |
| A1R41                 | 0683-1035      | 1   | 87  | RESISTOR 10K 5% .25W FC TC=400/+700     | 01121    | C81035              |
| A1R42                 | 0683-6825      | 7   | 24  | RESISTOR 6.8K 5% .25W FC TC=400/+700    | 01121    | C86825              |
| A1R43                 | 0698-4425      | 0   | 2   | RESISTOR 1.54K 1% .125W F TC=0+100      | 24546    | C4-1/8-T0-1541-F    |
| A1R44                 | 0698-0421      | 6   | 3   | RESISTOR 249 1% .125W F TC=0+100        | 24546    | C4-1/8-T0-249R-F    |
| A1R45                 | 0683-2245      | 7   | 6   | RESISTOR 220K 5% .25W FC TC=800/+900    | 01121    | C82245              |
| A1R46                 | 0683-2245      | 7   |     | RESISTOR 220K 5% .25W FC TC=800/+900    | 01121    | C82245              |
| A1R47                 | 0683-1015      | 7   | 64  | RESISTOR 100 5% .25W FC TC=400/+500     | 01121    | C81015              |
| A1R48                 | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500     | 01121    | C81015              |
| A1R49                 | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500     | 01121    | C81015              |
| A1R50                 | 0698-4398      | 6   | 1   | RESISTOR 86.6 1% .125W F TC=0+100       | 24546    | C4-1/8-T0-866R-F    |
| A1R51                 | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500     | 01121    | C81015              |
| A1R52                 | 2100-3345      | 8   | 1   | RESISTOR-TRMR 10 10% C TOP-ADJ 17-TRN   | 28480    | 2100-3345           |
| A1R53                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600      | 01121    | C81025              |
| A1R54                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600      | 01121    | C81025              |
| A1R55                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600      | 01121    | C81025              |
| A1R56                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600      | 01121    | C81025              |
| A1R57                 | 0698-4456      | 7   | 1   | RESISTOR 549 1% .125W F TC=0+100        | 24546    | C4-1/8-T0-549R-F    |
| A1R58                 | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=400/+700    | 01121    | C86825              |
| A1R59                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600      | 01121    | C81025              |
| A1R60                 | 0698-4407      | 8   | 4   | RESISTOR 118 1% .125W F TC=0+100        | 24546    | C4-1/8-T0-118R-F    |
| A1R61                 | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=400/+700    | 01121    | C86825              |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                           | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|---------------------------------------|----------|------------------|
| A1R62                 | 0683-1015      | 7   | 147 | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015           |
| A1R63                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500   | 01121    | CB4705           |
| A1R64                 | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700  | 01121    | CB1035           |
| A1R65                 | 0683-4705      | 6   |     | RESISTOR 47 5% .25W FC TC=-400/+500   | 01121    | CB4705           |
| A1R66                 | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015           |
| A1R67                 | 0683-1035      | 1   | 34  | RESISTOR 10K 5% .25W FC TC=-400/+700  | 01121    | CB1035           |
| A1R68                 | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700  | 01121    | CB1035           |
| A1R69                 | 0683-4735      | 4   |     | RESISTOR 47K 5% .25W FC TC=-400/+800  | 01121    | CB4735           |
| A1R71                 | 0683-4735      | 4   |     | RESISTOR 47K 5% .25W FC TC=-400/+800  | 01121    | CB4735           |
| A1R72                 | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500   | 01121    | CB5105           |
| A1R73                 | 0683-4735      | 4   | 1   | RESISTOR 47K 5% .25W FC TC=-400/+800  | 01121    | CB4735           |
| A1R74                 | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800 | 01121    | CB1045           |
| A1R75                 | 0683-4735      | 4   |     | RESISTOR 47K 5% .25W FC TC=-400/+800  | 01121    | CB4735           |
| A1R76                 | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700  | 01121    | CB1035           |
| A1R78                 | 0698-6369      | 5   |     | RESISTOR 1M .1% .25W F TC=0+-25       | 28480    | 0698-6369        |
| A1R81                 | 0683-5115      | 6   | 8   | RESISTOR 510 5% .25W FC TC=-400/+600  | 01121    | CB5115           |
| A1R82                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500   | 01121    | CB4705           |
| A1R83                 | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700 | 01121    | CB4725           |
| A1R84                 | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700 | 01121    | CB4725           |
| A1R85                 | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700  | 01121    | CB1035           |
| A1R86                 | 0698-4442      | 1   | 3   | RESISTOR 4.42K 1% .125W F TC=0+-100   | 24546    | C4=1/8-T0=4421-F |
| A1R87                 | 0698-4407      | 8   |     | RESISTOR 118 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=118R-F |
| A1R88                 | 0698-4407      | 8   |     | RESISTOR 118 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=118R-F |
| A1R89                 | 0683-9135      | 8   |     | RESISTOR 91K 5% .25W FC TC=-400/+800  | 01121    | CB9135           |
| A1R91                 | 0683-9135      | 8   |     | RESISTOR 91K 5% .25W FC TC=-400/+800  | 01121    | CB9135           |
| A1R92                 | 0757-0393      | 9   | 1   | RESISTOR 47.5 1% .125W F TC=0+-100    | 24546    | C4=1/8-T0=47R5-F |
| A1R93                 | 0698-4411      | 4   |     | RESISTOR 140 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=140R-F |
| A1R94                 | 0683-6805      | 3   |     | RESISTOR 68 5% .25W FC TC=-400/+500   | 01121    | CB6805           |
| A1R95                 | 0698-3437      | 2   |     | RESISTOR 133 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=133R-F |
| A1R96                 | 0698-4399      | 7   |     | RESISTOR 88.7 1% .125W F TC=0+-100    | 24546    | C4=1/8-T0=88R7-F |
| A1R97                 | 0683-6805      | 3   | 1   | RESISTOR 68 5% .25W FC TC=-400/+500   | 01121    | CB6805           |
| A1R98                 | 0698-4561      | 5   |     | RESISTOR 118 1% .25W F TC=0+-100      | 28480    | 0698-4561        |
| A1R99                 | 0698-4149      | 5   |     | RESISTOR 86.6 1% .25W F TC=0+-100     | 24546    | C5=1/4-T0=86R2-F |
| A1R101                | 0698-4407      | 8   |     | RESISTOR 118 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=118R-F |
| A1R102                | 0683-6805      | 3   |     | RESISTOR 68 5% .25W FC TC=-400/+500   | 01121    | CB6805           |
| A1R103                | 0757-0262      | 5   | 2   | RESISTOR 221 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=221R-F |
| A1R104                | 0698-4377      | 1   |     | RESISTOR 37.4 1% .125W F TC=0+-100    | 24546    | C4=1/8-T0=37R4-F |
| A1R105                | 0757-0262      | 5   |     | RESISTOR 221 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=221R-F |
| A1R106                | 0683-6805      | 3   |     | RESISTOR 68 5% .25W FC TC=-400/+500   | 01121    | CB6805           |
| A1R107                | 0698-4546      | 6   |     | RESISTOR 63.4 1% .25W F TC=0+-100     | 24546    | C5=1/4-T0=63R4-F |
| A1R108                | 2100-3288      | 8   | 1   | RESISTOR=TRMR 50 20% C TOP-ADJ 17-TRN | 28480    | 2100-3288        |
| A1R109                | 0698-4415      | 8   |     | RESISTOR 165 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=165R-F |
| A1R110                | 2100-3210      | 6   |     | RESISTOR=TRMR 10K 10% C TOP-ADJ 1-TRN | 28480    | 2100-3210        |
| A1R111                | 0683-6805      | 3   |     | RESISTOR 68 5% .25W FC TC=-400/+500   | 01121    | CB6805           |
| A1R112                | 0683-4705      | 4   |     | RESISTOR 47 5% .5W CC TC=0+412        | 01121    | EB4705           |
| A1R113                | 8150-3375      | 5   | 1   | WIRE 22AWG W/BK PVC 1X22 80C          | 28480    | 8150-3375        |
| A1R114                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700  | 01121    | CB1035           |
| A1R115                | 0698-4453      | 4   |     | RESISTOR 402 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=402R-F |
| A1R116                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700  | 01121    | CB1035           |
| A1R117                | 0698-0085      | 0   |     | RESISTOR 2.61K 1% .125W F TC=0+-100   | 24546    | C4=1/8-T0=2611-F |
| A1R118                | 0757-0407      | 6   | 7   | RESISTOR 200 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=201-F  |
| A1R119                | 0757-0407      | 6   |     | RESISTOR 200 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=201-F  |
| A1R120                | 0683-6805      | 3   |     | RESISTOR 68 5% .25W FC TC=-400/+500   | 01121    | CB6805           |
| A1R121                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500   | 01121    | CB4705           |
| A1R122                | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700 | 01121    | CB2225           |
| A1R123                | 0683-2715      | 6   | 13  | RESISTOR 270 5% .25W FC TC=-400/+600  | 01121    | CB2715           |
| A1R124                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600   | 01121    | CB1025           |
| A1R125                | 0698-4453      | 4   |     | RESISTOR 402 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=402R-F |
| A1R126                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500   | 01121    | CB4705           |
| A1R127                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700  | 01121    | CB1035           |
| A1R128                | 0683-1015      | 7   | 1   | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015           |
| A1R129                | 0687-3311      | 8   |     | RESISTOR 330 10% .5W CC TC=0+529      | 01121    | EB3311           |
| A1R130                | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=-400/+600  | 01121    | CB2215           |
| A1R131                | 2100-3296      | 8   |     | RESISTOR=TRMR 1K 10% C TOP-ADJ 17-TRN | 28480    | 2100-3296        |
| A1R132                | 0698-4414      | 7   |     | RESISTOR 158 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=158R-F |
| A1R133                | 0698-4121      | 3   | 2   | RESISTOR 11.3K 1% .125W F TC=0+-100   | 24546    | C4=1/8-T0=1132-F |
| A1R134                | 0683-0275      | 9   |     | RESISTOR 2.7 5% .25W FC TC=-400/+500  | 01121    | CB275            |
| A1R135                | 0698-3558      | 6   |     | RESISTOR 4.02K 1% .125W F TC=0+-100   | 24546    | C4=1/8-T0=4021-F |
| A1R136                | 0683-0335      | 2   |     | RESISTOR 3.3 5% .25W FC TC=-400/+500  | 01121    | CB335            |
| A1R137                | 0698-4499      | 8   |     | RESISTOR 54.9K 1% .125W F TC=0+-100   | 24546    | C4=1/8-T0=5492-F |
| A1R138                | 0757-0434      | 9   | 2   | RESISTOR 3.65K 1% .125W F TC=0+-100   | 24546    | C4=1/8-T0=3651-F |
| A1R139                | 0683-0335      | 2   |     | RESISTOR 3.3 5% .25W FC TC=-400/+500  | 01121    | CB335            |
| A1R140                | 0683-1225      | 1   |     | RESISTOR 1.2K 5% .25W FC TC=-400/+700 | 01121    | CB1225           |
| A1R141                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015           |
| A1R142                | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500   | 01121    | CB2205           |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                                 | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|---------------------------------------------|----------|------------------|
| A1R143                | 0757-0401      | 0   | 7   | RESISTOR 100 1% .125W F TC=0+/-100          | 24546    | C4=1/8-T0=101-F  |
| A1R144                | 0757-0401      | 0   |     | RESISTOR 100 1% .125W F TC=0+/-100          | 24546    | C4=1/8-T0=101-F  |
| A1R145                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800       | 01121    | CB1045           |
| A1R146                | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700       | 01121    | CB4725           |
| A1R147                | 0696-3496      | 3   | 2   | RESISTOR 3.57K 1% .125W F TC=0+/-100        | 24546    | C4=1/8-T0=357R-F |
| A1R148                | 0683-3005      | 9   | 1   | RESISTOR 30 5% .25W FC TC=-400/+500         | 01121    | CB3005           |
| A1R149                | 0683-7515      | 4   | 6   | RESISTOR 750 5% .25W FC TC=-400/+600        | 01121    | CB7515           |
| A1R150                | 0683-1005      | 5   | 11  | RESISTOR 10 5% .25W FC TC=-400/+500         | 01121    | CB1005           |
| A1R151                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500        | 01121    | CB1015           |
| A1R152                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500        | 01121    | CB1015           |
| A1R153                | 0757-0280      | 3   | 20  | RESISTOR 1K 1% .125W F TC=0+/-100           | 24546    | C4=1/8-T0=1001-F |
| A1R154                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700        | 01121    | CB1035           |
| A1R155                | 0683-2045      | 5   | 6   | RESISTOR 200K 5% .25W FC TC=-800/+900       | 01121    | CB2045           |
| A1R156                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500         | 01121    | CB4705           |
| A1R157                | 0683-0365      | 8   | 1   | RESISTOR 3.6 5% .25W FC TC=-400/+500        | 01121    | CB3665           |
| A1R158                | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700       | 01121    | CB6825           |
| A1R159                | 0683-2035      | 3   | 20  | RESISTOR 20K 5% .25W FC TC=-400/+800        | 01121    | CB2035           |
| A1R160                | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700       | 01121    | CB4725           |
| A1R161                | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=-400/+800        | 01121    | CB2035           |
| A1R162                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800       | 01121    | CB1045           |
| A1R163                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500         | 01121    | CB4705           |
| A1R164                | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700       | 01121    | CB6825           |
| A1R165                | 0683-4745      | 6   | 2   | RESISTOR 470K 5% .25W FC TC=-800/+900       | 01121    | CB4745           |
| A1R166                | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=-400/+800        | 01121    | CB2035           |
| A1R167                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800       | 01121    | CB1045           |
| A1R168                | 0683-3945      | 6   | 2   | RESISTOR 390K 5% .25W FC TC=-800/+900       | 01121    | CB3945           |
| A1R169                | 0683-3945      | 6   |     | RESISTOR 390K 5% .25W FC TC=-800/+900       | 01121    | CB3945           |
| A1R170                | 2100-0558      | 9   | 3   | RESISTOR-TRMR 20K 10% C TOP-ADJ 1-TRN       | 28480    | 2100-0558        |
| A1R171                | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=-400/+800        | 01121    | CB2035           |
| A1R172                | 0757-4257      | 6   | 1   | RESISTOR 47.5K 1% .125W F TC=0+/-100        | 24546    | C4=1/8-T0=4752-F |
| A1R173                | 2100-3286      | 6   | 2   | RESISTOR-TRMR 10K 10% C TOP-ADJ 17-TRN      | 32997    | 3292N-1=103      |
| A1R174                | 2100-3286      | 6   |     | RESISTOR-TRMR 10K 10% C TOP-ADJ 17-TRN      | 32997    | 3292N-1=103      |
| A1R175                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600         | 01121    | CB1025           |
| A1R176                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600         | 01121    | CB1025           |
| A1R177                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800       | 01121    | CB1045           |
| A1R178                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700        | 01121    | CB1035           |
| A1R179                | 0683-2025      | 1   | 6A  | RESISTOR 2K 5% .25W FC TC=-400/+700         | 01121    | CB2025           |
| A1R180                | 0683-5125      | 6   | 14  | RESISTOR 5.1K 5% .25W FC TC=-400/+700       | 01121    | CB5125           |
| A1R181                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800       | 01121    | CB1045           |
| A1R182                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800       | 01121    | CB1045           |
| A1R183                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800       | 01121    | CB1045           |
| A1R184                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800       | 01121    | CB1045           |
| A1R185                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800       | 01121    | CB1045           |
| A1R186                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800       | 01121    | CB1045           |
| A1R187                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800       | 01121    | CB1045           |
| A1R188                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500        | 01121    | CB1015           |
| A1R189                | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=-400/+600        | 01121    | CB2215           |
| A1R190                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600         | 01121    | CB1025           |
| A1R191                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500        | 01121    | CB1015           |
| A1R192                | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=-400/+600        | 01121    | CB2215           |
| A1R193                | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700       | 01121    | CB2225           |
| A1R194                | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700       | 01121    | CB2225           |
| A1R195                | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700       | 01121    | CB2225           |
| A1R196                | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700       | 01121    | CB2225           |
| A1R197                | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700       | 01121    | CB2225           |
| A1R198                | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700       | 01121    | CB2225           |
| A1R199                | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700       | 01121    | CB2225           |
| A1R201                | 0683-4735      | 4   |     | RESISTOR 47K 5% .25W FC TC=-400/+800        | 01121    | CB4735           |
| A1R202                | 0683-4735      | 4   |     | RESISTOR 47K 5% .25W FC TC=-400/+800        | 01121    | CB4735           |
| A1R203                | 0683-4735      | 4   |     | RESISTOR 47K 5% .25W FC TC=-400/+800        | 01121    | CB4735           |
| A1R204                | 0683-1065      |     |     | RESISTOR 10M 5% .25W FC TC=900/+100         | 01607    | CB1065           |
| A1R205                | 0683-1065      |     |     | RESISTOR 10M 5% .25W FC TC=900/+100         | 01607    | CB1065           |
| A1T1                  | 9011-1393      | 9   | 1   | COIL, XFMR-TRIFILAR, .375DIAx, 625HI, ENCAP | 28480    | 9100-1393        |
| A1T2                  | 08552-6024     | 9   | 3   | TRANSFORMER                                 | 28480    | 08552-6024       |
| A1TP3                 | 1251-2501      | 4   | 7   | CONNECTOR=8GL CONT SKT .022-IN=HSC-SZ       | 28480    | 1251-2501        |
| A1TP3                 | 1251-4045      | 5   |     | CONNECTOR                                   | 28480    | 1251-4045        |
| A1U1                  | 1858-0004      | 4   | 4   | TRANSISTOR ARRAY                            | 0192B    | CA3049           |
| A1U2                  | 1826-0043      | 4   | 14  | OP AMP GP TO=99                             | 0192B    | CA307T           |
| A1U3                  | 1858-0004      | 4   |     | TRANSISTOR ARRAY                            | 0192B    | CA3049           |
| A1U4                  | 1826-0043      | 4   |     | OP AMP GP TO=99                             | 0192B    | CA307T           |
| A1U5                  | 1826-0043      | 4   |     | OP AMP GP TO=99                             | 0192B    | CA307T           |
| A1U6                  | 1826-0035      | 4   | 1   | OP AMP LOW-DRIFT TO=99                      | 27014    | LM308AH          |
| A1U7                  | 1820-0270      | 7   | 1   | WIDEBAND AMPL VID TO=100                    | 07263    | 733HC            |
| A1U8                  | 1826-0111      | 7   | 3   | OP AMP GP DUAL TO=99                        | 04713    | MC1458C          |
| A1U9                  | 1858-0047      | 5   | 2   | TRANSISTOR ARRAY DA-PIN                     | 13606    | ULN=2003A        |
| A1U10                 | 1858-0047      | 5   |     | TRANSISTOR ARRAY DA-PIN                     | 13606    | ULN=2003A        |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                               | Mfr Code | Mfr Part Number   |
|-----------------------|----------------|-----|-----|-------------------------------------------|----------|-------------------|
| A1U11                 | 1820-0946      | 4   | 3   | IC GATE CMOS NOR QUAD 2-INP               | 0192B    | CD4001AF          |
| A1U12                 | 1820-0946      | 4   |     | IC GATE CMOS NOR QUAD 2-INP               | 0192B    | CD4001AF          |
| A1U13                 | 1820-0946      | 4   |     | IC GATE CMOS NOR QUAD 2-INP               | 0192B    | CD4001AF          |
| A1U14                 | 1820-1145      | 7   | 1   | IC BFR CMOS INV HEX 1-INP                 | 0192B    | CD4049AF          |
| A1U15                 | 1990-0577      | 6   | 4   | OPTO-ISOLATOR LED-PDIO/XSTR IF=50MA-MAX   | 28480    | 5082-4355         |
| A1U16                 | 1990-0577      | 6   |     | OPTO-ISOLATOR LED-PDIO/XSTR IF=50MA-MAX   | 28480    | 5082-4355         |
| A1U17                 | 1990-0577      | 6   |     | OPTO-ISOLATOR LED-PDIO/XSTR IF=50MA-MAX   | 28480    | 5082-4355         |
| A1U18                 | 1990-0444      | 6   | 2   | OPTO-ISOLATOR LED-PDIO/XSTR IF=25MA-MAX   | 28480    | 5082-4351         |
| A1U19                 | 1990-0444      | 6   |     | OPTO-ISOLATOR LED-PDIO/XSTR IF=25MA-MAX   | 28480    | 5082-4351         |
| A1U20                 | 1990-0577      | 6   |     | OPTO-ISOLATOR LED-PDIO/XSTR IF=50MA-MAX   | 28480    | 5082-4355         |
| A1W66                 | 03585-61666    | 0   | 1   | CABLE ASSEMBLY                            | 28480    | 03585-61666       |
|                       |                |     |     | A1 MISCELLANEOUS PARTS                    |          |                   |
|                       | 0340-0060      | 4   | 1   | TERMINAL-STUD SPCL-FDTHRU PRESS-MTG       | 28480    | 0340-0060         |
|                       | 03585-21208    | 2   | 1   | BAR, CONNECTOR MOUNTING                   | 28480    | 03585-21208       |
|                       | 1200-0473      | 8   | 12  | SOCKET-IC 16-CONT DIP DIP-SLDR            | 28480    | 1200-0473         |
|                       | 9170-0894      | 0   | 4   | CORE-SHIELDING BEAD                       | 28480    | 9170-0894         |
|                       | 1251-0600      | 0   | 30  | CONNECTOR-SGL CONT PIN 1,14-MM-BSC-SZ SQ  | 28480    | 1251-0600         |
| A2                    | 03585-66502    | 3   | 1   | PC ASSEMBLY, 1ST MIXER                    | 28480    | 03585-66502       |
| A2C1                  | 0180-1794      | 4   | 1   | CAPACITOR-FXD 22UF +-10% 35VDC TA         | 28480    | 0180-1794         |
| A2C4                  | 0160-3879      | 7   | 14  | CAPACITOR-FXD .01UF +-20% 100VDC CER      | 28480    | 0160-3879         |
| A2C8                  | 0160-3879      | 7   |     | CAPACITOR-FXD .01UF +-20% 100VDC CER      | 28480    | 0160-3879         |
| A2C9                  | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0160-2055         |
| A2C11                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0160-2055         |
| A2C12                 | 0160-3879      | 7   |     | CAPACITOR-FXD .01UF +-20% 100VDC CER      | 28480    | 0160-3879         |
| A2C13                 | 0140-0077      | 9   | 1   | CAPACITOR-FDTHRU 100PF 10% 500V MICA      | 72982    | 666-053 0140 101K |
| A2C14                 | 0160-2395      | 0   | 1   | CAPACITOR-FXD 360PF +-10% 500VDC MICA     | 53021    | M=100             |
| A2C15                 | 0160-2266      | 4   |     | CAPACITOR-FXD 24PF +-5% 500VDC CER 0+-30  | 28480    | 0160-2266         |
| A2C16                 | 0160-2257      | 3   |     | CAPACITOR-FXD 10PF +-5% 500VDC CER 0+-60  | 28480    | 0160-2257         |
| A2C17                 | 0160-2243      | 7   | 1   | CAPACITOR-FXD 2.7PF +-0.25PF 500VDC CER   | 28480    | 0160-2243         |
| A2CR1                 | 1906-0211      | 8   | 1   | DIODE-ARRAY VF DIFF=20MV                  | 28480    | 5082-2831         |
| A2J1                  | 1251-1636      | 4   |     | CONNECTOR-SGL CONT SKT .04-IN-BSC-SZ RND  | 28480    | 1251-1636         |
| A2J2                  | 1250-1314      | 3   | 6   | CONNECTOR-RF SM-SLD FEM PC 50-OHM         | 28480    | 1250-1314         |
| A2J3                  | 1251-1636      | 4   |     | CONNECTOR-SGL CONT SKT .04-IN-BSC-SZ RND  | 28480    | 1251-1636         |
| A2J4                  | 1251-2501      | 4   |     | CONNECTOR-SGL CONT SKT .022-IN-BSC-SZ     | 28480    | 1251-2501         |
| A2J4                  | 1251-4045      | 5   |     | CONNECTOR                                 | 28480    | 1251-4045         |
| A2J5                  | 1251-4822      | 6   | 5   | CONNECTOR 3-PIN M POST TYPE               | 28480    | 1251-4822         |
| A2J5                  | 1258-0141      | 8   |     | JUMPER REMOVABLE                          | 28480    | 1258-0141         |
| A2L1                  | 9100-0539      | 3   | 8   | COIL-MLD 10UH 5% Q=55 .155DX,375LG-NOM    | 28480    | 9100-0539         |
| A2L6                  | 9100-3551      | 5   | 8   | COIL-MLD 1UH 5% Q=50 .155DX,375LG-NOM     | 28480    | 9100-3551         |
| A2L7                  | 03585-32402    | 1   | 1   | COIL, 25 NH                               | 28480    | 03585-32402       |
| A2L8                  | 03585-32401    | 0   | 1   | COIL, 7 NH                                | 28480    | 03585-32401       |
| A2L9                  | 03585-32403    | 2   | 1   | INDUCTOR, SHORTED                         | 28480    | 03585-32403       |
| A2L11                 | 9100-1379      | 1   | 1   | INDUCTOR, VAR                             | 28480    | 9100-1379         |
| A2L12                 | 9100-4041      | 0   |     | COIL 11.5T                                | 28480    | 9100-4041         |
| A2R1                  | 0683-6805      | 3   |     | RESISTOR 68 5% .25W FC TC=-400/+500       | 01121    | C86805            |
| A2R3                  | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=-400/+600      | 01121    | C82215            |
| A2R4                  | 0683-1615      | 3   | 3   | RESISTOR 160 5% .25W FC TC=-400/+600      | 01121    | C81615            |
| A2R5                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500       | 01121    | C84705            |
| A2R6                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500       | 01121    | C84705            |
| A2R7                  | 0683-3305      | 2   | 6   | RESISTOR 33 5% .25W FC TC=-400/+500       | 01121    | C83305            |
| A2R8                  | 0686-1215      | 5   | 1   | RESISTOR 120 5% .5W CC TC=0+529           | 01121    | E81215            |
| A2R9                  | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=-400/+600      | 01121    | C82215            |
| A2R10                 | 0683-1615      | 3   |     | RESISTOR 160 5% .25W FC TC=-400/+600      | 01121    | C81615            |
| A2R11                 | 0683-1015      | 1   | 2   | RESISTOR 100 5% .25W FC TC=-400/+500      | 01121    | C81015            |
| A2R12                 | 0683-1015      | 1   |     | RESISTOR 100 5% .25W FC TC=-400/+500      | 01121    | C81015            |
| A2R13                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500       | 01121    | C84705            |
| A2R14                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500       | 01121    | C84705            |
| A2R15                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500       | 01121    | C84705            |
| A2R16                 | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500      | 01121    | C81015            |
| A2R17                 | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500      | 01121    | C81015            |
| A2R18                 | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=-400/+600      | 01121    | C82215            |
| A2R19                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600       | 01121    | C81025            |
| A2SH1                 | 8160-0289      | 5   | 1   | SHIELD                                    | 28480    | 8160-0289         |
| A2T1                  | 08552-6044     | 1   |     | TRANSFORMER, 6-TURNS                      | 28480    | 08552-6044        |
| A2T2                  | 9100-4038      | 1   | 2   | TRANSFORMER BEAD (CORE) WITH CT PRI & SEC | 28480    | 9100-4038         |
| A2T3                  | 9100-4039      | 6   | 2   | TRANSFORMER-POWER                         | 28480    | 9100-4039         |
| A2T4                  | 08552-6024     | 9   |     | TRANSFORMER                               | 28480    | 08552-6024        |

See introduction to this section for ordering information  
 \*Indicates factory selected value



Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
| A2U1                  | 1858-0015      | 7   | 1   | TRANSISTOR ARRAY, SPECIAL                | 28480    | 1858-0015            |
|                       |                |     |     | A2 MISCELLANEOUS PARTS                   |          |                      |
|                       | 03585-00301    | 2   | 1   | HEAT SINK                                | 28480    | 03585-00301          |
|                       | 0380-0333      | 8   | 4   | STANDOFF-RVT-ON .312-IN-LG 4=40THD       | 00000    | ORDER BY DESCRIPTION |
|                       | 1200-0473      | 8   |     | SOCKET-IC 16-CONT DIP DIP-SLDR           | 28480    | 1200-0473            |
| A3                    | 03585-66503    | 4   | 1   | 100-35 MHZ IF                            | 28480    | 03585-66503          |
| A3C1                  | 0160-2265      | 3   | 4   | CAPACITOR-FXD 22PF +-5% 500VDC CER 0+-30 | 28480    | 0160-2265            |
| A3C2                  | 0160-2266      | 4   |     | CAPACITOR-FXD 24PF +-5% 500VDC CER 0+-30 | 28480    | 0160-2266            |
| A3C3                  | 0160-2266      | 4   |     | CAPACITOR-FXD 24PF +-5% 500VDC CER 0+-30 | 28480    | 0160-2266            |
| A3C4                  | 0160-2266      | 4   |     | CAPACITOR-FXD 24PF +-5% 500VDC CER 0+-30 | 28480    | 0160-2266            |
| A3C5                  | 0160-2249      | 3   | 3   | CAPACITOR-FXD 4.7PF +-25PF 500VDC CER    | 28480    | 0160-2249            |
| A3C6                  | 0160-2265      | 3   |     | CAPACITOR-FXD 22PF +-5% 500VDC CER 0+-30 | 28480    | 0160-2265            |
| A3C7                  | 0160-2265      | 3   |     | CAPACITOR-FXD 22PF +-5% 500VDC CER 0+-30 | 28480    | 0160-2265            |
| A3C8                  | 0121-0451      | 3   |     | CAPACITOR-V TRMR-AIR 1.7-11PF 250V       | 74970    | 187-0106-005         |
| A3C9                  | 0160-2265      | 3   |     | CAPACITOR-FXD 22PF +-5% 500VDC CER 0+-30 | 28480    | 0160-2265            |
| A3C10                 | 0160-2249      | 3   |     | CAPACITOR-FXD 4.7PF +-25PF 500VDC CER    | 28480    | 0160-2249            |
| A3C11                 | 0160-3847      | 9   | 182 | CAPACITOR-FXD .01UF +100-0X 50VDC CER    | 28480    | 0160-3847            |
| A3C12                 | 0160-3879      | 7   |     | CAPACITOR-FXD .01UF +-20% 100VDC CER     | 28480    | 0160-3879            |
| A3C13                 | 0160-3879      | 7   |     | CAPACITOR-FXD .01UF +-20% 100VDC CER     | 28480    | 0160-3879            |
| A3C14                 | 0150-0029      | 2   | 2   | CAPACITOR-FXD 1PF +-10% 500VDC TI D10X   | 28480    | 0150-0029            |
| A3J1                  | 1251-2501      | 4   |     | CONNECTOR-SGL CONT SKT .022-IN-BSC-SZ    | 28480    | 1251-2501            |
| A3J2                  | 1251-4045      | 5   |     | CONNECTOR                                | 28480    | 1251-4045            |
| A3J2                  | 1251-2501      | 4   |     | CONNECTOR-SGL CONT SKT .022-IN-BSC-SZ    | 28480    | 1251-2501            |
| A3J2                  | 1251-4045      | 5   |     | CONNECTOR                                | 28480    | 1251-4045            |
| A3L1                  | 9100-1376      | 8   | 5   | INDUCTOR - VAR                           | 28480    | 9100-1376            |
| A3L2                  | 9100-1376      | 8   |     | INDUCTOR - VAR                           | 28480    | 9100-1376            |
| A3L3                  | 9100-1376      | 8   |     | INDUCTOR - VAR                           | 28480    | 9100-1376            |
| A3L4                  | 9140-0263      | 4   | 1   | COIL-MLD 240NH 5% Q=45 .1550X.375LG-NOM  | 28480    | 9140-0263            |
| A3L5                  | 9100-1376      | 8   |     | INDUCTOR - VAR                           | 28480    | 9100-1376            |
| A3L6                  | 9100-3548      | 0   | 3   | COIL-MLD 470NH 5% Q=45 .155DX.375LG-NOM  | 28480    | 9100-3548            |
| A3L7                  | 9100-1376      | 8   |     | INDUCTOR - VAR                           | 28480    | 9100-1376            |
| A3L8                  | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144            |
| A3Q1                  | 1854-0305      | 0   |     | TRANSISTOR NPN SI TO-18 PD=400MW         | 28480    | 1854-0305            |
| A3Q2                  | 1854-0305      | 0   |     | TRANSISTOR NPN SI TO-18 PD=400MW         | 28480    | 1854-0305            |
| A3R1                  | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | C81035               |
| A3R2                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | C84705               |
| A3R3                  | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | C81035               |
| A3R4                  | 0683-6815      | 5   | 18  | RESISTOR 680 5% .25W FC TC=400/+600      | 01121    | C86815               |
| A3R5                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | C84705               |
| A3R6                  | 0683-1315      | 0   | 1   | RESISTOR 130 5% .25W FC TC=400/+600      | 01121    | C81315               |
| A3R7                  | 0683-6805      | 3   |     | RESISTOR 68 5% .25W FC TC=400/+500       | 01121    | C86805               |
| A3R9                  | 0683-0685      | 5   | 1   | RESISTOR 6.8 5% .25W FC TC=400/+500      | 01121    | C86805               |
| A3R10                 | 0683-0475      | 1   | 1   | RESISTOR 4.7 5% .25W FC TC=400/+500      | 01121    | C84705               |
| A3TP1                 | 0360-0124      | 3   | 141 | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480    | 0360-0124            |
| A4                    | 03585-66504    | 5   | 1   | PC ASSEMBLY, 2ND MIXER                   | 28480    | 03585-66504          |
| A4C1                  | 0140-0193      | 0   | 3   | CAPACITOR-FXD 82PF +-5% 300VDC MICA      | 72136    | DM15E820J0300WV1CR   |
| A4C2                  | 0121-0451      | 3   |     | CAPACITOR-V TRMR-AIR 1.7-11PF 250V       | 74970    | 187-0106-005         |
| A4C3                  | 0121-0451      | 3   |     | CAPACITOR-V TRMR-AIR 1.7-11PF 250V       | 74970    | 187-0106-005         |
| A4C4                  | 0160-3879      | 7   |     | CAPACITOR-FXD .01UF +-20% 100VDC CER     | 28480    | 0160-3879            |
| A4C5                  | 0160-0945      | 2   | 3   | CAPACITOR-FXD 910PF +-5% 100VDC MICA     | 28480    | 0160-0945            |
| A4C6                  | 0160-2205      | 1   | 3   | CAPACITOR-FXD 120PF +-5% 300VDC MICA     | 28480    | 0160-2205            |
| A4C7                  | 0160-3879      | 7   |     | CAPACITOR-FXD .01UF +-20% 100VDC CER     | 28480    | 0160-3879            |
| A4C8                  | 0160-3879      | 7   |     | CAPACITOR-FXD .01UF +-20% 100VDC CER     | 28480    | 0160-3879            |
| A4C9                  | 0140-0192      | 9   | 2   | CAPACITOR-FXD 68PF +-5% 300VDC MICA      | 72136    | DM15E680J0300WV1CR   |
| A4C10                 | 0140-0191      | 8   | 3   | CAPACITOR-FXD 56PF +-5% 300VDC MICA      | 72136    | DM15E560J0300WV1CR   |
| A4C11                 | 0140-0190      | 7   | 10  | CAPACITOR-FXD 39PF +-5% 300VDC MICA      | 72136    | DM15E390J0300WV1CR   |
| A4C12                 | 0160-3879      | 7   |     | CAPACITOR-FXD .01UF +-20% 100VDC CER     | 28480    | 0160-3879            |
| A4C13                 | 0160-3879      | 7   |     | CAPACITOR-FXD .01UF +-20% 100VDC CER     | 28480    | 0160-3879            |
| A4C14                 | 0160-3879      | 7   |     | CAPACITOR-FXD .01UF +-20% 100VDC CER     | 28480    | 0160-3879            |
| A4C15                 | 0160-2306      | 3   |     | CAPACITOR-FXD 27PF +-5% 300VDC MICA      | 28480    | 0160-2306            |
| A4C16                 | 0160-4381      | 8   | 3   | CAPACITOR-FXD 1.5PF +-25PF 200VDC CER    | 28480    | 0160-4381            |
| A4C17                 | 0160-4381      | 8   |     | CAPACITOR-FXD 1.5PF +-25PF 200VDC CER    | 28480    | 0160-4381            |
| A4C18                 | 0160-4381      | 8   |     | CAPACITOR-FXD 1.5PF +-25PF 200VDC CER    | 28480    | 0160-4381            |
| A4CR1                 | 1906-0210      | 7   | 1   | DIODE-ARRAY VF DIFF=20MV                 | 28480    | 5082-2830            |
| A4J1                  | 1250-1314      | 3   |     | CONNECTOR-RF SM-SLD FEM PC 50-OHM        | 28480    | 1250-1314            |
| A4J2                  | 1251-2501      | 4   |     | CONNECTOR-SGL CONT SKT .022-IN-BSC-SZ    | 28480    | 1251-2501            |
| A4J2                  | 1251-4045      | 5   |     | CONNECTOR                                | 28480    | 1251-4045            |
| A4J3                  | 1251-1636      | 4   |     | CONNECTOR-SGL CONT SKT .04-IN-BSC-SZ RND | 28480    | 1251-1636            |
| A4J4                  | 1251-2501      | 4   |     | CONNECTOR-SGL CONT SKT .022-IN-BSC-SZ    | 28480    | 1251-2501            |
| A4J4                  | 1251-4045      | 5   |     | CONNECTOR                                | 28480    | 1251-4045            |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number   |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|-------------------|
| A4L1                  | 9140-0144      | 0   |     | COIL-MLD 4,7UH 10% Q#45 .095DX,25LG-NOM  | 28480    | 9140-0144         |
| A4L2                  | 9100-3548      | 0   |     | COIL-MLD 470NH 5% Q#45 .155DX,375LG-NOM  | 28480    | 9100-3548         |
| A4L3                  | 9100-2252      | 1   | 2   | COIL-MLD 270NH 10% Q#30 .095DX,25LG-NOM  | 28480    | 9100-2252         |
| A4L4                  | 9100-2260      | 1   | 3   | COIL-MLD 1,8UH 10% Q#32 .095DX,25LG-NOM  | 28480    | 9100-2260         |
| A4L5                  | 9140-0210      | 1   | 14  | COIL-MLD 100UH 5% Q#50 .155DX,375LG-NOM  | 28480    | 9140-0210         |
| A4L6                  | 9140-0142      | 8   | 4   | COIL-MLD 2,2UH 10% Q#32 .095DX,25LG-NOM  | 28480    | 9140-0142         |
| A4L7                  | 9140-0297      | 4   | 5   | COIL-VAR 1,98UH-2,42UH Q#150 PC-MTG      | 28480    | 9140-0297         |
| A4L8                  | 9140-0144      | 0   |     | COIL-MLD 4,7UH 10% Q#45 .095DX,25LG-NOM  | 28480    | 9140-0144         |
| A4L9                  | 9100-3548      | 0   |     | COIL-MLD 470NH 5% Q#45 .155DX,375LG-NOM  | 28480    | 9100-3548         |
| A4Q1                  | 1854-0247      | 9   |     | TRANSISTOR NPN SI TQ=39 PD=1W FT=800MHZ  | 28480    | 1854-0247         |
| A4Q2                  | 1854-0305      | 0   |     | TRANSISTOR NPN SI TQ=18 PD=400MW         | 28480    | 1854-0305         |
| A4Q3                  | 1854-0305      | 0   |     | TRANSISTOR NPN SI TQ=18 PD=400MW         | 28480    | 1854-0305         |
| A4R2                  | 0683-4715      | 0   | 52  | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | C84715            |
| A4R3                  | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500      | 01121    | C82205            |
| A4R4                  | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025            |
| A4R5                  | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | C81015            |
| A4R6                  | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500      | 01121    | C82205            |
| A4R7                  | 0683-6805      | 3   |     | RESISTOR 68 5% .25W FC TC=-400/+500      | 01121    | C86805            |
| A4R8                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705            |
| A4R9                  | 0683-1525      | 4   | 33  | RESISTOR 1,5K 5% .25W FC TC=-400/+700    | 01121    | C81525            |
| A4R10                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705            |
| A4R11                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025            |
| A4R12                 | 0683-2715      | 6   |     | RESISTOR 270 5% .25W FC TC=-400/+600     | 01121    | C82715            |
| A4R13                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705            |
| A4R14                 | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | C84715            |
| A4T1                  | 9100-4038      | 5   |     | TRANSFORMER BEAD CORE; WITH CT PRI & SEC | 28480    | 9100-4038         |
| A4T2                  | 9100-4039      |     |     | TRANSFORMER-POWER                        | 28480    | 9100-4039         |
| A4TP1                 | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480    | 0360-0124         |
| A5                    | 03585-66505    | 6   | 1   | 3RD MIXER                                | 28480    | 03585-66505       |
| A5C1                  | 0160-2205      | 1   |     | CAPACITOR-FXD 120PF +-5% 300VDC MICA     | 28480    | 0160-2205         |
| A5C2                  | 0140-0193      | 0   |     | CAPACITOR-FXD 82PF +-5% 300VDC MICA      | 72136    | DM15E820J0300V1CR |
| A5C3                  | 0140-0192      | 9   |     | CAPACITOR-FXD 68PF +-5% 300VDC MICA      | 72136    | DM15E680J0300V1CR |
| A5C4                  | 0160-2203      | 9   | 2   | CAPACITOR-FXD 91PF +-5% 300VDC MICA 0+70 | 28480    | 0160-2203         |
| A5C5                  | 0160-2150      | 5   |     | CAPACITOR-FXD 33PF +-5% 300VDC MICA      | 28480    | 0160-2150         |
| A5C6                  | 0160-2204      | 0   | 10  | CAPACITOR-FXD 100PF +-5% 300VDC MICA     | 28480    | 0160-2204         |
| A5C7                  | 0160-3879      | 7   |     | CAPACITOR-FXD .01UF +-20% 100VDC CER     | 28480    | 0160-3879         |
| A5C8                  | 0180-0094      | 8   |     | CAPACITOR-FXD 100UF+-20% 20VDC TA        | 56289    | 1500107X002052    |
| A5C9                  | 0160-3879      | 7   |     | CAPACITOR-FXD .01UF +-20% 100VDC CER     | 28480    | 0160-3879         |
| A5C10                 | 0160-0576      | 5   | 12  | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480    | 0160-0576         |
| A5C11                 | 0160-0576      | 5   |     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480    | 0160-0576         |
| A5C12                 | 0160-0576      | 5   |     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480    | 0160-0576         |
| A5C13                 | 0160-0576      | 5   |     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480    | 0160-0576         |
| A5C14                 | 0160-0576      | 5   |     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480    | 0160-0576         |
| A5C15                 | 0160-0576      | 5   |     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480    | 0160-0576         |
| A5C16                 | 0160-3879      | 7   |     | CAPACITOR-FXD .01UF +-20% 100VDC CER     | 28480    | 0160-3879         |
| A5C17                 | 0140-0197      | 4   | 1   | CAPACITOR-FXD 180PF +-5% 300VDC MICA     | 72136    | DM15F181J0300V1CR |
| A5C18                 | 0160-0376      | 3   | 1   | CAPACITOR-FXD 68PF +-5% 500VDC MICA      | 28480    | 0160-0376         |
| A5C19                 | 0160-2226      | 6   | 2   | CAPACITOR-FXD 2200PF +-5% 300VDC MICA    | 28480    | 0160-2226         |
| A5C21                 | 0160-2150      | 5   |     | CAPACITOR-FXD 33PF +-5% 300VDC MICA      | 28480    | 0160-2150         |
| A5C22                 | 0160-2009      | 3   | 1   | CAPACITOR-FXD 820PF +-5% 300VDC MICA     | 28480    | 0160-2009         |
| A5C23                 | 0160-3538      | 5   | 2   | CAPACITOR-FXD 750PF +-5% 100VDC MICA     | 28480    | 0160-3538         |
| A5C24                 | 0140-0210      | 2   | 4   | CAPACITOR-FXD 270PF +-5% 300VDC MICA     | 72136    | DM15F271J0300V1CR |
| A5C25                 | 0160-2223      | 3   | 1   | CAPACITOR-FXD 1800PF +-5% 300VDC MICA    | 28480    | 0160-2223         |
| A5C26                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +-80-20% 100VDC CER  | 28480    | 0160-2055         |
| A5C27                 | 0160-0576      | 5   |     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480    | 0160-0576         |
| A5J1                  | 1251-2501      | 4   |     | CONNECTOR-SGL CONT SKT .022-IN-BSC-SZ    | 28480    | 1251-2501         |
| A5J1                  | 1251-4045      | 5   | 7   | CONNECTOR                                | 28480    | 1251-4045         |
| A5J2                  | 1250-1314      | 3   |     | CONNECTOR-RF SM-SLD FEM PC 50-OHM        | 28480    | 1250-1314         |
| A5J3                  | 1251-1636      | 4   |     | CONNECTOR-SGL CONT SKT .04-IN-BSC-SZ RND | 28480    | 1251-1636         |
| A5J4                  | 1251-1636      | 4   |     | CONNECTOR-SGL CONT SKT .04-IN-BSC-SZ RND | 28480    | 1251-1636         |
| A5J5                  | 1250-1314      | 3   |     | CONNECTOR-RF SM-SLD FEM PC 50-OHM        | 28480    | 1250-1314         |
| A5L1                  | 9140-0297      | 4   |     | COIL-VAR 1,98UH-2,42UH Q#150 PC-MTG      | 28480    | 9140-0297         |
| A5L2                  | 9140-0297      | 4   |     | COIL-VAR 1,98UH-2,42UH Q#150 PC-MTG      | 28480    | 9140-0297         |
| A5L3                  | 9140-0296      | 3   | 1   | COIL-VAR 3,51UH-4,29UH Q#150 PC-MTG      | 28480    | 9140-0296         |
| A5L4                  | 9140-0297      | 4   |     | COIL-VAR 1,98UH-2,42UH Q#150 PC-MTG      | 28480    | 9140-0297         |
| A5L5                  | 9140-0295      | 2   | 1   | COIL-VAR 8,09UH-10,40UH Q#130 PC-MTG     | 28480    | 9140-0295         |
| A5L6                  | 9140-0297      | 4   |     | COIL-VAR 1,98UH-2,42UH Q#150 PC-MTG      | 28480    | 9140-0297         |
| A5L7                  | 9140-0210      | 1   |     | COIL-MLD 100UH 5% Q#50 .155DX,375LG-NOM  | 28480    | 9140-0210         |
| A5L8                  | 9100-3551      | 5   |     | COIL-MLD 1UH 5% Q#50 .155DX,375LG-NOM    | 28480    | 9100-3551         |
| A5L9                  | 9140-0131      | 5   | 5   | COIL-MLD 10MH 5% Q#80 .24DX,74LG-NOM     | 28480    | 9140-0131         |
| A5L10                 | 9140-0131      | 5   |     | COIL-MLD 10MH 5% Q#80 .24DX,74LG-NOM     | 28480    | 9140-0131         |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|------------------|
| ASL11                 | 9100-1619      | 2   | 1   | COIL-MLD 6.8UH 10% Q=50 .155DX.375LG-NOM | 28480    | 9100-1619        |
| ASL12                 | 9140-0210      | 1   |     | COIL-MLD 100UH 5% Q=50 .155DX.375LG-NOM  | 28480    | 9140-0210        |
| ASL13                 | 9100-3551      | 5   |     | COIL-MLD 1UH 5% Q=50 .155DX.375LG-NOM    | 28480    | 9100-3551        |
| ASL14                 | 9140-0261      | 2   | 1   | COIL-MLD 100NH 5% Q=50 .155DX.375LG-NOM  | 28480    | 9140-0261        |
| ASQ1                  | 1854-0485      | 7   |     | TRANSISTOR NPN SI TO=104 PD=175MW        | 28480    | 1854-0485        |
| ASQ2                  | 1854-0215      | 1   | 36  | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904           |
| ASQ3                  | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904           |
| ASQ4                  | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904           |
| ASR1                  | 0757-0440      | 7   | 6   | RESISTOR 7.5K 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-7501-F |
| ASR2                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705           |
| ASR3                  | 0698-3557      | 7   | 2   | RESISTOR 806 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-806R-F |
| ASR4                  | 0698-3557      | 7   |     | RESISTOR 806 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-806R-F |
| ASR5                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705           |
| ASR6                  | 0757-0440      | 7   |     | RESISTOR 7.5K 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-7501-F |
| ASR7                  | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700    | 01121    | C84725           |
| ASR8                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705           |
| ASR9                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705           |
| ASR10                 | 0698-4446      | 5   | 2   | RESISTOR 267 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-267R-F |
| ASR11                 | 0698-4461      | 4   | 1   | RESISTOR 698 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-698R-F |
| ASR12                 | 0698-4446      | 5   |     | RESISTOR 267 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-267R-F |
| ASR13                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705           |
| ASR14                 | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0+-100         | 24546    | C4-1/8-T0-1001-F |
| ASR15                 | 0698-0084      | 9   | 1   | RESISTOR 2.15K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-2151-F |
| ASR16                 | 0698-4453      | 4   |     | RESISTOR 402 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-402R-F |
| ASR17                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705           |
| ASR18                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705           |
| ASR19                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705           |
| ASR20                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705           |
| ASR21                 | 0757-0401      | 0   |     | RESISTOR 100 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-101-F  |
| ASR22                 | 0757-0401      | 0   |     | RESISTOR 100 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-101-F  |
| ASR23                 | 0757-0408      | 7   | 1   | RESISTOR 243 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-243R-F |
| ASR24                 | 0698-4462      | 5   | 1   | RESISTOR 768 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-768R-F |
| ASR25                 | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700    | 01121    | C84725           |
| ASSXU1                | 1200-0473      | 8   |     | SOCKET-IC 16-CONT DIP DIP-SLDR           | 28480    | 1200-0473        |
| AST1                  | 08552-6024     | 9   |     | TRANSFORMER                              | 28480    | 08552-6024       |
| AST2                  | 08552-6044     | 1   |     | TRANSFORMER, 6-TURNS                     | 28480    | 08552-6044       |
| AST3                  | 9100-4056      | 7   | 2   | TRANSFORMER INDUCTANCE: 110UH +-10%      | 28480    | 9100-4056        |
| AST4                  | 9100-4056      | 7   |     | TRANSFORMER INDUCTANCE: 110UH +-10%      | 28480    | 9100-4056        |
| ASU1                  | 1826-0062      | 7   | 1   | IC MIXER CIRCUIT                         | 28480    | 1826-0062        |
| A6A                   | 03585-66506    | 7   | 1   | CONNECTOR BOARD                          | 28480    | 03585-66506      |
| A6B                   | 03585-66506    | 7   |     | CONNECTOR BOARD                          | 28480    | 03585-66506      |
| A6C                   | 03585-66506    | 7   |     | CONNECTOR BOARD                          | 28480    | 03585-66506      |
| A6D                   | 03585-66506    | 7   |     | CONNECTOR BOARD                          | 28480    | 03585-66506      |
| A6C1                  | 0160-3878      | 6   | 16  | CAPACITOR-FXD 1000PF +-20% 100VDC CER    | 28480    | 0160-3878        |
| A6J1                  | 1250-1593      | 0   | 4   | ADAPTER-CDAX STR M-SMB M-SMB             | 28480    | 1250-1593        |
| A10                   | 03585-66510    | 3   | 1   | ANALOG MOTHER BOARD                      | 28480    | 03585-66510      |
| A10C1                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |
| A10C2                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |
| A10C3                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |
| A10C4                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |
| A10C5                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |
| A10C6                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |
| A10C7                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |
| A10C8                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |
| A10C9                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |
| A10C10                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |
| A10C11                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |
| A10C12                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |
| A10C13                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |
| A10C14                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |
| A10C15                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |
| A10C16                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |
| A10C17                | 0160-0128      | 3   |     | CAPACITOR-FXD 2.2UF +-20% 50VDC CER      | 28480    | 0160-0128        |
| A10C18                | 0160-0128      | 3   |     | CAPACITOR-FXD 2.2UF +-20% 50VDC CER      | 28480    | 0160-0128        |
| A10C19                | 0160-0128      | 3   |     | CAPACITOR-FXD 2.2UF +-20% 50VDC CER      | 28480    | 0160-0128        |
| A10C20                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z  |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number    |
|-------------------------|----------------|-----|-----|------------------------------------------|----------|--------------------|
| A10C21                  | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A10C22                  | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A10L1                   | 9100-0541      | 7   | 35  | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L2                   | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L3                   | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L4                   | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L5                   | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L6                   | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L7                   | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L8                   | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L9                   | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L10                  | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L11                  | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L12                  | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L13                  | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L14                  | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L15                  | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L16                  | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L17                  | 9100-3458      | 1   | 8   | CHOKO, WIDE BAND                         | 28480    | 9100-3458          |
| A10L18                  | 9100-3458      | 1   |     | CHOKO, WIDE BAND                         | 28480    | 9100-3458          |
| A10L19                  | 9100-3458      | 1   |     | CHOKO, WIDE BAND                         | 28480    | 9100-3458          |
| A10L20                  | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L21                  | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L22                  | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10L23                  | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.SLG-NOM     | 28480    | 9100-0541          |
| A10 MISCELLANEOUS PARTS |                |     |     |                                          |          |                    |
|                         | 1251-0472      | 4   | 1   | CONNECTOR-PC EDGE 6-CONT/ROW 2-ROWS      | 28480    | 1251-0472          |
|                         | 1251-2035      | 9   | 3   | CONNECTOR-PC EDGE 15-CONT/ROW 2-ROWS     | 28480    | 1251-2035          |
|                         | 1251-5160      | 7   | 1   | CONNECTOR-PC EDGE 36-CONT/ROW 2-ROWS     | 28480    | 1251-5160          |
|                         | 1530-1942      | 7   | 1   |                                          | 28480    | 1530-1942          |
| A14                     | 03585-66514    | 7   | 1   | PC ASSEMBLY, LOG AMPLIFIER               | 28480    | 03585-66514        |
| A14C1                   | 0160-0939      | 4   | 1   | CAPACITOR-FXD 430PF +-5% 300VDC MICA     | 28480    | 0160-0939          |
| A14C2                   | 0160-0197      | 8   |     | CAPACITOR-FXD 2.2UF +-10% 20VDC TA       | 56289    | 150D225X9020A2     |
| A14C3                   | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A14C4                   | 0160-0197      | 8   |     | CAPACITOR-FXD 2.2UF +-10% 20VDC TA       | 56289    | 150D225X9020A2     |
| A14C5                   | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A14C6                   | 0140-0195      | 2   | 1   | CAPACITOR-FXD 130PF +-5% 300VDC MICA     | 72136    | DM15F131J0300WV1CR |
| A14C7                   | 0140-0172      | 5   | 1   | CAPACITOR-FXD 3000PF +-1% 100VDC MICA    | 72136    | DM19F302F0100WV1CR |
| A14C8                   | 0140-0198      | 5   | 5   | CAPACITOR-FXD 200PF +-5% 300VDC MICA     | 72136    | DM15F201J0300WV1CR |
| A14C9                   | 0160-0940      | 7   | 1   | CAPACITOR-FXD 2400PF +-5% 500VDC MICA    | 28480    | 0160-0940          |
| A14C10                  | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A14C11                  | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A14C12                  | 0150-0093      | 0   | 31  | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0150-0093          |
| A14C13                  | 0140-0204      | 4   |     | CAPACITOR-FXD 47PF +-5% 500VDC MICA      | 72136    | DM15E470J0500WV1CR |
| A14C14                  | 0160-0763      | 2   | 4   | CAPACITOR-FXD 5PF +-10% 500VDC MICA      | 28480    | 0160-0763          |
| A14C15                  | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A14C16                  | 0140-0208      | 8   | 5   | CAPACITOR-FXD 680PF +-5% 300VDC MICA     | 72136    | DM15F681J0300WV1CR |
| A14C17                  | 0140-0208      | 8   |     | CAPACITOR-FXD 680PF +-5% 300VDC MICA     | 72136    | DM15F681J0300WV1CR |
| A14C18                  | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A14C19                  | 0140-0204      | 4   |     | CAPACITOR-FXD 47PF +-5% 500VDC MICA      | 72136    | DM15E470J0500WV1CR |
| A14C20                  | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A14C21                  | 0160-0763      | 2   |     | CAPACITOR-FXD 5PF +-10% 500VDC MICA      | 28480    | 0160-0763          |
| A14C22                  | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0150-0093          |
| A14C23                  | 0140-0208      | 8   |     | CAPACITOR-FXD 680PF +-5% 300VDC MICA     | 72136    | DM15F681J0300WV1CR |
| A14C24                  | 0140-0204      | 4   |     | CAPACITOR-FXD 47PF +-5% 500VDC MICA      | 72136    | DM15E470J0500WV1CR |
| A14C25                  | 0160-0763      | 2   |     | CAPACITOR-FXD 5PF +-10% 500VDC MICA      | 28480    | 0160-0763          |
| A14C26                  | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A14C27                  | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A14C28                  | 0160-0197      | 8   |     | CAPACITOR-FXD 2.2UF +-10% 20VDC TA       | 56289    | 150D225X9020A2     |
| A14C29                  | 0160-0362      | 7   | 3   | CAPACITOR-FXD 510PF +-5% 300VDC MICA     | 28480    | 0160-0362          |
| A14C30                  | 0160-2197      | 0   | 2   | CAPACITOR-FXD 10PF +-5% 300VDC MICA      | 28480    | 0160-2197          |
| A14C31                  | 0160-2257      | 3   |     | CAPACITOR-FXD 10PF +-5% 500VDC CER 0+-60 | 28480    | 0160-2257          |
| A14C32                  | 0140-0204      | 4   |     | CAPACITOR-FXD 47PF +-5% 500VDC MICA      | 72136    | DM15E470J0500WV1CR |
| A14C33                  | 0160-0763      | 2   |     | CAPACITOR-FXD 5PF +-10% 500VDC MICA      | 28480    | 0160-0763          |
| A14C34                  | 0160-3014      | 2   | 1   | CAPACITOR-FXD 87PF +-1% 300VDC MICA 0-70 | 28480    | 0160-3014          |
| A14C35                  | 0140-0218      | 0   | 1   | CAPACITOR-FXD 160PF +-2% 300VDC MICA     | 72136    | DM15F161G0300WV1CR |
| A14C36                  | 0160-0938      | 3   | 3   | CAPACITOR-FXD 1000PF +-5% 100VDC MICA    | 28480    | 0160-0938          |
| A14C37                  | 0160-0332      | 1   | 1   | CAPACITOR-FXD 133PF +-1% 300VDC MICA     | 28480    | 0160-0332          |
| A14C38                  | 0160-3843      | 5   | 2   | CAPACITOR-FXD 560PF +-1% 100VDC MICA     | 28480    | 0160-3843          |
| A14C39                  | 0160-3843      | 5   |     | CAPACITOR-FXD 560PF +-1% 100VDC MICA     | 28480    | 0160-3843          |
| A14C40                  | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0150-0093          |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty                                  | Description                              | Mfr Code                         | Mfr Part Number    |
|-----------------------|----------------|-----|--------------------------------------|------------------------------------------|----------------------------------|--------------------|
| A14C41                | 0160-3622      | 8   | 3                                    | CAPACITOR-FXD .1UF +60-20% 100VDC CER    | 26654                            | 2130Y5V100R104Z    |
| A14C42                | 0160-0938      | 3   |                                      | CAPACITOR-FXD 1000PF +-5% 100VDC MICA    | 28480                            | 0160-0938          |
| A14C43                | 0160-0127      | 2   |                                      | CAPACITOR-FXD 1UF +-20% 25VDC CER        | 28480                            | 0160-0127          |
| A14C44                | 0160-3622      | 8   |                                      | CAPACITOR-FXD .1UF +60-20% 100VDC CER    | 26654                            | 2130Y5V100R104Z    |
| A14C45                | 0160-3622      | 8   |                                      | CAPACITOR-FXD .1UF +60-20% 100VDC CER    | 26654                            | 2130Y5V100R104Z    |
| A14C46                | 0140-0198      | 5   | 2                                    | CAPACITOR-FXD 200PF +-5% 300VDC MICA     | 72136                            | DM15F201J0300MV1CR |
| A14C47                | 0140-0198      | 5   |                                      | CAPACITOR-FXD 200PF +-5% 300VDC MICA     | 72136                            | DM15F201J0300MV1CR |
| A14C48                | 0160-3303      | 2   |                                      | CAPACITOR-FXD 22PF +-5PF 100VDC MICA     | 28480                            | 0160-3303          |
| A14C49                | 0160-3303      | 2   |                                      | CAPACITOR-FXD 22PF +-5PF 100VDC MICA     | 28480                            | 0160-3303          |
| A14C51                | 0160-0161      | 4   |                                      | CAPACITOR-FXD .01UF +-10% 200VDC POLYE   | 28480                            | 0160-0161          |
| A14CR1                | 1901-0179      | 7   | 14                                   | DIODE-SWITCHING 15V 50MA 750PS DO-7      | 28480                            | 1901-0179          |
| A14CR2                | 1901-0179      | 7   |                                      | DIODE-SWITCHING 15V 50MA 750PS DO-7      | 28480                            | 1901-0179          |
| A14CR3                | 1901-0179      | 7   |                                      | DIODE-SWITCHING 15V 50MA 750PS DO-7      | 28480                            | 1901-0179          |
| A14CR4                | 1901-0179      | 7   |                                      | DIODE-SWITCHING 15V 50MA 750PS DO-7      | 28480                            | 1901-0179          |
| A14CR5                | 1901-0179      | 7   |                                      | DIODE-SWITCHING 15V 50MA 750PS DO-7      | 28480                            | 1901-0179          |
| A14CR6                | 1901-0179      | 7   | 7                                    | DIODE-SWITCHING 15V 50MA 750PS DO-7      | 28480                            | 1901-0179          |
| A14CR7                | 1901-0179      | 7   |                                      | DIODE-SWITCHING 15V 50MA 750PS DO-7      | 28480                            | 1901-0179          |
| A14CR8                | 1901-0179      | 7   |                                      | DIODE-SWITCHING 15V 50MA 750PS DO-7      | 28480                            | 1901-0179          |
| A14CR9                | 1901-0179      | 7   |                                      | DIODE-SWITCHING 15V 50MA 750PS DO-7      | 28480                            | 1901-0179          |
| A14CR11               | 1901-0179      | 7   |                                      | DIODE-SWITCHING 15V 50MA 750PS DO-7      | 28480                            | 1901-0179          |
| A14CR12               | 1901-0179      | 7   | 7                                    | DIODE-SWITCHING 15V 50MA 750PS DO-7      | 28480                            | 1901-0179          |
| A14CR13               | 1901-0179      | 7   |                                      | DIODE-SWITCHING 15V 50MA 750PS DO-7      | 28480                            | 1901-0179          |
| A14CR14               | 1901-0179      | 7   |                                      | DIODE-SWITCHING 15V 50MA 750PS DO-7      | 28480                            | 1901-0179          |
| A14CR15               | 1901-0179      | 7   |                                      | DIODE-SWITCHING 15V 50MA 750PS DO-7      | 28480                            | 1901-0179          |
| A14CR16               | 1902-3149      | 9   |                                      | DIODE-ZNR 9.09V 5% DO-7 PD=.4W TC=+.057% | 28480                            | 1902-3149          |
| A14CR17               | 1902-0692      | 1   | 1                                    | DIODE-ZNR 6.3V 1% DO-7 PD=.4W TC=+.001%  | 28480                            | 1902-0692          |
| A14CR18               | 1901-0518      | 8   |                                      | DIODE-SCHOTTKY                           | 28480                            | 1901-0518          |
| A14CR19               | 1901-0518      | 8   |                                      | DIODE-SCHOTTKY                           | 28480                            | 1901-0518          |
| A14J1                 | 1250-1368      | 7   | 1                                    | CONNECTOR-RF SMB M PC 50-OHM             | 28480                            | 1250-1368          |
| A14J2                 | 1250-1368      | 7   |                                      | CONNECTOR-RF SMB M PC 50-OHM             | 28480                            | 1250-1368          |
| A14J3                 | 1200-0462      | 5   |                                      | SOCKET-IC 1-COND STRIP DIP-SLDR          | 28480                            | 1200-0462          |
| A14L1                 | 9140-0118      | 8   | 2                                    | COIL-MLD 500UH 5% Q=65 .19DX.44LG-NOM    | 28480                            | 9140-0118          |
| A14L2                 | 9140-0210      | 1   |                                      | COIL-MLD 100UH 5% Q=50 .155DX.375LG-NOM  | 28480                            | 9140-0210          |
| A14L3                 | 9140-0210      | 1   |                                      | COIL-MLD 100UH 5% Q=50 .155DX.375LG-NOM  | 28480                            | 9140-0210          |
| A14L4                 | 9140-0237      | 2   |                                      | COIL-MLD 200UH 5% Q=65 .155DX.375LG-NOM  | 28480                            | 9140-0237          |
| A14L5                 | 9140-0294      | 1   |                                      | COIL-VAR 90UH-110UH Q=135 PC-MTG         | 28480                            | 9140-0294          |
| A14L6                 | 9140-0118      | 8   | 1                                    | COIL-MLD 500UH 5% Q=65 .19DX.44LG-NOM    | 28480                            | 9140-0118          |
| A14L7                 | 9140-0294      | 1   |                                      | COIL-VAR 90UH-110UH Q=135 PC-MTG         | 28480                            | 9140-0294          |
| A14L8                 | 9140-0311      | 3   |                                      | INDUCTOR FIXED; 100UH+-5% AT 350 KHZ     | 28480                            | 9140-0311          |
| A14L9                 | 9140-0312      | 4   |                                      | INDUCTOR FIXED; 130UH+-5% AT 350 KHZ     | 28480                            | 9140-0312          |
| A14O1                 | 1854-0404      | 0   |                                      | 4                                        | TRANSISTOR NPN SI TO-18 PD=360MW | 28480              |
| A14O2                 | 1854-0404      | 0   | TRANSISTOR NPN SI TO-18 PD=360MW     |                                          | 28480                            | 1854-0404          |
| A14O3                 | 1854-0071      | 7   | TRANSISTOR NPN SI PD=300MW FT=200MHZ |                                          | 28480                            | 1854-0071          |
| A14O4                 | 1854-0071      | 7   | TRANSISTOR NPN SI PD=300MW FT=200MHZ |                                          | 28480                            | 1854-0071          |
| A14O5                 | 1854-0071      | 7   | TRANSISTOR NPN SI PD=300MW FT=200MHZ |                                          | 28480                            | 1854-0071          |
| A14O6                 | 1853-0034      | 0   | 3                                    | TRANSISTOR PNP SI TO-18 PD=360MW         | 28480                            | 1853-0034          |
| A14O7                 | 1853-0020      | 4   |                                      | TRANSISTOR PNP SI PD=300MW FT=150MHZ     | 28480                            | 1853-0020          |
| A14O8                 | 1853-0020      | 4   |                                      | TRANSISTOR PNP SI PD=300MW FT=150MHZ     | 28480                            | 1853-0020          |
| A14O9                 | 1854-0215      | 1   |                                      | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713                            | 2N3904             |
| A14O10                | 1854-0215      | 1   |                                      | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713                            | 2N3904             |
| A14R2                 | 0683-1015      | 7   | 2                                    | RESISTOR 100 5% .25W FC TC=400/+500      | 01121                            | C81015             |
| A14R3                 | 0757-0430      | 5   |                                      | RESISTOR 2.21K 1% .125W F TC=0/+100      | 24546                            | C4=1/8-T0=2211-F   |
| A14R4                 | 0683-1835      | 9   |                                      | RESISTOR 18K 5% .25W FC TC=400/+800      | 01121                            | C81835             |
| A14R5                 | 0683-1235      | 3   |                                      | RESISTOR 12K 5% .25W FC TC=400/+800      | 01121                            | C81235             |
| A14R6                 | 0683-1015      | 7   |                                      | RESISTOR 100 5% .25W FC TC=400/+500      | 01121                            | C81015             |
| A14R7                 | 0683-0215      | 9   | 4                                    | RESISTOR 620 5% .25W FC TC=400/+600      | 01121                            | C86215             |
| A14R8                 | 2100-1738      | 9   |                                      | RESISTOR-TRMR 10K 10% C TOP-ADJ 1-TRN    | 73138                            | 82PR10K            |
| A14R9                 | 0698-4485      | 2   |                                      | RESISTOR 23.2K 1% .125W F TC=0/+100      | 24546                            | C4=1/8-T0=2322-F   |
| A14R11                | 0698-4435      | 2   |                                      | RESISTOR 2.49K 1% .125W F TC=0/+100      | 24546                            | C4=1/8-T0=2491-F   |
| A14R12                | 0698-4443      | 2   |                                      | RESISTOR 4.53K 1% .125W F TC=0/+100      | 24546                            | C4=1/8-T0=4531-F   |
| A14R13                | 0698-4123      | 5   | 3                                    | RESISTOR 499 1% .125W F TC=0/+100        | 24546                            | C4=1/8-T0=499F-F   |
| A14R14                | 2100-1738      | 9   |                                      | RESISTOR-TRMR 10K 10% C TOP-ADJ 1-TRN    | 73138                            | 82PR10K            |
| A14R15                | 0698-4485      | 2   |                                      | RESISTOR 23.2K 1% .125W F TC=0/+100      | 24546                            | C4=1/8-T0=2322-F   |
| A14R16                | 0698-4435      | 2   |                                      | RESISTOR 2.49K 1% .125W F TC=0/+100      | 24546                            | C4=1/8-T0=2491-F   |
| A14R17                | 2100-3161      | 0   |                                      | RESISTOR-TRMR 20K 10% C SIDE-ADJ 17-TRN  | 02111                            | 43P203             |
| A14R18                | 0698-3279      | 0   | 19                                   | RESISTOR 4.99K 1% .125W F TC=0/+100      | 24546                            | C4=1/8-T0=4991-F   |
| A14R19                | 0698-3279      | 0   |                                      | RESISTOR 4.99K 1% .125W F TC=0/+100      | 24546                            | C4=1/8-T0=4991-F   |
| A14R21                | 2100-2030      | 6   |                                      | RESISTOR-TRMR 20K 10% C TOP-ADJ 1-TRN    | 73138                            | 82PR20K            |
| A14R22                | 0683-2035      | 3   |                                      | RESISTOR 20K 5% .25W FC TC=400/+800      | 01121                            | C82035             |
| A14R23                | 0698-4435      | 2   |                                      | RESISTOR 2.49K 1% .125W F TC=0/+100      | 24546                            | C4=1/8-T0=2491-F   |
| A14R24                | 0698-3279      | 0   | 2                                    | RESISTOR 4.99K 1% .125W F TC=0/+100      | 24546                            | C4=1/8-T0=4991-F   |
| A14R25                | 0698-4469      | 2   |                                      | RESISTOR 1.15K 1% .125W F TC=0/+100      | 24546                            | C4=1/8-T0=1151-F   |
| A14R26                | 2100-3353      | 8   |                                      | RESISTOR-TRMR 20K 10% C SIDE-ADJ 1-TRN   | 32997                            | 3386X=740=203      |
| A14R27                | 0698-3279      | 0   |                                      | RESISTOR 4.99K 1% .125W F TC=0/+100      | 24546                            | C4=1/8-T0=4991-F   |
| A14R28                | 0698-4435      | 2   |                                      | RESISTOR 2.49K 1% .125W F TC=0/+100      | 24546                            | C4=1/8-T0=2491-F   |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
| A14R29                | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500      | 01121    | C85105               |
| A14R30                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | C81015               |
| A14R31                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800    | 01121    | C81045               |
| A14R32                | 0683-1835      | 9   |     | RESISTOR 18K 5% .25W FC TC=-400/+800     | 01121    | C81835               |
| A14R33                | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500      | 01121    | C85105               |
| A14R34                | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500      | 01121    | C85105               |
| A14R35                | 0683-1835      | 9   |     | RESISTOR 18K 5% .25W FC TC=-400/+800     | 01121    | C81835               |
| A14R36                | 0698-4485      | 2   |     | RESISTOR 23.2K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-2322-F     |
| A14R37                | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | C81525               |
| A14R38                | 0757-0472      | 5   | 1   | RESISTOR 200K 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-2003-F     |
| A14R39                | 0698-3279      | 0   |     | RESISTOR 4.99K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-4991-F     |
| A14R40                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025               |
| A14R41                | 0698-6330      | 0   | 1   | RESISTOR 2K 1% .125W F TC=0+-25          | 28480    | 0698-6330            |
| A14R42                | 0698-5542      | 4   | 1   | RESISTOR 20K 1% .125W F TC=0+-25         | 28480    | 0698-5542            |
| A14R43                | 2100-3056      | 8   | 3   | RESISTOR-TRMR 5K 10% C SIDE=ADJ 17-TRN   | 02111    | 43P502               |
| A14R44                | 0698-7082      | 1   | 4   | RESISTOR 100K 1% .125W F TC=0+-25        | 28480    | 0698-7082            |
| A14R45                | 0698-7082      | 1   |     | RESISTOR 100K 1% .125W F TC=0+-25        | 28480    | 0698-7082            |
| A14R47                | 0698-7082      | 1   |     | RESISTOR 100K 1% .125W F TC=0+-25        | 28480    | 0698-7082            |
| A14R48                | 0698-7082      | 1   |     | RESISTOR 100K 1% .125W F TC=0+-25        | 28480    | 0698-7082            |
| A14R49                | 0683-1005      | 5   |     | RESISTOR 10 5% .25W FC TC=-400/+500      | 01121    | C81005               |
| A14R51                | 0757-0465      | 6   | 8   | RESISTOR 100K 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-1003-F     |
| A14R52                | 0698-3275      | 6   | 2   | RESISTOR 2.5K 1% .125W F TC=0+-25        | 28480    | 0698-3275            |
| A14R53                | 0757-0281      | 4   | 2   | RESISTOR 2.74K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-2741-F     |
| A14R55                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | C81035               |
| A14R56                | 0698-3439      | 4   | 1   | RESISTOR 178 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-178R-F     |
| A14R57                | 2100-0568      | 1   | 1   | RESISTOR-TRMR 100 10% C TOP=ADJ 1-TRN    | 28480    | 2100-0568            |
| A14R58                | 0698-4432      | 9   | 2   | RESISTOR 2.1K 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-2101-F     |
| A14R59                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | C81015               |
| A14R61                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | C81015               |
| A14R62                | 0698-4453      | 4   |     | RESISTOR 402 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-402R-F     |
| A14R63                | 0683-3315      | 4   | 22  | RESISTOR 330 5% .25W FC TC=-400/+600     | 01121    | C83315               |
| A14R64                | 0683-3315      | 4   |     | RESISTOR 330 5% .25W FC TC=-400/+600     | 01121    | C83315               |
| A14R65                | 0683-3325      | 6   | 25  | RESISTOR 3.3K 5% .25W FC TC=-400/+700    | 01121    | C83325               |
| A14R66                | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700    | 01121    | C86825               |
| A14T1                 | 9100-3262      | 5   | 2   | TRANSFORMER TRANSFORMER; TOROIDAL PULSE  | 28480    | 9100-3262            |
| A14T2                 | 9100-3262      | 5   |     | TRANSFORMER TRANSFORMER; TOROIDAL PULSE  | 28480    | 9100-3262            |
| A14U1                 | 1826-0109      | 3   | 4   | OP AMP WB T0-99                          | 34371    | HA2-2625-B0593       |
| A14U2                 | 1826-0109      | 3   |     | OP AMP WB T0-99                          | 34371    | HA2-2625-B0593       |
| A14U3                 | 1826-0109      | 3   |     | OP AMP WB T0-99                          | 34371    | HA2-2625-B0593       |
| A14U4                 | 1826-0109      | 3   |     | OP AMP WB T0-99                          | 34371    | HA2-2625-B0593       |
| A14U5                 | 1813-0017      | 5   | 1   | LOGIC AMPLIFIER                          | 28480    | 1813-0017            |
| A14U6                 | 1826-0043      | 4   |     | OP AMP GP T0-99                          | 0192B    | CA307T               |
| A14U7                 | 1826-0043      | 4   |     | OP AMP GP T0-99                          | 0192B    | CA307T               |
| A14U8                 | 1826-0089      | 4   |     | OP AMP WB T0-99                          | 03545    | 1322                 |
|                       |                |     |     | A14 MISCELLANEOUS PARTS                  |          |                      |
|                       | 0361-0517      | 0   | 2   |                                          | 28480    | 0361-0517            |
|                       | 03585-00600    | 8   | 1   | SHIELD, 14-1                             | 28480    | 03585-00604          |
|                       | 03585-00605    | 9   | 1   | SHIELD, 14-2                             | 28480    | 03585-00605          |
|                       | 0403-0211      | 1   | 3   | EXTR-PC BD BRN POLYC .062-BD-THKNS       | 28480    | 0403-0211            |
|                       | 0403-0214      | 4   | 1   | EXTR-PC BD YEL POLYC .062-BD-THKNS       | 28480    | 0403-0214            |
|                       | 1251-0600      | 0   |     | CONNECTOR-SGL CONT PIN 1,14-MM-BSC-SZ SW | 28480    | 1251-0600            |
|                       | 1480-0116      | 8   | 23  | PIN-GRV .062-IN-DIA .25-IN-LG STL        | 28480    | 1480-0116            |
|                       | 2200-0101      | 0   | 15  | SCREW-MACH 4-40 .188-IN-LG PAN-HD-POZI   | 00000    | ORDER BY DESCRIPTION |
|                       | 2200-0103      | 2   | 172 | SCREW-MACH 4-40 .25-IN-LG PAN-HD-POZI    | 00000    | ORDER BY DESCRIPTION |
| A15                   | 03585-66515    | 8   | 1   | VIDEO FILTER & DB BOARD                  | 28480    | 03585-66515          |
| A15C1                 | 0180-0116      | 1   | 10  | CAPACITOR-FXD 6.8UF+-10% 35VDC TA        | 56289    | 150D685X9035B2       |
| A15C2                 | 0180-0229      | 7   |     | CAPACITOR-FXD 33UF+-10% 10VDC TA         | 56289    | 150D336X9010B2       |
| A15C3                 | 0180-0116      | 1   |     | CAPACITOR-FXD 6.8UF+-10% 35VDC TA        | 56289    | 150D685X9035B2       |
| A15C4                 | 0160-2199      | 2   | 8   | CAPACITOR-FXD 30PF +-5% 300VDC MICA      | 28480    | 0160-2199            |
| A15C5                 | 0160-3405      | 5   | 1   | CAPACITOR-FXD 2UF +-10% 50VDC MET-POLYC  | 28480    | 0160-3405            |
| A15C6                 | 0160-0166      | 9   | 2   | CAPACITOR-FXD .068UF +-10% 200VDC POLYE  | 28480    | 0160-0166            |
| A15C7                 | 0160-0154      | 5   | 3   | CAPACITOR-FXD 2200PF +-10% 200VDC POLYE  | 28480    | 0160-0154            |
| A15CR1                | 1902-0777      | 3   |     | DIODE-ZNR 1N825 6.2V 5% DO-7 PDE,HW      | 04713    | 1N825                |
| A15CR2                | 1901-0044      | 5   | 6   | DIODE-SWITCHING 50V 50MA 6NS             | 28480    | 1901-0044            |
| A15J1                 | 1250-1366      | 7   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1366            |
| A15L1                 | 9100-1623      | 8   | 2   | COIL-MLD 27UH 5% Q=60 .155DX,375LG-NOM   | 28480    | 9100-1623            |
| A15L2                 | 9100-3560      | 6   |     | COIL-MLD 5.6UH 5% Q=45 .155DX,375LG-NOM  | 28480    | 9100-3560            |
| A15L3                 | 9100-1623      | 8   |     | COIL-MLD 27UH 5% Q=60 .155DX,375LG-NOM   | 28480    | 9100-1623            |
| A15O1                 | 1855-0420      | 2   | 11  | TRANSISTOR J-FET 2N4391 N-CHAN D-MODE    | 01295    | 2N4391               |
| A15O2                 | 1855-0420      | 2   |     | TRANSISTOR J-FET 2N4391 N-CHAN D-MODE    | 01295    | 2N4391               |
| A15O3                 | 1855-0420      | 2   |     | TRANSISTOR J-FET 2N4391 N-CHAN D-MODE    | 01295    | 2N4391               |
| A15O4                 | 1855-0420      | 2   |     | TRANSISTOR J-FET 2N4391 N-CHAN D-MODE    | 01295    | 2N4391               |
| A15O5                 | 1855-0420      | 2   |     | TRANSISTOR J-FET 2N4391 N-CHAN D-MODE    | 01295    | 2N4391               |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number    |
|-------------------------|----------------|-----|-----|------------------------------------------|----------|--------------------|
| A15R1                   | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | C82025             |
| A15R2                   | 0698-4469      | 2   |     | RESISTOR 1.15K 1% .125W F TC=0/+100      | 24546    | C4=1/8-T0=1151-F   |
| A15R3                   | 0698-4471      | 6   | 3   | RESISTOR 7.15K 1% .125W F TC=0/+100      | 24546    | C4=1/8-T0=7151-F   |
| A15R4                   | 2100-3056      | 8   |     | RESISTOR-TRMR 5K 10% C SIDE=ADJ 17-TRN   | 02111    | 43P502             |
| A15R5                   | 0698-4495      | 4   | 1   | RESISTOR 37.4K 1% .125W F TC=0/+100      | 24546    | C4=1/8-T0=3742-F   |
| A15R6                   | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025             |
| A15R7                   | 2100-3109      | 2   | 2   | RESISTOR-TRMR 2K 10% C SIDE=ADJ 17-TRN   | 02111    | 43P202             |
| A15R8                   | 0698-3450      | 9   | 1   | RESISTOR 42.2K 1% .125W F TC=0/+100      | 24546    | C4=1/8-T0=4222-F   |
| A15R9                   | 2100-3154      | 7   | 3   | RESISTOR-TRMR 1K 10% C SIDE=ADJ 17-TRN   | 02111    | 43P102             |
| A15R11                  | 0698-3274      | 5   | 3   | RESISTOR 10K 1% .125W F TC=0/+25         | 28480    | 0698-3274          |
| A15R12                  | 0698-6318      | 4   | 1   | RESISTOR 1.5K 1% .125W F TC=0/+25        | 03888    | PME5=1/8-T9=1501-F |
| A15R13                  | 0698-3275      | 6   |     | RESISTOR 2.5K 1% .125W F TC=0/+25        | 28480    | 0698-3275          |
| A15R14                  | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | C81035             |
| A15R15                  | 0698-4508      | 0   | 1   | RESISTOR 78.7K 1% .125W F TC=0/+100      | 24546    | C4=1/8-T0=7872-F   |
| A15R16                  | 0698-3499      | 6   | 2   | RESISTOR 40.2K 1% .125W F TC=0/+100      | 24546    | C4=1/8-T0=4022-F   |
| A15R17                  | 0698-4202      | 1   | 1   | RESISTOR 8.87K 1% .125W F TC=0/+100      | 24546    | C4=1/8-T0=8871-F   |
| A15R18                  | 0757-0281      | 4   |     | RESISTOR 2.74K 1% .125W F TC=0/+100      | 24546    | C4=1/8-T0=2741-F   |
| A15R19                  | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | C81035             |
| A15R21                  | 0683-1535      | 6   | 10  | RESISTOR 15K 5% .25W FC TC=-400/+800     | 01121    | C81535             |
| A15R22                  | 0698-6360      | 6   | 1   | RESISTOR 10K .1% .125W F TC=0/+25        | 28480    | 0698-6360          |
| A15R23                  | 0698-6625      | 6   | 1   | RESISTOR 6K .1% .125W F TC=0/+25         | 28480    | 0698-6625          |
| A15R24                  | 0698-6624      | 5   | 1   | RESISTOR 2K .1% .125W F TC=0/+25         | 28480    | 0698-6624          |
| A15R25                  | 0698-6103      | 5   | 1   | RESISTOR 1.6K .1% .125W F TC=0/+50       | 28480    | 0698-6103          |
| A15R26                  | 0698-6355      | 9   | 1   | RESISTOR 400 .1% .125W F TC=0/+25        | 28480    | 0698-6355          |
| A15R27                  | 0757-0449      | 6   | 9   | RESISTOR 20K 1% .125W F TC=0/+100        | 24546    | C4=1/8-T0=2002-F   |
| A15R28                  | 0757-0449      | 6   |     | RESISTOR 20K 1% .125W F TC=0/+100        | 24546    | C4=1/8-T0=2002-F   |
| A15R29                  | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | C81035             |
| A15R31                  | 0683-1005      | 5   |     | RESISTOR 10 5% .25W FC TC=-400/+500      | 01121    | C81005             |
| A15R32                  | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=-400/+800     | 01121    | C82035             |
| A15R33                  | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=-400/+800     | 01121    | C82035             |
| A15R34                  | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=-400/+800     | 01121    | C82035             |
| A15R35                  | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=-400/+800     | 01121    | C82035             |
| A15R36                  | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | C82025             |
| A15R37                  | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=-400/+800     | 01121    | C82035             |
| A15R38                  | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=-400/+800     | 01121    | C82035             |
| A15TP1                  | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480    | 0360-0124          |
| A15TP2                  | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480    | 0360-0124          |
| A15TP3                  | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480    | 0360-0124          |
| A15TP4                  | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480    | 0360-0124          |
| A15TP5                  | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480    | 0360-0124          |
| A15TP6                  | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480    | 0360-0124          |
| A15U1                   | 1820-1195      | 7   | 8   | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS175N         |
| A15U2                   | 1820-1216      | 3   | 5   | IC ODDR TTL LS 3-T0=8-LINE 3-INP         | 01295    | SN74LS138N         |
| A15U3                   | 1820-1196      | 8   | 16  | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N         |
| A15U4                   | 1820-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N         |
| A15U5                   | 1820-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N         |
| A15U6                   | 1820-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N         |
| A15U7                   | 1820-1984      | 2   | 2   | CONV 10-B/D/A 16-DIP=C                   | 24355    | AD561KD            |
| A15U8                   | 1826-0315      | 3   | 2   | OP AMP GP QUAD 14-DIP=P                  | 27014    | LM338N             |
| A15U9                   | 1826-0138      | 8   | 16  | COMPARATOR GP QUAD 14-DIP=P              | 04713    | LM339P             |
| A15U11                  | 1826-0138      | 8   |     | COMPARATOR GP QUAD 14-DIP=P              | 04713    | LM339P             |
| A15U12                  | 1826-0340      | 4   | 11  | OP AMP BIFET TO-99                       | 28480    | 1826-0340          |
| A15U13                  | 1826-0510      | 0   | 2   | SWITCH ANLG QUAD 16-DIP=P                | 27014    | LF13332N           |
| A15W1                   | 1251-4047      | 7   | 7   | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-4047          |
| A15W1                   | 1258-0141      | 8   | 13  | JUMPER REMOVABLE                         | 28480    | 1258-0141          |
| A15 MISCELLANEOUS PARTS |                |     |     |                                          |          |                    |
|                         | 0403-0211      | 1   |     | EXTR-PC HD BRN POLYC .062-80-TMKNS       | 28480    | 0403-0211          |
|                         | 0403-0215      | 5   | 1   | EXTR-PC HD GRN POLYC .062-80-TMKNS       | 28480    | 0403-0215          |
|                         | 1480-0116      | 8   |     | PIN-GRV .062-IN-DIA .25-IN-LG STL        | 28480    | 1480-0116          |
| A16                     | 03585-66516    | 9   | 1   | A-DT REGISTER                            | 28480    | 03585-66516        |
| A16C1                   | 0160-4401      | 3   | 2   | CAPACITOR-FXD .01UF +-10% 100VDC POLYP   | 28480    | 0160-4401          |
| A16C2                   | 0140-0196      | 3   | 4   | CAPACITOR-FXD 150PF +-5% 300VDC MICA     | 72136    | DM15F151J0300V1CR  |
| A16C3                   | 0160-2226      | 6   |     | CAPACITOR-FXD 2200PF +-5% 300VDC MICA    | 28480    | 0160-2226          |
| A16C4                   | 0140-0193      | 0   |     | CAPACITOR-FXD 82PF +-5% 300VDC MICA      | 72136    | DM15E20J0300V1CM   |
| A16C5                   | 0160-4401      | 3   |     | CAPACITOR-FXD .01UF +-10% 100VDC POLYP   | 28480    | 0160-4401          |
| A16C6                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847          |
| A16C7                   | 0160-2204      | 0   |     | CAPACITOR-FXD 100PF +-5% 300VDC MICA     | 28480    | 0160-2204          |
| A16C8                   | 0160-2307      | 4   | 2   | CAPACITOR-FXD 47PF +-5% 300VDC MICA      | 28480    | 0160-2307          |
| A16C9                   | 0160-2209      | 5   | 1   | CAPACITOR-FXD 360PF +-5% 300VDC MICA     | 28480    | 0160-2209          |
| A16C10                  | 0160-2307      | 4   |     | CAPACITOR-FXD 47PF +-5% 300VDC MICA      | 28480    | 0160-2307          |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty                                     | Description                              | Mfr Code                           | Mfr Part Number  |
|-----------------------|----------------|-----|-----------------------------------------|------------------------------------------|------------------------------------|------------------|
| A16C11                | 0160-3622      | 8   | 27                                      | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654                              | 2130Y5V100R104Z  |
| A16C12                | 0160-3622      | 8   |                                         | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654                              | 2130Y5V100R104Z  |
| A16C13                | 0160-3622      | 8   |                                         | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654                              | 2130Y5V100R104Z  |
| A16C14                | 0180-0291      | 3   |                                         | CAPACITOR-FXD 1UF+-10% 35VDC TA          | 56289                              | 150D105X9035A2   |
| A16C15                | 0180-1846      | 6   |                                         | CAPACITOR-FXD 2.2UF+-10% 35VDC TA        | 56289                              | 150D225X9035B2   |
| A16C16                | 0160-3622      | 8   | 15                                      | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654                              | 2130Y5V100R104Z  |
| A16C17                | 0160-3622      | 8   |                                         | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654                              | 2130Y5V100R104Z  |
| A16C18                | 0160-3622      | 8   |                                         | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654                              | 2130Y5V100R104Z  |
| A16C19                | 0180-0291      | 4   |                                         | CAPACITOR-FXD 1UF+-20% 10VDC TA          | 56289                              | 150D475X0010A2   |
| A16C21                | 0160-3622      | 8   |                                         | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654                              | 2130Y5V100R104Z  |
| A16C22                | 0160-3622      | 8   |                                         | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654                              | 2130Y5V100R104Z  |
| A16C23                | 0160-3622      | 8   |                                         | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654                              | 2130Y5V100R104Z  |
| A16C24                | 0160-3622      | 8   |                                         | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654                              | 2130Y5V100R104Z  |
| A16C25                | 0180-0291      | 3   |                                         | CAPACITOR-FXD 1UF+-10% 35VDC TA          | 56289                              | 150D105X9035A2   |
| A16C26                | 0180-1846      | 6   |                                         | CAPACITOR-FXD 2.2UF+-10% 35VDC TA        | 56289                              | 150D225X9035B2   |
| A16CR1                | 1901-0044      | 5   |                                         | DIODE-SWITCHING 50V 50MA 6NS             | 28480                              | 1901-0044        |
| A16CR2                | 1901-0044      | 5   |                                         | DIODE-SWITCHING 50V 50MA 6NS             | 28480                              | 1901-0044        |
| A16CR3                | 1901-0044      | 5   |                                         | DIODE-SWITCHING 50V 50MA 6NS             | 28480                              | 1901-0044        |
| A16CR4                | 1901-0044      | 5   |                                         | DIODE-SWITCHING 50V 50MA 6NS             | 28480                              | 1901-0044        |
| A16CR5                | 1901-0044      | 5   |                                         | DIODE-SWITCHING 50V 50MA 6NS             | 28480                              | 1901-0044        |
| A16CR6                | 1901-0028      | 5   | 2                                       | DIODE-PWR RECT 400V 750MA DO-29          | 28480                              | 1901-0028        |
| A16CR7                | 1901-0028      | 5   |                                         | DIODE-PWR RECT 400V 750MA DO-29          | 28480                              | 1901-0028        |
| A16L1                 | 9140-0137      | 1   | 1                                       | COIL-MLD 1MH 5% Q=60 .190X.44LG-NOM      | 28480                              | 9140-0137        |
| A16L2                 | 9100-3912      | 2   | 1                                       | COIL-MLD 15UH 5% Q=65 .155DX.375LG-NOM   | 28480                              | 9100-3912        |
| A16Q1                 | 1854-0023      | 9   | 1                                       | TRANSISTOR NPN SI TO-18 PD=360MW         | 28480                              | 1854-0023        |
| A16Q2                 | 1855-0410      | 0   | 2                                       | TRANSISTOR J-FET N-CHAN D-MODE TO-18 SI  | 28480                              | 1855-0410        |
| A16R1                 | 0698-3242      | 7   | 1                                       | RESISTOR 357 1% .125W F TC=0+-100        | 24546                              | C4-1/8-T0-357R-F |
| A16R2                 | 0683-2025      | 1   |                                         | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121                              | C82025           |
| A16R3                 | 0698-4488      | 5   |                                         | RESISTOR 26.7K 1% .125W F TC=0+-100      | 24546                              | C4-1/8-T0-2672-F |
| A16R4                 | 0698-4459      | 0   |                                         | RESISTOR 634 1% .125W F TC=0+-100        | 24546                              | C4-1/8-T0-634R-F |
| A16R5                 | 0683-2025      | 1   |                                         | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121                              | C82025           |
| A16R6                 | 0683-3045      | 7   | 2                                       | RESISTOR 300K 5% .25W FC TC=-800/+900    | 01121                              | C83045           |
| A16R7                 | 0683-3045      | 7   |                                         | RESISTOR 300K 5% .25W FC TC=-800/+900    | 01121                              | C83045           |
| A16R8                 | 0683-1035      | 1   |                                         | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121                              | C81035           |
| A16R9                 | 0683-2235      | 5   |                                         | RESISTOR 22K 5% .25W FC TC=-400/+800     | 01121                              | C82235           |
| A16R11                | 0683-2045      | 5   |                                         | RESISTOR 200K 5% .25W FC TC=-800/+900    | 01121                              | C82045           |
| A16R12                | 0683-1035      | 1   | 8                                       | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121                              | C81035           |
| A16R13                | 0683-5125      | 8   |                                         | RESISTOR 5.1K 5% .25W FC TC=-400/+700    | 01121                              | C85125           |
| A16R14                | 0683-2035      | 3   |                                         | RESISTOR 20K 5% .25W FC TC=-400/+800     | 01121                              | C82035           |
| A16R15                | 0683-2045      | 5   |                                         | RESISTOR 200K 5% .25W FC TC=-800/+900    | 01121                              | C82045           |
| A16R16                | 0683-5125      | 8   |                                         | RESISTOR 5.1K 5% .25W FC TC=-400/+700    | 01121                              | C85125           |
| A16R17                | 0698-3274      | 5   |                                         | 2                                        | RESISTOR 10K 1% .125W F TC=0+-25   | 28480            |
| A16R18                | 0698-3274      | 5   | RESISTOR 10K 1% .125W F TC=0+-25        |                                          | 28480                              | 0698-3274        |
| A16R19                | 2100-3154      | 7   | RESISTOR-TRMR 1K 10% C SIDE-ADJ 17-TRN  |                                          | 02111                              | 43P102           |
| A16R20                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600     |                                          | 01121                              | C81025           |
| A16R21                | 2100-3054      | 6   | RESISTOR-TRMR 50K 10% C SIDE-ADJ 17-TRN |                                          | 02111                              | 43P503           |
| A16R22                | 0757-0476      | 9   | 2                                       |                                          | RESISTOR 301K 1% .125W F TC=0+-100 | 24546            |
| A16R23                | 0698-4443      | 2   |                                         | RESISTOR 4.53K 1% .125W F TC=0+-100      | 24546                              | C4-1/8-T0-4531-F |
| A16R24                | 0683-2025      | 1   |                                         | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121                              | C82025           |
| A16R25                | 0683-1525      | 4   |                                         | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121                              | C81525           |
| A16R26                | 0683-1015      | 7   |                                         | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121                              | C81015           |
| A16R27                | 0683-1015      | 7   |                                         | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121                              | C81015           |
| A16R28                | 0683-1015      | 7   | 7                                       | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121                              | C81015           |
| A16R29                | 0683-1015      | 7   |                                         | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121                              | C81015           |
| A16R31                | 0683-1015      | 7   |                                         | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121                              | C81015           |
| A16R32                | 0683-1015      | 7   |                                         | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121                              | C81015           |
| A16R33                | 0683-1015      | 7   |                                         | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121                              | C81015           |
| A16R33                | 0683-1015      | 7   |                                         | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121                              | C81015           |
| A16TP1                | 0360-0124      | 3   |                                         | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480                              | 0360-0124        |
| A16TP2                | 0360-0124      | 3   |                                         | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480                              | 0360-0124        |
| A16TP3                | 0360-0124      | 3   |                                         | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480                              | 0360-0124        |
| A16TP4                | 0360-0124      | 3   |                                         | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480                              | 0360-0124        |
| A16TP5                | 0360-0124      | 3   |                                         | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480                              | 0360-0124        |
| A16TP6                | 0360-0124      | 3   |                                         | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480                              | 0360-0124        |
| A16TP7                | 0360-0124      | 3   |                                         | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480                              | 0360-0124        |
| A16TP8                | 0360-0124      | 3   |                                         | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480                              | 0360-0124        |
| A16U1                 | 1826-0185      | 5   | 1                                       | OP AMP SPCL TO-99                        | 01928                              | CA3080           |
| A16U2                 | 1826-0340      | 4   |                                         | OP AMP BIFET TO-99                       | 28480                              | 1826-0340        |
| A16U3                 | 1826-0138      | 8   |                                         | COMPARATOR GP QUAD 14-DIP-P              | 04713                              | LM339P           |
| A16U4                 | 1826-0043      | 4   |                                         | OP AMP GP TO-99                          | 01928                              | CA307T           |
| A16U5                 | 1820-1425      | 6   |                                         | IC SCHMITT-TRIG TTL LS NAND QUAD 2-INP   | 01295                              | SN74LS132N       |
| A16U6                 | 1820-1984      | 2   | 12                                      | CONV 10-B-D/A 16-DIP-C                   | 24355                              | AD561KD          |
| A16U7                 | 1826-0026      | 3   |                                         | COMPARATOR PRCN TO-99                    | 04713                              | LM331G           |
| A16U8                 | 1820-1978      | 4   |                                         | IC RGTR TTL L 12=817                     | 34353                              | AV25L04PC        |
| A16U9                 | 1820-1425      | 6   |                                         | IC SCHMITT-TRIG TTL LS NAND QUAD 2-INP   | 01295                              | SN74LS132N       |
| A16U11                | 1826-0402      | 9   |                                         | IC V RGLTR TO-3                          | 80103                              | LAS=1515         |

See introduction to this section for ordering information  
 \*Indicates factory selected value



Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
| A17                   | 03585-66517    | 4   | 1   | FILTER BOARD NO. 1                       | 28480    | 03585-66517          |
| A17C1                 | 0180-0116      | 1   | 2   | CAPACITOR-FXD 6.8UF+-10% 35VDC TA        | 56289    | 150D685X9035B2       |
| A17C2                 | 0180-0116      | 8   |     | CAPACITOR-FXD 6.8UF+-10% 35VDC TA        | 56289    | 150D685X9035B2       |
| A17C3                 | 0180-0229      | 7   | 3   | CAPACITOR-FXD 33UF+-10% 10VDC TA         | 56289    | 150D336X9010B2       |
| A17C4                 | 0160-4571      | 8   | 40  | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C5                 | 0160-3622      | 8   | 15  | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C6                 | 0160-2257      | 3   | 1   | CAPACITOR-FXD 10PF +-5% 500VDC CER 0+-60 | 28480    | 0160-2257            |
| A17C7                 | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C8                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C9                 | 0140-0184      | 9   | 5   | CAPACITOR-FXD 8200PF +-1% 100VDC MICA    | 72136    | DM20F822F0100WV1     |
| A17C10                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C11                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C12                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C13                | 0140-0184      | 9   |     | CAPACITOR-FXD 8200PF +-1% 100VDC MICA    | 72136    | DM20F822F0100WV1CR   |
| A17C14                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C15                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C16                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C17                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C18                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C19                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C20                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C21                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C22                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C23                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C24                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C25                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C26                | 0140-0191      | 3   | 2   | CAPACITOR-FXD 56PF +-5% 300VDC MICA      | 04522    | DM15E560J0300WV1CR   |
| A17C27                | 0121-0180      | 9   | 2   | CAPACITOR-V TRMR-CER 15-60PF 200V PC-MTG | 01468    | 304324 15/16PF N1500 |
| A17C28*               | 0140-0193      | 3   |     | CAPACITOR-FXD 82PF +-5% 300VDC MICA      | 04522    | DM15E820J0300WV1CR   |
| A17C28**              | 0140-0194      | 1   |     | CAPACITOR-FXD 110PF +-5% 300VDC MICA     | 04522    | DM15F111J0300WV1CR   |
| A17C28**              | 0240-0195      | 2   |     | CAPACITOR-FXD 130PF +-5% 300VDC MICA     | 04522    | DM15F131J0300WV1CR   |
| A17C29                | 0121-0059      | 7   | 1   | CAPACITOR-V TRMR-CER 2-8PF 350V PC-MTG   | 01468    | 304324 2/8PF NPO     |
| A17C30                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C31                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C32                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C33                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C34                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C35                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C36                | 0140-0191      | 8   |     | CAPACITOR-FXD 56PF +-5% 300VDC MICA      | 04522    | DM15E560J0300WV1CR   |
| A17C37                | 0121-0180      | 5   |     | CAPACITOR-V TRMR-CER 15-60PF 200V PC-MTG | 01468    | 304324 15/60PF N1500 |
| A17C38*               | 0140-0193      | 1   |     | CAPACITOR-FXD 82PF +-5% 300VDC MICA      | 04522    | DM15E820J0300WV1CR   |
| A17C38**              | 0140-0194      | 1   |     | CAPACITOR-FXD 110PF +-5% 300VDC MICA     | 04522    | DM15F111J0300WV1CR   |
| A17C38**              | 0140-0195      | 2   |     | CAPACITOR-FXD 130PF +-5% 300VDC MICA     | 04522    | DM15F131J0300WV1CR   |
| A17C39                | 0121-0059      | 7   | 1   | CAPACITOR-V TRMR-CER 2-8PF 350V PC-MTG   | 01468    | 304324 2/8PF NPO     |
| A17C40                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C41                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C42                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C43                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C44                | 0140-0198      | 5   | 2   | CAPACITOR-FXD 200PF +-5% 300VDC MICA     | 72136    | DM15F201J0300WV1CR   |
| A17C45                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C46                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C47                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C48                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C49                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A17C50                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C51                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C52                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C53                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C54                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C55                | 0501-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C56                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C57                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C58                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C59                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C60                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C61                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C62                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C63                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A27C64                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A27C65                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A27C66                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C67                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C68                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C69                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A17C70                | 0121-0036      | 2   |     | CAPACITOR-V TRMR-CER 5.5-18PF 350V       | 01468    | 304324 5.5/18PR NPO  |

See introduction to this section for ordering information  
\*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation                               | HP Part Number                                                | C D                   | Qty                    | Description                                                                                                                                                                                          | Mfr Code                                  | Mfr Part Number                                                              |
|-----------------------------------------------------|---------------------------------------------------------------|-----------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------|
| A17C71<br>A17C73                                    | 0121-0035<br>0140-0149                                        | 6                     | 1                      | CAPACITOR-V TRMR-CLR 5.5-18PF 350V<br>CAPACITOR-FXD 470PF + 5% 300VDC MICA                                                                                                                           | 01468<br>04522                            | 304324 5.5/18PF NPO<br>DM15F471J0300WV1CR                                    |
| A17CR1<br>A17CR2<br>A17CR3<br>A17CR4<br>A17CR5      | 1901-0376<br>1901-0376<br>1901-0376<br>1901-0376<br>1901-0376 | 6<br>6<br>6<br>6<br>6 | 33                     | DIODE-GEN PRP 35V 50MA DO-35<br>DIODE-GEN PRP 35V 50MA DO-35<br>DIODE-GEN PRP 35V 50MA DO-35<br>DIODE-GEN PRP 35V 50MA DO-35<br>DIODE-GEN PRP 35V 50MA DO-35                                         | 28480<br>28480<br>28480<br>28480<br>28480 | 1901-0376<br>1901-0376<br>1901-0376<br>1901-0376<br>1901-0376                |
| A17CR6<br>A17CR7<br>A17CR8<br>A17CR9<br>A17CR10     | 1901-0376<br>1901-0376<br>1901-0376<br>1901-0376<br>1901-0376 | 6<br>6<br>6<br>6<br>6 |                        | DIODE-GEN PRP 35V 50MA DO-35<br>DIODE-GEN PRP 35V 50MA DO-35<br>DIODE-GEN PRP 35V 50MA DO-35<br>DIODE-GEN PRP 35V 50MA DO-35<br>DIODE-GEN PRP 35V 50MA DO-35                                         | 28480<br>28480<br>28480<br>28480<br>28480 | 1901-0376<br>1901-0376<br>1901-0376<br>1901-0376<br>1901-0376                |
| A17CR11<br>A17CR12<br>A17CR13<br>A17CR14<br>A17CR15 | 1901-0376<br>1901-0376<br>1902-3149<br>1901-0518<br>1901-0518 | 6<br>6<br>9<br>8<br>6 |                        | DIODE-GEN PRP 35V 50MA DO-35<br>DIODE-GEN PRP 35V 50MA DO-35<br>DIODE-ZNR 9.09V 5% DO-7 PD=1.4W TC=+.057%<br>DIODE-SCHOTTKY<br>DIODE-SCHOTTKY                                                        | 28480<br>28480<br>28480<br>28480<br>28480 | 1901-0376<br>1901-0376<br>1902-3149<br>1901-0518<br>1901-0518                |
| A17J1<br>A17J2<br>A17J3<br>A17J4<br>A17J5           | 1250-1368<br>1251-4822<br>1258-0141<br>1251-4822<br>1258-0141 | 7<br>6<br>8<br>6<br>8 | 1<br>10                | CONNECTOR-RF SMB M PC 50-OHM<br>CONNECTOR 3-PIN M POST TYPE<br>CONNECTOR 3-PIN M POST TYPE<br>CONNECTOR 3-PIN M POST TYPE<br>CONNECTOR 3-PIN M POST TYPE                                             | 28480<br>28480<br>28480<br>28480<br>28480 | 1250-1368<br>1251-4822<br>1258-0141<br>1251-4822<br>1258-0141                |
| A17J6<br>A17J7<br>A17J8<br>A17J9<br>A17J10          | 1251-4822<br>1258-0141<br>1251-4822<br>1258-0141              | 6<br>8<br>6<br>8<br>8 |                        | CONNECTOR 3-PIN M POST TYPE<br>CONNECTOR 3-PIN M POST TYPE<br>CONNECTOR 3-PIN M POST TYPE<br>CONNECTOR 3-PIN M POST TYPE                                                                             | 28480<br>28480<br>28480<br>28480          | 1251-4822<br>1258-0141<br>1251-4822<br>1258-0141                             |
| A17L1<br>A17L2<br>A17L3<br>A17L4<br>A17L5           | 9140-0210<br>9140-0210<br>9100-1618<br>9140-0289<br>9140-0289 | 1<br>1<br>1<br>4<br>4 | 2                      | COIL-MLD 100UH 5% Q=50 .155DX.375LG-NOM<br>COIL-MLD 100UH 5% Q=50 .155DX.375LG-NOM<br>COIL-MLD 5.6UH 10% Q=45 .155DX.375LG-NOM<br>COIL-VAR 23UH-27UH Q=200 PC-VTG<br>COIL-VAR 23UH-27UH Q=200 PC-VTG | 28480<br>28480<br>28480<br>28480<br>28480 | 9140-0210<br>9140-0210<br>9100-1618<br>9140-0289<br>9140-0289                |
| A17L6<br>A17L7<br>A17L8                             | T-58234<br>T-38233<br>9100-0543                               | 1<br>1<br>9           | 1                      | COIL-FXD 1MH CENTER-TAP<br>COIL-FXD 2MH<br>COIL-VAR 900UH-1.1MH Q=112 PC-VTG                                                                                                                         | 28480                                     | 9100-0543                                                                    |
| A17Q1<br>A17Q2<br>A17Q3<br>A17Q4<br>A17Q5           | 1854-0215<br>1853-0049<br>1854-0351<br>1854-0071<br>1854-0071 | 1<br>5<br>6<br>7<br>7 | 3<br>1<br>1<br>17<br>7 | TRANSISTOR NPN SI PD=350MW FT=300MHZ<br>TRANSISTOR PNP 2N4917 SI PD=200MW<br>TRANSISTOR NPN SI TO-18 PD=360MW<br>TRANSISTOR NPN SI PD=300MW FT=200MHZ<br>TRANSISTOR NPN SI PD=300MW FT=200MHZ        | 04713<br>07263<br>28480<br>28480<br>28480 | 2N3904<br>2N4917<br>1854-0351<br>1854-0071<br>1854-0071                      |
| A17Q6<br>A17Q7<br>A17Q8<br>A17Q9<br>A17Q10          | 1854-0071<br>1853-0010<br>1854-0215<br>1854-0215<br>1854-0071 | 7<br>2<br>1<br>1<br>1 | 3                      | TRANSISTOR NPN SI PD=300MW FT=200MHZ<br>TRANSISTOR PNP SI TO-18 PD=300MW<br>TRANSISTOR NPN SI PD=350MW FT=300MHZ<br>TRANSISTOR NPN SI PD=350MW FT=300MHZ<br>TRANSISTOR NPN SI PD=300MW FT=200MHZ     | 28480<br>28480<br>04713<br>04713<br>28480 | 1854-0071<br>1853-0010<br>2N3904<br>2N3904<br>1854-0071                      |
| A17R1<br>A17R2<br>A17R3<br>A17R4<br>A17R5           | 0683-3925<br>0683-2205<br>0683-1525<br>0683-2215<br>0683-1015 | 2<br>9<br>4<br>1<br>7 | 1<br>1<br>2<br>1<br>71 | RESISTOR 3.9K 5% .25W FC TC=400/+700<br>RESISTOR 22 5% .25W FC TC=400/+500<br>RESISTOR 1.5K 5% .25W FC TC=400/+700<br>RESISTOR 220 5% .25W FC TC=400/+600<br>RESISTOR 100 5% .25W FC TC=400/+500     | 01121<br>01121<br>01121<br>01121<br>01121 | CB3925<br>CB2205<br>CB1525<br>CB2215<br>CB1015                               |
| A17R6<br>A17R7<br>A17R8<br>A17R9<br>A17R10          | 0683-1015<br>0683-2035<br>0683-2035<br>0683-3518<br>0757-0279 | 7<br>3<br>3<br>0<br>0 | 15                     | RESISTOR 100 5% .25W FC TC=400/+500<br>RESISTOR 20K 5% .25W FC TC=400/+800<br>RESISTOR 20K 5% .25W FC TC=400/+800<br>RESISTOR 7.32K 1% .125W F TC=0/+100<br>RESISTOR 3.16K 1% .125W F TC=0/+100      | 01121<br>01121<br>01121<br>24546<br>24546 | CB1015<br>CB2035<br>CB2035<br>C4-1/8-T0-7321-F<br>C4-1/8-T0-3161-F           |
| A17R11<br>A17R12<br>A17R13<br>A17R14<br>A17R15      | 069A-4451<br>2100-2497<br>0757-0283<br>0683-1015<br>0683-3325 | 2<br>9<br>6<br>6<br>6 | 3<br>5                 | RESISTOR 340 1% .125W F TC=0/+100<br>RESISTOR-TRMR 2K 10% C TOP-ADJ 1-TRN<br>RESISTOR 2K 1% .125W F TC=0/+100<br>RESISTOR 100 5% .25W FC TC=400/+500<br>RESISTOR 3.3K 5% .25W FC TC=400/+700         | 24546<br>73138<br>24546<br>01121<br>01121 | C4-1/8-T0-340R-F<br>R2PR2K<br>C4-1/8-T0-2001-F<br>CB1015<br>CB3325           |
| A17R16<br>A17R17<br>A17R18<br>A17R19<br>A17R20      | 0683-1015<br>069A-3518<br>0698-3096<br>0757-0016<br>2100-2497 | 7<br>0<br>3<br>7<br>9 | 2                      | RESISTOR 100 5% .25W FC TC=400/+500<br>RESISTOR 7.32K 1% .125W F TC=0/+100<br>RESISTOR 3.57K 1% .125W F TC=0/+100<br>RESISTOR 511 1% .125W F TC=0/+100<br>RESISTOR-TRMR 2K 10% C TOP-ADJ 1-TRN       | 01121<br>24546<br>24546<br>24546<br>73138 | CB1015<br>C4-1/8-T0-7321-F<br>C4-1/8-T0-357R-F<br>C4-1/8-T0-511R-F<br>R2PR2K |
| A17R21<br>A17R22<br>A17R23<br>A17R24<br>A17R25      | 0757-0283<br>0683-1015<br>0683-3325<br>0683-2035<br>0698-4473 | 6<br>7<br>6<br>3<br>9 |                        | RESISTOR 2K 1% .125W F TC=0/+100<br>RESISTOR 100 5% .25W FC TC=400/+500<br>RESISTOR 3.3K 5% .25W FC TC=400/+700<br>RESISTOR 20K 5% .25W FC TC=400/+800<br>RESISTOR 20K 5% .25W FC TC=400/+800        | 24546<br>01121<br>01121<br>01121<br>01121 | C4-1/8-T0-2001-F<br>CB1015<br>CB3325<br>CB2035<br>CB2035                     |
| A17R26<br>A17R27<br>A17R28<br>A17R29<br>A17R30      | 2100-3274<br>0757-0200<br>2100-3207<br>0757-0283<br>2100-3273 | 2<br>7<br>1<br>6<br>1 | 1<br>3<br>2<br>3       | RESISTOR-TRMP 10K 10% C SIDE-ADJ 1-TRN<br>RESISTOR 5.62K 1% .125W F TC=0/+100<br>RESISTOR-TRMR 5K 10% C SIDE-ADJ 1-TRN<br>RESISTOR 2K 1% .125W F TC=0/+100<br>RESISTOR-TRMR 2K 10% C SIDE-ADJ 1-TRN  | 28480<br>24546<br>28480<br>24546<br>28480 | 2100-3274<br>C4-1/8-T0-5621-F<br>2100-3207<br>C4-1/8-T0-2001-F<br>2100-3273  |

See introduction to this section for ordering information  
\*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                           | Mfr Code | Mfr Part Number     |
|-----------------------|----------------|-----|-----|---------------------------------------|----------|---------------------|
| A17R31                | 0757-0428      | 1   | 2   | RESISTOR 1.62K 1% .125W F TC=0+-100   | 24546    | C4-1/8-TO-1621-F    |
| A17R32                | 2100-3273      | 1   |     | RESISTOR-TRMR 2K 10% C SIDE-ADJ 1-TRN | 28480    | 2100-3273           |
| A17R33                | 0698-4196      | 2   | 1   | RESISTOR 1.07K .125W F TC=0+-100      | 03292    | C4-1/8-TO-1071-F    |
| A17R34                | 2100-3273      | 1   |     | RESISTOR-TRMR 2K 10% C SIDE-ADJ 1-TRN | 28480    | 2100-3273           |
| A17R35                | 0683-1025      | 9   | 39  | RESISTOR 1K 5% .25W FC TC=-400/+600   | 01121    | CB1025              |
| A17R36                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015              |
| A17R37                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015              |
| A17R38                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015              |
| A17R39                | 0683-2225      | 3   | 1   | RESISTOR 2.2K 5% .25W FC TC=-400/+700 | 01121    | CB2225              |
| A17R40                | 0683-3315      | 4   | 1   | RESISTOR 330 5% .25W FC TC=-400/+600  | 01121    | CB3315              |
| A17R41                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015              |
| A17R42                | 0683-1025      | 3   | 6   | RESISTOR 3K 5% .25W FC TC=-400/+700   | 01121    | CB3025              |
| A17R43                | 0683-1235      | 3   | 4   | RESISTOR 12K 5% .25W FC TC=-400/+800  | 01121    | CB1235              |
| A17R44                | 0698-4482      | 9   | 1   | RESISTOR 17.4K 1% .125W F TC=0+-100   | 01992    | PME55-1/8-TO-1742-F |
| A17R45                | 0698-4473      | 8   | 1   | RESISTOR 8.06K 1% .125W F TC=0+-100   | 24546    | C4-1/81TO18061-F    |
| A17R46                | 0698-4428      | 3   | 1   | RESISTOR 1.69K 1% .125W F TC=0+-100   | 03292    | C4-1/8-TO-1691-F    |
| A17R47                | 0698-3178      | 8   | 1   | RESISTOR 487 1% .125W F TC=0+-100     | 03292    | C4-1/8-TO-487R-F    |
| A17R48                | 0698-4453      | 4   | 2   | RESISTOR 402 1% .125W F TC=0+-100     | 03292    | C4-1/8-TO-402R-F    |
| A17R49                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121    | CB2025              |
| A17R50                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121    | CB2025              |
| A17R51                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121    | CB2025              |
| A17R52                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121    | CB2025              |
| A17R53                | 0683-1045      | 3   | 15  | RESISTOR 100K 5% .25W FC TC=-400/+800 | 01121    | CB1045              |
| A17R54                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800 | 01121    | CB1045              |
| A17R55                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800 | 01121    | CB1045              |
| A17R56                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800 | 01121    | CB1045              |
| A17R57                | 0683-1225      | 1   | 2   | RESISTOR 1.2K 5% .25W FC TC=-400/+700 | 01121    | CB1225              |
| A17R58                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015              |
| A17R59                | 0683-3025      | 3   |     | RESISTOR 3K 5% .25W FC TC=-400/+700   | 01121    | CB3025              |
| A17R60                | 0683-1235      | 3   |     | RESISTOR 12K 5% .25W FC TC=-400/+800  | 01121    | CB1235              |
| A17R61                | 0698-4506      | 8   |     | RESISTOR 73.2K 1% .125W F TC=0+-100   | 03292    | C4-1/8-TO-7322-F    |
| A17R62                | 0698-4492      | 1   | 4   | RESISTOR 32.4 1% .125W F TC=0+-100    | 24546    | C4-1/8-TO-3242-F    |
| A17R63                | 0698-4471      | 6   | 2   | RESISTOR 7.15K 1% .125W F TC=0+-100   | 03292    | C4-1/8-TO-7151-F    |
| A17R64                | 0698-4431      | 8   | 1   | RESISTOR 2.05K 1% .125W F TC=0+-100   | 03292    | C4-1/8-TO-2051-F    |
| A17R65                | 0698-4453      | 4   |     | RESISTOR 402 1% .125W F TC=0+-100     | 24546    | CR-1/8-TO-402R-F    |
| A17R66                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121    | CB2025              |
| A17R67                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121    | CB2025              |
| A17R68                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121    | CB2025              |
| A17R69                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121    | CB2025              |
| A17R70                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121    | CB2025              |
| A17R71                | 0683-7525      | 6   | 2   | RESISTOR 7.5K 5% .25W FC TC=-400/+700 | 01121    | CB7525              |
| A17R72                | 0683-4705      | 8   | 4   | RESISTOR 47 5% .25 W TC=-400/+500     | 01121    | CB4705              |
| A17R73                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015              |
| A17R74                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015              |
| A17R75                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015              |
| A17R76                | 0698-4491      | 1   | 1   | RESISTOR 30.9K 1% .125W F TC=0+-100   | 03292    | C4-1/8-TO-3092-F    |
| A17R77                | 0757-0200      | 7   |     | RESISTOR 5.62K 1% .125W F TC=0+-100   | 24546    | C4-1/8-TO-5621-F    |
| A17R78                | 0757-0200      | 7   |     | RESISTOR 5.62K 1% .125W F TC=0+-100   | 24546    | C4-1/8-TO-5621-F    |
| A17R79                | 0698-3382      | 6   | 1   | RESISTOR 5.49K 1% .125W F TC=0+-100   | 24546    | C4-1/8-TO-5491-F    |
| A17R80                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800 | 01121    | CB1045              |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number   |
|-------------------------|----------------|-----|-----|------------------------------------------|----------|-------------------|
| A17RA1                  | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A17RA2                  | 06A3-5125      | 8   | 5   | RESISTOR 5.1K 5% .25W FC TC=400/+700     | 01121    | CB5125            |
| A17RA4                  | 06A3-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700       | 01121    | CB2025            |
| A17RA5                  | 06A3-1035      | 1   | 5   | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035            |
| A17RA6                  | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025            |
| A17RA7                  | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025            |
| A17RA8                  | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025            |
| A17RA9                  | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025            |
| A17RA0                  | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025            |
| A17RA1                  | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025            |
| A17RA2                  | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025            |
| A17RA3                  | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025            |
| A17RA4                  | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025            |
| A17RA5                  | 06A3-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705            |
| A17RA6*                 | 0698-3262      | 1   | 5   | RESISTOR 40.2 1% .125W F TC=0/+100       | 24546    | C4-1/A-T0-4022-F  |
| A17RA6*                 | 0698-4387      | 3   | 5   | RESISTOR 60.4 1% .125W F TC=0/+100       | 24546    | C4-1/A-T0-60R4-F  |
| A17RA6*                 | 0757-0277      | 8   | 5   | RESISTOR 49.9 1% .125W F TC=0/+100       | 24546    | C4-1/A-T0-4992-F  |
| A17RA6*                 | 0757-0346      | 2   | 5   | RESISTOR 10 1% .125W F TC=0/+100         | 24546    | C4-1/A-T0-10R0-F  |
| A17RA6*                 | 0757-0384      | 8   | 5   | RESISTOR 20 1% .125W F TC=0/+100         | 19701    | WF4C1/A-T0-20R0-F |
| A17RA6*                 | 0757-0388      | 2   | 5   | RESISTOR 30.1 1% .125W F TC=0/+100       | 24546    | C4-1/A-T0-30R1-F  |
| A17RA7*                 | 0698-3262      | 1   |     | RESISTOR 40.2 1% .125W F TC=0/+100       | 24546    | C4-1/A-T0-4022-F  |
| A17RA7*                 | 0698-4387      | 3   |     | RESISTOR 60.4 1% .125W F TC=0/+100       | 24546    | C4-1/A-T0-60R4-F  |
| A17RA7*                 | 0757-0277      | 8   |     | RESISTOR 49.9 1% .125W F TC=0/+100       | 24546    | C4-1/A-T0-4992-F  |
| A17RA7*                 | 0757-0346      | 2   |     | RESISTOR 10 1% .125W F TC=0/+100         | 24546    | C4-1/A-T0-10R0-F  |
| A17RA7*                 | 0757-0384      | 8   |     | RESISTOR 20 1% .125W F TC=0/+100         | 19701    | WF4C1/A-T0-20R0-F |
| A17RA7*                 | 0757-0388      | 2   |     | RESISTOR 30.1 1% .125W F TC=0/+100       | 24546    | C4-1/A-T0-30R1-F  |
| A17RA8                  | 0698-4467      | 0   | 1   | RESISTOR 1.05K 1% .125W F TC=0/+100      | 24546    | C4-1/A-T0-1051-F  |
| A17RA9                  | 0698-4471      | 6   |     | RESISTOR 7.15K 1% .125W F TC=0/+100      | 24546    | C4-1/A-T0-7151-F  |
| A17R10*                 | 06A3-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705            |
| A17R101                 | 0757-0283      | 6   |     | RESISTOR 2K 1% .125W F TC=0/+100         | 24546    | C4-1/A-T0-2001-F  |
| A17R102                 | 06A3-5125      | 8   |     | RESISTOR 5.1K 5% .25W FC TC=400/+700     | 01121    | CB5125            |
| A17R103                 | 06A3-1025      | 3   |     | RESISTOR 1K 5% .25W FC TC=400/+700       | 01121    | CB3025            |
| A17R104                 | 06A3-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=400/+700     | 01121    | CB1525            |
| A17R105                 | 2100-3207      | 1   |     | RESISTOR TRMP 5K 10% C SIDE-ADJ 1-TRN    | 28480    | 2100-3207         |
| A17R106                 | 0757-0439      | 4   | 2   | RESISTOR 6.81K 1% .125W F TC=0/+100      | 24546    | C4-1/A-T0-6811-F  |
| A17R107                 | 06A3-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705            |
| A17R108                 | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A17R109                 | 06A3-4705      | 7   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705            |
| A17R110                 | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A17R111                 | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A17R112                 | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A17R113                 | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025            |
| A17R114                 | 0757-0446      | 3   | 1   | RESISTOR 15K 1% .125W F TC=0/+100        | 24546    | C4-1/A-T0-1502-F  |
| A17R115                 | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A17RT1                  | 0837-0086      | 7   | 7   | THERMISTOR DISC 200-OHM TC=4.4%/C-DEG    | 28480    | 0837-0086         |
| A17RT2                  | 0837-0086      | 7   |     | THERMISTOR DISC 200-OHM TC=4.4%/C-DEG    | 28480    | 0837-0086         |
| A17RT3                  | 0837-0085      | 0   | 1   | THERMISTOR ROD 690-OHM TC=7.7%/C-DEG     | 28480    | 0837-0085         |
| A17RT4                  | 0837-0119      | 7   | 1   | THERMISTOR ROD 5K-OHM TC=7.7%/C-DEG      | 28480    | 0837-0119         |
| A17T1                   | 9100-3262      | 5   | 5   | TRANSFORMER TRANSFORMER; TOROIDAL PULSE  | 28480    | 9100-3262         |
| A17T2                   | 9100-3262      | 5   |     | TRANSFORMER TRANSFORMER; TOROIDAL PULSE  | 28480    | 9100-3262         |
| A17U1                   | 1A20-1196      | 8   | 9   | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N        |
| A17U2                   | 1A26-0510      | 0   | 16  | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332N          |
| A17U3                   | 1A26-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332N          |
| A17U4                   | 1A26-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332N          |
| A17U5                   | 1A26-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332N          |
| A17U6                   | 1A26-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332N          |
| A17U7                   | 1A20-1216      | 3   | 3   | IC DCDP TTL LS 3-T0-R-LINE 3-IMP         | 01295    | SN74LS138N        |
| A17U8                   | 1A20-1196      | 7   | 3   | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS175N        |
| A17U9                   | 1A20-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N        |
| A17Y1                   |                |     |     | PART OF MATCHED SET                      |          |                   |
| A17Y2                   |                |     |     | PART OF MATCHED SET                      |          |                   |
| A17Y1-5                 | 03585-82501    | 6   | 1   | CRYSTALS, IF FILTER (MATCHED SET OF 5)   | 28480    | 03585-82501       |
| A:0 MISCELLANEOUS PARTS |                |     |     |                                          |          |                   |
|                         | 1400-0249      | 0   | 5   | CARLE TIE .062-IN-DIA .091-IN-RD NYL     | 28480    | 1400-0249         |
|                         | 1480-0116      | 8   | 6   | PIN-GRV .062-IN-DIA .25-IN-LG STL        | 28480    | 1480-0116         |
|                         | 0403-0211      | 1   | 4   | EXTR-PC RD BRN PBLVC .062-RD-THKNS       | 28480    | 0403-0211         |
|                         | 0360-1653      | 5   | 20  | CONNECTOR-SGL CONT PIN .045-IN-RSC-SZ 50 | 28480    | 0360-1653         |
| A18                     | 03585-86518    | 5   | 1   | IF GAIN BOARD                            | 28480    | 03585-86518       |
| A18C1                   | 0180-1974      | 1   | 4   | CAPACITOR-FXD 10UF+-10% 35VDC TA         | 56289    | 150D106X9035R2    |
| A18C2                   | 0180-1974      | 1   |     | CAPACITOR-FXD 10UF+-10% 35VDC TA         | 56289    | 150D106X9035R2    |
| A18C3                   | 0180-0229      | 7   |     | CAPACITOR-FXD 33UF+-10% 10VDC TA         | 56289    | 150D336X9010R2    |
| A18C4                   | 0160-4571      | 9   |     | CAPACITOR-FXD .1UF +80-20% 50VDC DER     | 28480    | 0160-4571         |
| A18C5                   | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC DER     | 28480    | 0160-4571         |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
| A18C6                 | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C7                 | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C8                 | 0140-0184      | 9   |     | CAPACITOR-FXD 8200PF +-1% 100VDC MICA    | 72136    | DM20F822F0100WV1CR   |
| A18C9                 | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C10                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C11                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C12                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C13                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C14                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C15                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C16                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C17                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C18                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C19                | 0610-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C20                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C21                | 0140-0191      | 8   |     | CAPACITOR-FXD 56PF +-5% 300VDC MICA      | 04522    | DM15E60J0300WV1CR    |
| A18C22                | 0121-0180      | 5   |     | CAPACITOR-V TRMR-CER 15-60PF 200V PC-MTG | 01468    | 304324 15/60PF N1500 |
| A18C23*               | 0140-0193      | 8   |     | CAPACITOR-FXD 82PF +-5% 300VDC MICA      | 04522    | DM15E82J0300WV1CR    |
| A18C23**              | 0140-0194      | 1   |     | CAPACITOR-FXD 110PF +-5% 300VDC MICA     | 04522    | DM15F11J0300WV1CR    |
| A18C23**              | 0140-0195      | 2   |     | CAPACITOR-FXD 130PF +-5% 300VDC MICA     | 04522    | DM15F13J0300WV1CR    |
| A18C24                | 0121-0059      | 7   |     | CAPACITOR-V TRMR-CER 2-8PF 350V PC-MTG   | 01468    | 304324 2/8PF NPO     |
| A18C25                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C26                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C27                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C28                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C29                | 0160-0127      | 2   | 1   | CAPACITOR-FXD .1UF +-20% 25VDC CER       | 28480    | 0160-0127            |
| A18C30                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A18C31                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C32                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C33                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C34                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A18C35                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A18C37                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A18C38                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C39                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A18C41                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A18C42                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100S104Z      |
| A18C43                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C44                | 0140-0198      | 5   |     | CAPACITOR-FXD 200PF +-5% 300VDC MICA     | 72136    | DM15F20J0300WV1CR    |
| A18C46                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A18C47                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A18C48                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C49                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C50                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C51                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C52                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C53                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C54                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C55                | 0160-2253      | 9   | 1   | CAPACITOR-FXD 6.8PF +-25PF 500VDC CER    | 28480    | 0160-2253            |
| A18C56                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C57                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C58                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C59                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C60                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C61                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C62                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C63                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C64                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C65                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C66                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C67                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C68                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C69                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C70                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C71                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C72                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C73                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C74                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C75                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C76                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C77                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C78                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C79                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C80                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C81                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A18C82                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A18C83                | 0121-0036      | 8   |     | CAPACITOR-V TRMR-CER 5.5-18PF 550V       | 01468    | 305324 5.5/18PF NPO  |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|------------------|
| A18CB4                | 0160-3622      | 8   |     | CAPACITOR-FXO .1UF +60-20% 100VDC CER    | 26654    | 2130V5V100R104Z  |
| A18CR1                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A18CR2                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A18CR3                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A18CR4                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A18CR5                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A18CR6                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A18CR7                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A18CR8                | 1902-3149      | 9   |     | DIODE-ZNR 9.09V 5% DO-7 PDM,HW TC=+.057X | 28480    | 1902-3149        |
| A18CR9                | 1901-0518      | 8   |     | DIODE-SCHOTTKY                           | 28480    | 1901-0518        |
| A18CR10               | 1901-0518      | 8   |     | DIODE-SCHOTTKY                           | 28480    | 1901-0518        |
| A18CR11               | 1901-0050      | 3   | 4   | DIODE-SWITCHING RAV 200MA 2NS DO-35      | 28480    | 1901-0050        |
| A18CR12               | 1901-0050      | 3   |     | DIODE-SWITCHING RAV 200MA 2NS DO-35      | 28480    | 1901-0050        |
| A18CR13               | 1901-0050      | 3   |     | DIODE-SWITCHING RAV 200MA 2NS DO-35      | 28480    | 1901-0050        |
| A18CR14               | 1901-0050      | 3   |     | DIODE-SWITCHING RAV 200MA 2NS DO-35      | 28480    | 1901-0050        |
| A18HU2                | 1205-0011      | 0   | 0   | HEAT SINK TO-5/T0-39-CS                  | 28480    | 1205-0011        |
| A18HU7                | 1205-0011      | 0   |     | HEAT SINK TO-5/T0-39-CS                  | 28480    | 1205-0011        |
| A18HU8                | 1205-0011      | 0   |     | HEAT SINK TO-5/T0-39-CS                  | 28480    | 1205-0011        |
| A18HU9                | 1205-0011      | 0   |     | HEAT SINK TO-5/T0-39-CS                  | 28480    | 1205-0011        |
| A18J1                 | 1251-4822      | 6   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-4822        |
| A18J2                 | 1251-0141      | 8   | 10  | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-0141        |
| A18L1                 | 1251-4822      | 6   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-4822        |
| A18L2                 | 1251-0141      | 8   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-0141        |
| A18L3                 | 1251-4822      | 6   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-4822        |
| A18L4                 | 1251-0141      | 8   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-0141        |
| A18L5                 | 1251-4822      | 6   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-4822        |
| A18L6                 | 1251-0141      | 8   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-0141        |
| A18L1                 | 9100-0541      | 7   | 6   | COIL-MLD 250UH 10% 0*3 .25DX,5LG-NOM     | 28480    | 9100-0541        |
| A18L2                 | 9100-0541      | 7   |     | COIL-MLD 250UH 10% 0*3 .25DX,5LG-NOM     | 28480    | 9100-0541        |
| A18L3                 | 9100-0541      | 7   |     | COIL-MLD 250UH 10% 0*3 .25DX,5LG-NOM     | 28480    | 9100-0541        |
| A18L4                 | T-58235        | 7   |     | COIL-FXD 3MH                             | 28480    | 9100-0541        |
| A18L5                 | 9140-0289      | 4   |     | COIL-VAR 23UH-27UH Q=200 PC-MTG          | 28480    | 9140-0289        |
| A18L6                 | 9100-0543      | 9   |     | COIL-VAR 900UH-1.1MH Q=112 PC-MTG        | 28480    | 9100-0543        |
| A18Q1                 | 1854-0071      | 7   |     | TRANSISTOR NPN 91 PD=300MA FT=200MHZ     | 28480    | 1854-0071        |
| A18Q2                 | 1854-0010      | 2   |     | TRANSISTOR PNP 91 TO-18 PD=300MA         | 28480    | 1853-0010        |
| A18Q3                 | 1854-0071      | 7   |     | TRANSISTOR NPN 91 PD=300MA FT=200MHZ     | 28480    | 1854-0071        |
| A18Q4                 | 1854-0071      | 7   |     | TRANSISTOR NPN 91 PD=300MA FT=200MHZ     | 28480    | 1854-0071        |
| A18Q5                 | 1854-0071      | 7   |     | TRANSISTOR NPN 91 PD=300MA FT=200MHZ     | 28480    | 1854-0071        |
| A18Q6                 | 1854-0071      | 7   |     | TRANSISTOR NPN 91 PD=300MA FT=200MHZ     | 28480    | 1854-0071        |
| A18R1                 | 0699-0164      | 8   | 2   | RESISTOR 738.5 1% .125W F TC=0+-25       | 28480    | 0699-0164        |
| A18R2                 | 0699-0163      | 7   | 2   | RESISTOR 466 1% .125W F TC=0+-25         | 28480    | 0699-0163        |
| A18R3                 | 0698-8499      | 6   | 2   | RESISTOR 294 1% .125W F TC=0+-25         | 28480    | 0698-8499        |
| A18R4                 | 0699-0162      | 6   | 2   | RESISTOR 502.7 1% .125W F TC=0+-25       | 28480    | 0699-0162        |
| A18R5                 | 0757-0221      | 4   | 1   | RESISTOR 825 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-225R-F |
| A18R7                 | 0757-0226      | 9   |     | RESISTOR 1.3K 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-1301-F |
| A18R8                 | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CR1015           |
| A18R9                 | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CR1015           |
| A18R10                | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800      | 01121    | CR2035           |
| A18R11                | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800      | 01121    | CR2035           |
| A18R12                | 0698-3518      | 0   |     | RESISTOR 7.32K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-7321-F |
| A18R13                | 0757-0279      | 0   |     | RESISTOR 3.16K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-3161-F |
| A18R14                | 0698-4451      | 2   |     | RESISTOR 340 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-340R-F |
| A18R15                | 2100-2497      | 9   |     | RESISTOR-TMR 2K 10% C TOP-ADJ 1-TRN      | 73138    | R2PR2K           |
| A18R16                | 0757-0283      | 6   |     | RESISTOR 2K 1% .125W F TC=0+-100         | 24546    | C4-1/8-T0-2001-F |
| A18R17                | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=400/+700     | 01121    | CR3325           |
| A18R18                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CR1015           |
| A18R19                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CR1015           |
| A18R20                | 0698-4393      | 1   | 1   | RESISTOR 73.2 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-73R2-F |
| A18R21                | 0698-3439      | 4   | 1   | RESISTOR 178 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-178R-F |
| A18R24                | 0757-0442      | 9   |     | RESISTOR 10K 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-1002-F |
| A18R25                | 0757-0281      | 4   | 1   | RESISTOR 2.74K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-2741-F |
| A18R26                | 0698-3150      | 6   | 1   | RESISTOR 2.37K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-2371-F |
| A18R27                | 0757-0428      | 1   |     | RESISTOR 1.62K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-1621-F |
| A18R28                | 0683-1335      | 4   | 1   | RESISTOR 13K 5% .25W FC TC=400/+800      | 01121    | CR1335           |
| A18R29                | 0683-4325      | 8   | 2   | RESISTOR 4.3K 5% .25W FC TC=400/+700     | 01121    | CR4325           |
| A18R30                | 0683-2425      | 5   | 3   | RESISTOR 2.4K 5% .25W FC TC=400/+700     | 01121    | CR2425           |
| A18R31                | 0683-2425      | 5   |     | RESISTOR 2.4K 5% .25W FC TC=400/+700     | 01121    | CR2425           |
| A18R32                | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800      | 01121    | CR2035           |
| A18R33                | 0683-4325      | 8   |     | RESISTOR 4.3K 5% .25W FC TC=400/+700     | 01121    | CR4325           |
| A18R34                | 0683-1225      | 1   |     | RESISTOR 1.2K 5% .25W FC TC=400/+700     | 01121    | CR1225           |
| A18R35                | 0683-3025      | 3   |     | RESISTOR 3K 5% .25W FC TC=400/+700       | 01121    | CR3025           |
| A18R36                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CR1015           |
| A18R37                | 0683-1235      | 3   |     | RESISTOR 12K 5% .25W FC TC=400/+800      | 01121    | CR1235           |
| A18R38                | 0698-4506      | 5   |     | RESISTOR 73.2K 1% .125W F TC=0+-100      | 03292    | C4-1/8-T0-7322-F |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                            | Mfr Code | Mfr Part Number   |
|-----------------------|----------------|-----|-----|----------------------------------------|----------|-------------------|
| A18R39                | 0698-4492      | 1   |     | RESISTOR 32.4K 1% .125W F TC=0+-100    | 03292    | C4-1/8-T0-3242-F  |
| A18R40                | 0698-4471      | 6   |     | RESISTOR 7.15K 1% .125W F TC=0+-100    | 03292    | C4-1/8-T0-7151-F  |
| A18R41                | 0698-4431      | 8   |     | RESISTOR 2.05K 1% .125W F TC=0+-100    | 03292    | C4-1/8-T0-2051-F  |
| A18R42                | 0689-4453      | 4   | 1   | RESISTOR 402 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-402R-F  |
| A18R43                | 06A3-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700     | 01121    | CB2025            |
| A18R44                | 06A3-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700     | 01121    | CB2025            |
| A18R45                | 06A3-3625      | 9   | 3   | RESISTOR 3.6K 5% .25W FC TC=400/+700   | 01121    | CB3625            |
| A18R46                | 06A3-6225      | 1   | 3   | RESISTOR 6.2K 5% .25W FC TC=400/+700   | 01121    | CB6225            |
| A18R47                | 06A3-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800   | 01121    | CB1045            |
| A18R48                | 06A3-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800   | 01121    | CB1045            |
| A18R49                | 06A3-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800   | 01121    | CB1045            |
| A18R50                | 06A3-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800   | 01121    | CB1045            |
| A18R51                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015            |
| A18R52*               | 069A-3262      | 1   |     | RESISTOR 40.2 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=4022-F  |
| A18R52*               | 0698-4387      | 3   |     | RESISTOR 60.4 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=60R4-F  |
| A18R52*               | 0757-0277      | 8   |     | RESISTOR 49.9 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=4992-F  |
| A18R52*               | 0757-0346      | 2   |     | RESISTOR 10 1% .125W F TC=0+-100       | 24546    | C4=1/8-T0=10R0-F  |
| A18R52*               | 0757-0344      | 6   |     | RESISTOR 20 1% .125W F TC=0+-100       | 19701    | MF401/8-T0=20R0-F |
| A18R52*               | 0757-038A      | 2   |     | RESISTOR 30.1 1% .125W F TC=0+-100     | 24546    | C4=1/8-T0=30R1-F  |
| A18R53                | 06A3-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800    | 01121    | CB2035            |
| A18R54                | 06A3-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500     | 01121    | CB4705            |
| A18R55                | 06A3-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700    | 01121    | CB1035            |
| A18R56                | 06A3-1015      | 5   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015            |
| A18R57                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015            |
| A18R59                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015            |
| A18R59                | 0698-3492      | 9   | 1   | RESISTOR 2.67K 1% .125W F TC=0+-100    | 24546    | C4=1/8-T0=2671-F  |
| A18R60                | 06A3-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800   | 01121    | CB1045            |
| A18R61                | 06A3-5125      | 7   |     | RESISTOR 5.1K 5% .25W FC TC=400/+700   | 01121    | CB5125            |
| A18R62                | 06A3-1015      | 8   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015            |
| A18R63                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015            |
| A18R64                | 0698-4446      | 5   | 3   | RESISTOR 267 1% .125W F TC=0+-100      | 24546    | C4=1/8-T0=267R-F  |
| A18R65                | 2100-3349      | 2   | 3   | RESISTOR-TRMP 100 10% C SIDE=ADJ 1-TRN | 28480    | 2100-3349         |
| A18R66                | 0698-4427      | 2   | 3   | RESISTOR 1.65K 1% .125W F TC=0+-100    | 24546    | C4=1/8-T0=1651-F  |
| A18R67                | 06A3-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800    | 01121    | CB2035            |
| A18R68                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015            |
| A18R69                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015            |
| A18R70                | 0698-4446      | 5   |     | RESISTOR 267 1% .125W F TC=0+-100      | 24546    | C4=1/8-T0=267R-F  |
| A18R71                | 2100-3349      | 2   |     | RESISTOR-TRMP 100 10% C SIDE=ADJ 1-TRN | 28480    | 2100-3349         |
| A18R72                | 0698-4427      | 2   |     | RESISTOR 1.65K 1% .125W F TC=0+-100    | 24546    | C4=1/8-T0=1651-F  |
| A18R73                | 06A3-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800    | 01121    | CB2035            |
| A18R74                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015            |
| A18R75                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015            |
| A18R76                | 0698-4446      | 5   |     | RESISTOR 267 1% .125W F TC=0+-100      | 24546    | C4=1/8-T0=267R-F  |
| A18R77                | 2100-3349      | 2   |     | RESISTOR-TRMP 100 10% C SIDE=ADJ 1-TRN | 28480    | 2100-3349         |
| A18R78                | 069A-4427      | 2   |     | RESISTOR 1.65K 1% .125W F TC=0+-100    | 24546    | C4=1/8-T0=1651-F  |
| A18R79                | 06A3-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800    | 01121    | CB2035            |
| A18R80                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015            |
| A18R81                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015            |
| A18R82                | 06A3-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800    | 01121    | CB2035            |
| A18R83                | 06A3-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700     | 01121    | CB2025            |
| A18R84                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025            |
| A18R85                | 0698-4446      | 1   | 1   | RESISTOR 19.1K 1% .125W F TC=0+-100    | 24546    | C4=1/8-T0=1912-F  |
| A18R86                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025            |
| A18R87                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025            |
| A18R88                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025            |
| A18R89                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025            |
| A18R90                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025            |
| A18R91                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025            |
| A18R92                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025            |
| A18R93                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025            |
| A18R94                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025            |
| A18R95                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025            |
| A18R96                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015            |
| A18R97                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015            |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number    |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|--------------------|
| A18R98                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+600     | 01121    | CB1045             |
| A18R99                | 0683-5125      | 8   |     | RESISTOR 5.1K 5% .25W FC TC=400/+700     | 01121    | CB5125             |
| A18R100               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015             |
| A18R101               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025             |
| A18R102               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025             |
| A18R103               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025             |
| A18R104               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025             |
| A18R105               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025             |
| A18R106               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025             |
| A18R107               | 0757-0415      | 6   | 1   | RESISTOR 475 1% .125W F TC=0/+100        | 24546    | CA-1/A-T0-475R-F   |
| A18R10A               | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035             |
| A18R109               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015             |
| A18R110               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015             |
| A18R111               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015             |
| A18R112               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015             |
| A18R113               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015             |
| A18R114               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015             |
| A18R115               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015             |
| A18R116               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015             |
| A18R117               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015             |
| A18R118               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015             |
| A18R119               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015             |
| A18R120               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015             |
| A18R121               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015             |
| A18R122               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015             |
| A18R71                | 0837-0086      | 7   |     | THERMISTOR DISC 200-OHM TC=4.4%/C-DEG    | 28480    | 0837-0086          |
| A18R72                | 0837-0086      | 7   |     | THERMISTOR DISC 200-OHM TC=4.4%/C-DEG    | 28480    | 0837-0086          |
| A18R73                | 0837-0086      | 7   |     | THERMISTOR DISC 200-OHM TC=4.4%/C-DEG    | 28480    | 0837-0086          |
| A18T1                 | 9100-3262      | 5   |     | TRANSFORMER, TOROIDAL PULSE              | 28480    | 9100-3262          |
| A18U1                 | 1A26-0510      | 0   | 1   | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332M           |
| A18U2                 | 1A26-0089      | 0   |     | IC OP AMP WB T0-99                       | 29A32    | 1322               |
| A18U3                 | 1A26-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332M           |
| A18U4                 | 1A26-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332M           |
| A18U5                 | 1A26-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332M           |
| A18U6                 | 1A26-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332M           |
| A18U7                 | 1A26-0109      | 3   | 3   | IC OP AMP WB T0-99                       | 34371    | A2-2625-80593      |
| A18U8                 | 1A26-0109      | 3   |     | IC OP AMP WB T0-99                       | 34371    | A2-2625-80593      |
| A18U9                 | 1A26-0109      | 3   |     | IC OP AMP WB T0-99                       | 34371    | A2-2625-80593      |
| A18U10                | 1A26-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332M           |
| A18U11                | 1A26-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332M           |
| A18U12                | 1A20-1196      | 0   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N         |
| A18U13                | 1A20-1196      | 0   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N         |
| A18U14                | 1A20-1196      | 0   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N         |
| A18U15                | 1A20-1196      | 0   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N         |
| A18U16                | 1A20-1195      | 7   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS175N         |
| A18U17                | 1A20-1216      | 3   |     | IC DCOR TTL LS 3-T0-A-LINE 3-IMP         | 01295    | SN74LS138N         |
| A18Y1                 |                |     |     | NOT ASSIGNED                             |          |                    |
| A18Y2                 |                |     |     | NOT ASSIGNED                             |          |                    |
| A18Y3                 |                |     |     | PART OF MATCHED SET (SEE A17 PARTS LIST) |          |                    |
|                       |                |     |     | A18 MISCELLANEOUS PARTS                  |          |                    |
|                       | 14A0-0116      | 8   |     | PIN-GRV .062-IN-DIA .25-IN-LG STL        | 28480    | 14A0-0116          |
|                       | 0403-0211      | 1   |     | EXTR-PC RD BRN POLYC .062-RD-THKNS       | 28480    | 0403-0211          |
|                       | 0403-0212      | 2   | 1   | EXTR-PC RD RED POLYC .062-RD-THKNS       | 28480    | 0403-0212          |
|                       | 0360-1653      | 5   |     | CONNECTOR-SGL CONT PIN .045-IN-RSC-SZ SQ | 28480    | 0360-1653          |
|                       | 6960-0080      | 8   | 1   | PLUG-HOLE FL-ND FOR .185-D-HOLE TFE      | 28480    | 6960-0080          |
|                       | 1400-0249      | 0   |     | CABLE TIE .062-.625-DIA .091-WD NYL      | 28480    | 1400-0249          |
| A19                   | 035A5-66519    | 6   | 1   | FILTER BOARD NO. 2                       | 28480    | 035A5-66513        |
| A19C1                 | 0160-1974      | 1   |     | CAPACITOR-FXD 10UF+-10% 35VDC TA         | 56289    | 150D106X9035R2     |
| A19C2                 | 0160-1974      | 1   |     | CAPACITOR-FXD 10UF+-10% 35VDC TA         | 56289    | 150D106X9035R2     |
| A19C3                 | 0160-0229      | 7   |     | CAPACITOR-FXD 33UF+-10% 10VDC TA         | 56289    | 150D33X9010R2      |
| A19C4                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A19C5                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A19C6                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A19CA                 | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571          |
| A19C9                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A19C10                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571          |
| A19C11                | 0160-0180      | 9   |     | CAPACITOR-FXD 2200PF +-1% 100VDC MICA    | 72136    | DM20F822F0100AV1CP |
| A19C12                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A19C13                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A19C14                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A19C15                | 0160-0180      | 9   |     | CAPACITOR-FXD 2200PF +-1% 100VDC MICA    | 72136    | DM20F822F0100AV1CP |
| A19C16                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |

See introduction to this section for ordering information  
 \*Indicates factory selected value



Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
| A19C17                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C18                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C19                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C20                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C21                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C22                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C23                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C24                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C25                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C26                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C27                | 0140-0190      | 7   | 2   | CAPACITOR-FXD 39PF +-5% 300VDC MICA      | 04522    | DM15E390J0300WV1CR   |
| A19C28                | 0121-0180      | 5   |     | CAPACITOR-V TRMR-CER 15-60PF 200V PC-MTG | 01468    | 304324 15/60PF N1500 |
| A19C29*               | 0140-0193      | 1   |     | CAPACITOR-FXD 82PF +-5% 300VDC MICA      | 04522    | DM15E820J0300WV1CR   |
| A19C29**              | 0140-0194      | 1   |     | CAPACITOR-FXD 110PF +-5% 300VDC MICA     | 04522    | DM15F111J0300WV1CR   |
| A19C29**              | 0140-0195      | 2   |     | CAPACITOR-FXD 150PF +-5% 300VDC MICA     | 04522    | DM15F151J0300WV1CR   |
| A19C30                | 0121-0059      | 7   |     | CAPACITOR-V TRMR-CER 2-8PF 350V PC-MTG   | 01468    | 304324 2/8PF NPO     |
| A19C31                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C32                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C33                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C34                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C35                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C36                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C37                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C38                | 0140-0196      | 3   |     | CAPACITOR-FXD 150PF +-5% 300VDC MICA     | 72136    | DM15F151J0300WV1CR   |
| A19C39                | 0121-0180      | 5   |     | CAPACITOR-V TRMR-CER 15-60PF 200V PC-MTG | 01468    | 304324 15/60PR N1500 |
| A19C40**              | 0140-0193      | 1   |     | CAPACITOR-FXD 82PF +-5% 300VDC MICA      | 04522    | DM15E820J0300WV1CR   |
| A19C40**              | 0140-0194      | 1   |     | CAPACITOR-FXD 110PF +-5% 300VDC MICA     | 04522    | DM15F111J0300WV1CR   |
| A19C40**              | 0140-0195      | 2   |     | CAPACITOR-FXD 150PF +-5% 300VDC MICA     | 04522    | DM15F151J0300WV1CR   |
| A19C41                | 0121-0059      | 7   |     | CAPACITOR-V TRMR-CER 2-8PF 350V PC-MTG   | 01468    | 304324 2/8PF NPO     |
| A19C42                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C43                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C44                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C45                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C46                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C47                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C48                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C49                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C50                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C51                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C52                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C53                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C54                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C55                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C56                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C57                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C58                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19C59                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C60                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C61                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C62                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C63                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C64                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C65                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A19C66                | 0160-0050      | 6   |     | CAPACITOR-V TRMR-CER 5.5-18PF 350V       | 01468    | 304324 5.5/18PF NPO  |
| A19C67                | 0121-0056      | 6   |     | CAPACITOR-V TRMR-CER 5.5-18PF 350V       | 01468    | 304324 5.5/18PF NPO  |
| A19C98                | 0140-0191      | 8   |     | CAPACITOR-FXD 56PF +-5% 300VDC MICA      | 04522    | DM15E560J0300WV1CR   |
| A19C99                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A19CR1                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DD-35             | 28480    | 1901-0376            |
| A19CR2                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DD-35             | 28480    | 1901-0376            |
| A19CR3                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DD-35             | 28480    | 1901-0376            |
| A19CR4                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DD-35             | 28480    | 1901-0376            |
| A19CR5                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DD-35             | 28480    | 1901-0376            |
| A19CR6                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DD-35             | 28480    | 1901-0376            |
| A19CR7                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DD-35             | 28480    | 1901-0376            |
| A19CR8                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DD-35             | 28480    | 1901-0376            |
| A19CR9                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DD-35             | 28480    | 1901-0376            |
| A19CR10               | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DD-35             | 28480    | 1901-0376            |
| A19CR11               | 1902-3149      | 9   |     | DIODE-ZNR 9.09V 5% DD-7 PD=.4W IC=+.057% | 28480    | 1902-3149            |
| A19CR12               | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DD-35             | 28480    | 1901-0376            |
| A19CR13               | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DD-35             | 28480    | 1901-0376            |
| A19CR14               | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DD-35             | 28480    | 1901-0376            |
| A19CR15               | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DD-35             | 28480    | 1901-0376            |
| A19CR16               | 1901-0518      | 8   |     | DIODE-SCHOTTKY                           | 28480    | 1901-0518            |
| A19CR17               | 1901-0518      | 8   |     | DIODE-SCHOTTKY                           | 28480    | 1901-0518            |
| A19J1                 | 1251-4822      | 6   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-4822            |
|                       | 1253-0141      | 6   |     |                                          | 28480    | 1253-0141            |
| A19J2                 | 1251-4822      | 6   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-4822            |
|                       | 1253-0141      | 6   |     |                                          | 28480    | 1253-0141            |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                           | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|---------------------------------------|----------|------------------|
| A19J3                 | 1251-4822      | 6   |     | CONNECTOR 3-PIN M POST TYPE           | 28480    | 1251-4822        |
|                       | 1258-0141      | 8   |     |                                       | 28480    | 1258-0141        |
| A19J4                 | 1251-4822      | 6   |     | CONNECTOR 3-PIN M POST TYPE           | 28480    | 1251-4822        |
|                       | 1258-0141      | 8   |     |                                       | 28480    | 1258-0141        |
| A19L1                 | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .250X.5LG-NOM  | 28480    | 9100-0541        |
| A19L2                 | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .250X.5LG-NOM  | 28480    | 9100-0541        |
| A19L3                 | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .250X.5LG-NOM  | 28480    | 9100-0541        |
| A19L4                 | 9140-0289      | 4   |     | COIL-VAR 23UH-27UH Q=200 PC-MTG       | 28480    | 9140-0289        |
| A19L5                 | 9140-0289      | 4   |     | COIL-VAR 23UH-27UH Q=200 PC-MTG       | 28480    | 9140-0289        |
| A19L6                 | T-58235        | 2   |     | COIL-FXD 2MH                          | 28480    |                  |
| A19L7                 | T-58235        | 2   |     | COIL-FXD 2MH                          | 28480    |                  |
| A19Q1                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ  | 28480    | 1854-0071        |
| A19Q2                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ  | 28480    | 1854-0071        |
| A19Q3                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ  | 28480    | 1854-0071        |
| A19Q4                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ  | 28480    | 1854-0071        |
| A19Q5                 | 1953-0010      | 2   |     | TRANSISTOR NPN SI TO=18 PD=360MW      | 28480    | 1853-0010        |
| A19Q6                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI DE=300MW FT=200MHZ  | 28480    | 1854-0071        |
| A19Q7                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ  | 28480    | 1854-0071        |
| A19Q8                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ  | 28480    | 1854-0071        |
| A19Q9                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ  | 28480    | 1854-0071        |
| A19Q10                | 1855-0081      | 1   | 1   | TRANSISTOR J-FET N-CHAN D-MODE SI     | 01295    | 2NS245           |
| A19R1                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600   | 01121    | CB1025           |
| A19R2                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600   | 01121    | CB1025           |
| A19R3                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600   | 01121    | CB1025           |
| A19R4                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600   | 01121    | CB1025           |
| A19R5                 | 0683-5625      | 3   | 1   | RESISTOR 5.6K 5% .25W FC TC=-400/+700 | 01121    | CB5625           |
| A19R6                 | 0699-0164      | 8   |     | RESISTOR 738.5 1% .125W F TC=0+-25    | 28480    | 0699-0164        |
| A19R7                 | 0699-0163      | 7   |     | RESISTOR 466 1% .125W F TC=0+-25      | 28480    | 0699-0163        |
| A19R8                 | 0698-8499      | 6   |     | RESISTOR 294 1% .125W F TC=0+-25      | 28480    | 0698-8499        |
| A19R9                 | 0699-0162      | 5   |     | RESISTOR 502.7 1% .125W F TC=0+-25    | 28480    | 0699-0162        |
| A19R10                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600   | 01121    | CB1025           |
| A19R11                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500   | 01121    | CB4705           |
| A19R12                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015           |
| A19R13                | 0757-0439      | 4   |     | RESISTOR 6.81K 1% .125W F TC=0+-100   | 24546    | 04-1/8-TO-6811-F |
| A19R14                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015           |
| A19R15                | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=-400/+800  | 01121    | CB2035           |
| A19R16                | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=-400/+800  | 01121    | CB2035           |
| A19R17                | 0698-3518      | 0   |     | RESISTOR 7.32K 1% .125W F TC=0+-100   | 24546    | 04-1/8-TO-7321-F |
| A19R18                | 0757-0279      | 0   |     | RESISTOR 3.16K 1% .125W F TC=0+-100   | 24546    | 04-1/8-TO-3161-F |
| A19R19                | 0698-4451      | 2   |     | RESISTOR 340 1% .125W F TC=0+-100     | 24546    | 04-1/8-TO-3401-F |
| A19R20                | 2100-2497      | 9   |     | RESISTOR-TRMR 2K 10% C TOP-ADJ 1-TRN  | 73158    | 82PR2K           |
| A19R21                | 0757-0283      | 6   |     | RESISTOR 2K 1% .125W F TC=0+-100      | 24546    | 04-1/8-TO-2001-F |
| A19R22                | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=-400/+700 | 01121    | CB3325           |
| A19R23                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015           |
| A19R24                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015           |
| A19R25                | 0698-3581      | 0   |     | RESISTOR 7.32K 1% .125W F TC=0+-100   | 24546    | 04-1/8-TO-7321-F |
| A19R26                | 0698-3496      | 3   |     | RESISTOR 3.57K 1% .125W F TC=0+-100   | 24546    | 04-1/8-TO-357R-F |
| A19R27                | 0757-0416      | 7   |     | RESISTOR 511 1% .125W F TC=0+-100     | 24546    | 04-1/8-TO-511R-F |
| A19R28                | 2100-2497      | 9   |     | RESISTOR-TRMR 2K 10% C TOP-ADJ 1-TRN  | 73158    | 82PR2K           |
| A19R29                | 0757-0283      | 6   |     | RESISTOR 2K 1% .125W F TC=0+-100      | 24546    | 04-1/8-TO-2001-F |
| A19R30                | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=-400/+700 | 01121    | CB3325           |
| A19R31                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015           |
| A19R32                | 0698-3558      | 3   | 2   | RESISTOR 4.02K 1% .125W F TC=0+-100   | 24546    | 04-1/8-TO-4021-F |
| A19R33                | 0698-3549      | 8   | 1   | RESISTOR 15.4K 1% .125W F TC=0+-100   | 24546    | 04-1/8-TO-1542-F |
| A19R34                | 0698-4436      | 3   | 1   | RESISTOR 2.8K 1% .125W F TC=0+-100    | 24546    | 04-1/8-TO-2801-F |
| A19R35                | 0683-3935      | 4   | 1   | RESISTOR 39K 5% .25W FC TC=-400/+800  | 01121    | CB3935           |
| A19R36                | 0683-1645      | 6   | 1   | RESISTOR 130K 5% .25W FC TC=-800/+900 | 01121    | CB1345           |
| A19R37                | 0683-2235      | 5   | 1   | RESISTOR 22K 5% .25W FC TC=-400/+800  | 01121    | CB2235           |
| A19R38                | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=-400/+800  | 01121    | CB2035           |
| A19R39                | 0683-7525      | 6   |     | RESISTOR 7.5K 5% .25W FC TC=-400/+700 | 01121    | CB7525           |
| A19R40                | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=-400/+800  | 01121    | CB2035           |
| A19R41                | 0683-3025      | 3   |     | RESISTOR 3K 5% .25W FC TC=-400/+700   | 01121    | CB3025           |
| A19R42                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015           |
| A19R43                | 0683-1235      | 3   |     | RESISTOR 12K 5% .25W FC TC=-400/+800  | 01121    | CB1235           |
| A19R44                | 0698-4506      | 8   |     | RESISTOR 73.2K 1% .125W F TC=0+-100   | 03292    | 04-1/8-TO-7322-F |
| A19R45                | 0698-4492      | 1   |     | RESISTOR 32.4K 1% .125W F TC=0+-100   | 24546    | 04-1/8-TO-3242-F |
| A19R46                | 0698-4471      | 6   |     | RESISTOR 7.15K 1% .125W F TC=0+-100   | 03292    | 04-1/8-TO-7151-F |
| A19R47                | 0698-4431      | 8   |     | RESISTOR 2.05K 1% .125W F TC=0+-100   | 03292    | 04-1/8-TO-2051-F |
| A19R48                | 0698-4453      | 4   |     | RESISTOR 402 1% .125W F TC=0+-100     | 24546    | 04-1/8-TO-402R-F |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                          | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|--------------------------------------|----------|------------------|
| A19R49                | 06A3-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700   | 01121    | CB2025           |
| A19R50                | 06A3-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700   | 01121    | CB2025           |
| A19R51                | 06A3-3625      | 9   |     | RESISTOR 3.6K 5% .25W FC TC=400/+700 | 01121    | CB3625           |
| A19R52                | 06A3-6225      | 1   |     | RESISTOR 6.2K 5% .25W FC TC=400/+700 | 01121    | CB6225           |
| A19R53                | 06A3-2425      | 5   |     | RESISTOR 2.4K 5% .25W FC TC=400/+700 | 01121    | CB2425           |
| A19R54                | 06A3-5125      | 8   |     | RESISTOR 5.1K 5% .25W FC TC=400/+700 | 01121    | CB5125           |
| A19R55                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015           |
| A19R56                | 06A3-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700  | 01121    | CB1035           |
| A19R57                | 069R-4506      | 8   |     | RESISTOR 73.2K 1% .125W F TC=0+-100  | 05292    | C4-1/8-T0-7822-F |
| A19R58                | 0598-4492      | 1   |     | RESISTOR 32.4K 1% .125W F TC=0+-100  | 05292    | C4-1/8-T0-3242-F |
| A19R59                | 0698-4471      | 6   |     | RESISTOR 7.15K 1% .125W F TC=0+-100  | 05292    | C4-1/8-T0-7151-F |
| A19R60                | 0598-4451      | 8   |     | RESISTOR 2.05K 1% .125W F TC=0+-100  | 05292    | C4-1/8-T0-2051-F |
| A19R61                | 0598-4453      | 4   |     | RESISTOR 102 1% .125W F TC=0+-100    | 24546    | C4-1/8-T0-102R-F |
| A19R62                | 06A3-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700   | 01121    | CB2025           |
| A19R63                | 06A3-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700   | 01121    | CB2025           |
| A19R64                | 06A3-3625      | 9   |     | RESISTOR 3.6K 5% .25W FC TC=400/+700 | 01121    | CB3625           |
| A19R65                | 06A3-6225      | 1   |     | RESISTOR 6.2K 5% .25W FC TC=400/+700 | 01121    | CB6225           |
| A19R66                | 06A3-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800 | 01121    | CB1045           |
| A19R67                | 06A3-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800 | 01121    | CB1045           |
| A19R68                | 06A3-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800 | 01121    | CB1045           |
| A19R69                | 06A3-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800 | 01121    | CB1045           |
| A19R70                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015           |
| A19R71                | 069R-4443      | 2   | 1   | RESISTOR 4.53K 1% .125W F TC=0+-100  | 24546    | C4-1/8-T0-4531-F |
| A19R72                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015           |
| A19R73                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015           |
| A19R74                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600   | 01121    | CB1025           |
| A19R75                | 06A3-4745      | 6   | 1   | RESISTOR 470K 5% .25W FC TC=400/+900 | 01121    | CB4745           |
| A19R76                | 06A3-3025      | 3   |     | RESISTOR 3K 5% .25W FC TC=400/+700   | 01121    | CB3025           |
| A19R77                | 06A3-4715      | 3   | 1   | RESISTOR 470 5% .25W FC TC=400/+600  | 01121    | CB4715           |
| A19R78                | 0757-0220      | 3   | 1   | RESISTOR 1K 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-1001-F |
| A19R79                | 06A3-6225      | 3   | 1   | RESISTOR 6.2K 5% .25W FC TC=400/+700 | 01121    | CB6225           |
| A19R80                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015           |
| A19R81                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015           |
| A19R82                | 06A3-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700   | 01121    | CB2025           |
| A19R84*               | 0698-3262      | 1   |     | RESISTOR 40.2 1% .125W F TC=0+-100   | 24546    | C4-1/8-T0-4022-F |
| A19R84*               | 069A-4387      | 3   |     | RESISTOR 60.4 1% .125W F TC=0+-100   | 24546    | C4-1/8-T0-60R0-F |
| A19R84*               | 0757-0277      | 8   |     | RESISTOR 49.9 1% .125W F TC=0+-100   | 24546    | C4-1/8-T0-4992-F |
| A19R84*               | 0757-0346      | 2   |     | RESISTOR 10 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-10R0-F |
| A19R84*               | 0757-0384      | 8   |     | RESISTOR 20 1% .125W F TC=0+-100     | 19701    | MFC1/8-T0-20R0-F |
| A19R84*               | 0757-038A      | 2   |     | RESISTOR 30.1 1% .125W F TC=0+-100   | 24546    | C4-1/8-T0-30R1-F |
| A19R85                | 069A-3510      | 2   | 2   | RESISTOR 453 1% .125W F TC=0+-100    | 24546    | C4-1/8-T0-453R-F |
| A19R86*               | 0698-3262      | 1   |     | RESISTOR 40.2 1% .125W F TC=0+-100   | 24546    | C4-1/8-T0-4022-F |
| A19R86*               | 069A-43A7      | 3   |     | RESISTOR 60.4 1% .125W F TC=0+-100   | 24546    | C4-1/8-T0-60R0-F |
| A19R86*               | 0757-0277      | 2   |     | RESISTOR 49.9 1% .125W F TC=0+-100   | 24546    | C4-1/8-T0-4992-F |
| A19R86*               | 0757-0346      | 2   |     | RESISTOR 10 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-10R0-F |
| A19R86*               | 0757-0384      | 8   |     | RESISTOR 20 1% .125W F TC=0+-100     | 19701    | MFC1/8-T0-20R0-F |
| A19R86*               | 0757-038A      | 2   |     | RESISTOR 30.1 1% .125W F TC=0+-100   | 24546    | C4-1/8-T0-30R1-F |
| A19R87                | 069A-3510      | 2   |     | RESISTOR 453 1% .125W F TC=0+-100    | 24546    | C4-1/8-T0-453R-F |
| A19R88                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600   | 01121    | CB1025           |
| A19R89                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600   | 01121    | CB1025           |
| A19R90                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600   | 01121    | CB1025           |
| A19R91                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600   | 01121    | CB1025           |
| A19R92                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600   | 01121    | CB1025           |
| A19R93                | 06A3-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500   | 01121    | CB4705           |
| A19R94                | 06A3-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500   | 01121    | CB4705           |
| A19R95                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015           |
| A19R96                | 0757-0346      | 1   | 1   | RESISTOR 4.32K 1% .125W F TC=0+-100  | 24546    | C4-1/8-T0-4321-F |
| A19R97                | 069A-4464      | 7   | 1   | RESISTOR 887 1% .125W F TC=0+-100    | 24546    | C4-1/8-T0-887R-F |
| A19R98                | 06A3-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700  | 01121    | CB1035           |
| A19R99                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015           |
| A19P100               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015           |
| A19P101               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015           |
| A19R102               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015           |
| A19R103               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015           |
| A19R103               | 0583-1835      | 9   | 1   | RESISTOR 18K 5% .25W FC TC=400/+800  | 01121    | CB2835           |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                             | Mfr Code | Mfr Part Number |
|-----------------------|----------------|-----|-----|-----------------------------------------|----------|-----------------|
| A19RT1                | 0839-0028      | 9   | 1   | THERMISTOR DISC 10K-OHM TC=-4.4%/C-DEG  | 28480    | 0839-0028       |
| A19RT2                | 0837-0050      | 5   | 1   | THERMISTOR DISC 1K-OHM TC=-4.4%/C-DEG   | 28480    | 0837-0050       |
| A19RT3                | 0837-0086      | 7   |     | THERMISTOR DISC 200-OHM TC=-4.4%/C-DEG  | 28480    | 0837-0086       |
| A19RT4                | 0837-0086      | 7   |     | THERMISTOR DISC 200-OHM TC=-4.4%/C-DEG  | 28480    | 0837-0086       |
| A19T1                 | 9100-3262      | 5   |     | TRANSFORMER TRANSFORMER; TOROIDAL PULSE | 28480    | 9100-3262       |
| A19T2                 | 9100-3262      | 5   |     | TRANSFORMER TRANSFORMER; TOROIDAL PULSE | 28480    | 9100-3262       |
| A19U1                 | 1A20-1196      | A   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM   | 01295    | SN74LS174N      |
| A19U2                 | 1A20-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM   | 01295    | SN74LS174N      |
| A19U3                 | 1A20-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM   | 01295    | SN74LS174N      |
| A19U4                 | 1A20-1216      | 3   |     | IC DCDR TTL LS 1-TO-8-LINE 3-INP        | 01295    | SN74LS138N      |
| A19U5                 | 1A20-1195      | 7   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM   | 01295    | SN74LS175N      |
| A19U6                 | 1A26-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P            | 27014    | LF13332N        |
| A19U7                 | 1A26-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P            | 27014    | LF13332N        |
| A19U8                 | 1A26-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P            | 27014    | LF13332N        |
| A19U9                 | 1A26-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P            | 27014    | LF13332N        |
| A19U10                | 1A20-1971      | 7   | 1   | IC SWITCH ANLG QUAD 16-DIP-P            | 17856    | 06201CJ         |
| A19Y1-Y2              |                |     |     | NOT ASSIGNED                            |          |                 |
| A19Y3                 |                |     |     | PART OF MATCHED SET(SEE A17 PARTS LIST) |          |                 |
| A19Y4                 |                |     |     | PART OF MATCHED SET(SEE A17 PARTS LIST) |          |                 |
| A19Y5                 |                |     |     | A19 MISCELLANEOUS PARTS                 |          |                 |
|                       | 1400-0249      | 0   |     | CARLE TIE .062-.625-DIA .091-WD NYL     | 28480    | 1400-0249       |
|                       | 1480-0116      | 8   |     | PIN-CPV .062-IN-DIA .25-IN-LG STL       | 28480    | 1480-0116       |
|                       | 0403-0211      | 1   |     | EXTR-PC RD BRN POLYC .062-RD-THKNS      | 28480    | 0403-0211       |
|                       | 0403-0213      | 3   | 1   | EXTR-PC RD BRN POLYC .062-RD-THKNS      | 28480    | 0403-0213       |
|                       | 1251-0600      | 0   | 9   | CONNECTOR-SGL CNT PIN 1.14-MM-BSC-SZ SQ | 28480    | 1251-0600       |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                                | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|-----|-----|--------------------------------------------|----------|----------------------|
| 416U12                | 1826-0403      | 0   | 2   | IC V RGLTR TO-3<br>A16 MISCELLANEOUS PARTS | 80103    | LAS-1815             |
|                       | 0403-0211      | 1   |     | EXTR-PC RD BRN POLYC .062-8D-THKNS         | 28480    | 0403-0211            |
|                       | 0403-0216      | 6   | 1   | EXTR-PC RD BLU POLYC .062-8D-THKNS         | 28480    | 0403-0216            |
|                       | 0590-1054      | 7   | 32  | THREADED INSERT-NUT 6-32 .065-LG SST       | 28480    | 0590-1054            |
|                       | 2360-0115      | 4   | 47  | SCREW-MACH 6-32 .312-IN-LG PAN-RO-POZI     | 00000    | ORDER BY DESCRIPTION |
|                       | 1480-0116      | 8   |     | PIN-GRV .062-IN-DIA .25-IN-LG STL          | 28480    | 1480-0116            |
| 421                   | 03585-66521    | 0   | 1   | 90/10 KHZ/REFERENCE DIVIDER                | 28480    | 03585-66521          |
| 421C1                 | 0160-1746      | 5   | 2A  | CAPACITOR-FXD 15UF+-10% 20VDC TA           | 56289    | 150D16bx902052       |
| 421C2                 | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C3                 | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C4                 | 0160-2200      | 6   |     | CAPACITOR-FXD 43PF +-5% 300VDC MICA        | 28480    | 0160-2200            |
| 421C5                 | 0160-2200      | 6   |     | CAPACITOR-FXD 43PF +-5% 300VDC MICA        | 28480    | 0160-2200            |
| 421C6                 | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C7                 | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C8                 | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C9                 | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C10                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C11                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C12                | 0160-4383      | 0   | 2   | CAPACITOR-FXD 6.8PF +-5% 200VDC CER        | 28480    | 0160-4383            |
| 421C13                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C14                | 0160-4383      | 0   |     | CAPACITOR-FXD 6.8PF +-5% 200VDC CER        | 28480    | 0160-4383            |
| 421C15                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C16                | 0160-0190      | 7   |     | CAPACITOR-FXD 33PF +-5% 300VDC MICA        | 72136    | DM15E390J0300AV1CR   |
| 421C17                | 0160-2202      | 8   | 9   | CAPACITOR-FXD 75PF +-5% 300VDC MICA        | 28480    | 0160-2202            |
| 421C18                | 0160-3878      | 6   |     | CAPACITOR-FXD 1000PF +-20% 100VDC CER      | 28480    | 0160-3878            |
| 421C19                | 0160-3878      | 6   |     | CAPACITOR-FXD 1000PF +-20% 100VDC CER      | 28480    | 0160-3878            |
| 421C20                | 0160-0576      | 5   |     | CAPACITOR-FXD .1UF +-20% 50VDC CER         | 28480    | 0160-0576            |
| 421C21                | 0160-0576      | 5   |     | CAPACITOR-FXD .1UF +-20% 50VDC CER         | 28480    | 0160-0576            |
| 421C22                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C23                | 0160-0207      | 7   | 1   | CAPACITOR-FXD 330PF +-5% 500VDC MICA       | 72136    | DM15F331J0500AV1CR   |
| 421C24                | 0160-2206      | 2   | 1   | CAPACITOR-FXD 160PF +-5% 300VDC MICA       | 28480    | 0160-2206            |
| 421C25                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C26                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C27                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C28                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C29                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C30                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C31                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C32                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C33                | 0160-2201      | 7   | 2   | CAPACITOR-FXD 51PF +-5% 300VDC MICA        | 28480    | 0160-2201            |
| 421C34                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847            |
| 421C35                | 0160-2201      | 7   |     | CAPACITOR-FXD 51PF +-5% 300VDC MICA        | 28480    | 0160-2201            |

See introduction to this section for ordering information  
\*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number    |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|--------------------|
| A21C35                | 0160-1746      | 5   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA         | 56289    | 1500156X9020B2     |
| A21C37                | 0160-0576      | 5   |     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480    | 0160-0576          |
| A21C38                | 0160-0576      | 5   |     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480    | 0160-0576          |
| A21C41                | 0160-1746      | 5   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA         | 56289    | 1500156X9020B2     |
| A21C42                | 0160-2306      | 3   |     | CAPACITOR-FXD 27PF +-5% 300VDC MICA      | 28480    | 0160-2306          |
| A21C43                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847          |
| A21C50                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847          |
| A21C51                | 0160-0199      | 6   | 2   | CAPACITOR-FXD 240PF +-5% 300VDC MICA     | 72136    | DM15F241J0300WV1CR |
| A21C52                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847          |
| A21C53                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847          |
| A21C54                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847          |
| A21C55                | 0160-0191      | 8   |     | CAPACITOR-FXD 56PF +-5% 300VDC MICA      | 72136    | DM15E560J0300WV1CR |
| A21C56                | 0160-3875      | 3   | 3   | CAPACITOR-FXD 22PF +-5% 200VDC CER 0+-30 | 28480    | 0160-3875          |
| A21C57                | 0160-3875      | 3   |     | CAPACITOR-FXD 22PF +-5% 200VDC CER 0+-30 | 28480    | 0160-3875          |
| A21C58                | 0160-0196      | 3   |     | CAPACITOR-FXD 150PF +-5% 300VDC MICA     | 72136    | DM15F151J0300WV1CR |
| A21C60                | 0160-0174      | 9   |     | CAPACITOR-FXD .47UF +80-20% 25VDC CER    | 28480    | 0160-0174          |
| A21C61                | 0160-0174      | 9   |     | CAPACITOR-FXD .47UF +80-20% 25VDC CER    | 28480    | 0160-0174          |
| A21C62                | 0160-1746      | 5   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA         | 56289    | 1500156X9020B2     |
| A21C63                | 0160-0174      | 9   |     | CAPACITOR-FXD .47UF +80-20% 25VDC CER    | 28480    | 0160-0174          |
| A21C64                | 0160-0116      | 1   |     | CAPACITOR-FXD 6.8UF+-10% 35VDC TA        | 56289    | 1500685X9035B2     |
| A21C65                | 0160-0576      | 5   |     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480    | 0160-0576          |
| A21CR1                | 1901-0535      | 9   | 7   | DIODE-SCHOTTKY                           | 28480    | 1901-0535          |
| A21CR2                | 0122-0072      | 6   | 1   | DIODE-VVC 2.2PF 5% C3/C25-MIN=4.5        | 04713    | #81058             |
| A21CR5                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DQ=35       | 28480    | 1901-0040          |
| A21CR6                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DQ=35       | 28480    | 1901-0040          |
| A21CR7                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DQ=35       | 28480    | 1901-0040          |
| A21CR8                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DQ=35       | 28480    | 1901-0040          |
| A21CR9                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DQ=35       | 28480    | 1901-0040          |
| A21CR10               | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DQ=35       | 28480    | 1901-0040          |
| A21CR11               | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DQ=35       | 28480    | 1901-0040          |
| A21CR12               | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DQ=35       | 28480    | 1901-0040          |
| A21J1                 | 1250-1512      | 3   | 45  | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512          |
| A21J2                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512          |
| A21J3                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512          |
| A21J4                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512          |
| A21J5                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512          |
| A21J6                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512          |
| A21J7                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512          |
| A21J8                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512          |
| A21J9                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512          |
| A21J10                | 1250-1314      | 3   |     | CONNECTOR-RF SM-SLD FEM PC 50-OHM        | 28480    | 1250-1314          |
| A21J11                | 1250-1314      | 3   |     | CONNECTOR-RF SM-SLD FEM PC 50-OHM        | 28480    | 1250-1314          |
| A21L1                 | 9100-1618      | 1   |     | COIL-MLD 5.6UH 10% Q=45 .155DX.375LG-NOM | 28480    | 9100-1618          |
| A21L2                 | 9100-2255      | 4   | 10  | COIL-MLD 470NH 10% Q=35 .095DX.25LG-NOM  | 28480    | 9100-2255          |
| A21L3                 | 9140-0144      | 0   | 0   | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L4                 | 9100-2247      | 4   |     | COIL-MLD 100NH 10% Q=34 .095DX.25LG-NOM  | 28480    | 9100-2247          |
| A21L5                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L6                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L7                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L8                 | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L9                 | 9100-2255      | 4   |     | COIL-MLD 470NH 10% Q=35 .095DX.25LG-NOM  | 28480    | 9100-2255          |
| A21L10                | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L11                | 9100-2255      | 4   |     | COIL-MLD 470NH 10% Q=35 .095DX.25LG-NOM  | 28480    | 9100-2255          |
| A21L12                | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L13                | 9100-2247      | 4   |     | COIL-MLD 100NH 10% Q=34 .095DX.25LG-NOM  | 28480    | 9100-2247          |
| A21L14                | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L20                | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L21                | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L22                | 9140-0142      | 8   |     | COIL-MLD 2.2UH 10% Q=32 .095DX.25LG-NOM  | 28480    | 9140-0142          |
| A21L23                | 9100-1618      | 1   |     | COIL-MLD 5.6UH 10% Q=45 .155DX.375LG-NOM | 28480    | 9100-1618          |
| A21L24                | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L25                | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L26                | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L27                | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L28                | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L29                | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L30                | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L31                | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L32                | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L41                | 9100-1618      | 1   |     | COIL-MLD 5.6UH 10% Q=45 .155DX.375LG-NOM | 28480    | 9100-1618          |
| A21L42                | 9140-0158      | 6   |     | COIL-MLD 1UH 10% Q=32 .095DX.25LG-NOM    | 28480    | 9140-0158          |
| A21L50                | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L51                | 9140-0158      | 6   |     | COIL-MLD 1UH 10% Q=32 .095DX.25LG-NOM    | 28480    | 9140-0158          |
| A21L52                | 9140-0144      | 0   |     | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480    | 9140-0144          |
| A21L53                | 9140-0210      | 1   |     | COIL-MLD 100UH 5% Q=50 .155DX.375LG-NOM  | 28480    | 9140-0210          |
| A21L54                | 9100-1618      | 1   |     | COIL-MLD 5.6UH 10% Q=45 .155DX.375LG-NOM | 28480    | 9100-1618          |
| A21L55                | 9100-2258      | 7   | 2   | COIL-MLD 1.2UH 10% Q=32 .095DX.25LG-NOM  | 28480    | 9100-2258          |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty                                  | Description                            | Mfr Code | Mfr Part Number |
|-----------------------|----------------|-----|--------------------------------------|----------------------------------------|----------|-----------------|
| A21L56                | 9140-0158      | 6   |                                      | COIL-MLD 1UH 10x Q#32 .095Dx.25LG-NOM  | 28480    | 9140-0158       |
| A21Q1                 | 1853-0354      | 7   | 12                                   | TRANSISTOR PNP SI TO-92 PD=350MW       | 28480    | 1853-0354       |
| A21Q2                 | 1853-0203      | 5   |                                      | TRANSISTOR PNP SI TO-18 PD=360MW       | 28480    | 1853-0203       |
| A21Q3                 | 1853-0203      | 5   | 13                                   | TRANSISTOR PNP SI TO-18 PD=360MW       | 28480    | 1853-0203       |
| A21Q4                 | 1853-0203      | 5   |                                      | TRANSISTOR PNP SI TO-18 PD=360MW       | 28480    | 1853-0203       |
| A21Q5                 | 1853-0010      | 2   |                                      | TRANSISTOR PNP SI TO-18 PD=360MW       | 28480    | 1853-0010       |
| A21Q6                 | 1853-0010      | 2   | 22                                   | TRANSISTOR PNP SI TO-18 PD=360MW       | 28480    | 1853-0010       |
| A21Q7                 | 1853-0010      | 2   |                                      | TRANSISTOR PNP SI TO-18 PD=360MW       | 28480    | 1853-0010       |
| A21Q8                 | 1853-0010      | 2   |                                      | TRANSISTOR PNP SI TO-18 PD=360MW       | 28480    | 1853-0010       |
| A21Q9                 | 1853-0010      | 2   |                                      | TRANSISTOR PNP SI TO-18 PD=360MW       | 28480    | 1853-0010       |
| A21Q10                | 1853-0010      | 2   |                                      | TRANSISTOR PNP SI TO-18 PD=360MW       | 28480    | 1853-0010       |
| A21Q11                | 1853-0010      | 2   | 22                                   | TRANSISTOR PNP SI TO-18 PD=360MW       | 28480    | 1853-0010       |
| A21Q12                | 1853-0010      | 2   |                                      | TRANSISTOR PNP SI TO-18 PD=360MW       | 28480    | 1853-0010       |
| A21Q13                | 1853-0089      | 5   |                                      | TRANSISTOR PNP 2N4917 SI PD=200MW      | 07263    | 2N4917          |
| A21Q14                | 1853-0089      | 5   |                                      | TRANSISTOR PNP 2N4917 SI PD=200MW      | 07263    | 2N4917          |
| A21Q15                | 1853-0010      | 2   |                                      | TRANSISTOR PNP SI TO-18 PD=360MW       | 28480    | 1853-0010       |
| A21Q16                | 1855-0062      | 8   | 1                                    | TRANSISTOR J-FET N-CHAN D-MODE SI      | 28480    | 1855-0062       |
| A21Q17                | 1854-0009      | 1   | 1                                    | TRANSISTOR NPN 2N769 SI TO-18 PD=300MW | 04713    | 2N769           |
| A21R1                 | 0683-1025      | 9   | 4                                    | RESISTOR 1K 5% .25W FC TC=-400/+600    | 01121    | C81025          |
| A21R2                 | 0683-1025      | 9   |                                      | RESISTOR 1K 5% .25W FC TC=-400/+600    | 01121    | C81025          |
| A21R3                 | 0683-4705      | 8   |                                      | RESISTOR 47 5% .25W FC TC=-400/+500    | 01121    | C84705          |
| A21R4                 | 0683-4705      | 8   |                                      | RESISTOR 47 5% .25W FC TC=-400/+500    | 01121    | C84705          |
| A21R5                 | 0683-4705      | 8   |                                      | RESISTOR 47 5% .25W FC TC=-400/+500    | 01121    | C84705          |
| A21R6                 | 0683-4705      | 8   |                                      | RESISTOR 47 5% .25W FC TC=-400/+500    | 01121    | C84705          |
| A21R7                 | 0683-4715      | 0   |                                      | RESISTOR 470 5% .25W FC TC=-400/+600   | 01121    | C84715          |
| A21R8                 | 0683-6815      | 5   |                                      | RESISTOR 680 5% .25W FC TC=-400/+600   | 01121    | C86815          |
| A21R9                 | 0683-6815      | 5   |                                      | RESISTOR 680 5% .25W FC TC=-400/+600   | 01121    | C86815          |
| A21R10                | 0683-6815      | 5   |                                      | RESISTOR 680 5% .25W FC TC=-400/+600   | 01121    | C86815          |
| A21R11                | 0683-3315      | 4   |                                      | RESISTOR 330 5% .25W FC TC=-400/+600   | 01121    | C83315          |
| A21R12                | 0683-3315      | 4   |                                      | RESISTOR 330 5% .25W FC TC=-400/+600   | 01121    | C83315          |
| A21R13                | 0683-1805      | 3   |                                      | RESISTOR 18 5% .25W FC TC=-400/+500    | 01121    | C81805          |
| A21R14                | 0683-1805      | 3   |                                      | RESISTOR 18 5% .25W FC TC=-400/+500    | 01121    | C81805          |
| A21R15                | 0683-1805      | 3   |                                      | RESISTOR 18 5% .25W FC TC=-400/+500    | 01121    | C81805          |
| A21R16                | 0683-6815      | 5   |                                      | RESISTOR 680 5% .25W FC TC=-400/+600   | 01121    | C86815          |
| A21R17                | 0683-6815      | 5   | RESISTOR 680 5% .25W FC TC=-400/+600 | 01121                                  | C86815   |                 |
| A21R18                | 0683-6815      | 5   | RESISTOR 680 5% .25W FC TC=-400/+600 | 01121                                  | C86815   |                 |
| A21R19                | 0683-6815      | 5   | RESISTOR 680 5% .25W FC TC=-400/+600 | 01121                                  | C86815   |                 |
| A21R20                | 0683-4715      | 0   | RESISTOR 470 5% .25W FC TC=-400/+600 | 01121                                  | C84715   |                 |
| A21R21                | 0683-3905      | 8   | RESISTOR 39 5% .25W FC TC=-400/+500  | 01121                                  | C83905   |                 |
| A21R22                | 0683-6815      | 5   | RESISTOR 680 5% .25W FC TC=-400/+600 | 01121                                  | C86815   |                 |
| A21R23                | 0683-4715      | 0   | RESISTOR 470 5% .25W FC TC=-400/+600 | 01121                                  | C84715   |                 |
| A21R24                | 0683-3905      | 8   | RESISTOR 39 5% .25W FC TC=-400/+500  | 01121                                  | C83905   |                 |
| A21R25                | 0683-6815      | 5   | RESISTOR 680 5% .25W FC TC=-400/+600 | 01121                                  | C86815   |                 |
| A21R26                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R30                | 0683-6815      | 5   | RESISTOR 680 5% .25W FC TC=-400/+600 | 01121                                  | C86815   |                 |
| A21R31                | 0683-6815      | 5   | RESISTOR 680 5% .25W FC TC=-400/+600 | 01121                                  | C86815   |                 |
| A21R32                | 0683-4715      | 0   | RESISTOR 470 5% .25W FC TC=-400/+600 | 01121                                  | C84715   |                 |
| A21R33                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R34                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R35                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R36                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R38                | 0683-4715      | 0   | RESISTOR 470 5% .25W FC TC=-400/+600 | 01121                                  | C84715   |                 |
| A21R39                | 0683-1015      | 7   | RESISTOR 100 5% .25W FC TC=-400/+500 | 01121                                  | C81015   |                 |
| A21R40                | 0683-4715      | 0   | RESISTOR 470 5% .25W FC TC=-400/+600 | 01121                                  | C84715   |                 |
| A21R41                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R42                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R43                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R44                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R45                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R46                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R47                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R48                | 0683-4705      | 8   | RESISTOR 47 5% .25W FC TC=-400/+500  | 01121                                  | C84705   |                 |
| A21R49                | 0683-4705      | 8   | RESISTOR 47 5% .25W FC TC=-400/+500  | 01121                                  | C84705   |                 |
| A21R50                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R51                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R52                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R53                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R54                | 0683-4705      | 8   | RESISTOR 47 5% .25W FC TC=-400/+500  | 01121                                  | C84705   |                 |
| A21R55                | 0683-4705      | 8   | RESISTOR 47 5% .25W FC TC=-400/+500  | 01121                                  | C84705   |                 |
| A21R56                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R57                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600  | 01121                                  | C81025   |                 |
| A21R58                | 0683-4715      | 0   | RESISTOR 470 5% .25W FC TC=-400/+600 | 01121                                  | C84715   |                 |
| A21R59                | 0683-3905      | 8   | RESISTOR 39 5% .25W FC TC=-400/+500  | 01121                                  | C83905   |                 |

See introduction to this section for ordering information.  
\*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|------------------|
| A21R60                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025           |
| A21R61                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025           |
| A21R62                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025           |
| A21R63                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | CB4715           |
| A21R64                | 0683-3905      | 8   |     | RESISTOR 390 5% .25W FC TC=-400/+500     | 01121    | CB3905           |
| A21R65                | 0683-1805      | 3   |     | RESISTOR 18 5% .25W FC TC=-400/+500      | 01121    | CB1805           |
| A21R66                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A21R72                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025           |
| A21R73                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A21R74                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025           |
| A21R75                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A21R76                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | CB4715           |
| A21R77                | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700    | 01121    | CB2225           |
| A21R78                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | CB1015           |
| A21R79                | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=-400/+600     | 01121    | CB2215           |
| A21R80                | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500      | 01121    | CB2205           |
| A21R81                | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500      | 01121    | CB2205           |
| A21R82                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | CB1015           |
| A21R83                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | CB4715           |
| A21R84                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A21R85                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | CB4715           |
| A21R86                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A21R87                | 0683-3305      | 2   |     | RESISTOR 33 5% .25W FC TC=-400/+500      | 01121    | CB3305           |
| A21R88                | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700    | 01121    | CB2225           |
| A21R89                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A21R100               | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A21R101               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025           |
| A21R102               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025           |
| A21R103               | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A21R104               | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=-400/+600     | 01121    | CB2215           |
| A21R105               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025           |
| A21R106               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | CB1015           |
| A21R107               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | CB1015           |
| A21R108               | 0683-2715      | 6   |     | RESISTOR 270 5% .25W FC TC=-400/+600     | 01121    | CB2715           |
| A21R109               | 0683-3315      | 4   |     | RESISTOR 330 5% .25W FC TC=-400/+600     | 01121    | CB3315           |
| A21R110               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025           |
| A21R111               | 0683-2715      | 6   |     | RESISTOR 270 5% .25W FC TC=-400/+600     | 01121    | CB2715           |
| A21R112               | 0683-6A25      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700    | 01121    | CB6825           |
| A21R113               | 0683-2715      | 6   |     | RESISTOR 270 5% .25W FC TC=-400/+600     | 01121    | CB2715           |
| A21R114               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025           |
| A21R115               | 0683-3315      | 4   |     | RESISTOR 330 5% .25W FC TC=-400/+600     | 01121    | CB3315           |
| A21R116               | 0683-1515      | 2   | 6   | RESISTOR 150 5% .25W FC TC=-400/+600     | 01121    | CB1515           |
| A21R117               | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | CB4715           |
| A21R118               | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | CB4715           |
| A21R119               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025           |
| A21R120               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025           |
| A21R121               | 0683-6805      | 3   |     | RESISTOR 68 5% .25W FC TC=-400/+500      | 01121    | CB6805           |
| A21R122               | 0683-2245      | 7   |     | RESISTOR 220K 5% .25W FC TC=-800/+900    | 01121    | CB2245           |
| A21R123               | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800    | 01121    | CB1045           |
| A21R124               | 0698-4486      | 3   | 5   | RESISTOR 24.9K 1% .125W F TC=0+/-100     | 24546    | C4=1/8-T0-2492-F |
| A21R125               | 2100-3274      | 2   | 3   | RESISTOR-TRMR 10K 10% C SIDE=ADJ 1-TRM   | 28480    | 2100-3274        |
| A21R126               | 0698-3228      | 9   | 3   | RESISTOR 49.9K 1% .125W F TC=0+/-100     | 28480    | 0698-3228        |
| A21R127               | 0683-1055      | 5   |     | RESISTOR 1M 5% .25W FC TC=-800/+900      | 01121    | CB1055           |
| A21R128               | 0683-1055      | 5   |     | RESISTOR 1M 5% .25W FC TC=-800/+900      | 01121    | CB1055           |
| A21R129               | 0683-2735      | 0   | 3   | RESISTOR 27K 5% .25W FC TC=-400/+800     | 01121    | CB2735           |
| A21R130               | 0683-2245      | 7   |     | RESISTOR 220K 5% .25W FC TC=-800/+900    | 01121    | CB2245           |
| A21R131               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025           |
| A21R132               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025           |
| A21R133               | 0683-2245      | 7   |     | RESISTOR 220K 5% .25W FC TC=-800/+900    | 01121    | CB2245           |
| A21R134               | 0683-1055      | 5   |     | RESISTOR 1M 5% .25W FC TC=-800/+900      | 01121    | CB1055           |
| A21R135               | 0698-4486      | 3   |     | RESISTOR 24.9K 1% .125W F TC=0+/-100     | 24546    | C4=1/8-T0-2492-F |
| A21R136               | 0757-0270      | 1   | 1   | RESISTOR 249K 1% .125W F TC=0+/-100      | 24546    | C4=1/8-T0-2493-F |
| A21R140               | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | CB4715           |
| A21T1                 | 9100-4039      | 6   |     | TRANSFORMER-POWER                        | 28480    | 9100-4039        |
| A21T2                 | 08552-6044     | 1   |     | TRANSFORMER                              | 28480    | 08552-6044       |
| A21T3                 | 08552-6044     | 1   |     | TRANSFORMER                              | 28480    | 08552-6044       |
| A21TP1-<br>A21TP26    | 0360-0124      | 3   | 2   | CONNECTOR=SGL CONT PIN .04-IN=8SC=S2 RND | 28480    | 0360-0124        |
| A21U1                 | 1820-0810      | 1   | 5   | IC RCVR ECL LINE RCVR TPL 2-INP          | 04713    | MC10116P         |
| A21U2                 | 1820-0806      | 5   | 13  | IC GATE ECL OR-NOR DUAL 4-5-INP          | 04713    | MC10109P         |
| A21U3                 | 1820-0806      | 5   |     | IC GATE ECL OR-NOR DUAL 4-5-INP          | 04713    | MC10109P         |
| A21U4                 | 1820-0806      | 5   |     | IC GATE ECL OR-NOR DUAL 4-5-INP          | 04713    | MC10109P         |
| A21U5                 | 1820-0806      | 5   |     | IC GATE ECL OR-NOR DUAL 4-5-INP          | 04713    | MC10109P         |

See introduction to this section for ordering information  
 \*Indicates factory selected value



Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number |
|-------------------------|----------------|-----|-----|------------------------------------------|----------|-----------------|
| A21U6                   | 1A20-0817      | 8   | 13  | IC FF ECL D-M/S DUAL                     | 04713    | MC10131P        |
| A21U7                   | 1A20-0817      | 8   |     | IC FF ECL D-M/S DUAL                     | 04713    | MC10131P        |
| A21U8                   | 1A20-0806      | 5   |     | IC GATE ECL OR-NOR DUAL 4-5-INP          | 04713    | MC10109P        |
| A21U9                   | 1A20-0810      | 1   |     | IC RCVR ECL LINE RCVR TPL 2-INP          | 04713    | MC10116P        |
| A21U10                  | 1A20-0806      | 5   |     | IC GATE ECL OR-NOR DUAL 4-5-INP          | 04713    | MC10109P        |
| A21U11                  | 1A20-0806      | 5   |     | IC GATE ECL OR-NOR DUAL 4-5-INP          | 04713    | MC10109P        |
| A21U12                  | 1A20-0806      | 5   |     | IC GATE ECL OR-NOR DUAL 4-5-INP          | 04713    | MC10109P        |
| A21U13                  | 1A20-0806      | 5   |     | IC GATE ECL OR-NOR DUAL 4-5-INP          | 04713    | MC10109P        |
| A21U14                  | 1A20-0803      | 2   | 3   | IC GATE ECL OR-NOR TPL                   | 04713    | MC10105P        |
| A21U15                  | 1A20-0693      | 8   | 3   | IC FF TTL S D-TYPE POS-EDGE-TRIG         | 01295    | SN74LS74N       |
| A21U16                  | 1A20-1442      | 7   | 2   | IC CNTR TTL LS DECD ASYNCHRO             | 01295    | SN74LS290N      |
| A21U17                  | 1A20-1442      | 7   |     | IC CNTR TTL LS DECD ASYNCHRO             | 01295    | SN74LS290N      |
| A21U18                  | 1A20-0686      | 9   | 2   | IC GATE TTL S AND TPL 3-INP              | 01295    | SN74S11N        |
| A21U23                  | 1A20-0803      | 2   |     | IC GATE ECL OR-NOR TPL                   | 04713    | MC10105P        |
| A21U24                  | 1A26-0111      | 7   |     | OP AMP GP DUAL TO-99                     | 04713    | MC1458G         |
| A21U25                  | 1A26-0065      | 0   | 1   | COMPARATOR PRCN 8-0IP-P                  | 01295    | SN72311P        |
| A21V1                   | 0410-1141      | 3   | 1   | CRYSTAL, 89.99 MHZ                       | 28480    | 0410-1141       |
| A21 MISCELLANEOUS PARTS |                |     |     |                                          |          |                 |
|                         | 03585-04107    | 4   | 1   | COVER, 21                                | 28480    | 03585-04107     |
|                         | 0370-2583      | 3   | 14  | KNOB                                     | 28480    | 0370-2583       |
|                         | 5001-0173      | 7   | 7   | PC GROUND CLIP                           | 28480    | 5001-0173       |
|                         | 2950-0078      | 9   | 37  | NUT-HEX-DBL-CHAM 10-32-TMD .067-IN-TMK   | 28480    | 2950-0078       |
|                         | 2190-0124      | 4   | 45  | WASHER-LK INTL T NO. 10 .195-IN-ID       | 28480    | 2190-0124       |
| A22                     | 03585-66522    | 7   | 1   | 1ST LD VOLTAGE CONTROLLED OSCILLATOR     | 28480    | 03585-66522     |
| A22C1                   | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C2                   | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C3                   | 0160-2202      | 8   |     | CAPACITOR-FXD 75PF +-5% 300VDC MICA      | 28480    | 0160-2202       |
| A22C4                   | 0160-2202      | 8   |     | CAPACITOR-FXD 75PF +-5% 300VDC MICA      | 28480    | 0160-2202       |
| A22C5                   | 0160-2202      | 8   |     | CAPACITOR-FXD 75PF +-5% 300VDC MICA      | 28480    | 0160-2202       |
| A22C7                   | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C8                   | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C9                   | 0160-2199      | 2   |     | CAPACITOR-FXD 30PF +-5% 300VDC MICA      | 28480    | 0160-2199       |
| A22C10                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C13                  | 0160-2204      | 0   |     | CAPACITOR-FXD 1000PF +-5% 300VDC MICA    | 28480    | 0160-2204       |
| A22C14                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C15                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C16                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C17                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C18                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C19                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C20                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C21                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C22                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C23                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C24                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C25                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C26                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C27                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C31                  | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0150-0093       |
| A22C32                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A22C53                  | 0160-1746      | 5   |     | CAPACITOR-FXD 150PF+-10% 20VDC TA        | 56289    | 150D156X9020b2  |
| A22C54                  | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0150-0093       |
| A22C55                  | 0160-1746      | 5   |     | CAPACITOR-FXD 150PF+-10% 20VDC TA        | 56289    | 150D156X9020b2  |
| A22C56                  | 0160-2940      | 1   | 2   | CAPACITOR-FXD 470PF +-5% 300VDC MICA     | 28480    | 0160-2940       |
| A22C57                  | 0160-2207      | 3   | 2   | CAPACITOR-FXD 300PF +-5% 300VDC MICA     | 28480    | 0160-2207       |
| A22C58                  | 0160-2672      | 6   | 2   | CAPACITOR-FXD .047UF +-5% 80VDC POLYE    | 28480    | 0160-2672       |
| A22C59                  | 0160-4387      | 4   | 2   | CAPACITOR-FXD 47PF +-5% 200VDC CER 0+-30 | 28480    | 0160-4387       |
| A22C60                  | 0160-4387      | 4   |     | CAPACITOR-FXD 47PF +-5% 200VDC CER 0+-30 | 28480    | 0160-4387       |
| A22C61                  | 0122-0089      | 5   | 9   | DIODE-VVC 29PF 10% C3/C25-MIN=5 BYR=30V  | 04713    | 4V109           |
| A22C62                  | 0122-0089      | 5   |     | DIODE-VVC 29PF 10% C3/C25-MIN=5 BYR=30V  | 04713    | 4V109           |
| A22C63                  | 1901-0535      | 9   |     | DIODE-SC-OTTKY                           | 28480    | 1901-0535       |
| A22C64                  | 1907-3054      | 9   | 3   | DIODE-ZNR 3.05V 5% DO-7 PD=4W TC=-.055X  | 28480    | 1907-3054       |
| A22C65                  | 1901-0640      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DD-35       | 28480    | 1901-0640       |
| A22J1                   | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-0HM             | 28480    | 1250-1512       |
| A22J2                   | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-0HM             | 28480    | 1250-1512       |
| A22J3                   | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-0HM             | 28480    | 1250-1512       |
| A22L1                   | 9100-3900      | 8   | 2   | COIL-FIXED COIL ASSY; 3 TURNS            | 28480    | 9100-3900       |
| A22L2                   | 9100-2255      | 4   |     | COIL-MLO 470NH 10% Q=35 .0950X,25LG-NOM  | 28480    | 9100-2255       |
| A22L3                   | 9100-2255      | 4   |     | COIL-MLO 470NH 10% Q=35 .0950X,25LG-NOM  | 28480    | 9100-2255       |
| A22L4                   | 9100-1620      | 5   | 11  | COIL-MLO 150H 10% Q=65 .1550X,375LG-NOM  | 28480    | 9100-1620       |
| A22L5                   | 9100-1620      | 5   |     | COIL-MLO 150H 10% Q=65 .1550X,375LG-NOM  | 28480    | 9100-1620       |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|------------------|
| A22L7                 | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q#3 .25DX.5LG-NDM     | 28480    | 9100-0541        |
| A22L8                 | 9140-0142      | 8   |     | COIL-MLD 2.2UH 10% Q#32 .095DX.25LG-NDM  | 28480    | 9140-0142        |
| A22L10                | 9140-0131      | 5   |     | COIL-MLD 10MH 5% Q#80 .24DX.74LG-NDM     | 28480    | 9140-0131        |
| A22L11                | 9140-0210      | 1   |     | COIL-MLD 100UH 5% Q#50 .155DX.375LG-NDM  | 28480    | 9140-0210        |
| A22L12                | 9100-2247      | 4   |     | COIL-MLD 100NH 10% Q#34 .095DX.25LG-NDM  | 28480    | 9100-2247        |
| A22L13                | 9100-2247      | 4   |     | COIL-MLD 100NH 10% Q#34 .095DX.25LG-NDM  | 28480    | 9100-2247        |
| A22Q1                 | 1854-0345      | 8   | 40  | TRANSISTOR NPN 2N5179 SI T0-72 PD=200MW  | 04713    | 2N5179           |
| A22Q2                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI T0-72 PD=200MW  | 04713    | 2N5179           |
| A22Q3                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ     | 28480    | 1854-0071        |
| A22Q5                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI T0-72 PD=200MW  | 04713    | 2N5179           |
| A22Q6                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI T0-72 PD=200MW  | 04713    | 2N5179           |
| A22Q7                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI T0-72 PD=200MW  | 04713    | 2N5179           |
| A22Q8                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI T0-72 PD=200MW  | 04713    | 2N5179           |
| A22Q9                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI T0-72 PD=200MW  | 04713    | 2N5179           |
| A22Q10                | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI T0-72 PD=200MW  | 04713    | 2N5179           |
| A22Q11                | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI T0-72 PD=200MW  | 04713    | 2N5179           |
| A22R1                 | 0757-0401      | 0   |     | RESISTOR 100 1% .125W F TC=0+-100        | 24546    | C4=1/8-T0=101-F  |
| A22R2                 | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035           |
| A22R3                 | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=400/+500       | 01121    | CB2205           |
| A22R4                 | 0683-5125      | 8   |     | RESISTOR 5.1K 5% .25W FC TC=400/+700     | 01121    | CB5125           |
| A22R5                 | 0683-1235      | 3   |     | RESISTOR 12K 5% .25W FC TC=400/+800      | 01121    | CB1235           |
| A22R6                 | 0683-1235      | 3   |     | RESISTOR 12K 5% .25W FC TC=400/+800      | 01121    | CB1235           |
| A22R7                 | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=400/+500       | 01121    | CB2205           |
| A22R9                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705           |
| A22R17                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035           |
| A22R18                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705           |
| A22R19                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035           |
| A22R20                | 0683-7515      | 4   |     | RESISTOR 750 5% .25W FC TC=400/+600      | 01121    | CB7515           |
| A22R21                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015           |
| A22R22                | 0683-5615      | 1   | 2   | RESISTOR 560 5% .25W FC TC=400/+600      | 01121    | CB5615           |
| A22R23                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705           |
| A22R24                | 0683-5625      | 3   | 9   | RESISTOR 5.6K 5% .25W FC TC=400/+700     | 01121    | CB5625           |
| A22R25                | 0683-5625      | 3   |     | RESISTOR 5.6K 5% .25W FC TC=400/+700     | 01121    | CB5625           |
| A22R26                | 0683-3315      | 4   |     | RESISTOR 330 5% .25W FC TC=400/+600      | 01121    | CB3315           |
| A22R27                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705           |
| A22R28                | 0683-2725      | 8   | 22  | RESISTOR 2.7K 5% .25W FC TC=400/+700     | 01121    | CB2725           |
| A22R29                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=400/+600      | 01121    | CB4715           |
| A22R30                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705           |
| A22R31                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700       | 01121    | CB2025           |
| A22R32                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705           |
| A22R33                | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=400/+700     | 01121    | CB2725           |
| A22R34                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705           |
| A22R35                | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=400/+700     | 01121    | CB3325           |
| A22R36                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705           |
| A22R37                | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=400/+500       | 01121    | CB2205           |
| A22R38                | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=400/+500       | 01121    | CB2205           |
| A22R39                | 0683-3315      | 4   |     | RESISTOR 330 5% .25W FC TC=400/+600      | 01121    | CB3315           |
| A22R40                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705           |
| A22R41                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700       | 01121    | CB2025           |
| A22R42                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705           |
| A22R43                | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=400/+700     | 01121    | CB2725           |
| A22R44                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705           |
| A22R45                | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=400/+700     | 01121    | CB3325           |
| A22R46                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705           |
| A22R47                | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=400/+500       | 01121    | CB2205           |
| A22R48                | 0683-6205      | 7   | 1   | RESISTOR 62 5% .25W FC TC=400/+500       | 01121    | CB6205           |
| A22R49                | 0683-3315      | 4   |     | RESISTOR 330 5% .25W FC TC=400/+600      | 01121    | CB3315           |
| A22R50                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700       | 01121    | CB2025           |
| A22R51                | 0698-4452      | 3   | 2   | RESISTOR 374 1% .125W F TC=0+-100        | 24546    | C4=1/8-T0=374H-F |
| A22R52                | 0757-0450      | 9   | 1   | RESISTOR 22.1K 1% .125W F TC=0+-100      | 24546    | C4=1/8-T0=2212-F |
| A22R53                | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=400/+700     | 01121    | CB6825           |
| A22R54                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700       | 01121    | CB2025           |
| A22R55                | 0698-3279      | 0   |     | RESISTOR 4.99K 1% .125W F TC=0+-100      | 24546    | C4=1/8-T0=4991-F |
| A22R56                | 0757-0442      | 9   |     | RESISTOR 10K 1% .125W F TC=0+-100        | 24546    | C4=1/8-T0=1002-F |
| A22R57                | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=400/+700     | 01121    | CB3325           |
| A221P1                | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC=SZ RND | 28480    | 0360-0124        |
| A221P2                | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC=SZ RND | 28480    | 0360-0124        |
|                       |                |     |     | A22 MISCELLANEOUS PARTS                  |          |                  |
|                       | 03585-05222    | 6   | 1   | LID, A22                                 | 28480    | 03585-05222      |
|                       | 0370-2583      | 3   |     | KNOB                                     | 28480    | 0370-2583        |
|                       | 1600-0702      | 4   | 2   | SHIELD OSC                               | 28480    | 1600-0702        |
|                       | 2950-0078      | 9   |     | NUT-MEX-DBL-CH4M 10-32-THD .067-IN-THK   | 28480    | 2950-0078        |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number   |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|-------------------|
|                       | 2190-0124      | 4   |     | WASHER-LK INTL T NO. 10 .195-1N-ID       | 28480    | 2190-0124         |
| A23                   | 03585-66523    | 8   | 1   | STEP SYN VTO                             | 28480    | 03585-66523       |
| A23C1                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C2                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C3                 | 0160-2199      | 2   |     | CAPACITOR-FXD 30PF +-5% 300VDC MICA      | 28480    | 0160-2199         |
| A23C4                 | 0160-2202      | 8   |     | CAPACITOR-FXD 75PF +-5% 300VDC MICA      | 28480    | 0160-2202         |
| A23C5                 | 0160-2202      | 8   |     | CAPACITOR-FXD 75PF +-5% 300VDC MICA      | 28480    | 0160-2202         |
| A23C6                 | 0160-2202      | 8   |     | CAPACITOR-FXD 75PF +-5% 300VDC MICA      | 28480    | 0160-2202         |
| A23C9                 | 0160-2204      | 0   |     | CAPACITOR-FXD 100PF +-5% 300VDC MICA     | 28480    | 0160-2204         |
| A23C10                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C11                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C12                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C13                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C14                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C15                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C16                | 0160-2200      | 6   |     | CAPACITOR-FXD 43PF +-5% 300VDC MICA      | 28480    | 0160-2200         |
| A23C17                | 0160-2261      | 9   |     | CAPACITOR-FXD 15PF +-5% 500VDC CER 0+-30 | 28480    | 0160-2261         |
| A23C18                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C19                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C20                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C21                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C22                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C23                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C24                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C26                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0150-0093         |
| A23C27                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C28                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C29                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C30                | 0180-1746      | 5   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA         | 56289    | 150D156X9020B2    |
| A23C31                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C32                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050         |
| A23C33                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0150-0093         |
| A23C34                | 0160-2672      | 6   |     | CAPACITOR-FXD .047UF +-5% 80VDC POLYE    | 28480    | 0160-2672         |
| A23C35                | 0160-0210      | 2   |     | CAPACITOR-FXD 270PF +-5% 300VDC MICA     | 72136    | DM15F271J0300V1C8 |
| A23C36                | 0160-0196      | 3   |     | CAPACITOR-FXD 150PF +-5% 300VDC MICA     | 72136    | DM15F151J0300V1C8 |
| A23C40                | 0160-1746      | 5   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA         | 56289    | 150D156X9020B2    |
| A23C41                | 0122-0089      | 5   |     | DIODE-VVC 29PF 10% C3/C25-MIN#5 5VR=30V  | 04713    | MV109             |
| A23C42                | 0122-0089      | 5   |     | DIODE-VVC 29PF 10% C3/C25-MIN#5 5VR=30V  | 04713    | MV109             |
| A23C43                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DD-35       | 28480    | 1901-0040         |
| A23C44                | 1901-0535      | 9   |     | DIODE-SCHOTTKY                           | 28480    | 1901-0535         |
| A23C45                | 1902-3054      | 5   |     | DIODE-ZNR 3.65V 5% DO-7 PD=.4W TC=-.055X | 28480    | 1902-3054         |
| A23J1                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-0HM             | 28480    | 1250-1512         |
| A23J2                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-0HM             | 28480    | 1250-1512         |
| A23J3                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-0HM             | 28480    | 1250-1512         |
| A23L1                 | 9100-3900      | 4   |     | COIL-FIXED COIL ASSY; 3 TURNS            | 28480    | 9100-3900         |
| A23L2                 | 9100-2255      | 4   |     | COIL-MLD 470NH 10% Q#35 .0950X.25LG-NOM  | 28480    | 9100-2255         |
| A23L3                 | 9140-0142      | 8   |     | COIL-MLD 2.2UH 10% Q#32 .0950X.25LG-NOM  | 28480    | 9140-0142         |
| A23L4                 | 9100-2255      | 4   |     | COIL-MLD 470NH 10% Q#35 .0950X.25LG-NOM  | 28480    | 9100-2255         |
| A23L5                 | 9100-2247      | 4   |     | COIL-MLD 100NH 10% Q#34 .0950X.25LG-NOM  | 28480    | 9100-2247         |
| A23L6                 | 9100-2247      | 4   |     | COIL-MLD 100NH 10% Q#34 .0950X.25LG-NOM  | 28480    | 9100-2247         |
| A23L7                 | 9100-1620      | 5   |     | COIL-MLD 15UH 10% Q#65 .1550X.375LG-NOM  | 28480    | 9100-1620         |
| A23L8                 | 9100-1620      | 5   |     | COIL-MLD 15UH 10% Q#65 .1550X.375LG-NOM  | 28480    | 9100-1620         |
| A23L10                | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q#3 .25DX.5LG-NOM     | 28480    | 9100-0541         |
| A23L11                | 9140-0131      | 5   |     | COIL-MLD 10MH 5% Q#80 .24DX.74LG-NOM     | 28480    | 9140-0131         |
| A23L12                | 9100-1641      | 0   | 4   | COIL-MLD 240UH 5% Q#65 .1550X.375LG-NOM  | 28480    | 9100-1641         |
| A23M1                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179            |
| A23M2                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179            |
| A23M3                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179            |
| A23M4                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179            |
| A23M5                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179            |
| A23M6                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179            |
| A23M7                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179            |
| A23M8                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179            |
| A23M9                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179            |
| A23M10                | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ     | 28480    | 1854-0071         |
| A23N1                 | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035            |
| A23N2                 | 0683-2205      | 5   |     | RESISTOR 22 5% .25W FC TC=-400/+500      | 01121    | CB2205            |
| A23N3                 | 0683-1235      | 3   |     | RESISTOR 5.1K 5% .25W FC TC=-400/+700    | 01121    | CB5125            |
| A23N4                 | 0683-1235      | 3   |     | RESISTOR 12K 5% .25W FC TC=-400/+800     | 01121    | CB1235            |
| A23N5                 | 0683-1235      | 3   |     | RESISTOR 12K 5% .25W FC TC=-400/+800     | 01121    | CB1235            |
| A23N6                 | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500      | 01121    | CB2205            |
| A23N7                 | 0683-2205      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | CB2205            |
| A23N8                 | 0757-0401      | 0   |     | RESISTOR 100 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-101-F   |
| A23N9                 | 0683-0705      | 9   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705            |
| A23N10                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035            |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number  |
|-------------------------|----------------|-----|-----|------------------------------------------|----------|------------------|
| A23R11                  | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035           |
| A23R12                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A23R13                  | 0683-7515      | 4   |     | RESISTOR 750 5% .25W FC TC=-400/+600     | 01121    | CB7515           |
| A23R14                  | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | CB1015           |
| A23R15                  | 0683-5615      | 1   |     | RESISTOR 560 5% .25W FC TC=-400/+600     | 01121    | CB5615           |
| A23R16                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A23R17                  | 0683-5625      | 3   |     | RESISTOR 5.6K 5% .25W FC TC=-400/+700    | 01121    | CB5625           |
| A23R18                  | 0683-5625      | 3   |     | RESISTOR 5.6K 5% .25W FC TC=-400/+700    | 01121    | CB5625           |
| A23R19                  | 0683-3315      | 4   |     | RESISTOR 330 5% .25W FC TC=-400/+600     | 01121    | CB3315           |
| A23R20                  | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=-400/+700    | 01121    | CB2725           |
| A23R21                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A23R22                  | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | CB4715           |
| A23R23                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A23R24                  | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | CB2025           |
| A23R25                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A23R26                  | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=-400/+700    | 01121    | CB2725           |
| A23R27                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A23R28                  | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=-400/+700    | 01121    | CB3325           |
| A23R29                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A23R30                  | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500      | 01121    | CB2205           |
| A23R31                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A23R32                  | 0683-3315      | 4   |     | RESISTOR 330 5% .25W FC TC=-400/+600     | 01121    | CB3315           |
| A23R33                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A23R34                  | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | CB2025           |
| A23R35                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A23R36                  | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=-400/+700    | 01121    | CB2725           |
| A23R37                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A23R38                  | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=-400/+700    | 01121    | CB3325           |
| A23R39                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A23R40                  | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500      | 01121    | CB2205           |
| A23P41                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| A23P42                  | 0683-3315      | 4   |     | RESISTOR 330 5% .25W FC TC=-400/+600     | 01121    | CB3315           |
| A23P50                  | 0757-0446      | 3   | 1   | RESISTOR 15K 1% .125W F TC=0+100         | 24546    | C4=1/8-T0=1502-F |
| A23P51                  | 0698-4452      | 3   |     | RESISTOR 374 1% .125W F TC=0+100         | 24546    | C4=1/8-T0=374R-F |
| A23P52                  | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | CB2025           |
| A23P53                  | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=-400/+700    | 01121    | CB3325           |
| A23P54                  | 0698-3155      | 1   | 2   | RESISTOR 4.64K 1% .125W F TC=0+100       | 24546    | C4=1/8-T0=4641-F |
| A23P55                  | 0698-4477      | 2   | 1   | RESISTOR 10.5K 1% .125W F TC=0+100       | 24546    | C4=1/8-T0=1052-F |
| A23P56                  | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700    | 01121    | CB6825           |
| A23TP1                  | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-S2 RND | 28480    | 0360-0124        |
| A23TP2                  | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-S2 RND | 28480    | 0360-0124        |
| A23TP3                  | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-S2 RND | 28480    | 0360-0124        |
| A23 MISCELLANEOUS PARTS |                |     |     |                                          |          |                  |
|                         | 03585-05223    | 7   | 1   | LID, A23                                 | 28480    | 03585-05223      |
|                         | 0370-2583      | 3   |     | KNOB                                     | 28480    | 0370-2583        |
|                         | 1600-0702      | 4   |     | SHIELD, OSC.                             | 28480    | 1600-0702        |
|                         | 2950-0078      | 9   |     | NUT-HEX-DBL-CHAM 10-32-TMD .067-IN-TMK   | 28480    | 2950-0078        |
|                         | 2190-0124      | 4   |     | WASHER-LK INTL T NO. 10 .195-IN-ID       | 28480    | 2190-0124        |
| A24                     | 03585-66524    | 9   | 1   | PC ASSEMBLY, BUFFER                      | 28480    | 03585-66524      |
| A24C1                   | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C2                   | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C3                   | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C4                   | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C5                   | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C6                   | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C7                   | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C8                   | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C9                   | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C10                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C11                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C12                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C13                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C14                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C15                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C16                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C17                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C18                  | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050        |
| A24C19                  | 0140-1746      | 5   |     | CAPACITOR-FXD 15UF +-10% 20VDC TA        | 56289    | 150D156X902062   |
| A24C20                  | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100K1042  |
| A24C21                  | 0160-2200      | 6   |     | CAPACITOR-FXD 43PF +-5% 300VDC MICA      | 28480    | 0160-2200        |
| A24C22                  | 0160-2200      | 6   |     | CAPACITOR-FXD 43PF +-5% 300VDC MICA      | 28480    | 0160-2200        |
| A24C23                  | 0160-4385      | 2   | 4   | CAPACITOR-FXD 15PF +-5% 200VDC CER 0+-30 | 28480    | 0160-4385        |
| A24C24                  | 0160-4385      | 2   |     | CAPACITOR-FXD 15PF +-5% 200VDC CER 0+-30 | 28480    | 0160-4385        |
| A24C25                  | 0160-4382      | 9   | 1   | CAPACITOR-FXD 3.3PF +-5% 200VDC CER      | 28480    | 0160-4382        |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty                                     | Description                              | Mfr Code | Mfr Part Number |
|-----------------------|----------------|-----|-----------------------------------------|------------------------------------------|----------|-----------------|
| A24C26                | 0160-4385      | 2   | 1                                       | CAPACITOR-FXD 15PF +-5% 200VDC CER 0+-30 | 28480    | 0160-4385       |
| A24C27                | 0160-3875      | 3   |                                         | CAPACITOR-FXD 22PF +-5% 200VDC CER 0+-30 | 28480    | 0160-3875       |
| A24C28                | 0160-3873      | 1   |                                         | CAPACITOR-FXD 4,7PF +-5% 200VDC CER      | 28480    | 0160-3873       |
| A24C29                | 0150-0050      | 9   |                                         | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050       |
| A24C30                | 0150-0093      | 0   |                                         | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0150-0093       |
| A24CP1                | 1901-0040      | 1   |                                         | DIODE-SWITCHING 30V 50MA 2N8 DO-35       | 28480    | 1901-0040       |
| A24J1                 | 1250-1512      | 3   |                                         | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512       |
| A24J2                 | 1250-1512      | 3   |                                         | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512       |
| A24J3                 | 1250-1512      | 3   |                                         | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512       |
| A24J4                 | 1250-1512      | 3   |                                         | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512       |
| A24L1                 | 9100-1620      | 5   |                                         | COIL-MLD 15UH 10% Q=65 .155DX,375LG-NOM  | 28480    | 9100-1620       |
| A24L2                 | 9100-1620      | 5   |                                         | COIL-MLD 15UH 10% Q=65 .155DX,375LG-NOM  | 28480    | 9100-1620       |
| A24L3                 | 9100-1620      | 5   |                                         | COIL-MLD 15UH 10% Q=65 .155DX,375LG-NOM  | 28480    | 9100-1620       |
| A24L4                 | 9100-1620      | 5   |                                         | COIL-MLD 15UH 10% Q=65 .155DX,375LG-NOM  | 28480    | 9100-1620       |
| A24L5                 | 9100-0541      | 7   |                                         | COIL-MLD 250UH 10% Q=3 .25DX,5LG-NOM     | 28480    | 9100-0541       |
| A24L6                 | 9100-2247      | 4   |                                         | COIL-MLD 100NH 10% Q=34 .095DX,25LG-NOM  | 28480    | 9100-2247       |
| A24L7                 | 9100-2247      | 4   |                                         | COIL-MLD 100NH 10% Q=34 .095DX,25LG-NOM  | 28480    | 9100-2247       |
| A24L8                 | 9100-2247      | 4   |                                         | COIL-MLD 100NH 10% Q=34 .095DX,25LG-NOM  | 28480    | 9100-2247       |
| A24L9                 | 9100-2247      | 4   |                                         | COIL-MLD 100NH 10% Q=34 .095DX,25LG-NOM  | 28480    | 9100-2247       |
| A24L10                | 9100-2247      | 4   |                                         | COIL-MLD 100NH 10% Q=34 .095DX,25LG-NOM  | 28480    | 9100-2247       |
| A24L11                | 9100-2249      | 6   | 1                                       | COIL-MLD 150NH 10% Q=34 .095DX,25LG-NOM  | 28480    | 9100-2249       |
| A24L12                | 9140-0158      | 6   |                                         | COIL-MLD 1UH 10% Q=32 .095DX,25LG-NOM    | 28480    | 9140-0158       |
| A24O1                 | 1853-0020      | 4   | 1                                       | TRANSISTOR PNP SI PD=300MA FT=150MHZ     | 28480    | 1853-0020       |
| A24O2                 | 1854-0345      | 8   |                                         | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179          |
| A24O3                 | 1854-0345      | 8   |                                         | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179          |
| A24O4                 | 1854-0345      | 8   |                                         | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179          |
| A24O5                 | 1854-0345      | 8   |                                         | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179          |
| A24O6                 | 1854-0345      | 8   |                                         | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179          |
| A24O7                 | 1854-0345      | 8   |                                         | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179          |
| A24O8                 | 1854-0345      | 8   |                                         | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179          |
| A24O9                 | 1854-0345      | 8   | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW | 04713                                    | 2N5179   |                 |
| A24O10                | 1854-0345      | 8   | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW | 04713                                    | 2N5179   |                 |
| A24R1                 | 0683-2745      | 2   | 1                                       | RESISTOR 270K 5% .25W FC TC=-400/+900    | 01121    | C82745          |
| A24R2                 | 0683-5625      | 3   |                                         | RESISTOR 5.6K 5% .25W FC TC=-400/+700    | 01121    | C85625          |
| A24R3                 | 0683-5625      | 3   |                                         | RESISTOR 5.6K 5% .25W FC TC=-400/+700    | 01121    | C85625          |
| A24R4                 | 0683-4705      | 8   |                                         | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705          |
| A24R5                 | 0683-2715      | 6   |                                         | RESISTOR 270 5% .25W FC TC=-400/+600     | 01121    | C82715          |
| A24R7                 | 0683-2725      | 8   |                                         | RESISTOR 2.7K 5% .25W FC TC=-400/+700    | 01121    | C82725          |
| A24R8                 | 0683-3325      | 8   |                                         | RESISTOR 3.3K 5% .25W FC TC=-400/+700    | 01121    | C83325          |
| A24R9                 | 0683-3925      | 8   |                                         | RESISTOR 3.9K 5% .25W FC TC=-400/+700    | 01121    | C83925          |
| A24R10                | 0683-4705      | 8   |                                         | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705          |
| A24R11                | 0683-4705      | 8   |                                         | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705          |
| A24R12                | 0683-3315      | 4   | RESISTOR 330 5% .25W FC TC=-400/+600    | 01121                                    | C83315   |                 |
| A24R13                | 0683-2205      | 9   | RESISTOR 22 5% .25W FC TC=-400/+500     | 01121                                    | C82205   |                 |
| A24R14                | 0683-2205      | 9   | RESISTOR 22 5% .25W FC TC=-400/+500     | 01121                                    | C82205   |                 |
| A24R16                | 0683-2025      | 1   | RESISTOR 2K 5% .25W FC TC=-400/+700     | 01121                                    | C82025   |                 |
| A24R17                | 0683-4705      | 8   | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121                                    | C84705   |                 |
| A24R18                | 0683-2725      | 8   | RESISTOR 2.7K 5% .25W FC TC=-400/+700   | 01121                                    | C82725   |                 |
| A24R19                | 0683-4705      | 8   | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121                                    | C84705   |                 |
| A24R20                | 0683-3325      | 8   | RESISTOR 3.3K 5% .25W FC TC=-400/+700   | 01121                                    | C83325   |                 |
| A24R21                | 0683-4705      | 8   | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121                                    | C84705   |                 |
| A24R22                | 0683-3925      | 2   | RESISTOR 3.9K 5% .25W FC TC=-400/+700   | 01121                                    | C83925   |                 |
| A24R23                | 0683-3315      | 4   | RESISTOR 330 5% .25W FC TC=-400/+600    | 01121                                    | C83315   |                 |
| A24R24                | 0683-1015      | 7   | RESISTOR 100 5% .25W FC TC=-400/+500    | 01121                                    | C81015   |                 |
| A24R25                | 0683-2205      | 9   | RESISTOR 22 5% .25W FC TC=-400/+500     | 01121                                    | C82205   |                 |
| A24R26                | 0683-2205      | 9   | RESISTOR 22 5% .25W FC TC=-400/+500     | 01121                                    | C82205   |                 |
| A24R27                | 0683-4705      | 8   | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121                                    | C84705   |                 |
| A24R29                | 0683-2025      | 1   | RESISTOR 2K 5% .25W FC TC=-400/+700     | 01121                                    | C82025   |                 |
| A24R30                | 0683-4705      | 8   | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121                                    | C84705   |                 |
| A24R31                | 0683-2725      | 8   | RESISTOR 2.7K 5% .25W FC TC=-400/+700   | 01121                                    | C82725   |                 |
| A24R32                | 0683-4705      | 8   | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121                                    | C84705   |                 |
| A24R33                | 0683-3325      | 8   | RESISTOR 3.3K 5% .25W FC TC=-400/+700   | 01121                                    | C83325   |                 |
| A24R34                | 0683-3315      | 4   | RESISTOR 330 5% .25W FC TC=-400/+600    | 01121                                    | C83315   |                 |
| A24R35                | 0683-3305      | 2   | RESISTOR 33 5% .25W FC TC=-400/+500     | 01121                                    | C83305   |                 |
| A24R36                | 0683-2205      | 9   | RESISTOR 22 5% .25W FC TC=-400/+500     | 01121                                    | C82205   |                 |
| A24R38                | 0683-4705      | 8   | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121                                    | C84705   |                 |
| A24R39                | 0683-1025      | 9   | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121                                    | C81025   |                 |
| A24R40                | 0683-7505      | 2   | RESISTOR 75 5% .25W FC TC=-400/+500     | 01121                                    | C87505   |                 |
| A24R41                | 0683-2025      | 1   | RESISTOR 2K 5% .25W FC TC=-400/+700     | 01121                                    | C82025   |                 |
| A24R42                | 0683-4705      | 8   | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121                                    | C84705   |                 |
|                       |                |     |                                         | A24 MISCELLANEOUS PARTS                  |          |                 |
|                       | 03585-05224    | 8   | 1                                       | LID, 424                                 | 28480    | 03585-05224     |
|                       | 0370-2583      | 3   |                                         | <NDB                                     | 28480    | 0370-2583       |
|                       | 2950-0078      | 9   |                                         | NUT-HEX-DBL-CH4M 10-32-THD .067-IN-THK   | 28480    | 2950-0078       |
|                       | 2190-0124      | 4   |                                         | WASHER-CK INTL T NO. 10 .195-IN-ID       | 28480    | 2190-0124       |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                             | Mfr Code | Mfr Part Number |
|-----------------------|----------------|-----|-----|-----------------------------------------|----------|-----------------|
| A25                   | 03585-66525    | 0   | 1   | SM LOOP MIXER                           | 28480    | 03585-66525     |
| A25C1                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER  | 28480    | 0150-0050       |
| A25C2                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER  | 28480    | 0150-0050       |
| A25C3                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER  | 28480    | 0150-0050       |
| A25C4                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER  | 28480    | 0150-0050       |
| A25C5                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER  | 28480    | 0150-0050       |
| A25C6                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER  | 28480    | 0150-0050       |
| A25C7                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER  | 28480    | 0150-0050       |
| A25C8                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER  | 28480    | 0150-0050       |
| A25C9                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER  | 28480    | 0150-0050       |
| A25C10                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER  | 28480    | 0150-0050       |
| A25C11                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER  | 28480    | 0150-0050       |
| A25C12                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER  | 28480    | 0150-0050       |
| A25C13                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER  | 28480    | 0150-0050       |
| A25C14                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER  | 28480    | 0150-0050       |
| A25C15                | 0160-0363      | 8   | 1   | CAPACITOR-FXD 620PF +-5% 300VDC MICA    | 28480    | 0160-0363       |
| A25C16                | 0160-0938      | 3   |     | CAPACITOR-FXD 1000PF +-5% 100VDC MICA   | 28480    | 0160-0938       |
| A25C17                | 0160-2035      | 5   | 1   | CAPACITOR-FXD 750PF +-5% 300VDC MICA    | 28480    | 0160-2035       |
| A25C18                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z |
| A25C19                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z |
| A25C20                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z |
| A25C21                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z |
| A25C23                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z |
| A25C24                | 0160-1746      | 5   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA        | 56289    | 150D156X9020B2  |
| A25C25                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z |
| A25C26                | 0160-1746      | 5   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA        | 56289    | 150D156X9020B2  |
| A25C30                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER  | 28480    | 0150-0050       |
| A25C31                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER  | 28480    | 0150-0050       |
| A25C32                | 0160-1746      | 5   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA        | 56289    | 150D156X9020B2  |
| A25C33                | 0160-1746      | 5   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA        | 56289    | 150D156X9020B2  |
| A25J1                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM            | 28480    | 1250-1512       |
| A25J2                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM            | 28480    | 1250-1512       |
| A25J3                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM            | 28480    | 1250-1512       |
| A25L1                 | 9100-2255      | 4   |     | COIL-MLD 470NH 10% Q=35 .095DX.25LG-NOM | 28480    | 9100-2255       |
| A25L2                 | 9100-1620      | 5   |     | COIL-MLD 15UH 10% Q=65 .155DX.375LG-NOM | 28480    | 9100-1620       |
| A25L3                 | 9100-1620      | 5   |     | COIL-MLD 15UH 10% Q=65 .155DX.375LG-NOM | 28480    | 9100-1620       |
| A25L4                 | 9100-2255      | 4   |     | COIL-MLD 470NH 10% Q=35 .095DX.25LG-NOM | 28480    | 9100-2255       |
| A25L5                 | 9100-2260      | 1   |     | COIL-MLD 1.8UH 10% Q=32 .095DX.25LG-NOM | 28480    | 9100-2260       |
| A25L6                 | 9100-2260      | 1   |     | COIL-MLD 1.8UH 10% Q=32 .095DX.25LG-NOM | 28480    | 9100-2260       |
| A25L9                 | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.5LG-NOM    | 28480    | 9100-0541       |
| A25L10                | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.5LG-NOM    | 28480    | 9100-0541       |
| A2501                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW | 04713    | 2N5179          |
| A2502                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW | 04713    | 2N5179          |
| A2503                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW | 04713    | 2N5179          |
| A2504                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW | 04713    | 2N5179          |
| A2505                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW | 04713    | 2N5179          |
| A2506                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW | 04713    | 2N5179          |
| A2507                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ    | 04713    | 2N3904          |
| A2508                 | 1854-0351      | 6   |     | TRANSISTOR NPN SI TO-18 PD=360MW        | 28480    | 1854-0351       |
| A25R1                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | CB4705          |
| A25R2                 | 0683-6815      | 5   |     | RESISTOR 680 5% .25W FC TC=-400/+600    | 01121    | CB6815          |
| A25R3                 | 0683-1005      | 5   |     | RESISTOR 10 5% .25W FC TC=-400/+500     | 01121    | CB1005          |
| A25R4                 | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700   | 01121    | CB6825          |
| A25R5                 | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700   | 01121    | CB6825          |
| A25R6                 | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=-400/+600    | 01121    | CB2215          |
| A25R7                 | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700     | 01121    | CB2025          |
| A25R8                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | CB4705          |
| A25R9                 | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=-400/+700   | 01121    | CB2725          |
| A25R10                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | CB4705          |
| A25R11                | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=-400/+700   | 01121    | CB3325          |
| A25R12                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | CB4705          |
| A25R13                | 0683-3315      | 4   |     | RESISTOR 330 5% .25W FC TC=-400/+600    | 01121    | CB3315          |
| A25R14                | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500     | 01121    | CB2205          |
| A25R15                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | CB4705          |
| A25R16                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | CB4705          |
| A25R17                | 0683-6815      | 5   |     | RESISTOR 680 5% .25W FC TC=-400/+600    | 01121    | CB6815          |
| A25R18                | 0683-1005      | 5   |     | RESISTOR 10 5% .25W FC TC=-400/+500     | 01121    | CB1005          |
| A25R19                | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=-400/+600    | 01121    | CB2215          |
| A25R20                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700     | 01121    | CB2025          |
| A25R21                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | CB4705          |
| A25R22                | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=-400/+700   | 01121    | CB2725          |
| A25R23                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | CB4705          |
| A25R24                | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=-400/+700   | 01121    | CB3325          |
| A25R25                | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500     | 01121    | CB2205          |

See introduction to this section for ordering information.  
\*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                               | Mfr Code | Mfr Part Number |
|-----------------------|----------------|-----|-----|-------------------------------------------|----------|-----------------|
| A25R26                | 0683-3315      | 4   |     | RESISTOR 330 5% .25W FC TC=-400/+600      | 01121    | C83315          |
| A25R27                | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500       | 01121    | C82205          |
| A25R28                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500      | 01121    | C81015          |
| A25R29                | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700     | 01121    | C86825          |
| A25R30                | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700     | 01121    | C86825          |
| A25R31                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700      | 01121    | C81035          |
| A25R32                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500       | 01121    | C84705          |
| A25R33                | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=-400/+600      | 01121    | C82215          |
| A25R34                | 0683-3925      | 2   |     | RESISTOR 3.9K 5% .25W FC TC=-400/+700     | 01121    | C83925          |
| A25R35                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700       | 01121    | C82025          |
| A25R36                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500       | 01121    | C84705          |
| A25R37                | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700     | 01121    | C82225          |
| A25R38                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500      | 01121    | C81015          |
| A25R50                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700       | 01121    | C82025          |
| A25R51                | 0683-3925      | 2   |     | RESISTOR 3.9K 5% .25W FC TC=-400/+700     | 01121    | C83925          |
| A25TP1                | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND  | 28480    | 0360-0124       |
| A25TP2                | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND  | 28480    | 0360-0124       |
| A25TP3                | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND  | 28480    | 0360-0124       |
| A25U1                 | 0955-0087      | 8   | 2   | DOUBLE BALANCE MIXERS                     | 28480    | 0955-0087       |
|                       |                |     |     | A25 MISCELLANEOUS PARTS                   |          |                 |
|                       | 03585-05225    | 9   | 1   | LID, A25                                  | 28480    | 03585-05225     |
|                       | 0370-2583      | 3   |     | KNOB                                      | 28480    | 0370-2583       |
|                       | 5001-0173      | 7   |     | PC GROUND CLIP                            | 28480    | 5001-0173       |
|                       | 2950-0078      | 9   |     | NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK    | 28480    | 2950-0078       |
|                       | 2190-0124      | 4   |     | WASHER-LK INTL T NO, 10 .195-IN-ID        | 28480    | 2190-0124       |
| A26                   | 03585-6652b    | 1   | 1   | STEP PHASE DETECTOR                       | 28480    | 03585-6652b     |
| A26C1                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER    | 28480    | 0150-0050       |
| A26C2                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER    | 28480    | 0150-0050       |
| A26C3                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER    | 28480    | 0150-0050       |
| A26C5                 | 0160-4385      | 2   |     | CAPACITOR-FXD 15PF +/-5% 300VDC CER 0+30  | 28480    | 0160-4385       |
| A26C6                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER    | 28480    | 0150-0050       |
| A26C7                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER    | 28480    | 0150-0050       |
| A26C8                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER    | 28480    | 0150-0050       |
| A26C9                 | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER    | 28480    | 0150-0050       |
| A26C10                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER    | 28480    | 0150-0050       |
| A26C11                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER    | 28480    | 0150-0050       |
| A26C12                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C13                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C14                | 0160-2202      | 8   |     | CAPACITOR-FXD 75PF +/-5% 300VDC MICA      | 28480    | 0160-2202       |
| A26C15                | 0160-2205      | 1   |     | CAPACITOR-FXD 120PF +/-5% 300VDC MICA     | 28480    | 0160-2205       |
| A26C16                | 0160-2203      | 9   |     | CAPACITOR-FXD 91PF +/-5% 300VDC MICA 0+70 | 28480    | 0160-2203       |
| A26C18                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C20                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C21                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C22                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C23                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C24                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C25                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C26                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C27                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C29                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C30                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z |
| A26C32                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z |
| A26C33                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z |
| A26C34                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z |
| A26C36                | 0160-0174      | 9   |     | CAPACITOR-FXD .47UF +80-20% 25VDC CER     | 28480    | 0160-0174       |
| A26C38                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z |
| A26C43                | 0180-1746      | 5   |     | CAPACITOR-FXD 15UF +/-10% 20VDC TA        | 56289    | 1500156X9020B2  |
| A26C44                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z |
| A26C45                | 0180-1746      | 5   |     | CAPACITOR-FXD 15UF +/-10% 20VDC TA        | 56289    | 1500156X9020B2  |
| A26C46                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z |
| A26C47                | 0180-1746      | 5   |     | CAPACITOR-FXD 15UF +/-10% 20VDC TA        | 56289    | 1500156X9020B2  |
| A26C48                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z |
| A26C50                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C51                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C52                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C53                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C54                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C55                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C56                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |
| A26C57                | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER    | 28480    | 0150-0093       |

See introduction to this section for ordering information.  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number    |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|--------------------|
| A26C58                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050          |
| A26C59                | 0180-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A26C60                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050          |
| A26C61                | 0180-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A26C62                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050          |
| A26C63                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050          |
| A26C64                | 0180-0127      | 2   |     | CAPACITOR-FXD .1UF +-20% 25VDC CER       | 28480    | 0160-0127          |
| A26C100               | 0170-0060      | 3   | 1   | CAPACITOR-FXD .047UF +-10% 400VDC POLYE  | 84411    | 663UM47394W2       |
| A26C102               | 0180-2200      | 6   |     | CAPACITOR-FXD .43PF +-5% 300VDC MICA     | 28480    | 0160-2200          |
| A26C103               | 0180-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A26C104               | 0180-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A26C105               | 0140-0208      | 8   |     | CAPACITOR-FXD 680PF +-5% 300VDC MICA     | 72136    | DM15F681J0300WV1CR |
| A26C106               | 0180-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A26C107               | 0180-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A26C108               | 0180-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A26C109               | 0180-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A26C110               | 0180-0210      | 2   |     | CAPACITOR-FXD 270PF +-5% 300VDC MICA     | 72136    | DM15F271J0300WV1CR |
| A26C111               | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D25X9020A2      |
| A26C112               | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D25X9020A2      |
| A26C113               | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D25X9020A2      |
| A26C114               | 0140-0196      | 3   |     | CAPACITOR-FXD 150PF +-5% 300VDC MICA     | 72136    | DM15F151J0300WV1CR |
| A26C115               | 0180-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z    |
| A26C116               | 0180-2199      | 2   |     | CAPACITOR-FXD 30PF +-5% 300VDC MICA      | 28480    | 0160-2199          |
| A26C120               | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0150-0093          |
| A26C121               | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0150-0093          |
| A26CR3                | 1901-0347      | 1   | 6   | DIODE-SCHOTTKY 8V                        | 28480    | 1901-0347          |
| A26CR4                | 1901-0347      | 1   |     | DIODE-SCHOTTKY 8V                        | 28480    | 1901-0347          |
| A26CR5                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS D0-35       | 28480    | 1901-0040          |
| A26CR8                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS D0-35       | 28480    | 1901-0040          |
| A26CR100              | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS D0-35       | 28480    | 1901-0040          |
| A26CR101              | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS D0-35       | 28480    | 1901-0040          |
| A26CR102              | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS D0-35       | 28480    | 1901-0040          |
| A26J1                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512          |
| A26J2                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512          |
| A26J3                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512          |
| A26J4                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512          |
| A26L1                 | 9140-0158      | 6   |     | COIL-MLD 1UH 10% Q=32 .095DX.25LG-NOM    | 28480    | 9140-0158          |
| A26L2                 | 9100-2255      | 5   |     | COIL-MLD 470NH 10% Q=35 .095DX.25LG-NOM  | 28480    | 9100-2255          |
| A26L3                 | 9100-1620      | 4   |     | COIL-MLD 15UH 10% Q=65 .155DX.375LG-NOM  | 28480    | 9100-1620          |
| A26L4                 | 9140-0262      | 3   | 2   | COIL-MLD 200NH 5% Q=50 .155DX.375LG-NOM  | 28480    | 9140-0262          |
| A26L5                 | 9140-0262      | 3   |     | COIL-MLD 200NH 5% Q=50 .155DX.375LG-NOM  | 28480    | 9140-0262          |
| A26L10                | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.5LG-NOM     | 28480    | 9100-0541          |
| A26L11                | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.5LG-NOM     | 28480    | 9100-0541          |
| A26L12                | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.5LG-NOM     | 28480    | 9100-0541          |
| A26L100               | 9140-0129      | 1   | 1   | COIL-MLD 220UH 5% Q=65 .155DX.375LG-NOM  | 28480    | 9140-0129          |
| A26L101               | 9100-1640      | 9   | 1   | COIL-MLD 160UH 5% Q=65 .155DX.375LG-NOM  | 28480    | 9100-1640          |
| A26Q1                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179             |
| A26Q2                 | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179             |
| A26Q3                 | 1854-0345      | 3   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179             |
| A26Q4                 | 1854-0019      | 3   | 6   | TRANSISTOR NPN SI TO-18 PD=360MW         | 28480    | 1854-0019          |
| A26Q5                 | 1853-0203      | 5   |     | TRANSISTOR PNP SI TO-18 PD=360MW         | 28480    | 1853-0203          |
| A26Q6                 | 1853-0203      | 5   |     | TRANSISTOR PNP SI TO-18 PD=360MW         | 28480    | 1853-0203          |
| A26Q7                 | 1853-0203      | 5   |     | TRANSISTOR PNP SI TO-18 PD=360MW         | 28480    | 1853-0203          |
| A26Q8                 | 1853-0203      | 5   |     | TRANSISTOR PNP SI TO-18 PD=360MW         | 28480    | 1853-0203          |
| A26Q9                 | 1854-0019      | 3   |     | TRANSISTOR NPN SI TO-18 PD=360MW         | 28480    | 1854-0019          |
| A26Q10                | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MA FT=200MHZ     | 28480    | 1854-0071          |
| A26Q11                | 1853-0086      | 2   | 8   | TRANSISTOR PNP SI PD=310MA FT=40MHZ      | 27014    | 2N5087             |
| A26Q12                | 1853-0086      | 2   |     | TRANSISTOR PNP SI PD=310MA FT=40MHZ      | 27014    | 2N5087             |
| A26Q13                | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713    | 2N5179             |
| A26Q100               | 1855-0308      | 5   | 2   | TRANSISTOR J-FET DUAL N-CHAN D-MODE SI   | 28480    | 1855-0308          |
| A26Q101               | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MA FT=300MHZ     | 04713    | 2N3904             |
| A26Q102               | 1853-0036      | 2   | 12  | TRANSISTOR PNP SI PD=310MA FT=250MHZ     | 28480    | 1853-0036          |
| A26Q103               | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MA FT=300MHZ     | 04713    | 2N3904             |
| A26Q104               | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MA FT=300MHZ     | 04713    | 2N3904             |
| A26Q105               | 1853-0036      | 2   |     | TRANSISTOR PNP SI PD=310MA FT=250MHZ     | 28480    | 1853-0036          |
| A26Q106               | 1855-0410      | 0   |     | TRANSISTOR J-FET N-CHAN D-MODE TO-18 SI  | 28480    | 1855-0410          |
| A26Q107               | 1854-0351      | 6   |     | TRANSISTOR NPN SI TO-18 PD=360MW         | 28480    | 1854-0351          |
| A26Q108               | 1853-0203      | 5   |     | TRANSISTOR PNP SI TO-18 PD=360MW         | 28480    | 1853-0203          |
| A26Q109               | 1853-0086      | 2   |     | TRANSISTOR PNP SI PD=310MA FT=40MHZ      | 27014    | 2N5087             |
| A26Q110               | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MA FT=200MHZ     | 28480    | 1854-0071          |
| A26Q111               | 1853-0012      | 4   | 2   | TRANSISTOR PNP 2N2904A SI TO-39 PD=600MW | 01295    | 2N2904A            |
| A26Q112               | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MA FT=300MHZ     | 04713    | 2N3904             |
| A26R1                 | 0683-6705      | 5   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C68705             |
| A26R2                 | 0683-6815      | 8   |     | RESISTOR 680 5% .25W FC TC=-400/+600     | 01121    | C68815             |
| A26R3                 | 0683-6705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C68705             |
| A26R4                 | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700    | 01121    | C68825             |
| A26R5                 | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700    | 01121    | C68825             |

See introduction to this section for ordering information  
 \*Indicates factory selected value



Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                           | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|---------------------------------------|----------|------------------|
| A26R6                 | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600  | 01121    | CB4715           |
| A26R7                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500   | 01121    | CB4705           |
| A26R8                 | 0683-6815      | 5   |     | RESISTOR 680 5% .25W FC TC=-400/+600  | 01121    | CB6815           |
| A26R9                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500   | 01121    | CB4705           |
| A26R10                | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700 | 01121    | CB6825           |
| A26R11                | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700 | 01121    | CB6825           |
| A26R12                | 0683-6815      | 5   |     | RESISTOR 680 5% .25W FC TC=-400/+600  | 01121    | CB6815           |
| A26R13                | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=-400/+700 | 01121    | CB2725           |
| A26R14                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500   | 01121    | CB4705           |
| A26R15                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600  | 01121    | CB4715           |
| A26R16                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600  | 01121    | CB4715           |
| A26R17                | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500   | 01121    | CB2205           |
| A26R18                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500   | 01121    | CB4705           |
| A26R19                | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=-400/+700 | 01121    | CB3325           |
| A26R20                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015           |
| A26R21                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500   | 01121    | CB4705           |
| A26R22                | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500   | 01121    | CB2205           |
| A26R23                | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0/+100      | 24546    | C4=1/8-T0=1001-F |
| A26R24                | 0698-3558      | 8   |     | RESISTOR 4.02K 1% .125W F TC=0/+100   | 24546    | C4=1/8-T0=4021-F |
| A26R25                | 0683-3305      | 2   |     | RESISTOR 33 5% .25W FC TC=-400/+500   | 01121    | CB3305           |
| A26R26                | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0/+100      | 24546    | C4=1/8-T0=1001-F |
| A26R27                | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500   | 01121    | CB2205           |
| A26R28                | 0698-3558      | 8   |     | RESISTOR 4.02K 1% .125W F TC=0/+100   | 24546    | C4=1/8-T0=4021-F |
| A26R29                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500  | 01121    | CB1015           |
| A26R30                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121    | CB2025           |
| A26R31                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600   | 01121    | CB1025           |
| A26R32                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121    | CB2025           |
| A26R33                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600  | 01121    | CB4715           |
| A26R34                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600  | 01121    | CB4715           |
| A26R35                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600   | 01121    | CB1025           |
| A26R36                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600  | 01121    | CB4715           |
| A26R37                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600   | 01121    | CB1025           |
| A26R38                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600   | 01121    | CB1025           |
| A26R39                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600   | 01121    | CB1025           |
| A26R40                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600   | 01121    | CB1025           |
| A26R42                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600   | 01121    | CB1025           |
| A26R43                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600  | 01121    | CB4715           |
| A26R44                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600  | 01121    | CB4715           |
| A26R45                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500   | 01121    | CB4705           |
| A26R46                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500   | 01121    | CB4705           |
| A26R47                | 0683-8215      | 3   | 3   | RESISTOR 820 5% .25W FC TC=-400/+600  | 01121    | CB8215           |
| A26R48                | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=-400/+600  | 01121    | CB2215           |
| A26R49                | 0683-3025      | 3   | 14  | RESISTOR 3K 5% .25W FC TC=-400/+700   | 01121    | CB3025           |
| A26R50                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600   | 01121    | CB1025           |
| A26R51                | 0683-3025      | 3   |     | RESISTOR 3K 5% .25W FC TC=-400/+700   | 01121    | CB3025           |
| A26R52                | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0/+100      | 24546    | C4=1/8-T0=1001-F |
| A26R53                | 0698-3558      | 8   |     | RESISTOR 4.02K 1% .125W F TC=0/+100   | 24546    | C4=1/8-T0=4021-F |
| A26R54                | 0698-4510      | 4   | 3   | RESISTOR 84.5K 1% .125W F TC=0/+100   | 24546    | C4=1/8-T0=8452-F |
| A26R55                | 0757-0280      | 3   | 7   | RESISTOR 2K 1% .125W F TC=0/+100      | 24546    | C4=1/8-T0=2001-F |
| A26R56                | 0757-0445      | 2   | 2   | RESISTOR 13K 1% .125W F TC=0/+100     | 24546    | C4=1/8-T0=1302-F |
| A26R57                | 0698-3155      | 1   |     | RESISTOR 4.64K 1% .125W F TC=0/+100   | 24546    | C4=1/8-T0=4641-F |
| A26R58                | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=-400/+700 | 01121    | CB3325           |
| A26R59                | 0683-1825      | 7   | 5   | RESISTOR 1.8K 5% .25W FC TC=-400/+700 | 01121    | CB1825           |
| A26R61                | 0683-4735      | 4   |     | RESISTOR 47K 5% .25W FC TC=-400/+600  | 01121    | CB4735           |
| A26R62                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800 | 01121    | CB1045           |
| A26R63                | 0683-2235      | 5   |     | RESISTOR 22K 5% .25W FC TC=-400/+600  | 01121    | CB2235           |
| A26R64                | 0683-3015      | 1   | 3   | RESISTOR 300 5% .25W FC TC=-400/+600  | 01121    | CB3015           |
| A26R65                | 0683-1235      | 3   |     | RESISTOR 12K 5% .25W FC TC=-400/+800  | 01121    | CB1235           |
| A26R66                | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=-400/+700 | 01121    | CB3325           |
| A26R68                | 0683-7525      | 6   | 4   | RESISTOR 7.5K 5% .25W FC TC=-400/+700 | 01121    | CB7525           |
| A26R69                | 0683-7525      | 6   |     | RESISTOR 7.5K 5% .25W FC TC=-400/+700 | 01121    | CB7525           |
| A26R70                | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=-400/+700 | 01121    | CB3325           |
| A26R71                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700  | 01121    | CB1035           |
| A26R72                | 0683-1535      | 6   |     | RESISTOR 15K 5% .25W FC TC=-400/+800  | 01121    | CB1535           |
| A26R73                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700  | 01121    | CB1035           |
| A26R74                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600   | 01121    | CB1025           |
| A26R75                | 2100-3252      | 6   | 1   | RESISTOR-TRMR 5K 10% C TOP-ADJ 1-TRN  | 28480    | 2100-3252        |
| A26R76                | 0683-1535      | 6   |     | RESISTOR 15K 5% .25W FC TC=-400/+800  | 01121    | CB1535           |
| A26R77                | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=-400/+700 | 01121    | CB3325           |
| A26R78                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800 | 01121    | CB1045           |
| A26R79                | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=-400/+700 | 01121    | CB3325           |
| A26R100               | 0757-0444      | 1   | 2   | RESISTOR 12.1K 1% .125W F TC=0/+100   | 24546    | C4=1/8-T0=1212-F |
| A26R101               | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=-400/+700 | 01121    | CB2725           |
| A26R102               | 0683-1515      | 2   |     | RESISTOR 150 5% .25W FC TC=-400/+600  | 01121    | CB1515           |
| A26R103               | 0683-6215      | 9   |     | RESISTOR 620 5% .25W FC TC=-400/+600  | 01121    | CB6215           |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|------------------|
| A26R104               | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705           |
| A26R105               | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | C84715           |
| A26R107               | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | C81525           |
| A26R108               | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500      | 01121    | C82205           |
| A26R109               | 0683-2735      | 0   |     | RESISTOR 27K 5% .25W FC TC=-400/+800     | 01121    | C82735           |
| A26R110               | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705           |
| A26R111               | 0683-2425      | 5   | 6   | RESISTOR 2.4K 5% .25W FC TC=-400/+700    | 01121    | C82425           |
| A26R112               | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=-400/+600     | 01121    | C82215           |
| A26R113               | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=-400/+600     | 01121    | C82215           |
| A26R114               | 0683-1005      | 5   |     | RESISTOR 10 5% .25W FC TC=-400/+500      | 01121    | C81005           |
| A26R115               | 0683-1005      | 5   |     | RESISTOR 10 5% .25W FC TC=-400/+500      | 01121    | C81005           |
| A26R116               | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=-400/+600     | 01121    | C82215           |
| A26R117               | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | C81525           |
| A26R118               | 0683-8215      | 3   |     | RESISTOR 820 5% .25W FC TC=-400/+600     | 01121    | C88215           |
| A26R119               | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | C84715           |
| A26R120               | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705           |
| A26R121               | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705           |
| A26P122               | 0757-0283      | 6   |     | RESISTOR 2K 1% .125W F TC=0+100          | 24546    | C4-1/8-T0=2001-F |
| A26P123               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | C81015           |
| A26R124               | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | C82025           |
| A26R125               | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | C82025           |
| A26R126               | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | C81015           |
| A26R127               | 0698-4123      | 5   |     | RESISTOR 499 1% .125W F TC=0+100         | 24546    | C4-1/8-T0=499R-F |
| A26R130               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025           |
| A26R131               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025           |
| A26R132               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025           |
| A26R133               | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | C84715           |
| A26R134               | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | C84715           |
| A26R135               | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | C84715           |
| A26R136               | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | C84715           |
| A26R140               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025           |
| A26P141               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025           |
| A26R142               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025           |
| A26R143               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025           |
| A26R144               | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | C81525           |
| A26R145               | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | C81525           |
| A26R146               | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | C81525           |
| A26R147               | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | C81525           |
| A26R148               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025           |
| A26R149               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025           |
| A26R150               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025           |
| A26R151               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025           |
| A26R152               | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | C81525           |
| A26R153               | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | C81525           |
| A26R154               | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | C81525           |
| A26R155               | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | C81525           |
| A26R156               | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | C84715           |
| A26R157               | 0683-1325      | 2   | 4   | RESISTOR 1.3K 5% .25W FC TC=-400/+700    | 01121    | C81325           |
| A26R158               | 0683-1325      | 2   |     | RESISTOR 1.3K 5% .25W FC TC=-400/+700    | 01121    | C81325           |
| A26R161               | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500      | 01121    | C82205           |
| A26R162               | 0757-0448      | 5   | 3   | RESISTOR 18.2K 1% .125W F TC=0+100       | 24546    | C4-1/8-T0=1822-F |
| A26R163               | 0683-2205      | 9   |     | RESISTOR 22 5% .25W FC TC=-400/+500      | 01121    | C82205           |
| A26R164               | 0757-0448      | 5   |     | RESISTOR 18.2K 1% .125W F TC=0+100       | 24546    | C4-1/8-T0=1822-F |
| A26R165               | 0683-2015      | 9   | 15  | RESISTOR 200 5% .25W FC TC=-400/+600     | 01121    | C82015           |
| A26R166               | 0683-2015      | 9   |     | RESISTOR 200 5% .25W FC TC=-400/+600     | 01121    | C82015           |
| A26TP1-               |                |     |     |                                          |          |                  |
| A26TP13               | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-HSC-SZ RND | 28480    | 0360-0124        |
| A26U1                 | 1A20-0803      | 2   |     | IC GATE ECL OR-NOR TPL                   | 04713    | MC10105P         |
| A26U2                 | 1A20-2093      | 6   | 2   | IC CNTR BCD SYNCHRO POS-EDGE-TRIG        | 07263    | F10010DC         |
| A26U3                 | 1A20-2093      | 6   |     | IC CNTR BCD SYNCHRO POS-EDGE-TRIG        | 07263    | F10010DC         |
| A26U4                 | 1A20-0817      | 8   |     | IC FF ECL D-M/S DUAL                     | 04713    | MC10131P         |
| A26U5                 | 1A20-0817      | 8   |     | IC FF ECL D-M/S DUAL                     | 04713    | MC10131P         |
| A26U6                 | 1A20-0817      | 8   |     | IC FF ECL D-M/S DUAL                     | 04713    | MC10131P         |
| A26U7                 | 1A20-0806      | 5   |     | IC GATE ECL OR-NOR DUAL 4-S-IMP          | 04713    | MC10109P         |
| A26U8                 | 1A20-0817      | 8   |     | IC FF ECL D-M/S DUAL                     | 04713    | MC10131P         |
| A26U9                 | 1A26-0043      | 4   |     | OP AMP GP TT-99                          | 01926    | CA3071           |
| A26U10                | 1A26-0138      | 8   |     | COMPARATOR GP QUAD 14-DIP-P              | 04713    | MLM339P          |
| A26X1                 | 0955-0087      | 8   |     | DOUBLE BALANCE MIXERS                    | 28480    | 0955-0087        |
|                       |                |     |     | A26 MISCELLANEOUS PARTS                  |          |                  |
|                       | 03585-05226    | 0   | 1   | LID, A26                                 | 28480    | 03585-05226      |
|                       | 0370-2583      | 3   |     | NUT                                      | 28480    | 0370-2583        |
|                       | 1400-0971      | 5   | 5   | L-BRACKET                                | 28480    | 1400-0971        |
|                       | 2950-0078      | 9   |     | NUT-HEX=OBL-CHAM 10-32-THD .067-IN-THK   | 28480    | 2950-0078        |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number         | C D    | Qty | Description                                                                  | Mfr Code       | Mfr Part Number                   |
|-----------------------|------------------------|--------|-----|------------------------------------------------------------------------------|----------------|-----------------------------------|
|                       | 2190-0124<br>2200-0101 | 4<br>0 |     | WASHER-LK INTL T NO. 10 .195-IN-ID<br>SCREW-MACH 4-40 .188-IN-LG PAN-HD-POZI | 28480<br>00000 | 2190-0124<br>ORDER BY DESCRIPTION |
| A27                   | 03585-66527            | 2      | 1   | 1ST LO VCO CONTROLLER                                                        | 28480          | 03585-66527                       |
| A27C1                 | 0160-0128              | 3      |     | CAPACITOR-FXD 2.2UF +-20% 50VDC CER                                          | 28480          | 0160-0128                         |
| A27C2                 | 0140-0204              | 4      |     | CAPACITOR-FXD 47PF +-5% 500VDC MICA                                          | 72136          | DM15E470J0500AV1CR                |
| A27C3                 | 0140-0204              | 4      |     | CAPACITOR-FXD 47PF +-5% 500VDC MICA                                          | 72136          | DM15E470J0500AV1CR                |
| A27C4                 | 0160-0128              | 3      |     | CAPACITOR-FXD 2.2UF +-20% 50VDC CER                                          | 28480          | 0160-0128                         |
| A27C5                 | 0160-2199              | 2      |     | CAPACITOR-FXD 30PF +-5% 300VDC MICA                                          | 28480          | 0160-2199                         |
| A27C6                 | 0160-0155              | 6      | 1   | CAPACITOR-FXD 3300PF +-10% 200VDC POLY                                       | 28480          | 0160-0155                         |
| A27C7                 | 0160-0503              | 8      | 3   | CAPACITOR-FXD .22UF +-2% 100VDC POLY                                         | 28480          | 0160-0503                         |
| A27C9                 | 0180-0197              | 8      |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA                                            | 56289          | 150D225X902042                    |
| A27C10                | 0140-0204              | 4      |     | CAPACITOR-FXD 47PF +-5% 500VDC MICA                                          | 72136          | DM15E470J0500AV1CR                |
| A27C11                | 0180-1746              | 5      |     | CAPACITOR-FXD 15UF+-10% 20VDC TA                                             | 56289          | 150D156X902082                    |
| A27C12                | 0160-3622              | 8      |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER                                        | 26654          | 2130Y5V100R104Z                   |
| A27C13                | 0160-1746              | 5      |     | CAPACITOR-FXD 15UF+-10% 20VDC TA                                             | 56289          | 150D156X902082                    |
| A27C14                | 0160-3622              | 8      |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER                                        | 26654          | 2130Y5V100R104Z                   |
| A27CR1                | 1901-0040              | 1      |     | DIODE-SWITCHING 30V 50MA 2NS DO-35                                           | 28480          | 1901-0040                         |
| A27CR2                | 1901-0040              | 1      |     | DIODE-SWITCHING 30V 50MA 2NS DO-35                                           | 28480          | 1901-0040                         |
| A27J1                 | 1250-1512              | 3      |     | CONNECTOR-WF SMB M PC 50-OHM                                                 | 28480          | 1250-1512                         |
| A27L1                 | 9100-1644              | 3      | 2   | COIL-MLD 330UH 5% Q=65 .190X.44LG-NDM                                        | 28480          | 9100-1644                         |
| A27L2                 | 9100-1644              | 3      |     | COIL-MLD 330UH 5% Q=65 .190X.44LG-NDM                                        | 28480          | 9100-1644                         |
| A27L3                 | 9140-0131              | 5      |     | COIL-MLD 10MH 5% Q=80 .240X.74LG-NDM                                         | 28480          | 9140-0131                         |
| A27Q1                 | 1854-0071              | 7      |     | TRANSISTOR NPN SI PD=300MA FT=200MHZ                                         | 28480          | 1854-0071                         |
| A27Q2                 | 1853-0020              | 4      |     | TRANSISTOR PNP SI PD=300MA FT=150MHZ                                         | 28480          | 1853-0020                         |
| A27Q7                 | 1855-0081              | 1      | 6   | TRANSISTOR J-FET N-CHAN D-MODEL SI                                           | 01295          | 245245                            |
| A27Q8                 | 1855-0081              | 1      |     | TRANSISTOR J-FET N-CHAN D-MODEL SI                                           | 01295          | 245245                            |
| A27Q9                 | 1853-0020              | 4      |     | TRANSISTOR PNP SI PD=300MA FT=150MHZ                                         | 28480          | 1853-0020                         |
| A27Q10                | 1854-0071              | 7      |     | TRANSISTOR NPN SI PD=300MA FT=200MHZ                                         | 28480          | 1854-0071                         |
| A27Q11                | 1853-0020              | 4      |     | TRANSISTOR PNP SI PD=300MA FT=150MHZ                                         | 28480          | 1853-0020                         |
| A27R1                 | 0757-0442              | 9      |     | RESISTOR 10K 1% .125W F TC=0+-100                                            | 24546          | C4-1/8-T0-1002-F                  |
| A27R2                 | 2100-3274              | 2      |     | RESISTOR-TRMR 10K 10% C SIDE-ADJ 1-TRM                                       | 28480          | 2100-3274                         |
| A27R3                 | 0757-0442              | 9      |     | RESISTOR 10K 1% .125W F TC=0+-100                                            | 24546          | C4-1/8-T0-1002-F                  |
| A27R4                 | 0698-3279              | 0      |     | RESISTOR 4.99K 1% .125W F TC=0+-100                                          | 24546          | C4-1/8-T0-4991-F                  |
| A27R5                 | 0698-3279              | 0      |     | RESISTOR 4.99K 1% .125W F TC=0+-100                                          | 24546          | C4-1/8-T0-4991-F                  |
| A27R6                 | 0683-3625              | 9      | 2   | RESISTOR 3.6K 5% .25W FC TC=-400/+700                                        | 01121          | C83625                            |
| A27R7                 | 0757-0442              | 9      |     | RESISTOR 10K 1% .125W F TC=0+-100                                            | 24546          | C4-1/8-T0-1002-F                  |
| A27R8                 | 0683-2445              | 9      | 2   | RESISTOR 240K 5% .25W FC TC=-800/+900                                        | 01121          | C82445                            |
| A27R9                 | 0683-2445              | 9      |     | RESISTOR 240K 5% .25W FC TC=-800/+900                                        | 01121          | C82445                            |
| A27R10                | 0757-0442              | 7      |     | RESISTOR 7.5K 1% .125W F TC=0+-100                                           | 24546          | C4-1/8-T0-7501-F                  |
| A27R11                | 2100-3274              | 2      |     | RESISTOR-TRMR 10K 10% C SIDE-ADJ 1-TRM                                       | 28480          | 2100-3274                         |
| A27R12                | 0683-2215              | 1      |     | RESISTOR 220 5% .25W FC TC=-400/+600                                         | 01121          | C82215                            |
| A27R13                | 0683-2215              | 1      |     | RESISTOR 220 5% .25W FC TC=-400/+600                                         | 01121          | C82215                            |
| A27R14                | 0757-0283              | 6      |     | RESISTOR 2K 1% .125W F TC=0+-100                                             | 24546          | C4-1/8-T0-2001-F                  |
| A27R15                | 0757-0283              | 6      |     | RESISTOR 2K 1% .125W F TC=0+-100                                             | 24546          | C4-1/8-T0-2001-F                  |
| A27R17                | 0757-0280              | 3      |     | RESISTOR 1K 1% .125W F TC=0+-100                                             | 24546          | C4-1/8-T0-1001-F                  |
| A27R18                | 0757-0280              | 3      |     | RESISTOR 1K 1% .125W F TC=0+-100                                             | 24546          | C4-1/8-T0-1001-F                  |
| A27R24                | 0683-1055              | 5      |     | RESISTOR 1M 5% .25W FC TC=-800/+900                                          | 01121          | C81055                            |
| A27R25                | 0683-1055              | 5      |     | RESISTOR 1M 5% .25W FC TC=-800/+900                                          | 01121          | C81055                            |
| A27R26                | 0683-4735              | 4      |     | RESISTOR 47K 5% .25W FC TC=-400/+800                                         | 01121          | C84735                            |
| A27R27                | 0683-4745              | 6      |     | RESISTOR 470K 5% .25W FC TC=-800/+900                                        | 01121          | C84745                            |
| A27R28                | 0683-3035              | 5      | 1   | RESISTOR 30K 5% .25W FC TC=-400/+800                                         | 01121          | C83035                            |
| A27R29                | 0683-4705              | 8      |     | RESISTOR 47 5% .25W FC TC=-400/+500                                          | 01121          | C84705                            |
| A27R30                | 0694-3582              | 8      | 2   | RESISTOR 41.2K 1% .125W F TC=0+-100                                          | 24546          | C4-1/8-T0-4122-F                  |
| A27R31                | 0757-0437              | 2      | 6   | RESISTOR 4.75K 1% .125W F TC=0+-100                                          | 24546          | C4-1/8-T0-4751-F                  |
| A27R32                | 0683-2025              | 1      |     | RESISTOR 2K 5% .25W FC TC=-400/+700                                          | 01121          | C82025                            |
| A27R33                | 0683-6825              | 7      |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700                                        | 01121          | C86825                            |
| A27R34                | 0683-6825              | 7      |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700                                        | 01121          | C86825                            |
| A27R35                | 0683-1525              | 4      |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700                                        | 01121          | C81525                            |
| A27R36                | 0683-4725              | 2      |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700                                        | 01121          | C84725                            |
| A27R37                | 0683-4725              | 2      |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700                                        | 01121          | C84725                            |
| A27TP1                | 0360-0124              | 3      |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND                                     | 28480          | 0360-0124                         |
| A27TP2                | 0360-0124              | 3      |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND                                     | 28480          | 0360-0124                         |
| A27TP3                | 0360-0124              | 3      |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND                                     | 28480          | 0360-0124                         |
| A27U1                 | 1826-0043              | 4      |     | OP AMP GP T0-99                                                              | 01928          | CA3071                            |
| A27U2                 | 1826-0043              | 4      |     | OP AMP GP T0-99                                                              | 01928          | CA3071                            |
| A27U3                 | 1820-0223              |        |     | OP AMP GP T0-99                                                              | 02057          | MLM301AG                          |
|                       | 03585-05227            | 1      | 1   | A27 MISCELLANEOUS PARTS                                                      | 28480          | 03585-05227                       |
|                       | 0370-2583              | 5      |     | KNUR                                                                         | 28480          | 0370-2583                         |
|                       | 1400-0971              | 5      |     | L-BRACKET                                                                    | 28480          | 1400-0971                         |
|                       | 2950-0078              | 9      |     | NUT-HEX=DHL-C-M 10-32-THD .067-IN-TMK                                        | 28480          | 2950-0078                         |

See introduction to this section for ordering information  
\*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
|                       | 2190-0124      | 4   |     | WASHER-LK INTL T NO. 10 .195-IN-ID       | 28480    | 2190-0124            |
|                       | 2200-0103      | 2   |     | SCREW=MACH 4-40 .25-IN-LG PAN=HD=POZI    | 00000    | ORDER BY DESCRIPTION |
|                       | 2200-0101      | 0   |     | SCREW=MACH 4-40 .188-IN-LG PAN=HD=POZI   | 00000    | ORDER BY DESCRIPTION |
| A28                   | 03585-66528    | 3   | 1   | SM LOOP PHASE DETECTOR                   | 28480    | 03585-66528          |
| A28C1                 | 0160-2207      | 3   |     | CAPACITOR-FXD 300PF +-5% 300VDC MICA     | 28480    | 0160-2207            |
| A28C2                 | 0160-0362      | 7   |     | CAPACITOR-FXD 510PF +-5% 300VDC MICA     | 28480    | 0160-0362            |
| A28C3                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A28C4                 | 0160-2204      | 0   |     | CAPACITOR-FXD 100PF +-5% 300VDC MICA     | 28480    | 0160-2204            |
| A28C5                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A28C6                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A28C7                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A28C8                 | 0150-0093      | 0   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0150-0093            |
| A28C9                 | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X9020A2       |
| A28C10                | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X9020A2       |
| A28C11                | 0160-0127      | 2   |     | CAPACITOR-FXD 1UF +-20% 25VDC CER        | 28480    | 0160-0127            |
| A28C12                | 0140-0200      | 0   | 3   | CAPACITOR-FXD 390PF +-5% 300VDC MICA     | 72136    | DM15F391J0300WV1CR   |
| A28C13                | 0140-020A      | 8   |     | CAPACITOR-FXD 680PF +-5% 300VDC MICA     | 72136    | DM15F681J0300WV1CR   |
| A28C14                | 0160-2940      | 1   |     | CAPACITOR-FXD 470PF +-5% 300VDC MICA     | 28480    | 0160-2940            |
| A28C15                | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X9020A2       |
| A28C16                | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X9020A2       |
| A28C17                | 0160-1746      | 5   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA         | 56289    | 150D156X9020B2       |
| A28C18                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A28C19                | 0160-1746      | 5   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA         | 56289    | 150D156X9020B2       |
| A28C20                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A28C21                | 0180-1746      | 5   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA         | 56289    | 150D156X9020B2       |
| A28C22                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A28C23                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A28C24                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A28C25                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050            |
| A28C26                | 0150-0050      | 9   |     | CAPACITOR-FXD 1000PF +80-20% 1KVDC CER   | 28480    | 0150-0050            |
| A28C27                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A28CR1                | 1901-0347      | 1   |     | DIODE-SCHOTTKY AV                        | 28480    | 1901-0347            |
| A28CR2                | 1901-0347      | 1   |     | DIODE-SCHOTTKY BV                        | 28480    | 1901-0347            |
| A28CR3                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35       | 28480    | 1901-0040            |
| A28CR4                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35       | 28480    | 1901-0040            |
| A28CR5                | 1901-0347      | 1   |     | DIODE-SCHOTTKY AV                        | 28480    | 1901-0347            |
| A28CR6                | 1901-0347      | 1   |     | DIODE-SCHOTTKY AV                        | 28480    | 1901-0347            |
| A28J1                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512            |
| A28J2                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512            |
| A28L1                 | 9100-1615      | 8   | 1   | COIL-MLD 1.2UH 10% Q=33 .155DX.375LG-NOM | 28480    | 9100-1615            |
| A28L2                 | 9100-1641      | 0   |     | COIL-MLD 240UH 5% Q=65 .155DX.375LG-NOM  | 28480    | 9100-1641            |
| A28L3                 | 9100-1641      | 0   |     | COIL-MLD 240UH 5% Q=65 .155DX.375LG-NOM  | 28480    | 9100-1641            |
| A28L4                 | 9140-0210      | 1   |     | COIL-MLD 100UH 5% Q=50 .155DX.375LG-NOM  | 28480    | 9140-0210            |
| A28L5                 | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.45LG-NOM    | 28480    | 9100-0541            |
| A28L6                 | 9140-0210      | 1   |     | COIL-MLD 100UH 5% Q=50 .155DX.375LG-NOM  | 28480    | 9140-0210            |
| A28Q1                 | 1853-0203      | 5   |     | TRANSISTOR PNP SI TD-18 PD=360MW         | 26480    | 1853-0203            |
| A28Q2                 | 1853-0203      | 5   |     | TRANSISTOR PNP SI TD-18 PD=360MW         | 26480    | 1853-0203            |
| A28Q3                 | 1853-0203      | 5   |     | TRANSISTOR PNP SI TD-18 PD=360MA         | 28480    | 1853-0203            |
| A28Q4                 | 1853-0086      | 2   |     | TRANSISTOR PNP SI PD=310MW FT=40MHZ      | 27014    | 245087               |
| A28Q5                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ     | 26480    | 1854-0071            |
| A28Q6                 | 1853-0086      | 2   |     | TRANSISTOR PNP SI PD=310MA FT=40MHZ      | 27014    | 245087               |
| A28Q7                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MA FT=200MHZ     | 26480    | 1854-0071            |
| A28R1                 | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | C82025               |
| A28R2                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025               |
| A28R3                 | 0683-7515      | 4   |     | RESISTOR 750 5% .25W FC TC=-400/+600     | 01121    | C87515               |
| A28R4                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025               |
| A28R5                 | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | C82025               |
| A28R6                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025               |
| A28R7                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025               |
| A28R8                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705               |
| A28R9                 | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | C84715               |
| A28R10                | 0683-8215      | 3   |     | RESISTOR 820 5% .25W FC TC=-400/+600     | 01121    | C88215               |
| A28R11                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | C84705               |
| A28R12                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | C84715               |
| A28R13                | 0683-3315      | 4   |     | RESISTOR 330 5% .25W FC TC=-400/+600     | 01121    | C83315               |
| A28R14                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | C82025               |
| A28R15                | 0683-3025      | 3   |     | RESISTOR 3K 5% .25W FC TC=-400/+700      | 01121    | C83025               |
| A28R16                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | C81025               |
| A28R17                | 0698-3279      | 0   |     | RESISTOR 4.99K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-4991-F     |
| A28R18                | 0698-4486      | 3   |     | RESISTOR 24.9K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-2492-F     |
| A28R19                | 0698-4463      | 6   | 1   | RESISTOR 845 1% .125W F TC=0+-100        | 03888    | PME55-1/8-T0-845M-F  |
| A28R20                | 0698-4486      | 3   |     | RESISTOR 24.9K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-2492-F     |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty                                   | Description                              | Mfr Code | Mfr Part Number      |
|-------------------------|----------------|-----|---------------------------------------|------------------------------------------|----------|----------------------|
| A28R21                  | 0683-1279      | 0   | 3                                     | RESISTOR 4.99K 1% .125W F TC=0+/-100     | 24546    | C4-1/8-T0-4991-F     |
| A28R22                  | 0757-0442      | 9   |                                       | RESISTOR 10K 1% .125W F TC=0+/-100       | 24546    | C4-1/8-T0-1002-F     |
| A28R23                  | 0757-0161      | 9   |                                       | RESISTOR 604 1% .125W F TC=0+/-100       | 24546    | C4-1/8-T0-604R-F     |
| A28R24                  | 0683-2205      | 9   |                                       | RESISTOR 22 5% .25W FC TC=-400/+500      | 01121    | CB2205               |
| A28R25                  | 0683-2025      | 1   | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121                                    | CB2025   |                      |
| A28R26                  | 0683-2025      | 1   | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121                                    | CB2025   |                      |
| A28R27                  | 0683-2025      | 1   | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121                                    | CB2025   |                      |
| A28R28                  | 0683-2025      | 1   | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121                                    | CB2025   |                      |
| A28R29                  | 0683-2025      | 1   | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121                                    | CB2025   |                      |
| A28R30                  | 0683-1035      | 1   | RESISTOR 10K 5% .25W FC TC=-400/+700  | 01121                                    | CB1035   |                      |
| A28R31                  | 0683-1535      | 6   | RESISTOR 15K 5% .25W FC TC=-400/+800  | 01121                                    | CB1535   |                      |
| A28R32                  | 0683-2715      | 6   | RESISTOR 270 5% .25W FC TC=-400/+800  | 01121                                    | CB2715   |                      |
| A28R33                  | 0683-1535      | 6   | RESISTOR 15K 5% .25W FC TC=-400/+800  | 01121                                    | CB1535   |                      |
| A28R34                  | 0683-2715      | 6   | RESISTOR 270 5% .25W FC TC=-400/+800  | 01121                                    | CB2715   |                      |
| A28R35                  | 0683-7525      | 6   | RESISTOR 7.5K 5% .25W FC TC=-400/+700 | 01121                                    | CB7525   |                      |
| A28R36                  | 0683-1535      | 6   | RESISTOR 15K 5% .25W FC TC=-400/+800  | 01121                                    | CB1535   |                      |
| A28R37                  | 0683-1035      | 1   | RESISTOR 10K 5% .25W FC TC=-400/+700  | 01121                                    | CB1035   |                      |
| A28R38                  | 0683-1035      | 1   | RESISTOR 10K 5% .25W FC TC=-400/+700  | 01121                                    | CB1035   |                      |
| A28R39                  | 0683-2025      | 1   | RESISTOR 2K 5% .25W FC TC=-400/+700   | 01121                                    | CB2025   |                      |
| A28R40                  | 0683-1035      | 1   | RESISTOR 10K 5% .25W FC TC=-400/+700  | 01121                                    | CB1035   |                      |
| A28R41                  | 0683-1045      | 3   | RESISTOR 100K 5% .25W FC TC=-400/+800 | 01121                                    | CB1045   |                      |
| A28U1                   | 1R20-0810      | 1   | IC RCVR ECL LINE RCVR TPL 2-INP       | 04713                                    | MC10116P |                      |
| A28U2                   | 1R20-0817      | 8   | IC FF ECL D-M/S DUAL                  | 04713                                    | MC10131P |                      |
| A28U3                   | 1R26-0138      | 8   | COMPARATOR GP QUAD 14-DIP-P           | 04713                                    | MLM339P  |                      |
| A28 MISCELLANEOUS PARTS |                |     |                                       |                                          |          |                      |
|                         | 03585-05228    | 2   | 1                                     | LID, A28                                 | 28480    | 03585-05228          |
|                         | 0370-2583      | 3   |                                       | KNOB                                     | 28480    | 0370-2583            |
|                         | 1400-0971      | 5   |                                       | L-BRACKET                                | 28480    | 1400-0971            |
|                         | 2950-0078      | 9   |                                       | NUT-HEX=OBL-CHAM 10-32-THD .067-IN-THK   | 28480    | 2950-0078            |
|                         | 2190-0124      | 4   |                                       | WASHER-LK INTL T NO, 10 .195-IN-ID       | 28480    | 2190-0124            |
|                         | 2200-0101      | 0   |                                       | SCREW-MACH 4-40 .188-IN-LG PAN-HD-POZI   | 00000    | ORDER BY DESCRIPTION |
| A31                     | 03585-66531    | 8   | 1                                     | VTO DIVIDER                              | 28480    | 03585-66531          |
| A31C1                   | 0160-3847      | 9   |                                       | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A31C2                   | 0160-3847      | 9   |                                       | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A31C3                   | 0140-0204      | 4   |                                       | CAPACITOR-FXD 47PF +-5% 500VDC MICA      | 72136    | DM15E470J0500MV1CH   |
| A31C4                   | 0160-3847      | 9   |                                       | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A31C5                   | 0160-2204      | 0   |                                       | CAPACITOR-FXD 100PF +-5% 300VDC MICA     | 28480    | 0160-2204            |
| A31C6                   | 0160-3914      | 1   | 1                                     | CAPACITOR-FXD .01UF +-10% 100VDC CER     | 28480    | 0160-3914            |
| A31C7                   | 0160-3847      | 9   |                                       | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A31C8                   | 0150-0069      | 0   | 3                                     | CAPACITOR-FXD 1000PF +100-20% 500VDC CER | 28480    | 0150-0069            |
| A31C9                   | 0150-0069      | 0   |                                       | CAPACITOR-FXD 1000PF +100-20% 500VDC CER | 28480    | 0150-0069            |
| A31C10                  | 0150-0069      | 0   |                                       | CAPACITOR-FXD 1000PF +100-20% 500VDC CER | 28480    | 0150-0069            |
| A31C11                  | 0160-0503      | 8   |                                       | CAPACITOR-FXD .22UF +-2% 100VDC POLY     | 28480    | 0160-0503            |
| A31C12                  | 0180-1794      | 3   | 9                                     | CAPACITOR-FXD 22UF+-10% 35VDC TA         | 56289    | 150D226X9035R2       |
| A31C13                  | 0160-2199      | 2   |                                       | CAPACITOR-FXD 30PF +-5% 300VDC MICA      | 28480    | 0160-2199            |
| A31C14                  | 0160-3622      | 8   |                                       | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A31C15                  | 0160-3847      | 9   |                                       | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A31C16                  | 0160-3847      | 9   |                                       | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A31C17                  | 0160-4571      | 8   | 18                                    | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A31C18                  | 0160-4571      | 8   |                                       | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A31C19                  | 0160-4571      | 8   |                                       | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A31C20                  | 0160-4571      | 8   |                                       | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A31C21                  | 0160-3847      | 9   |                                       | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A31C22                  | 0160-4571      | 6   |                                       | CAPACITOR-FXD .1UF +80-20% 50VDC CER     | 28480    | 0160-4571            |
| A31C23                  | 0160-3847      | 9   |                                       | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A31C24                  | 0160-0228      | 3   |                                       | CAPACITOR-FXD 22UF+-10% 15VDC TA         | 56289    | 150D226X9015R2       |
| A31C25                  | 0180-1794      | 6   |                                       | CAPACITOR-FXD 22UF+-10% 35VDC TA         | 56289    | 150D226X9035R2       |
| A31C26                  | 0160-1794      | 5   |                                       | CAPACITOR-FXD 22UF+-10% 35VDC TA         | 56289    | 150D226X9035R2       |
| A31C27                  | 0160-3622      | 2   |                                       | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A31C29                  | 0160-0945      | 8   |                                       | CAPACITOR-FXD 910PF +-5% 100VDC MICA     | 28480    | 0160-0945            |
| A31C30                  | 0160-0300      | 3   | 4                                     | CAPACITOR-FXD 2700PF +-10% 200VDC POLYE  | 28480    | 0160-0300            |
| A31C31                  | 0160-0154      | 5   |                                       | CAPACITOR-FXD 2200PF +-10% 200VDC POLYE  | 28480    | 0160-0154            |
| A31C32                  | 0160-0362      | 7   |                                       | CAPACITOR-FXD 510PF +-5% 300VDC MICA     | 28480    | 0160-0362            |
| A31C33                  | 0160-0299      | 9   | 1                                     | CAPACITOR-FXD 1800PF +-10% 200VDC POLYE  | 28480    | 0160-0299            |
| A31C34                  | 0160-0128      | 3   |                                       | CAPACITOR-FXD 2.2UF +-20% 50VDC CER      | 28480    | 0160-0128            |
| A31C35                  | 0160-0128      | 3   |                                       | CAPACITOR-FXD 2.2UF +-20% 50VDC CER      | 28480    | 0160-0128            |
| A31C36                  | 0160-0945      | 2   |                                       | CAPACITOR-FXD 910PF +-5% 100VDC MICA     | 28480    | 0160-0945            |
| A31C37                  | 0160-0362      | 7   | 1                                     | CAPACITOR-FXD 510PF +-5% 300VDC GL       | 28480    | 0160-0362            |
| A31C38                  | 0160-2257      | 3   |                                       | CAPACITOR-FXD 10PF +-5% 500VDC CER 0+-50 | 28480    | 0160-2257            |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                             | Mfr Code | Mfr Part Number   |
|-----------------------|----------------|-----|-----|-----------------------------------------|----------|-------------------|
| A31CR1                | 0122-0089      | 5   |     | DIODE-VVC 29PF 10X C3/C25=MIN=5 BVR=30V | 04713    | MV109             |
| A31CR2                | 0122-0089      | 5   |     | DIODE-VVC 29PF 10X C3/C25=MIN=5 BVR=30V | 04713    | MV109             |
| A31J1                 | 1250-1512      | 3   |     | CONNECTOR=RF SMB M PC 50-OHM            | 28480    | 1250-1512         |
| A31J2                 | 1250-1512      | 3   |     | CONNECTOR=RF SMB M PC 50-OHM            | 28480    | 1250-1512         |
| A31J3                 | 1250-1512      | 3   |     | CONNECTOR=RF SMB M PC 50-OHM            | 28480    | 1250-1512         |
| A31J4                 | 1250-1512      | 3   |     | CONNECTOR=RF SMB M PC 50-OHM            | 28480    | 1250-1512         |
| A31L1                 | 9100-0539      | 3   |     | COIL-MLD 10UH 5% Q=55 .155DX,375LG-NOM  | 28480    | 9100-0539         |
| A31L2                 | 9100-0539      | 3   |     | COIL-MLD 10UH 5% Q=55 .155DX,375LG-NOM  | 28480    | 9100-0539         |
| A31L3                 | 9140-0257      | 6   | 1   | COIL-VAR 297NH-363NH Q=140 PC-MTG       | 28480    | 9140-0257         |
| A31L6                 | 9100-0539      | 3   |     | COIL-MLD 10UH 5% Q=55 .155DX,375LG-NOM  | 28480    | 9100-0539         |
| A31L7                 | 9100-0539      | 3   |     | COIL-MLD 10UH 5% Q=55 .155DX,375LG-NOM  | 28480    | 9100-0539         |
| A31L8                 | 9100-0539      | 3   |     | COIL-MLD 10UH 5% Q=55 .155DX,375LG-NOM  | 28480    | 9100-0539         |
| A31L9                 | 9100-0539      | 3   |     | COIL-MLD 10UH 5% Q=55 .155DX,375LG-NOM  | 28480    | 9100-0539         |
| A31L10                | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX,5LG-NOM    | 28480    | 9100-0541         |
| A31L11                | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX,5LG-NOM    | 28480    | 9100-0541         |
| A31L12                | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX,5LG-NOM    | 28480    | 9100-0541         |
| A31L13                | 9100-0539      | 3   |     | COIL-MLD 10UH 5% Q=55 .155DX,375LG-NOM  | 28480    | 9100-0539         |
| A31L15                | 9100-1663      | 6   | 1   | COIL-MLD 2.7MH 5% Q=70 .215DX,56LG-NOM  | 28480    | 9100-1663         |
| A31L16                | 9100-1658      | 9   | 1   | COIL-MLD 1.6MH 5% Q=65 .215DX,56LG-NOM  | 28480    | 9100-1658         |
| A31Q1                 | 1854-0351      | 6   |     | TRANSISTOR NPN SI TO-18 PD=360MW        | 28480    | 1854-0351         |
| A31Q2                 | 1854-0296      | 8   |     | TRANSISTOR NPN SI TO-92 PD=310MW        | 28480    | 1854-0296         |
| A31Q3                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ    | 28480    | 1854-0071         |
| A31Q5                 | 1853-0020      | 4   |     | TRANSISTOR PNP SI PD=300MW FT=150MHZ    | 28480    | 1853-0020         |
| A31R1                 | 0683-4315      | 6   | 3   | RESISTOR 430 5% .25W FC TC=-400/+600    | 01121    | CB4315            |
| A31R2                 | 0683-3025      | 3   |     | RESISTOR 3K 5% .25W FC TC=-400/+700     | 01121    | CB3025            |
| A31R3                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | CB4705            |
| A31R4                 | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700     | 01121    | CB2025            |
| A31R5                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R6                 | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700   | 01121    | CB1525            |
| A31R7                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R8                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R9                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R10                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R11                | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700   | 01121    | CB1525            |
| A31R12                | 0683-5625      | 3   |     | RESISTOR 5.6K 5% .25W FC TC=-400/+700   | 01121    | CB5625            |
| A31R13                | 0683-4335      | 0   | 1   | RESISTOR 43K 5% .25W FC TC=-400/+800    | 01121    | CB4335            |
| A31R14                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R15                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R16                | 0698-3447      | 4   | 1   | RESISTOR 422 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-422R-F  |
| A31R17                | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=-400/+800    | 01121    | CB2035            |
| A31R18                | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=-400/+800    | 01121    | CB2035            |
| A31R19                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | CB4705            |
| A31R20                | 0757-0419      | 0   | 2   | RESISTOR 681 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-681R-F  |
| A31R21                | 0698-3162      | 0   | 2   | RESISTOR 46.0K 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-4642R-F |
| A31R22                | 0757-0442      | 9   |     | RESISTOR 10K 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-1002R-F |
| A31R23                | 0698-3160      | 8   | 1   | RESISTOR 31.6K 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-3162R-F |
| A31R24                | 0757-0460      | 1   | 1   | RESISTOR 61.9K 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-6192R-F |
| A31R26                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | CB4705            |
| A31R27                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R28                | 0683-2425      | 5   |     | RESISTOR 2.4K 5% .25W FC TC=-400/+700   | 01121    | CB2425            |
| A31R29                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500    | 01121    | CB1015            |
| A31R30                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | CB4705            |
| A31R31                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600    | 01121    | CB4715            |
| A31R32                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R34                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R35                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R36                | 0683-1825      | 7   |     | RESISTOR 1.8K 5% .25W FC TC=-400/+700   | 01121    | CB1825            |
| A31R37                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R38                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R39                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R40                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R41                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R42                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R43                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600    | 01121    | CB4715            |
| A31R44                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | CB4705            |
| A31R45                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R48                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | CB1025            |
| A31R50                | 0757-0434      | 3   | 1   | RESISTOR 5.11K 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-5111R-F |
| A31R51                | 0757-0449      | 6   |     | RESISTOR 20K 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-2002R-F |
| A31R52                | 0698-3558      | 8   |     | RESISTOR 4.02K 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-4021R-F |
| A31R53                | 0683-4735      | 4   |     | RESISTOR 47K 5% .25W FC TC=-400/+800    | 01121    | CB4735            |
| A31R54                | 0683-7525      | 6   |     | RESISTOR 7.5K 5% .25W FC TC=-400/+700   | 01121    | CB7525            |
| A31R55                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700    | 01121    | CB1035            |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                               | Mfr Code | Mfr Part Number   |
|-----------------------|----------------|-----|-----|-------------------------------------------|----------|-------------------|
| A31R60                | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700     | 01121    | CB2225            |
| A31R61                | 0683-2215      | 5   |     | RESISTOR 22K 5% .25W FC TC=-400/+800      | 01121    | CB2235            |
| A31R62                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800     | 01121    | CB1045            |
| A31R63                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600       | 01121    | CB1025            |
| A31R64                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600       | 01121    | CB1025            |
| A31R65                | 0683-2045      | 5   |     | RESISTOR 200K 5% .25W FC TC=-800/+900     | 01121    | CB2045            |
| A31R66                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600       | 01121    | CB1025            |
| A31R67                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500      | 01121    | CB1015            |
| A31R68                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600       | 01121    | CB1025            |
| A31R70                | 0683-6225      | 1   |     | RESISTOR 6.2K 5% .25W FC TC=-400/+700     | 01121    | CB6225            |
| A31R71                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500      | 01121    | CB1015            |
| A31R72                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500      | 01121    | CB1015            |
| A31R73                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500      | 01121    | CB1015            |
| A31R75                | 0683-3025      | 3   |     | RESISTOR 3K 5% .25W FC TC=-400/+700       | 01121    | CB3025            |
| A31R76                | 0683-3025      | 3   |     | RESISTOR 3K 5% .25W FC TC=-400/+700       | 01121    | CB3025            |
| A31R77                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600       | 01121    | CB1025            |
| A31U1                 | 1820-1225      | 4   | 1   | IC FF ECL D-M/S DUAL                      | 04713    | MC10231P          |
| A31U2                 | 1820-0806      | 5   |     | IC GATE ECL OR-NOR DUAL 4-5-INP           | 04713    | MC10109P          |
| A31U3                 | 1820-1204      | 9   | 2   | IC GATE TTL LS NAND DUAL 4-INP            | 01295    | SN74LS20N         |
| A31U4                 | 1820-0806      | 5   |     | IC GATE ECL OR-NOR DUAL 4-5-INP           | 04713    | MC10109P          |
| A31U5                 | 1820-0806      | 5   |     | IC GATE ECL OR-NOR DUAL 4-5-INP           | 04713    | MC10109P          |
| A31U6                 | 1820-0223      | 0   | 4   | OP AMP GP TO-99                           | 04713    | MLM301AG          |
| A31U7                 | 1820-0817      | 8   |     | IC FF ECL D-M/S DUAL                      | 04713    | MC10131P          |
| A31U8                 | 1820-0817      | 8   |     | IC FF ECL D-M/S DUAL                      | 04713    | MC10131P          |
| A31U9                 | 1820-0817      | 8   |     | IC FF ECL D-M/S DUAL                      | 04713    | MC10131P          |
| A31U10                | 1826-0138      | 8   |     | COMPARATOR GP QUAD 14-DIP-P               | 04713    | MLM339P           |
| A31U11                | 1820-0223      | 0   |     | OP AMP GP TO-99                           | 04713    | MLM301AG          |
|                       |                |     |     | A31 MISCELLANEOUS PARTS                   |          |                   |
|                       | 03585-05231    | 7   | 1   | LID, A31                                  | 28480    | 03585-05231       |
|                       | 0370-2583      | 3   |     | KNOR                                      | 28480    | 0370-2583         |
|                       | 0380-0938      | 9   | 3   | INSULATOR-FLG-BSHG TFE                    | 28480    | 0380-0938         |
|                       | 5001-0173      | 7   |     | PC GROUND CLIP                            | 28480    | 5001-0173         |
|                       | 1251-0600      | 0   |     | CONNECTOR-SGL CNT PIN 1.14-MM-BSC-S2 S0   | 28480    | 1251-0600         |
|                       | 2950-0078      | 9   |     | NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK    | 28480    | 2950-0078         |
|                       | 2190-0124      | 4   |     | WASHER-LK INTL T NO. 10 .195-IN-10        | 28480    | 2190-0124         |
| A32                   | 03585-66532    | 9   | 1   | PC ASSEMBLY, ANALOG                       | 28480    | 03585-66532       |
| A32C1                 | 0160-2204      | 0   |     | CAPACITOR-FXD 100PF +-5% 300VDC MICA      | 28480    | 0160-2204         |
| A32C2                 | 0160-2204      | 0   |     | CAPACITOR-FXD 100PF +-5% 300VDC MICA      | 28480    | 0160-2204         |
| A32C3                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z   |
| A32C4                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z   |
| A32C5                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z   |
| A32C6                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z   |
| A32C7                 | 0160-2257      | 3   |     | CAPACITOR-FXD 10PF +-5% 500VDC CER 0+-60  | 28480    | 0160-2257         |
| A32C8                 | 0160-0503      | 8   |     | CAPACITOR-FXD .22UF +-2% 100VDC POLYCAP   | 28480    | 0160-0503         |
| A32C9                 | 0160-4461      | 8   | 1   | CAPACITOR-FXD 150PF +-2.5% 160VDC POLYCAP | 28480    | 0160-4461         |
| A32C10                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER      | 28480    | 0160-4571         |
| A32C11                | 0140-0204      | 4   |     | CAPACITOR-FXD 47PF +-5% 500VDC MICA       | 72136    | DM15E470J0500V1CR |
| A32C12                | 0160-0196      | 5   | 2   | CAPACITOR-FXD 24PF +-5% 300VDC MICA       | 28480    | 0160-0196         |
| A32C13                | 0160-2204      | 0   |     | CAPACITOR-FXD 100PF +-5% 300VDC MICA      | 28480    | 0160-2204         |
| A32C14                | 0140-0149      | 6   | 1   | CAPACITOR-FXD 470PF +-5% 300VDC MICA      | 72136    | DM15F471J0300V1CR |
| A32C15                | 0150-0029      | 2   |     | CAPACITOR-FXD 1PF +-10% 500VDC TI DIX     | 28480    | 0150-0029         |
| A32C16                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER      | 28480    | 0160-4571         |
| A32C17                | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER      | 28480    | 0160-4571         |
| A32C18                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z   |
| A32C19                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z   |
| A32C20                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z   |
| A32C21                | 0180-1794      | 3   |     | CAPACITOR-FXD 22UF+-10% 35VDC TA          | 56289    | 150D226X9035K2    |
| A32C22                | 0180-1794      | 3   |     | CAPACITOR-FXD 22UF+-10% 35VDC TA          | 56289    | 150D226X9035K2    |
| A32C23                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z   |
| A32C24                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z   |
| A32C25                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z   |
| A32C26                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z   |
| A32C27                | 0180-1794      | 3   |     | CAPACITOR-FXD 22UF+-10% 35VDC TA          | 56289    | 150D226X9035K2    |
| A32C28                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER     | 26654    | 2130Y5V100R104Z   |
| A32C30                | 0180-1794      | 5   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA          | 56289    | 150D156X9020K2    |
| A32C31                | 0180-0196      | 7   | 2   | CAPACITOR-FXD 56UF+-10% 15VDC TA          | 56289    | 150D566X9015K2    |
| A32C32                | 0180-0196      | 7   |     | CAPACITOR-FXD 56UF+-10% 15VDC TA          | 56289    | 150D566X9015K2    |
| A32CR1                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS 00-35        | 28480    | 1901-0040         |
| A32CR2                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS 00-35        | 28480    | 1901-0040         |
| A32CR3                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS 00-35        | 28480    | 1901-0040         |
| A32CR4                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS 00-35        | 28480    | 1901-0040         |
| A32CR5                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS 00-35        | 28480    | 1901-0040         |

See introduction to this section for ordering information.  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                               | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|-------------------------------------------|----------|------------------|
| A32CR6                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35        | 28480    | 1901-0040        |
| A32CR7                | 1901-0535      | 9   |     | DIODE-SCHOTTKY                            | 28480    | 1901-0535        |
| A32CR8                | 1901-0535      | 9   |     | DIODE-SCHOTTKY                            | 28480    | 1901-0535        |
| A32CR9                | 1901-0535      | 9   |     | DIODE-SCHOTTKY                            | 28480    | 1901-0535        |
| A32CR10               | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35        | 28480    | 1901-0040        |
| A32CR11               | 1901-0535      | 9   |     | DIODE-SCHOTTKY                            | 28480    | 1901-0535        |
| A32CR12               | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35        | 28480    | 1901-0040        |
| A32CR13               | 1902-3054      | 5   |     | DIODE-ZNR 3.65V 5% DO-7 PD=.4W TCR=-.055% | 28480    | 1902-3054        |
| A32CR14               | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35        | 28480    | 1901-0040        |
| A32CR15               | 1902-0777      | 3   |     | DIODE-ZNR 1N425 6.2V 5% DO-7 PD=.4W       | 04713    | 1N425            |
| A32CR16               | 1902-0049      | 2   | 11  | DIODE-ZNR 6.19V 5% DO-7 PD=.4W TCR+.022%  | 28480    | 1902-0049        |
| A32J1                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM              | 28480    | 1250-1512        |
| A32J2                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM              | 28480    | 1250-1512        |
| A32J3                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM              | 28480    | 1250-1512        |
| A32L1                 | 9100-3560      | 6   |     | COIL-MLD 5.6UH 5% Q=45 .155DX,375LG-NOM   | 28480    | 9100-3560        |
| A32L2                 | 9100-3560      | 6   |     | COIL-MLD 5.6UH 5% Q=45 .155DX,375LG-NOM   | 28480    | 9100-3560        |
| A32L3                 | 9100-3560      | 6   |     | COIL-MLD 5.6UH 5% Q=45 .155DX,375LG-NOM   | 28480    | 9100-3560        |
| A32Q1                 | 1853-0089      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917           |
| A32Q2                 | 1853-0089      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917           |
| A32Q3                 | 1853-0089      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917           |
| A32Q4                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ      | 04713    | 2N3904           |
| A32Q5                 | 1853-0089      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917           |
| A32Q6                 | 1855-0081      | 1   |     | TRANSISTOR J-FET N-CHAN D-MODE SI         | 01295    | 2N5245           |
| A32Q7                 | 1855-0081      | 1   |     | TRANSISTOR J-FET N-CHAN D-MODE SI         | 01295    | 2N5245           |
| A32Q8                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ      | 04713    | 2N3904           |
| A32Q9                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ      | 04713    | 2N3904           |
| A32Q11                | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ      | 04713    | 2N3904           |
| A32Q12                | 1853-0089      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917           |
| A32Q13                | 1853-0089      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917           |
| A32Q14                | 1854-0345      | 8   |     | TRANSISTOR NPN 2N5179 SI TO=72 PD=200MW   | 04713    | 2N5179           |
| A32Q15                | 1853-0089      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917           |
| A32Q16                | 1855-0082      | 2   | 1   | TRANSISTOR J-FET P-CHAN D-MODE SI         | 28480    | 1855-0082        |
| A32Q17                | 1853-0089      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917           |
| A32Q18                | 1854-0404      | 0   |     | TRANSISTOR NPN SI TO=18 PD=360MW          | 28480    | 1854-0404        |
| A32Q19                | 1854-0404      | 0   |     | TRANSISTOR NPN SI TO=18 PD=360MW          | 28480    | 1854-0404        |
| A32Q21                | 1855-0308      | 5   |     | TRANSISTOR J-FET DUAL N-CHAN D-MODE SI    | 28480    | 1855-0308        |
| A32Q22                | 1854-0296      | 8   |     | TRANSISTOR NPN SI TO=92 PD=310MW          | 28480    | 1854-0296        |
| A32Q23                | 1854-0296      | 8   |     | TRANSISTOR NPN SI TO=92 PD=310MW          | 28480    | 1854-0296        |
| A32Q24                | 1853-0089      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917           |
| A32Q25                | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ      | 04713    | 2N3904           |
| A32Q26                | 1853-0089      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917           |
| A32Q27                | 1854-0351      | 6   |     | TRANSISTOR NPN SI TO=18 PD=360MW          | 28480    | 1854-0351        |
| A32Q28                | 1854-0351      | 6   |     | TRANSISTOR NPN SI TO=18 PD=360MW          | 28480    | 1854-0351        |
| A32Q29                | 1853-0089      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917           |
| A32Q31                | 1854-0351      | 6   |     | TRANSISTOR NPN SI TO=18 PD=360MW          | 28480    | 1854-0351        |
| A32Q32                | 1855-0081      | 1   |     | TRANSISTOR J-FET N-CHAN D-MODE SI         | 01295    | 2N5245           |
| A32Q33                | 1854-0351      | 6   |     | TRANSISTOR NPN SI TO=18 PD=360MW          | 28480    | 1854-0351        |
| A32Q34                | 1855-0081      | 1   |     | TRANSISTOR J-FET N-CHAN D-MODE SI         | 01295    | 2N5245           |
| A32Q35                | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ      | 04713    | 2N3904           |
| A32Q36                | 1854-0351      | 6   |     | TRANSISTOR NPN SI TO=18 PD=360MW          | 28480    | 1854-0351        |
| A32Q37                | 1854-0351      | 6   |     | TRANSISTOR NPN SI TO=18 PD=360MW          | 28480    | 1854-0351        |
| A32Q38                | 1853-0089      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917           |
| A32Q39                | 1853-0089      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917           |
| A32R1                 | 0683-5605      | 9   | 1   | RESISTOR 56 5% .25W FC TCR=400/+500       | 01121    | C85605           |
| A32R3                 | 0757-0421      | 9   | 5   | RESISTOR 825 1% .125W F TCR=0/+100        | 24546    | C4-1/8-T0-825R-F |
| A32R4                 | 0757-0426      | 4   | 2   | RESISTOR 1.3K 1% .125W F TCR=0/+100       | 24546    | C4-1/8-T0-1301-F |
| A32R5                 | 0757-0421      | 4   |     | RESISTOR 825 1% .125W F TCR=0/+100        | 24546    | C4-1/8-T0-825R-F |
| A32R6                 | 0698-4425      | 0   |     | RESISTOR 1.54K 1% .125W F TCR=0/+100      | 24546    | C4-1/8-T0-1541-F |
| A32R7                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TCR=400/+500       | 01121    | C84705           |
| A32R8                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TCR=400/+500       | 01121    | C84705           |
| A32P9                 | 0683-3025      | 3   |     | RESISTOR 3K 5% .25W FC TCR=400/+700       | 01121    | C83025           |
| A32R11                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TCR=400/+600      | 01121    | C84715           |
| A32R12                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TCR=400/+600      | 01121    | C84715           |
| A32R13                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TCR=400/+500       | 01121    | C84705           |
| A32R14                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TCR=400/+500       | 01121    | C84705           |
| A32R15                | 0757-0421      | 4   |     | RESISTOR 825 1% .125W F TCR=0/+100        | 24546    | C4-1/8-T0-825R-F |
| A32R16                | 0757-0407      | 6   |     | RESISTOR 200 1% .125W F TCR=0/+100        | 24546    | C4-1/8-T0-201-F  |
| A32R17                | 0683-5125      | 8   |     | RESISTOR 5.1K 5% .25W FC TCR=400/+700     | 01121    | C85125           |
| A32R18                | 0683-2005      | 7   | 2   | RESISTOR 20 5% .25W FC TCR=400/+500       | 01121    | C82005           |
| A32R19                | 0683-1825      | 7   |     | RESISTOR 1.8K 5% .25W FC TCR=400/+700     | 01121    | C81825           |
| A32R20                | 0683-2025      | 7   |     | RESISTOR 2K 5% .25W FC TCR=400/+700       | 01121    | C82025           |
| A32R22                | 0683-1825      | 1   |     | RESISTOR 1.8K 5% .25W FC TCR=400/+700     | 01121    | C81825           |
| A32R23                | 0683-3025      | 3   |     | RESISTOR 3K 5% .25W FC TCR=400/+700       | 01121    | C83025           |

See introduction to this section for ordering information  
 \*Indicates factory selected value



Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                             | Mfr Code | Mfr Part Number     |
|-----------------------|----------------|-----|-----|-----------------------------------------|----------|---------------------|
| A32R24                | 0757-0428      | 1   | 3   | RESISTOR 1.62K 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-1621-F    |
| A32R25                | 0757-0444      | 1   |     | RESISTOR 12.1K 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-1212-F    |
| A32R26                | 0757-0434      | 9   |     | RESISTOR 3.65K 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-3651-F    |
| A32R27                | 0683-5125      | 8   |     | RESISTOR 5.1K 5% .25W FC TC=-400/+700   | 01121    | C85125              |
| A32R28                | 0683-5125      | 8   |     | RESISTOR 5.1K 5% .25W FC TC=-400/+700   | 01121    | C85125              |
| A32R29                | 0698-3259      | 6   | 1   | RESISTOR 7.87K 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-7871-F    |
| A32R31                | 0757-0161      | 9   |     | RESISTOR 604 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-604R-F    |
| A32R32                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700     | 01121    | C82025              |
| A32R33                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700     | 01121    | C82025              |
| A32R34                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700     | 01121    | C82025              |
| A32R35                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | C81025              |
| A32R36                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | C81025              |
| A32R37                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | C81025              |
| A32R38                | 0683-3925      | 2   |     | RESISTOR 3.9K 5% .25W FC TC=-400/+700   | 01121    | C83925              |
| A32R39                | 0683-3925      | 2   |     | RESISTOR 3.9K 5% .25W FC TC=-400/+700   | 01121    | C83925              |
| A32R41                | 0683-3925      | 2   |     | RESISTOR 3.9K 5% .25W FC TC=-400/+700   | 01121    | C83925              |
| A32R42                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | C84705              |
| A32R43                | 0757-0435      | 0   | 1   | RESISTOR 3.92K 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-3921-F    |
| A32R44                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | C84705              |
| A32R45                | 0757-0439      | 4   | 2   | RESISTOR 6.81K 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-6811-F    |
| A32R46                | 0757-0442      | 9   |     | RESISTOR 10K 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-1002-F    |
| A32R48                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | C84705              |
| A32R49                | 2100-3054      | 6   |     | RESISTOR-TRMR 50K 10% C SIDE=ADJ 17-TRN | 02111    | 43P503              |
| A32R50                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | C81025              |
| A32R51                | 0757-0442      | 9   |     | RESISTOR 10K 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-1002-F    |
| A32R52                | 0683-5625      | 3   |     | RESISTOR 5.6K 5% .25W FC TC=-400/+700   | 01121    | C85625              |
| A32R53                | 0757-0442      | 9   |     | RESISTOR 10K 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-1002-F    |
| A32R54                | 0757-0283      | 6   |     | RESISTOR 2K 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-2001-F    |
| A32R55                | 0757-0401      | 0   |     | RESISTOR 100 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-101-F     |
| A32R56                | 2100-3154      | 7   |     | RESISTOR-TRMR 1K 10% C SIDE=ADJ 17-TRN  | 02111    | 43P102              |
| A32R57                | 0698-4374      | 8   | 1   | RESISTOR 29.4 1% .125W F TC=0+-100      | 03688    | PME55-1/8-T0-2994-F |
| A32R58                | 0683-7332      | 4   | 1   | RESISTOR 1M 1% .125W F TC=0+-100        | 28480    | 0698-7332           |
| A32R59                | 0683-1065      | 7   | 1   | RESISTOR 10M 5% .25W FC TC=-900/+1100   | 01121    | C81065              |
| A32R61                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | C84705              |
| A32R62                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700     | 01121    | C82025              |
| A32R63                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700     | 01121    | C82025              |
| A32R64                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700     | 01121    | C82025              |
| A32R65                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | C84705              |
| A32R66                | 0683-1535      | 0   |     | RESISTOR 15K 5% .25W FC TC=-400/+800    | 01121    | C81535              |
| A32R67                | 0698-3162      | 0   |     | RESISTOR 46.4K 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-4642-F    |
| A32R68                | 0757-0439      | 4   |     | RESISTOR 6.81K 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-6811-F    |
| A32R69                | 0683-1535      | 6   |     | RESISTOR 15K 5% .25W FC TC=-400/+800    | 01121    | C81535              |
| A32R71                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | C84705              |
| A32R72                | 0757-0416      | 7   | 4   | RESISTOR 511 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-511R-F    |
| A32R73                | 0757-0440      | 7   |     | RESISTOR 7.5K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-7501-F    |
| A32R74                | 0757-0416      | 7   |     | RESISTOR 511 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-511R-F    |
| A32R75                | 0757-0416      | 7   |     | RESISTOR 511 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-511R-F    |
| A32R76                | 0757-0416      | 7   |     | RESISTOR 511 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-511R-F    |
| A32R77                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | C84705              |
| A32R78                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | C84705              |
| A32R79                | 0683-3025      | 3   |     | RESISTOR 3K 5% .25W FC TC=-400/+700     | 01121    | C83025              |
| A32R81                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | C84705              |
| A32R82                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | C84705              |
| A32R83                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700    | 01121    | C81035              |
| A32R84                | 0683-1015      | 7   |     | RESISTOR 10K 5% .25W FC TC=-400/+500    | 01121    | C81015              |
| A32R85                | 0683-2005      | 7   |     | RESISTOR 20 5% .25W FC TC=-400/+500     | 01121    | C82005              |
| A32R86                | 0683-1015      | 7   |     | RESISTOR 10K 5% .25W FC TC=-400/+500    | 01121    | C81015              |
| A32R87                | 0683-5115      | 6   |     | RESISTOR 510 5% .25W FC TC=-400/+600    | 01121    | C85115              |
| A32R88                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | C81025              |
| A32R89                | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500     | 01121    | C85105              |
| A32R91                | 0757-0421      | 4   |     | RESISTOR 825 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-825R-F    |
| A32R92                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700     | 01121    | C82025              |
| A32R93                | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500     | 01121    | C85105              |
| A32R94                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | C81025              |
| A32R95                | 0683-1835      | 9   |     | RESISTOR 18K 5% .25W FC TC=-400/+800    | 01121    | C81835              |
| A32R96                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | C81025              |
| A32R97                | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500     | 01121    | C85105              |
| A32R98                | 0757-0283      | 6   |     | RESISTOR 2K 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-2001-F    |
| A32R99                | 0683-5115      | 6   |     | RESISTOR 510 5% .25W FC TC=-400/+600    | 01121    | C85115              |
| A32R101               | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500     | 01121    | C85105              |
| A32R102               | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-1001-F    |
| A32R103               | 0757-0421      | 4   |     | RESISTOR 825 1% .125W F TC=0+-100       | 24546    | C4-1/8-T0-825R-F    |
| A32R104               | 0683-5115      | 6   |     | RESISTOR 510 5% .25W FC TC=-400/+600    | 01121    | C85115              |
| A32R105               | 0683-8825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700   | 01121    | C86825              |
| A32R106               | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | C81025              |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                               | Mfr Code | Mfr Part Number      |
|-------------------------|----------------|-----|-----|-------------------------------------------|----------|----------------------|
| A32R107                 | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500       | 01121    | CB5105               |
| A32R108                 | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500       | 01121    | CB5105               |
| A32R109                 | 0757-0419      | 0   |     | RESISTOR 681 1% .125W F TC=0/+100         | 24546    | C4-1/8-T0-681R-F     |
| A32R111                 | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500      | 01121    | CB1015               |
| A32R112                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600       | 01121    | CB1025               |
| A32U1                   | 1A20-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM     | 01295    | SN74LS174N           |
| A32U2                   | 1A21-0001      | 4   | 1   | TRANSISTOR ARRAY                          | 01928    | CA3046               |
| A32U3                   | 1A10-0294      | 4   | 1   | 5330A F.L. PACKAGE                        | 28480    | 1810-0294            |
| A32U4                   | 1A20-0817      | 8   |     | IC FF ECL D-M/S DUAL                      | 04713    | MC10131P             |
| A32U5                   | 1A26-0021      | 8   | 1   | OP AMP GP T0-99                           | 27014    | LM310H               |
| A32 MISCELLANEOUS PARTS |                |     |     |                                           |          |                      |
|                         | 03585-05232    | 8   | 1   | LID, A32                                  | 28480    | 03585-05232          |
|                         | 0370-2583      | 3   |     | KNOB                                      | 28480    | 0370-2583            |
|                         | 1400-0971      | 5   |     | L-BRACKET                                 | 28480    | 1400-0971            |
|                         | 1251-0600      | 0   |     | CONNECTOR-SGL CONT PIN 1,14-MM-BSC-SZ 50  | 28480    | 1251-0600            |
|                         | 2950-0078      | 9   |     | NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK    | 28480    | 2950-0078            |
|                         | 2190-0124      | 4   |     | WASHER-LK INTL T NO. 10 .195-IN-ID        | 28480    | 2190-0124            |
|                         | 2200-0101      | 0   |     | SCREW-MACH 4-40 .188-IN-LG PAN-RO-POZI    | 00000    | ORDER BY DESCRIPTION |
| A33                     | 03585-66533    | 0   | 1   | PC ASSEMBLY, FFS ACC                      | 28480    | 03585-66533          |
| A33C1                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER     | 28480    | 0160-3847            |
| A33C2                   | 0160-3874      | 2   |     | CAPACITOR-FXD .10PF +-5PF 200VDC CER      | 28480    | 0160-3874            |
| A33C3                   | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER      | 28480    | 0160-4571            |
| A33C4                   | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER      | 28480    | 0160-4571            |
| A33C6                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER     | 28480    | 0160-3847            |
| A33C7                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER     | 28480    | 0160-3847            |
| A33C8                   | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER      | 28480    | 0160-4571            |
| A33C9                   | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER      | 28480    | 0160-4571            |
| A33C10                  | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER      | 28480    | 0160-4571            |
| A33C11                  | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER      | 28480    | 0160-4571            |
| A33C12                  | 0140-0210      | 2   |     | CAPACITOR-FXD 270PF +-5% 300VDC MICA      | 72136    | DM15F271J0300AV1CH   |
| A33C13                  | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER      | 28480    | 0160-4571            |
| A33C14                  | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER      | 28480    | 0160-4571            |
| A33C15                  | 0140-0194      | 5   | 1   | CAPACITOR-FXD 150UF+-10% 15VDC TA         | 56289    | 150D157X9015S2       |
| A33C16                  | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER      | 28480    | 0160-4571            |
| A33C21                  | 0160-4350      | 1   | 1   | CAPACITOR-FXD 68PF +-5% 200VDC CER 0+-30  | 28480    | 0160-4350            |
| A33C22                  | 0160-4571      | 8   |     | CAPACITOR-FXD .1UF +80-20% 50VDC CER      | 28480    | 0160-4571            |
| A33CR1                  | 1902-3030      | 7   | 1   | DIODE-ZNR 3.01V 5% 00-7 PD=.4W TC=-.067%  | 28480    | 1902-3030            |
| A33CR2                  | 1902-0800      | 3   | 1   | DIODE-ZNR 8.25V 5% 00-15 PD=.1W TC=-.053% | 28480    | 1902-0800            |
| A33CR3                  | 1902-3105      | 7   | 1   | DIODE-ZNR 5.62V 2% 00-7 PD=.4W TC=-.016%  | 28480    | 1902-3105            |
| A33J2                   | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM              | 28480    | 1250-1512            |
| A33J3                   | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM              | 28480    | 1250-1512            |
| A33L3                   | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.5LG-NOM      | 28480    | 9100-0541            |
| A33L4                   | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q=3 .25DX.5LG-NOM      | 28480    | 9100-0541            |
| A33G1                   | 1A53-00A9      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917               |
| A33G2                   | 1A53-00A9      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917               |
| A33G3                   | 1A53-00A9      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917               |
| A33G4                   | 1A53-00A9      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW         | 07263    | 2N4917               |
| A33G5                   | 1A54-0351      | 6   |     | TRANSISTOR NPN SJ T0-18 PD=360MA          | 28480    | 1A54-0351            |
| A33G6                   | 1A53-0012      | 4   |     | TRANSISTOR PNP 2N2904A SI T0-39 PD=600MA  | 01295    | 2N2904A              |
| A33G7                   | 1A54-0039      | 7   |     | TRANSISTOR NPN 2N3053S SI T0-39 PD=1W     | 01928    | 2N3053S              |
| A33R1                   | 0683-5125      | 8   |     | RESISTOR 5.1K 5% .25W FC TC=-400/+700     | 01121    | CB5125               |
| A33R2                   | 0683-2715      | 6   |     | RESISTOR 270 5% .25W FC TC=-400/+600      | 01121    | CB2715               |
| A33R3                   | 0683-4315      | 6   |     | RESISTOR 430 5% .25W FC TC=-400/+600      | 01121    | CB4315               |
| A33R4                   | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600       | 01121    | CB1025               |
| A33R5                   | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600       | 01121    | CB1025               |
| A33R6                   | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600       | 01121    | CB1025               |
| A33R7                   | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600       | 01121    | CB1025               |
| A33R8                   | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500       | 01121    | CB4705               |
| A33R9                   | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500       | 01121    | CB5105               |
| A33R10                  | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500       | 01121    | CB4705               |
| A33R11                  | 0683-1515      | 2   |     | RESISTOR 150 5% .25W FC TC=-400/+600      | 01121    | CB1515               |
| A33R12                  | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700       | 01121    | CB2025               |
| A33R13                  | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700       | 01121    | CB2025               |
| A33R14                  | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700       | 01121    | CB2025               |
| A33R15                  | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700       | 01121    | CB2025               |
| A33R20                  | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700      | 01121    | CB1035               |
| A33R21                  | 0698-4436      | 3   | 1   | RESISTOR 2.8K 1% .125W F TC=0/+100        | 24546    | L4-1/8-T0-2801-F     |
| A33R22                  | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700       | 01121    | CB2025               |
| A33R23                  | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700       | 01121    | CB2025               |
| A33R24                  | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700       | 01121    | CB2025               |

See introduction to this section for ordering information  
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Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
| A33R25                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | CB2025               |
| A33R26                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | CB2025               |
| A33R27                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | CB2025               |
| A33R30                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | CB2025               |
| A33R31                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | CB2025               |
| A33R32                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | CB2025               |
| A33R33                | 0683-2015      | 9   |     | RESISTOR 200 5% .25W FC TC=-400/+600     | 01121    | CB2015               |
| A33R34                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A33R36                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A33R37                | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | CB1525               |
| A33R38                | 0683-3615      | 7   | 5   | RESISTOR 360 5% .25W FC TC=-400/+600     | 01121    | CB3615               |
| A33R39                | 0683-3615      | 7   |     | RESISTOR 360 5% .25W FC TC=-400/+600     | 01121    | CB3615               |
| A33R40                | 0683-5625      | 3   |     | RESISTOR 5.6K 5% .25W FC TC=-400/+700    | 01121    | CB5625               |
| A33R41                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A33R42                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A33R45                | 0683-4315      | 6   |     | RESISTOR 430 5% .25W FC TC=-400/+600     | 01121    | CB4315               |
| A33R46                | 0683-2715      | 6   |     | RESISTOR 270 5% .25W FC TC=-400/+600     | 01121    | CB2715               |
| A33R47                | 0683-5115      | 6   |     | RESISTOR 510 5% .25W FC TC=-400/+600     | 01121    | CB5115               |
| A33R48                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705               |
| A33R50                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A33R51                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A33R52                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A33R53                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705               |
| A33R54                | 0683-4705      | 6   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705               |
| A33R55                | 0683-5115      | 6   |     | RESISTOR 510 5% .25W FC TC=-400/+600     | 01121    | CB5115               |
| A33R56                | 0683-5115      | 6   |     | RESISTOR 510 5% .25W FC TC=-400/+600     | 01121    | CB5115               |
| A33R57                | 0683-2415      | 3   | 5   | RESISTOR 240 5% .25W FC TC=-400/+600     | 01121    | CB2415               |
| A33R58                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | CB1015               |
| A33R59                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705               |
| A33R65                | 0683-6815      | 5   |     | RESISTOR 680 5% .25W FC TC=-400/+600     | 01121    | CB6815               |
| A33R67                | 0698-3696      | 5   | 1   | RESISTOR 39 5% 1% MO TC=0/+200           | 27167    | FP32=1-T00-39R0-J    |
| A33R68                | 0683-1125      | 0   | 2   | RESISTOR 1.1K 5% .25W FC TC=-400/+700    | 01121    | CB1125               |
| A33R69                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | CB2025               |
| A33U1                 | 1R20-0810      | 1   |     | IC RCVR ECL LINE RCVR TPL 2=INP          | 04713    | MC10116P             |
| A33U2                 | 1R20-0693      | 8   |     | IC FF TTL S D-TYPE POS-EDGE-TRIG         | 01295    | SN74S74N             |
| A33U3                 | 1R20-0817      | 8   |     | IC FF ECL D-M/S DUAL                     | 04713    | MC10131P             |
| A33U4                 | 1R20-0817      | 8   |     | IC FF ECL D-M/S DUAL                     | 04713    | MC10131P             |
| A33U5                 | 1R20-0820      | 3   | 1   | IC FF ECL J-BAR K-BAR COM CLOCK DUAL     | 04713    | MC10135L             |
| A33U6                 | 1R20-0629      | 0   | 4   | IC FF TTL S J-K NEG-EDGE-TRIG            | 01295    | SN74S112N            |
| A33U7                 | 1R20-0629      | 0   |     | IC FF TTL S J-K NEG-EDGE-TRIG            | 01295    | SN74S112N            |
| A33U8                 | 1R20-1322      | 2   | 3   | IC GATE TTL S NOR QUAD 2=INP             | 01295    | SN74S02N             |
| A33U9                 | 1R20-0681      | 4   | 5   | IC GATE TTL S NAND QUAD 2=INP            | 01295    | SN74S00N             |
| A33U10                | 1R20-0681      | 4   |     | IC GATE TTL S NAND QUAD 2=INP            | 01295    | SN74S00N             |
| A33U11                | 1R20-0681      | 4   |     | IC GATE TTL S NAND QUAD 2=INP            | 01295    | SN74S00N             |
| A33U12                | 1R20-0629      | 0   |     | IC FF TTL S J-K NEG-EDGE-TRIG            | 01295    | SN74S112N            |
| A33U13                | 1R20-0629      | 0   |     | IC FF TTL S J-K NEG-EDGE-TRIG            | 01295    | SN74S112N            |
| A33U14                | 1R20-1279      | 0   | 2   | IC CNTR TTL LS DECD UP/DOWN SYNCHRO      | 01295    | SN74LS190N           |
| A33U15                | 1R20-1279      | 8   |     | IC CNTR TTL LS DECD UP/DOWN SYNCHRO      | 01295    | SN74LS190N           |
| A33U16                | 1R20-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N           |
| A33U17                | 1R20-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N           |
| A33U18                | 1R20-1144      | 6   | 12  | IC GATE TTL LS NOR QUAD 2=INP            | 01295    | SN74LS02N            |
| A33U19                | 1R20-2004      | 9   | 1   | IC INV TTL S HEX 1=INP                   | 28480    | 1R20-2004            |
| A33U20                | 1R20-0683      | 6   | 3   | IC INV TTL S HEX 1=INP                   | 01295    | SN74S04N             |
| A33U21                | 1R20-0810      | 1   |     | IC RCVR ECL LINE RCVR TPL 2=INP          | 04713    | MC10116P             |
| A33U22                | 1R20-0681      | 4   |     | IC GATE TTL S NAND QUAD 2=INP            | 01295    | SN74S00N             |
|                       |                |     |     | A33 MISCELLANEOUS PARTS                  |          |                      |
|                       | 03585-05233    | 9   | 1   | LID, A33                                 | 28480    | 03585-05233          |
|                       | 0370-2583      | 3   |     | KNOB                                     | 28480    | 0370-2583            |
|                       | 1400-0971      | 5   |     | L-BRACKET                                | 28480    | 1400-0971            |
|                       | 2200-0101      | 0   |     | SCREW-MACH 4-40 .188-IN-LG PAN-HD-POZI   | 00000    | ORDER BY DESCRIPTION |
|                       | 2950-0078      | 9   |     | NUT-HEX-DBL-CHAM 10-32-THU .067-IN-THK   | 28480    | 2950-0078            |
|                       | 2190-0124      | 4   |     | WASHER-LK INTL T NU. 10 .195-IN-ID       | 28480    | 2190-0124            |
| A34                   | 03585-66534    | 1   | 1   | INTERFACE, REGULATOR                     | 28480    | 03585-66534          |
| A34C1                 | 0160-3847      | 9   |     | CAPACITOR-FXD .010F +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A34C2                 | 0160-3847      | 9   |     | CAPACITOR-FXD .010F +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A34C3                 | 0160-3847      | 9   |     | CAPACITOR-FXD .010F +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A34C5                 | 0160-0291      | 3   |     | CAPACITOR-FXD 10UF+10% 35VDC TA          | 56289    | 150D105X903542       |
| A34C6                 | 0160-1794      | 3   |     | CAPACITOR-FXD 22UF+10% 35VDC TA          | 56289    | 150D226X903542       |
| A34C7                 | 0160-3847      | 9   |     | CAPACITOR-FXD .010F +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A34C8                 | 0160-0199      | 6   |     | CAPACITOR-FXD 240PF +-5% 300VDC MICA     | 72136    | DM15F241J0300AV1CR   |
| A34C9                 | 0160-2257      | 3   |     | CAPACITOR-FXD 10PF +-5% 500VDC CER 0+-60 | 28480    | 0160-2257            |
| A34C10                | 0160-1746      | 5   |     | CAPACITOR-FXD 15UF+10% 20VDC TA          | 56289    | 150D156X902042       |
| A34C11                | 0160-0291      | 3   |     | CAPACITOR-FXD 10UF+10% 35VDC TA          | 56289    | 150D105X903542       |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                             | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|-----------------------------------------|----------|------------------|
| A34C12                | 0180-1794      | 3   |     | CAPACITOR-FXD 22UF+-10% 35VDC TA        | 56289    | 150D226X9035R2   |
| A34C13                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER   | 28480    | 0160-3847        |
| A34C14                | 0180-1746      | 5   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA        | 56289    | 150D156X9020R2   |
| A34C15                | 0160-2199      | 2   |     | CAPACITOR-FXD 30PF +-5% 300VDC MICA     | 28480    | 0160-2199        |
| A34C16                | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA       | 56289    | 150D225X9020A2   |
| A34C17                | 0180-0228      | 6   |     | CAPACITOR-FXD 22UF+-10% 15VDC TA        | 56289    | 150D226X9015B2   |
| A34C18                | 0160-0298      | 8   | 1   | CAPACITOR-FXD 1500PF +-10% 200VDC POLYE | 28480    | 0160-0298        |
| A34C20                | 0180-1746      | 5   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA        | 56289    | 150D156X9020R2   |
| A34C30                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z  |
| A34C31                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z  |
| A34C32                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z  |
| A34C33                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z  |
| A34C34                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z  |
| A34C35                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z  |
| A34C36                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z  |
| A34C37                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z  |
| A34C38                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z  |
| A34CR1                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS 00-35      | 28480    | 1901-0040        |
| A34CR2                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS 00-35      | 28480    | 1901-0040        |
| A34CR3                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS 00-35      | 28480    | 1901-0040        |
| A34CR4                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS 00-35      | 28480    | 1901-0040        |
| A34CR7                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS 00-35      | 28480    | 1901-0040        |
| A34CR8                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS 00-35      | 28480    | 1901-0040        |
| A34CR9                | 1902-0064      | 1   |     | DIODE-ZNR 7.5V 5% DO-7 PD=.4W TC=+.05%  | 28480    | 1902-0064        |
| A34CR10               | 1902-0777      | 3   |     | DIODE-ZNR 1N825 6.2V 5% DO-7 PD=.4W     | 04713    | 1N825            |
| A34CR11               | 1902-0777      | 3   |     | DIODE-ZNR 1N825 6.2V 5% DO-7 PD=.4W     | 04713    | 1N825            |
| A34DS1                | 1990-0486      | 6   |     | LED-VISIBLE LUM-INT=1MCD IF=20MA-MAX    | 28480    | 5082-4684        |
| A34DS2                | 1990-0486      | 6   |     | LED-VISIBLE LUM-INT=1MCD IF=20MA-MAX    | 28480    | 5082-4684        |
| A34DS3                | 1990-0486      | 6   |     | LED-VISIBLE LUM-INT=1MCD IF=20MA-MAX    | 28480    | 5082-4684        |
| A34DS4                | 1990-0486      | 6   |     | LED-VISIBLE LUM-INT=1MCD IF=20MA-MAX    | 28480    | 5082-4684        |
| A34J2                 | 1250-1368      | 7   |     | CONNECTOR-RF SMB M PC 50-OHM            | 28480    | 1250-1368        |
| A34J3                 | 1250-1368      | 7   |     | CONNECTOR-RF SMB M PC 50-OHM            | 28480    | 1250-1368        |
| A34L1                 | 9100-0541      | 7   |     | COIL-MLO 250UM 10% N=3 .25OX,5LG-NOM    | 28480    | 9100-0541        |
| A34Q1                 | 1854-0351      | 6   |     | TRANSISTOR NPN SI T0-18 PD=360MW        | 28480    | 1854-0351        |
| A34Q2                 | 1854-0063      | 7   | 2   | TRANSISTOR NPN 2N3055 SI T0-3 PD=115W   | 28480    | 1854-0063        |
| A34Q3                 | 1853-0010      | 2   |     | TRANSISTOR PNP SI T0-18 PD=360MW        | 28480    | 1853-0010        |
| A34Q4                 | 1854-0053      | 5   | 1   | TRANSISTOR NPN 2N2218 SI T0-5 PD=800MA  | 04713    | 2N2218           |
| A34Q5                 | 1854-0063      | 7   |     | TRANSISTOR NPN 2N3055 SI T0-3 PD=115W   | 28480    | 1854-0063        |
| A34R5                 | 0760-0009      | 1   | 3   | RESISTOR 100K 2% 1W MO TC=0+-200        | 28480    | 0760-0009        |
| A34R6                 | 0760-0009      | 1   |     | RESISTOR 100K 2% 1W MO TC=0+-200        | 28480    | 0760-0009        |
| A34R7                 | 0683-1815      | 5   | 4   | RESISTOR 180 5% .25W FC TC=-400/+600    | 01121    | C81815           |
| A34R8                 | 0683-1815      | 5   |     | RESISTOR 180 5% .25W FC TC=-400/+600    | 01121    | C81815           |
| A34R9                 | 0683-1815      | 5   |     | RESISTOR 180 5% .25W FC TC=-400/+600    | 01121    | C81815           |
| A34R10                | 0683-1815      | 5   |     | RESISTOR 180 5% .25W FC TC=-400/+600    | 01121    | C81815           |
| A34R15                | 0683-1835      | 4   |     | RESISTOR 18K 5% .25W FC TC=-400/+800    | 01121    | C81835           |
| A34R16                | 0683-3315      | 4   |     | RESISTOR 330 5% .25W FC TC=-400/+600    | 01121    | C83315           |
| A34R17                | 0683-1515      | 2   |     | RESISTOR 150 5% .25W FC TC=-400/+600    | 01121    | C81515           |
| A34R18                | 0683-0275      | 9   |     | RESISTOR 2.7 5% .25W FC TC=-400/+500    | 01121    | C82705           |
| A34R19                | 0813-0029      | 8   | 1   | RESISTOR 1 3% 3W PN TC=0+-50            | 28480    | 0813-0029        |
| A34R20                | 0683-3635      | 1   |     | RESISTOR 36K 5% .25W FC TC=-400/+800    | 01121    | C83635           |
| A34R21                | 0698-3498      | 5   | 1   | RESISTOR 4.66K 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-866R-F |
| A34R22                | 0698-3512      | 4   | 1   | RESISTOR 1.18K 1% .125W F TC=0+-100     | 24546    | C4-1/8-T0-1181-F |
| A34R23                | 0683-3625      | 9   |     | RESISTOR 3.6K 5% .25W FC TC=-400/+700   | 01121    | C83625           |
| A34R24                | 0757-0290      | 5   | 1   | RESISTOR 6.19K 1% .125W F TC=0+-100     | 19701    | MFC1/8-T0-6191-F |
| A34R25                | 0757-0426      | 9   |     | RESISTOR 1.3K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-1301-F |
| A34R26                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | C81025           |
| A34R27                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | C81025           |
| A34R28                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500    | 01121    | C81015           |
| A34R29                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | C81025           |
| A34R32                | 2100-3273      | 1   | 6   | RESISTOR-TMR 2K 10% C S10L-ADJ 1-TRN    | 28480    | 2100-3273        |
| A34R33                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700    | 01121    | C81035           |
| A34R50                | 0683-2015      | 9   |     | RESISTOR 200 5% .25W FC TC=-400/+600    | 01121    | C82015           |
| A34R51                | 0683-2015      | 9   |     | RESISTOR 200 5% .25W FC TC=-400/+600    | 01121    | C82015           |
| A34R52                | 0683-2015      | 9   |     | RESISTOR 200 5% .25W FC TC=-400/+600    | 01121    | C82015           |
| A34R53                | 0683-2015      | 9   |     | RESISTOR 200 5% .25W FC TC=-400/+600    | 01121    | C82015           |
| A34R54                | 0683-2015      | 9   |     | RESISTOR 200 5% .25W FC TC=-400/+600    | 01121    | C82015           |
| A34R55                | 0683-2015      | 9   |     | RESISTOR 200 5% .25W FC TC=-400/+600    | 01121    | C82015           |
| A34R56                | 0683-2015      | 9   |     | RESISTOR 200 5% .25W FC TC=-400/+600    | 01121    | C82015           |
| A34R57                | 0683-2015      | 9   |     | RESISTOR 200 5% .25W FC TC=-400/+600    | 01121    | C82015           |
| A34R58                | 0683-2015      | 9   |     | RESISTOR 200 5% .25W FC TC=-400/+600    | 01121    | C82015           |
| A34R60                | 0683-2735      | 0   |     | RESISTOR 27K 5% .25W FC TC=-400/+800    | 01121    | C82735           |
| A34R61                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700    | 01121    | C81035           |
| A34R62                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700    | 01121    | C81035           |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-------------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
| A34R63                  | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=+400/+700     | 01121    | CB1035               |
| A34R64                  | 0760-0009      | 1   |     | RESISTOR 100K 2% 1W MO TC=0/+200         | 28480    | 0760-0009            |
| A34U1                   | 1820-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N           |
| A34U2                   | 1820-1144      | 6   |     | IC GATE TTL LS NOR QUAD 2-INP            | 01295    | SN74LS02N            |
| A34U3                   | 1820-1144      | 6   |     | IC GATE TTL LS NOR QUAD 2-INP            | 01295    | SN74LS02N            |
| A34U4                   | 1820-1195      | 7   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS175N           |
| A34U5                   | 1820-1195      | 7   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS175N           |
| A34U6                   | 1820-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N           |
| A34U7                   | 1826-0138      | 8   |     | COMPARATOR GP QUAD 14-DIP-P              | 04713    | MLM339P              |
| A34U8                   | 1820-1197      | 9   | 8   | IC GATE TTL LS NAND QUAD 2-INP           | 01295    | SN74LS00N            |
| A34U9                   | 1820-1112      | 8   | 20  | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N            |
| A34U10                  | 1820-1195      | 7   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS175N           |
| A34U11                  | 1820-1431      | 4   | 1   | IC CNTR TTL LS DECD SYNCHRO              | 01295    | SN7468162AN          |
| A34U12                  | 1820-0054      | 5   | 1   | IC GATE TTL NAND QUAD 2-INP              | 01295    | SN7400N              |
| A34U13                  | 1820-1204      | 9   |     | IC GATE TTL LS NAND DUAL 4-INP           | 01295    | SN74LS20N            |
| A34U14                  | 1820-1282      | 3   | 1   | IC FF TTL LS J-K BAR POS-EDGE-TRIG       | 01295    | SN7468109AN          |
| A34U15                  | 1820-1197      | 9   |     | IC GATE TTL LS NAND QUAD 2-INP           | 01295    | SN74LS00N            |
| A34U17                  | 1820-0223      | 0   |     | OP AMP GP TO-99                          | 04713    | MLM301AG             |
| A34U18                  | 1826-0402      | 9   |     | IC V RGLTR TO-3                          | 80103    | L4S-1515             |
| A34U19                  | 1820-0223      | 0   |     | OP AMP GP TO-99                          | 04713    | MLM301AG             |
| A34 MISCELLANEOUS PARTS |                |     |     |                                          |          |                      |
|                         | 0340-0580      | 3   | 3   | INSULATOR-XSTR RUBBER RED                | 28480    | 0340-0580            |
|                         | 03585-01104    | 5   | 1   | HEAT SINK                                | 28480    | 03585-01104          |
|                         | 0590-1054      | 7   |     | THREADED INSERT-NUT 6-32 .065-LG SST     | 28480    | 0590-1054            |
|                         | 1251-0600      | 0   |     | CONNECTOR-SGL CONT PIN 1,14-MM-BSC-SZ SG | 28480    | 1251-0600            |
|                         | 2360-0117      | 6   | 28  | SCREW-MACH 6-32 .375-IN-LG PAN-HD-PUZI   | 00000    | ORDER BY DESCRIPTION |
|                         | 2360-0115      | 4   |     | SCREW-MACH 6-32 .312-IN-LG PAN-HD-PUZI   | 00000    | ORDER BY DESCRIPTION |
| A40                     | 03585-66540    | 9   | 1   | DIGITAL MOTHERBOARD                      | 28480    | 03585-66540          |
| A40J1                   | 1251-3475      | 3   | 2   | CONNECTOR 10-PIN M POST TYPE             | 28480    | 1251-3475            |
| A40 MISCELLANEOUS PARTS |                |     |     |                                          |          |                      |
|                         | 1200-0474      | 9   | 4   | SOCKET-IC 14-CONT DIP-SLDR               | 28480    | 1200-0474            |
|                         | 1200-0658      | 1   | 1   | SOCKET-IC 24-CONT DIP-SLDR               | 28480    | 1200-0658            |
|                         | 1251-2026      | 4   | 1   | CONNECTOR-PC EDGE 18-CUNT/ROW 2-ROWS     | 28480    | 1251-2026            |
|                         | 1251-5157      | 2   | 1   | CONNECTOR-PC EDGE 43-CUNT/ROW 2-ROWS     | 28480    | 1251-5157            |
|                         | 0360-0124      | 0   |     | CONNECTOR-SGL CONT PTN .04-IN-BSC-SZ RND | 28480    | 0360-0124            |
| A41                     | 03585-66541    | 0   | 1   | PROCESSOR BOARD                          | 28480    | 03585-66541          |
| A41C1                   | 0160-3847      | 4   |     | CAPACITOR-FXD 4.7UF+-20% 10VDC TA        | 56289    | 150D475X0010A2       |
| A41C2                   | 0160-1746      | 5   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA         | 56289    | 150D156X9020B2       |
| A41C3                   | 0160-0210      | 6   |     | CAPACITOR-FXD 3.3UF+-20% 15VDC TA        | 56289    | 150D335X0015A2       |
| A41C4                   | 0160-0229      | 7   |     | CAPACITOR-FXD 33UF+-10% 10VDC TA         | 56289    | 150D336X9010B2       |
| A41C5                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A41C6                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A41C7                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A41C8                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A41C9                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A41C10                  | 0160-0200      | 0   |     | CAPACITOR-FXD 390PF +-5% 300VDC MICA     | 72136    | DM15F391J0300V1C8    |
| A41C11                  | 0160-0200      | 0   |     | CAPACITOR-FXD 390PF +-5% 300VDC MICA     | 72136    | DM15F391J0300V1C8    |
| A41C12                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A41C13                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A41C14                  | 0160-0229      | 7   |     | CAPACITOR-FXD 33UF+-10% 10VDC TA         | 56289    | 150D336X9010B2       |
| A41C15                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A41C16                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A41C19                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A41C20                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A41C21                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A41C22                  | 0160-0309      | 4   |     | CAPACITOR-FXD 4.7UF+-20% 10VDC TA        | 56289    | 150D475X0010A2       |
| A41C23                  | 0160-0207      | 9   | 1   | CAPACITOR-FXD .01UF +-5% 200VDC POLYE    | 28480    | 0160-0207            |
| A41C24                  | 0160-2228      | 8   | 1   | CAPACITOR-FXD 2700PF +-5% 300VDC MICA    | 28480    | 0160-2228            |
| A41C25                  | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS D0-35       | 28480    | 1901-0040            |
| A41C26                  | 1902-3091      | 0   | 2   | DIODE-ZNR 4.99V 5% D0-7 PDS 4W TC=-.012% | 28480    | 1902-3091            |
| A41C27                  | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS D1-35       | 28480    | 1901-0040            |
| A41J1                   | 1251-4822      | 6   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-4822            |
| A41J1                   | 1258-0141      | 8   |     | JUMPER REMOVABLE                         | 28480    | 1258-0141            |
| A41J2                   | 1251-4822      | 6   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-4822            |
| A41J2                   | 1258-0141      | 8   |     | JUMPER REMOVABLE                         | 28480    | 1258-0141            |
| A41L1                   | 9100-3458      | 1   |     | CHOKE, WIDE BAND                         | 28480    | 9100-3458            |
| A41L2                   | 9100-3458      | 1   |     | CHOKE, WIDE BAND                         | 28480    | 9100-3458            |
| A41L3                   | 9100-3458      | 1   |     | CHOKE, WIDE BAND                         | 28480    | 9100-3458            |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-------------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
| A41Q1                   | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MA FT=200MHZ     | 28480    | 1854-0071            |
| A41Q2                   | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MA FT=200MHZ     | 28480    | 1854-0071            |
| A41R1                   | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700    | 01121    | CB2225               |
| A41R2                   | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A41R3                   | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700    | 01121    | CB2225               |
| A41R4                   | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A41R5                   | 0683-3615      | 7   |     | RESISTOR 360 5% .25W FC TC=-400/+600     | 01121    | CB3615               |
| A41R6                   | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A41R7                   | 0683-3615      | 7   |     | RESISTOR 360 5% .25W FC TC=-400/+600     | 01121    | CB3615               |
| A41R8                   | 0698-5842      | 7   | 2   | RESISTOR 16 5% .25W FC TC=-400/+500      | 01121    | CB1605               |
| A41R9                   | 0698-5842      | 7   |     | RESISTOR 16 5% .25W FC TC=-400/+500      | 01121    | CB1605               |
| A41R10                  | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A41R11                  | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A41R12                  | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | CB4715               |
| A41R13                  | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700    | 01121    | CB2225               |
| A41R14                  | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700    | 01121    | CB2225               |
| A41R16                  | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700    | 01121    | CB2225               |
| A41R17                  | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A41R18                  | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A41R19                  | 0683-1825      | 7   |     | RESISTOR 1.8K 5% .25W FC TC=-400/+700    | 01121    | CB1825               |
| A41R20                  | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A41R21                  | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A41R22                  | 0698-4489      | 6   | 1   | RESISTOR 28K 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-2802-F     |
| A41R23                  | 0698-4486      | 3   |     | RESISTOR 24.9K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-2492-F     |
| A41R24                  | 0698-4472      | 7   | 1   | RESISTOR 7.68K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-7681-F     |
| A41R25                  | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700    | 01121    | CB2225               |
| A41R26                  | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A41R27                  | 0683-3025      | 3   |     | RESISTOR 3K 5% .25W FC TC=-400/+700      | 01121    | CB3025               |
| A41RP1                  | 1810-0076      | 0   | 2   | NETWORK-RES 9-PIN-SIP .15-PIN-SPCG       | 28480    | 1810-0076            |
| A41RP2                  | 1810-0076      | 0   |     | NETWORK-RES 9-PIN-SIP .15-PIN-SPCG       | 28480    | 1810-0076            |
| A41RP3                  | 1810-0235      | 3   | 2   | NETWORK-RES 16-PIN-DIP .1-PIN-SPCG       | 01121    | 316A222              |
| A41RP4                  | 1810-0235      | 3   |     | NETWORK-RES 16-PIN-DIP .1-PIN-SPCG       | 01121    | 316A222              |
| A41SP1                  | 0960-0483      | 9   | 1   | BUZZER                                   | 28480    | 0960-0483            |
| A41TP1-B                | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-1N-BSC-SZ RND | 28480    | 0360-0124            |
| A41U1                   | 1820-1201      | 6   | 9   | IC GATE TTL LS AND QUAD 2-INP            | 01295    | SN74LS08N            |
| A41U2                   | 1820-1201      | 6   |     | IC GATE TTL LS AND QUAD 2-INP            | 01295    | SN74LS08N            |
| A41U4                   | 1820-1266      | 9   | 1   | IC DRV'R MDS CLOCK DRVR TTL-T0-MDS 1-INP | 04713    | MMH0026CL            |
| A41U5                   | 1820-0681      | 4   |     | IC GATE TTL S NAND QUAD 2-INP            | 01295    | SN74S00N             |
| A41U6                   | 1820-0683      | 6   |     | IC INV TTL S HEX 1-INP                   | 01295    | SN74S04N             |
| A41U7                   | 1820-1469      | 8   | 4   | IC FF TTL LS J-K NEG-EDGE-TRIG CLEAR     | 01295    | SN746S107AN          |
| A41UA                   | 1820-1281      | 2   | 2   | IC DCOR TTL LS 2-T0-4-LINE DUAL 2-INP    | 01295    | SN74LS139N           |
| A41U9                   | 1820-1201      | 6   |     | IC GATE TTL LS AND QUAD 2-INP            | 01295    | SN74LS08N            |
| A41U10                  | 1820-1201      | 6   |     | IC GATE TTL LS AND QUAD 2-INP            | 01295    | SN74LS08N            |
| A41U12                  | 1820-1201      | 6   |     | IC GATE TTL LS AND QUAD 2-INP            | 01295    | SN74LS08N            |
| A41U14                  | 1820-0683      | 6   |     | IC INV TTL S HEX 1-INP                   | 01295    | SN74S04N             |
| A41U15                  | 1820-1144      | 6   |     | IC GATE TTL LS NOR QUAD 2-INP            | 01295    | SN74LS02N            |
| A41U16                  | 1820-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N            |
| A41U17                  | 1820-1425      | 6   |     | IC SCHMITT-TRIG TTL LS NAND QUAD 2-INP   | 01295    | SN74LS132N           |
| A41U18                  | 1820-1198      | 6   | 9   | IC GATE TTL LS NAND QUAD 2-INP           | 01295    | SN74LS03N            |
| A41U19                  | 1820-1207      | 2   | 2   | IC GATE TTL LS NAND 8-INP                | 01295    | SN74LS30N            |
| A41U20                  | 1820-0686      | 9   |     | IC GATE TTL S AND TPL 3-INP              | 01295    | SN74S11N             |
| A41U21                  | 1820-1469      | 8   |     | IC FF TTL LS J-K NEG-EDGE-TRIG CLEAR     | 01295    | SN746S107AN          |
| A41U23                  | 1826-0205      | 0   | 1   | IC TIMER TTL                             | 18324    | NE555A               |
| A41 MISCELLANEOUS PARTS |                |     |     |                                          |          |                      |
|                         | 0360-0679      | 3   | 6   | TERMINAL-STUD SPCL-STDF PRESS-MTG        | 28480    | 0360-0679            |
|                         | 4040-0749      | 4   | 3   | EXTR-PC BD BRN POLYC .062-BD-THKNS       | 28480    | 4040-0749            |
|                         | 4040-0752      | 9   | 8   | EXTR-PC BU YEL POLYC .062-BD-THKNS       | 28480    | 4040-0752            |
|                         | 2260-0009      | 3   | 13  | NUT-HEX-W/LK'R 4-40-TMD .094-IN-THK      | 00000    | ORDER BY DESCRIPTION |
| A42                     | 03585-66542    | 1   | 1   | RAM BOARD                                | 28480    | 03585-66542          |
| A42C1                   | 0160-0136      | 3   | 1   | CAPACITOR-FXD 250PF +-1% 300VDC MICA     | 28480    | 0160-0136            |
| A42C2                   | 0180-0210      | 6   |     | CAPACITOR-FXD 3.3UF+-20% 15VDC TA        | 56289    | 1500335X001542       |
| A42C3                   | 0180-1746      | 6   |     | CAPACITOR-FXD 15UF+-10% 20VDC TA         | 56289    | 1500156X902002       |
| A42C4                   | 0180-0354      | 9   | 3   | CAPACITOR-FXD 40UF+-5% 10VDC TA          | 56289    | 1500406X501002       |
| A42C5                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|------------------|
| A42C6                 | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A42C7                 | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A42CA                 | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A42C9                 | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A42C10                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A42C11                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A42C12                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A42C13                | 0180-0210      | 6   |     | CAPACITOR-FXD 3.3UF+-20% 15VDC TA        | 56289    | 150D335X0015A2   |
| A42C14                | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X9020A2   |
| A42C15                | 0180-0210      | 6   |     | CAPACITOR-FXD 3.3UF+-20% 15VDC TA        | 56289    | 150D335X0015A2   |
| A42C16                | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X9020A2   |
| A42C17                | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X9020A2   |
| A42C18                | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X9020A2   |
| A42C19                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A42C20                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A42C21                | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X9020A2   |
| A42C22                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A42C23                | 0180-0210      | 6   |     | CAPACITOR-FXD 3.3UF+-20% 15VDC TA        | 56289    | 150D335X0015A2   |
| A42C24                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A42C25                | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X9020A2   |
| A42C26                | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X9020A2   |
| A42CR1                | 1902-3091      | 0   |     | DIODE-ZNR 4.99V 5X DO-7 PD=.4W TC=-.012X | 28480    | 1902-3091        |
| A42J1                 | 1251-4047      | 7   |     | CONNECTOR 3-PIN P POST TYPE              | 28480    | 1251-4047        |
| A42J1                 | 1258-0141      | 8   |     | JUMPER REMOVABLE                         | 28480    | 1258-0141        |
| A42G1                 | 1A53-0405      | 9   | 1   | TRANSISTOR PNP 2N4209 SI TC=16 PD=300MW  | 04713    | 2N4209           |
| A42R1                 | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700    | 01121    | CB2225           |
| A42R2                 | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700    | 01121    | CB2225           |
| A42R3                 | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700    | 01121    | CB2225           |
| A42R4                 | 0683-1005      | 5   |     | RESISTOR 10 5% .25W FC TC=-400/+500      | 01121    | CB1005           |
| A42R5                 | 0683-4735      | 4   |     | RESISTOR 47K 5% .25W FC TC=-400/+600     | 01121    | CB4735           |
| A42R6                 | 0757-0454      | 3   | 3   | RESISTOR 33.2K 1% .125W F TC=0/+100      | 24546    | C4-1/8-10-3322-F |
| A42R7                 | 0683-5115      | 6   |     | RESISTOR 510 5% .25W FC TC=-400/+600     | 01121    | CB5115           |
| A42TF1-3              | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-35C-5Z RND | 28480    | 0360-0124        |
| A42U1                 | 1818-0156      | 3   | 16  | IC NMOS 4K RAM DYN 470-NS 3-S            | 28480    | 1818-0156        |
| A42U2                 | 1818-0156      | 3   |     | IC NMOS 4K RAM DYN 470-NS 3-S            | 28480    | 1818-0156        |
| A42U3                 | 1818-0156      | 3   |     | IC NMOS 4K RAM DYN 470-NS 3-S            | 28480    | 1818-0156        |
| A42U4                 | 1818-0156      | 3   |     | IC NMOS 4K RAM DYN 470-NS 3-S            | 28480    | 1818-0156        |
| A42U5                 | 1818-0156      | 3   |     | IC NMOS 4K RAM DYN 470-NS 3-S            | 28480    | 1818-0156        |
| A42U6                 | 1818-0156      | 3   |     | IC NMOS 4K RAM DYN 470-NS 3-S            | 28480    | 1818-0156        |
| A42U7                 | 1820-0704      | 2   | 1   | IC MV TTL MONOSTBL RETRIG                | 01295    | SN74122N         |
| A42U8                 | 1820-1469      | 6   |     | IC FF TTL LS JK NEG-EDGE-TRIG CLEAR      | 01295    | SN7465107AN      |
| A42U9                 | 1820-1469      | 8   |     | IC FF TTL LS JK NEG-EDGE-TRIG CLEAR      | 01295    | SN7465107AN      |
| A42U10                | 1818-0156      | 3   |     | IC NMOS 4K RAM DYN 470-NS 3-S            | 28480    | 1818-0156        |
| A42U11                | 1818-0156      | 3   |     | IC NMOS 4K RAM DYN 470-NS 3-S            | 28480    | 1818-0156        |
| A42U12                | 1818-0156      | 3   |     | IC NMOS 4K RAM DYN 470-NS 3-S            | 28480    | 1818-0156        |
| A42U13                | 1818-0156      | 3   |     | IC NMOS 4K RAM DYN 470-NS 3-S            | 28480    | 1818-0156        |
| A42U14                | 1818-0156      | 3   |     | IC NMOS 4K RAM DYN 470-NS 3-S            | 28480    | 1818-0156        |
| A42U15                | 1820-1673      | 6   | 1   | IC DRVR TTL DUAL                         | 01295    | SN75322N         |
| A42U16                | 1820-1197      | 9   |     | IC GATE TTL LS NAND QUAD 2-INP           | 01295    | SN74LS00N        |
| A42U17                | 1820-1144      | 6   |     | IC GATE TTL LS NOR QUAD 2-INP            | 01295    | SN74LS02N        |
| A42U18                | 1820-0762      | 2   | 2   | IC MUXR/DATA-SEL TTL 2-TO-1-LINE QUAD    | 01295    | SN74LS07N        |
| A42U19                | 1820-1478      | 9   | 2   | IC CNTL TTL LS BIN ASYNCHRO              | 01295    | SN74LS93N        |
| A42U20                | 1820-1322      | 2   |     | IC GATE TTL S NOR QUAD 2-INP             | 01295    | SN74S02N         |
| A42U21                | 1818-0156      | 3   |     | IC NMOS 4K RAM DYN 470-NS 3-S            | 28480    | 1818-0156        |
| A42U22                | 1818-0156      | 3   |     | IC NMOS 4K RAM DYN 470-NS 3-S            | 28480    | 1818-0156        |
| A42U23                | 1818-0156      | 3   |     | IC NMOS 4K RAM DYN 470-NS 3-S            | 28480    | 1818-0156        |
| A42U24                | 1818-0156      | 3   |     | IC NMOS 4K RAM DYN 470-NS 3-S            | 28480    | 1818-0156        |
| A42U25                | 1818-0156      | 3   |     | IC NMOS 4K RAM DYN 470-NS 3-S            | 28480    | 1818-0156        |
| A42U26                | 1820-0762      | 2   |     | IC MUXR/DATA-SEL TTL 2-TO-1-LINE QUAD    | 01295    | SN74157N         |
| A42U27                | 1820-1478      | 9   |     | IC CNTL TTL LS BIN ASYNCHRO              | 01295    | SN74LS93N        |
| A42U28                | 1820-1198      | 0   |     | IC GATE TTL LS NAND QUAD 2-INP           | 01295    | SN74LS03N        |
| A42U29                | 1820-1255      | 0   | 3   | IC INV TTL HEX 1-INP                     | 01295    | SN74368N         |
| A42U30                | 1820-0788      | 2   | 1   | IC FF TTL D-TYPE POS-EDGE-TRIG CLEAR HEX | 01295    | SN74174N         |
| A42U31                | 1820-1255      | 0   |     | IC INV TTL HEX 1-INP                     | 01295    | SN74368N         |
| A42U32                | 1820-1255      | 0   |     | IC INV TTL HEX 1-INP                     | 01295    | SN74368N         |
| A42U33                | 1820-1411      | 0   | 2   | IC LCH TTL LS D-TYPE 4-BIT               | 01295    | SN74LS75N        |
| A42U34                | 1820-1411      | 0   |     | IC LCH TTL LS D-TYPE 4-BIT               | 01295    | SN74LS75N        |
| A42U35                | 1820-0068      | 1   | 1   | IC GATE TTL NAND TPL 3-INP               | 01295    | SN7410N          |
| A42U36                | 1820-1322      | 2   |     | IC GATE TTL S NOR QUAD 2-INP             | 01295    | SN74S02N         |
|                       |                |     |     | A 42 MISCELLANEOUS PARTS                 |          |                  |
|                       | 4040-0750      | 7   | 2   | EXTR-PC RED POLYC .062-SD-TINKS          | 28480    | 4040-0750        |
|                       | 4040-0752      | 9   |     | EXTR-PC BD YEL POLYC .062-SD-TINKS       | 28480    | 4040-0750        |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number  |
|-------------------------|----------------|-----|-----|------------------------------------------|----------|------------------|
| A43                     | 03585-66543    | 2   | 1   | ROM BOARD                                | 28480    | 03585-66543      |
| A43C1                   | 0160-0229      | 7   |     | CAPACITOR-FXD 33UF+/-10% 10VDC TA        | 56289    | 150D336X901082   |
| A43C2                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A43C3                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A43C4                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A43C5                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A43C6                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A43C7                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A43C8                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A43C9                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A43C10                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A43C11                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A43C12                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A43C13                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A43L1                   | 9100-3458      | 1   |     | CHOKER, WIDE BAND                        | 28480    | 9100-3458        |
| A43SXU16                | 1200-0473      | 8   |     | SOCKET-IC 16-COMT DIP DIP-SLDR           | 28480    | 1200-0473        |
| A43SXU17                | 1200-0473      | 8   |     | SOCKET-IC 16-COMT DIP DIP-SLDR           | 28480    | 1200-0473        |
| A43TP1-5                | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN 194-1N-BSC-SZ RND | 28480    | 0360-0124        |
| A43U1                   | 1818-0644      | 4   | 1   | IC 32K BIPOL ROM                         | 55576    | SYP2332 MASKED   |
| A43U2                   | 1818-0645      | 5   | 1   | IC 32K BIPOL ROM                         | 55576    | SYP2332 MASKED   |
| A43U3                   | 1818-0646      | 6   | 1   | IC 32K BIPOL ROM                         | 55576    | SYP2332 MASKED   |
| A43U4                   | 1818-0647      | 7   | 1   | IC 32K BIPOL ROM                         | 55576    | SYP2332 MASKED   |
| A43U5                   | 1818-0648      | 8   | 1   | IC 32K BIPOL ROM                         | 28480    | 1818-0648        |
| A43U6                   | 1818-0649      | 9   | 1   | IC 32K BIPOL ROM                         | 28480    | 1818-0649        |
| A43U7                   | 1818-0650      | 2   | 1   | IC 32K BIPOL ROM                         | 28480    | 1818-0650        |
| A43U8                   | 1818-0651      | 3   | 1   | IC 32K BIPOL ROM                         | 28480    | 1818-0651        |
| A43U9                   | 1820-1281      | 2   |     | IC DCDR TTL LS 2-TO-4-LINE DUAL 2-INP    | 01295    | SN74LS139N       |
| A43U10                  | 1820-1445      | 0   | 4   | IC LCH TTL LS 4-BIT                      | 01295    | SN74LS375N       |
| A43U11                  | 1820-1445      | 0   |     | IC LCH TTL LS 4-BIT                      | 01295    | SN74LS375N       |
| A43U12                  | 1820-1445      | 0   |     | IC LCH TTL LS 4-BIT                      | 01295    | SN74LS375N       |
| A43U13                  | 1820-1445      | 0   |     | IC LCH TTL LS 4-BIT                      | 01295    | SN74LS375N       |
| A43U14                  | 1820-1873      | 8   | 4   | IC 8FR TTL LS INV OCTL 2-INP             | 27014    | DM81LS98N        |
| A43U15                  | 1820-1873      | 8   |     | IC 8FR TTL LS INV OCTL 2-INP             | 27014    | DM81LS98N        |
| A43U16                  | 1810-0307      | 0   | 4   | NETWORK-CNCDT MODULE DIP; 16 PINS; 0.100 | 28480    | 1810-0307        |
| A43U17                  | 1810-0307      | 0   |     | NETWORK-CNCDT MODULE DIP; 16 PINS; 0.100 | 28480    | 1810-0307        |
| A43 MISCELLANEOUS PARTS |                |     |     |                                          |          |                  |
|                         | 4040-0751      | 8   | 3   | EXTR-PC BD ORN POLYC .062-HU-TMKNS       | 28480    | 4040-0751        |
|                         | 4040-0752      | 9   |     | EXTR-PC BD YEL POLYC .062-RD-TMKNS       | 28480    | 4040-0752        |
|                         |                |     |     | INSULATED JUMPER WIRE                    |          |                  |
| A44                     | 03585-66544    | 3   | 1   | HP-IB INTERFACE                          | 28480    | 03585-66544      |
| A44C1                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A44C2                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A44C3                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A44C4                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A44C5                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A44C6                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A44C7                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A44C8                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A44C9                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A44C10                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A44C11                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A44C12                  | 0160-0354      | 9   |     | CAPACITOR-FXD 40UF+/-5% 10VDC TA         | 56289    | 150D406X501082   |
| A44C13                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A44C14                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A44C15                  | 0160-0354      | 9   |     | CAPACITOR-FXD 40UF+/-5% 10VDC TA         | 56289    | 150D406X501082   |
| A44CR1                  | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35       | 28480    | 1901-0040        |
| A44CR2                  | 1990-0486      | 6   |     | LED-VISIBLE LUM-INT=1MCD IF=20MA-MAX     | 28480    | 5082-4884        |
| A44CR3                  | 1902-3048      | 7   | 2   | DIODE-ZNR 3.48V 5% DO-7 PD=.4W TC=-.058% | 28480    | 1902-3048        |
| A44CR4                  | 1902-3048      | 7   |     | DIODE-ZNR 3.48V 5% DO-7 PD=.4W TC=-.058% | 28480    | 1902-3048        |
| A44CR5                  | 1902-3018      | 1   | 1   | DIODE-ZNR 2.74V 5% DO-7 PD=.4W TC=-.071% | 28480    | 1902-3018        |
| A44CR6                  | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35       | 28480    | 1901-0040        |
| A44R1                   | 1810-0329      | 6   | 4   | NETWORK-RES 10-PIN-SIP .1-PIN-SPCG       | 01121    | 2104752          |
| A44R2                   | 1810-0329      | 6   |     | NETWORK-RES 10-PIN-SIP .1-PIN-SPCG       | 01121    | 2104752          |
| A44R3                   | 1810-0329      | 6   |     | NETWORK-RES 10-PIN-SIP .1-PIN-SPCG       | 01121    | 2104752          |
| A44R4                   | 1810-0329      | 6   |     | NETWORK-RES 10-PIN-SIP .1-PIN-SPCG       | 01121    | 2104752          |
| A44R5                   | 0643-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035           |
| A44R6                   | 0643-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035           |
| A44R7                   | 0643-3015      | 1   |     | RESISTOR 300 5% .25W FC TC=-400/+600     | 01121    | CB3015           |
| A44R8                   | 0643-3511      | 3   | 1   | RESISTOR 665 1% .125W F TC=0/+100        | 28480    | C4-1/8-T0-665R-F |
| A44R9                   | 2100-3273      | 1   |     | RESISTOR-TRM 2K 10% C SIDE-ADJ 1-TRN     | 28480    | 2100-3273        |
| A44R10                  | 0643-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035           |

See introduction to this section for ordering information  
 \*Indicates factory selected value



Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number     |
|-------------------------|----------------|-----|-----|------------------------------------------|----------|---------------------|
| A44R11                  | 0683-7505      | 2   |     | RESISTOR 75 5% .25W FC TC=-400/+500      | 01121    | CB7505              |
| A44R12                  | 0683-7505      | 2   |     | RESISTOR 75 5% .25W FC TC=-400/+500      | 01121    | CB7505              |
| A44R13                  | 0698-3258      | 5   | 2   | RESISTOR 5.36k 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-5361-F    |
| A44R14                  | 1810-0326      | 3   | 1   | NETWORK-ROD 10 PIN SIP; 0.1 IN SPACING   | 28480    | 1810-0326           |
| A44R15                  | 1810-0307      | 0   |     | NETWORK-CNDCT MODULE DIP; 16 PINS; 0.100 | 28480    | 1810-0307           |
| A44R16                  | 0683-1325      | 2   |     | RESISTOR 1.3k 5% .25W FC TC=-400/+700    | 01121    | CB1325              |
| A44R17                  | 0683-2715      | 6   |     | RESISTOR 270 5% .25W FC TC=-400/+600     | 01121    | CB2715              |
| A44S1                   | 3101-2215      | 2   | 2   | SWITCH-RKR DIP-RKR-ASSY 7-1A .05A 30VDC  | 28480    | 3101-2215           |
| A44SR15                 | 1200-0473      | 8   |     | SOCKET-IC 16-CONT DIP DIP-SLDR           | 28480    | 1200-0473           |
| A44SXU16                | 1200-0659      | 2   | 2   | SOCKET-IC 40-CONT DIP-SLDR               | 28480    | 1200-0659           |
| A44TPI-5                | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-S2 RND | 28480    | 0360-0124           |
| A44U1                   | 1A20-1112      | 6   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N           |
| A44U2                   | 1A20-1425      | 6   |     | IC SCHMITT-TRIG TTL LS NAND QUAD 2-INP   | 01295    | SN74LS132N          |
| A44U3                   | 1A20-1199      | 1   | 8   | IC INV TTL LS HEX 1-INP                  | 01295    | SN74LS04N           |
| A44U4                   | 1A20-1198      | 0   |     | IC GATE TTL LS NAND QUAD 2-INP           | 01295    | SN74LS03N           |
| A44U5                   | 1A20-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N           |
| A44U6                   | 1A20-1491      | 6   | 9   | IC BFR TTL LS NON-INV HEX 1-INP          | 01295    | SN7468367AN         |
| A44U7                   | 1A16-1200      | 6   | 1   | IC TTL 8192-BIT ROM AO-NS 3-8            | 18324    | N828181F PROGRAMMED |
| A44U9                   | 1A20-1730      | 6   | 11  | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS273N          |
| A44U10                  | 1A20-1439      | 2   | 2   | IC MUXR/DATA-SEL TTL LS 2-TO-1-LINE      | 01295    | SN74LS258N          |
| A44U11                  | 1A20-1439      | 2   |     | IC MUXR/DATA-SEL TTL LS 2-TO-1-LINE      | 01295    | SN74LS258N          |
| A44U12                  | 1A20-1195      | 7   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS175N          |
| A44U13                  | 1A20-1201      | 6   |     | IC GATE TTL LS AND QUAD 2-INP            | 01295    | SN74LS08N           |
| A44U14                  | 1A20-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N           |
| A44U15                  | 1A20-1198      | 0   |     | IC GATE TTL LS NAND QUAD 2-INP           | 01295    | SN74LS03N           |
| A44U16                  | 1A20-1691      | 8   | 1   | IC MICROPROC MOS                         | 28480    | 1820-1691           |
| A44U17                  | 1A26-0138      | 8   |     | COMPARATOR GP QUAD 14-DIP-P              | 04713    | MLM339P             |
| A44U18                  | 1A26-0138      | 8   |     | COMPARATOR GP QUAD 14-DIP-P              | 04713    | MLM339P             |
| A44U19                  | 1A26-0138      | 8   |     | COMPARATOR GP QUAD 14-DIP-P              | 04713    | MLM339P             |
| A44U20                  | 1A26-0138      | 8   |     | COMPARATOR GP QUAD 14-DIP-P              | 04713    | MLM339P             |
| A44U21                  | 1A20-1144      | 6   |     | IC GATE TTL LS NOR QUAD 2-INP            | 01295    | SN74LS02N           |
| A44U22                  | 1A20-1144      | 6   |     | IC GATE TTL LS NOR QUAD 2-INP            | 01295    | SN74LS02N           |
| A44U23                  | 1A20-1438      | 1   | 1   | IC MUXR/DATA-SEL TTL LS 2-TO-1-LINE QUAD | 01295    | SN74LS257AN         |
| A44U24                  | 1A20-1216      | 3   |     | IC ODDR TTL LS 3-TO-8-LINE 3-INP         | 01295    | SN74LS138N          |
| A44U25                  | 1A26-0138      | 8   |     | COMPARATOR GP QUAD 14-DIP-P              | 04713    | MLM339P             |
| A44U26                  | 1A26-0138      | 8   |     | COMPARATOR GP QUAD 14-DIP-P              | 04713    | MLM339P             |
| A44U27                  | 1A26-0138      | 8   |     | COMPARATOR GP QUAD 14-DIP-P              | 04713    | MLM339P             |
| A44U28                  | 1A26-0138      | 8   |     | COMPARATOR GP QUAD 14-DIP-P              | 04713    | MLM339P             |
| A44U29                  | 1A20-1873      | 8   |     | IC RFR TTL LS INV OCTL 2-INP             | 27014    | DM81LS98N           |
| A44U30                  | 1A20-1730      | 6   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS273N          |
| A44U31                  | 1A20-1199      | 1   |     | IC INV TTL LS HEX 1-INP                  | 01295    | SN74LS04N           |
| A44U32                  | 1A20-1689      | 4   | 4   | IC UART TTL QUAD                         | 04713    | MC3446P             |
| A44U33                  | 1A20-1689      | 4   |     | IC UART TTL QUAD                         | 04713    | MC3446P             |
| A44U34                  | 1A20-1689      | 4   |     | IC UART TTL QUAD                         | 04713    | MC3446P             |
| A44U35                  | 1A20-1689      | 4   |     | IC UART TTL QUAD                         | 04713    | MC3446P             |
| A44U36                  | 1A20-1730      | 6   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS273N          |
| A44U37                  | 1A20-1873      | 8   |     | IC RFR TTL LS INV OCTL 2-INP             | 27014    | DM81LS98N           |
| A44U38                  | 1A20-1198      | 0   |     | IC GATE TTL LS NAND QUAD 2-INP           | 01295    | SN74LS03N           |
| A44U39                  | 1A20-1195      | 7   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS175N          |
| A44U40                  | 1A20-1206      | 1   | 2   | IC GATE TTL LS NOR TPL 3-INP             | 01295    | SN74LS27N           |
| A44U41                  | 1A20-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N           |
| A44 MISCELLANEOUS PARTS |                |     |     |                                          |          |                     |
|                         | 4040-0752      | 9   |     | EXTR-PC HD YEL POLYC .062-BD-TMKN5       | 28480    | 4040-0752           |
| A45                     | 03585-66545    | 4   | 1   | I/O BOARD                                | 28480    | 03585-66545         |
| A45C1                   | 0160-3629      | 7   |     | CAPACITOR-FXD 33UF+/-10% 10VDC TA        | 26654    | 1500336X901042      |
| A45C2                   | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z     |
| A45C3                   | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z     |
| A45C4                   | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z     |
| A45C5                   | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z     |
| A45C6                   | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z     |
| A45C7                   | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z     |
| A45C8                   | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z     |
| A45C9                   | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z     |
| A45CR1                  | 1990-0486      | 6   |     | LED-VISIBLE LJM-INT=1MCD IF=20MA-MAX     | 28480    | 5082-6684           |
| A45RS                   | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | CB4715              |
| A45RP1                  | 1A10-0231      | 9   | 3   | NETWORK-RES 8-PIN-SIP .1-PIN-SPCG        | 01121    | 208A222             |
| A45RP2                  | 1A10-0231      | 9   |     | NETWORK-RES 8-PIN-SIP .1-PIN-SPCG        | 01121    | 208A222             |
| A45RP3                  | 1A10-0231      | 9   |     | NETWORK-RES 8-PIN-SIP .1-PIN-SPCG        | 01121    | 208A222             |
| A45RP4                  | 1A10-0206      | 8   | 1   | NETWORK-RES 8-PIN-SIP .1-PIN-SPCG        | 01121    | 208A103             |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number |
|-------------------------|----------------|-----|-----|------------------------------------------|----------|-----------------|
| A45S1                   | 3101-2215      | 2   |     | SWITCH-RKR DIP-RKR-ASSY 7-1A .05A 30VDC  | 28480    | 3101-2215       |
| A45TP1-3                | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480    | 0360-0124       |
| A45U1                   | 1A20-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N       |
| A45U2                   | 1A20-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N       |
| A45U3                   | 1A20-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N       |
| A45U4                   | 1A20-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N       |
| A45U5                   | 1A20-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N       |
| A45U6                   | 1A20-1198      | 0   |     | IC GATE TTL LS NAND QUAD 2-INP           | 01295    | SN74LS03N       |
| A45U7                   | 1A20-1198      | 0   |     | IC GATE TTL LS NAND QUAD 2-INP           | 01295    | SN74LS03N       |
| A45U8                   | 1A20-1197      | 9   |     | IC GATE TTL LS NAND QUAD 2-INP           | 01295    | SN74LS00N       |
| A45U9                   | 1A20-1197      | 9   |     | IC GATE TTL LS NAND QUAD 2-INP           | 01295    | SN74LS00N       |
| A45U10                  | 1A20-1208      | 3   | 1   | IC GATE TTL LS OR QUAD 2-INP             | 01295    | SN74LS32N       |
| A45U11                  | 1A20-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N      |
| A45U12                  | 1A20-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N      |
| A45U13                  | 1A20-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N      |
| A45U14                  | 1A20-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS174N      |
| A45U15                  | 1A20-1730      | 6   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS273N      |
| A45U16                  | 1A20-1730      | 6   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS273N      |
| A45U17                  | 1A20-1730      | 6   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS273N      |
| A45U18                  | 1A20-1216      | 3   |     | IC DCOR TTL LS 3-TO-8-LINE 3-INP         | 01295    | SN74LS138N      |
| A45U19                  | 1A20-1216      | 3   |     | IC DCOR TTL LS 3-TO-8-LINE 3-INP         | 01295    | SN74LS138N      |
| A45U20                  | 1A20-1245      | 8   | 3   | IC DCOR TTL LS 2-TO-4-LINE DUAL 2-INP    | 01295    | SN74LS155N      |
| A45U21                  | 1A20-1245      | 8   |     | IC DCOR TTL LS 2-TO-4-LINE DUAL 2-INP    | 01295    | SN74LS155N      |
| A45U22                  | 1A20-1245      | 8   |     | IC DCOR TTL LS 2-TO-4-LINE DUAL 2-INP    | 01295    | SN74LS155N      |
| A45U23                  | 1A20-1414      | 3   | 2   | IC GATE TTL LS NAND TPL 3-INP            | 01295    | SN74LS12N       |
| A45U24                  | 1A20-1144      | 6   |     | IC GATE TTL LS NOR QUAD 2-INP            | 01295    | SN74LS02N       |
| A45U25                  | 1A20-1144      | 6   |     | IC GATE TTL LS NOR QUAD 2-INP            | 01295    | SN74LS02N       |
| A45U26                  | 1A20-1144      | 6   |     | IC GATE TTL LS NOR QUAD 2-INP            | 01295    | SN74LS02N       |
| A45U27                  | 1A20-1491      | 6   |     | IC BFR TTL LS NON-INV HEX 1-INP          | 01295    | SN74683674N     |
| A45U28                  | 1A20-1492      | 7   | 2   | IC BFR TTL LS INV HEX 1-INP              | 01295    | SN74683684N     |
| A45U29                  | 1A20-1491      | 6   |     | IC BFR TTL LS NON-INV HEX 1-INP          | 01295    | SN74683674N     |
| A45U30                  | 1A20-1491      | 6   |     | IC BFR TTL LS NON-INV HEX 1-INP          | 01295    | SN74683674N     |
| A45U31                  | 1A20-1491      | 6   |     | IC BFR TTL LS NON-INV HEX 1-INP          | 01295    | SN74683674N     |
| A45U32                  | 1A20-1492      | 7   |     | IC BFR TTL LS INV HEX 1-INP              | 01295    | SN74683684N     |
| A45U33                  | 1A20-0174      | 0   | 2   | IC INV TTL HEX                           | 01295    | SN7404N         |
| A45U34                  | 1A20-0174      | 0   |     | IC INV TTL HEX                           | 01295    | SN7404N         |
| A45U35                  | 1A20-1199      | 1   |     | IC INV TTL LS HEX 1-INP                  | 01295    | SN74LS04N       |
| A45U36                  | 1A20-1199      | 1   |     | IC INV TTL LS HEX 1-INP                  | 01295    | SN74LS04N       |
| A45 MISCELLANEOUS PARTS |                |     |     |                                          |          |                 |
|                         | 4040-0752      | 9   |     | EXTR-PC BD YEL POLYC .062-80-THKNS       | 28480    | 4040-0752       |
|                         | 4040-0753      | 0   | 2   | EXTR-PC BD GRN POLYC .062-80-THKNS       | 28480    | 4040-0753       |
| A46                     | 03585-66546    | 5   | 1   | COUNTER                                  | 28480    | 03585-66546     |
| A46C1                   | 0160-3822      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100M104Z |
| A46C2                   | 0160-3822      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100M104Z |
| A46C3                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A46C4                   | 0160-1746      | 5   |     | CAPACITOR-FXD 15UF +-10% 20VDC TA        | 56289    | 150D156X9020B2  |
| A46C6                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A46C7                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A46C8                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A46C9                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A46C10                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A46C11                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A46J1                   | 1250-1368      | 7   |     | CONNECTOR-RF SMS M PC 50-OHM             | 28480    | 1250-1368       |
| A46L1                   | 9100-3551      | 5   |     | COIL-MLD 1UH 5% Q=50 .155DX .375LG-NOM   | 28480    | 9100-3551       |
| A46M1                   | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904          |
| A46R1                   | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=+400/+600      | 01121    | CB1025          |
| A46R2                   | 0683-4735      | 4   |     | RESISTOR 47K 5% .25W FC TC=+400/+800     | 01121    | CB4735          |
| A46R3                   | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=+400/+600      | 01121    | CB1025          |
| A46R4                   | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=+400/+600      | 01121    | CB1025          |
| A46R7                   | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=+400/+600      | 01121    | CB1025          |
| A46R12                  | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=+400/+700    | 01121    | CB2225          |
| A46R13                  | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=+400/+700    | 01121    | CB2225          |
| A46T1                   | 9100-3287      | 4   | 1   | TRANSFORMER                              | 28480    | 9100-3287       |
| A46TP1-3                | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480    | 0360-0124       |
| A46U2                   | 1A20-1425      | 6   |     | IC SCHMITT-TRIG TTL LS NAND QUAD 2-INP   | 01295    | SN74LS132N      |
| A46U3                   | 1A20-1201      | 8   |     | IC GATE TTL LS AND QUAD 2-INP            | 01295    | SN74LS00N       |
| A46U4                   | 1A20-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N       |
| A46U5                   | 1A20-1144      | 6   |     | IC GATE TTL LS NOR QUAD 2-INP            | 01295    | SN74LS02N       |
| A46U6                   | 1A20-1989      | 7   | 3   | IC CNTP TTL LS 8IN DUAL 4-BIT            | 07263    | 74LS393PC       |

See introduction to this section for ordering information.  
\*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number |
|-------------------------|----------------|-----|-----|------------------------------------------|----------|-----------------|
| A46U7                   | 1820-1989      | 7   |     | IC CNTR TTL LS 8IN DUAL 4-BIT            | 07263    | 74LS393PC       |
| A46U8                   | 1820-1989      | 7   |     | IC CNTR TTL LS 8IN DUAL 4-BIT            | 07263    | 74LS393PC       |
| A46U12                  | 1820-1212      | 9   | 2   | IC FF TTL LS J-K NEG-EDGE-TRIG           | 01295    | SN74LS112N      |
| A46U13                  | 1820-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N       |
| A46U14                  | 1820-1430      | 3   | 4   | IC CNTR TTL LS 8IN SYNCHRO POS-EDGE-TRIG | 01295    | SN746S161AN     |
| A46U15                  | 1820-1430      | 3   |     | IC CNTR TTL LS 8IN SYNCHRO POS-EDGE-TRIG | 01295    | SN746S161AN     |
| A46U16                  | 1820-1430      | 3   |     | IC CNTR TTL LS 8IN SYNCHRO POS-EDGE-TRIG | 01295    | SN746S161AN     |
| A46U17                  | 1820-1430      | 3   |     | IC CNTR TTL LS 8IN SYNCHRO POS-EDGE-TRIG | 01295    | SN746S161AN     |
| A46U18                  | 1820-1414      | 3   |     | IC GATE TTL LS NAND TPL 3-INP            | 01295    | SN74LS12N       |
| A46U19                  | 1820-1206      | 1   |     | IC GATE TTL LS NOR TPL 3-INP             | 01295    | SN74LS27N       |
| A46U20                  | 1820-1491      | 6   |     | IC HFR TTL LS NON-INV HEX 1-INP          | 01295    | SN746S367AN     |
| A46U21                  | 1820-1491      | 6   |     | IC HFR TTL LS NON-INV HEX 1-INP          | 01295    | SN746S367AN     |
| A46U22                  | 1820-1491      | 6   |     | IC HFR TTL LS NON-INV HEX 1-INP          | 01295    | SN746S367AN     |
| A46 MISCELLANEOUS PARTS |                |     |     |                                          |          |                 |
|                         | 4040-0752      | 9   |     | EXTR-PC BD YEL POLYC .062-80-TMKNS       | 28480    | 4040-0752       |
|                         | 4040-0754      | 1   | 5   | EXTR-PC BD BLU POLYC .062-80-TMKNS       | 28480    | 4040-0754       |
| A47                     | 03585-66547    | 6   | 1   | ASSEMBLY, KEYBOARD                       | 28480    | 03585-66547     |
| A47C1                   | 0160-0309      | 4   |     | CAPACITOR-FXD .47UF+-20% 10VDC TA        | 56289    | 1500475X0010A2  |
| A47C2                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A47C3                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A47C4                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A47DS1                  | 1990-0486      | 6   | 28  | LED-VISIBLE LUM-INT=1MCD IF=20MA-MAX     | 28480    | 5082-4684       |
| A47DS2                  | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS3                  | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS4                  | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS5                  | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS6                  | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS7                  | 1990-0487      | 7   | 6   | LED-VISIBLE LUM-INT=1MCD IF=20MA-MAX     | 28480    | 5082-4584       |
| A47DS8                  | 1990-0487      | 7   |     | LED-VISIBLE LUM-INT=1MCD IF=20MA-MAX     | 28480    | 5082-4584       |
| A47DS9                  | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS10                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS11                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS12                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS13                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS14                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS15                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS16                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS17                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS18                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS19                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS20                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS21                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS22                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS23                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS24                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS25                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS26                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS27                 | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150       |
| A47DS28                 | 1990-0487      | 7   |     | LED-VISIBLE LUM-INT=1MCD IF=20MA-MAX     | 28480    | 5082-4584       |
| A47DS29                 | 1990-0487      | 7   |     | LED-VISIBLE LUM-INT=1MCD IF=20MA-MAX     | 28480    | 5082-4584       |
| A47DS30                 | 1990-0487      | 7   |     | LED-VISIBLE LUM-INT=1MCD IF=20MA-MAX     | 28480    | 5082-4584       |
| A47DS31                 | 1990-0487      | 7   |     | LED-VISIBLE LUM-INT=1MCD IF=20MA-MAX     | 28480    | 5082-4584       |
| A47DS32                 | 1990-0487      | 7   |     | LED-VISIBLE LUM-INT=1MCD IF=20MA-MAX     | 28480    | 5082-4584       |
| A47DS33                 | 1990-0485      | 5   | 1   | LED-VISIBLE LUM-INT=800UCD IF=30MA-MAX   | 28480    | 5082-4984       |
| A47DS34                 | 1990-0486      | 6   |     | LED-VISIBLE LUM-INT=1MCD IF=20MA-MAX     | 28480    | 5082-4684       |
| A47J1                   | 1251-4822      | 6   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-4822       |
| A47J1                   | 1251-0141      | 8   |     | JUMPER REMOVABLE                         | 28480    | 1251-0141       |
| A47J2                   | 1251-4822      | 6   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-4822       |
| A47J2                   | 1251-0141      | 8   |     | JUMPER REMOVABLE                         | 28480    | 1251-0141       |
| A47J3                   | 1251-5041      | 3   | 1   | CONNECTOR 5-PIN M POST TYPE              | 22526    | 65500-105       |
| A47J4                   | 1251-4833      | 9   | 1   | CONNECTOR 30-PIN M POST TYPE             | 28480    | 1251-4833       |
| A47FP1                  | 1810-0045      | 3   | 5   | NETWORK-RES 8-PIN-SIP .125-PIN-SPCG      | 28480    | 1810-0045       |
| A47FP2                  | 1810-0045      | 3   |     | NETWORK-RES 8-PIN-SIP .125-PIN-SPCG      | 28480    | 1810-0045       |
| A47FP3                  | 1810-0045      | 3   |     | NETWORK-RES 8-PIN-SIP .125-PIN-SPCG      | 28480    | 1810-0045       |
| A47FP4                  | 1810-0045      | 3   |     | NETWORK-RES 8-PIN-SIP .125-PIN-SPCG      | 28480    | 1810-0045       |
| A47FP5                  | 1810-0045      | 3   |     | NETWORK-RES 8-PIN-SIP .125-PIN-SPCG      | 28480    | 1810-0045       |
| A47S1-                  |                |     |     |                                          |          |                 |
| A47S70                  | 5060-9436      | 7   | 70  | PUSHBUTTON SWITCH P.C. MOUNT             | 28480    | 5060-9436       |
| A47U1                   | 1820-1461      | 0   | 4   | IC FF TTL D-TYPE POS-EDGE-TRIG CLEAR     | 01295    | SN74273         |
| A47U2                   | 1820-1461      | 0   |     | IC FF TTL D-TYPE POS-EDGE-TRIG CLEAR     | 01295    | SN74273         |
| A47U3                   | 1820-1461      | 0   |     | IC FF TTL D-TYPE POS-EDGE-TRIG CLEAR     | 01295    | SN74273         |
| A47U4                   | 1820-1461      | 0   |     | IC FF TTL D-TYPE POS-EDGE-TRIG CLEAR     | 01295    | SN74273         |
| A47U5                   | 1820-1433      | 6   | 4   | IC SHF-RTDR TTL LS R=S SERIAL-IN PRL-OUT | 01295    | SN74LS164N      |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty                                 | Description                              | Mfr Code                           | Mfr Part Number   |                |
|-------------------------|----------------|-----|-------------------------------------|------------------------------------------|------------------------------------|-------------------|----------------|
| A47U6                   | 1A20-1433      | 6   | 8                                   | IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT | 01295                              | SN74LS164N        |                |
| A47U7                   | 1A20-1433      | 6   |                                     | IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT | 01295                              | SN74LS164N        |                |
| A47U8                   | 1A20-1433      | 6   |                                     | IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT | 01295                              | SN74LS164N        |                |
| A47U9                   | 1A20-1112      | 8   |                                     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295                              | SN74LS74N         |                |
| A47U10                  | 1A20-1194      | 6   |                                     | IC CNTR TTL LS BIN UP/DOWN SYNCHRD       | 01295                              | SN74LS193N        |                |
| A47U11                  | 1A20-1246      | 9   | 2                                   | IC GATE TTL LS AND QUAD 2-INP            | 01295                              | SN74LS09N         |                |
| A47U12                  | 1A20-1246      | 9   |                                     | IC GATE TTL LS AND QUAD 2-INP            | 01295                              | SN74LS09N         |                |
| A47 MISCELLANEOUS PARTS |                |     |                                     |                                          |                                    |                   |                |
|                         | 05328-40003    | 8   | 1                                   | STAND, L.E.D.                            | 28480                              | 05328-40003       |                |
| A50                     | 03585-66550    | 1   | 1                                   | TRACK GENERATOR MOTHERBOARD              | 28480                              | 03585-66550       |                |
| A50C1                   | 0160-3558      | 9   |                                     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480                              | 0160-3558         |                |
| A50C2                   | 0160-3558      | 9   |                                     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480                              | 0160-3558         |                |
| A50C3                   | 0160-3558      | 9   |                                     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480                              | 0160-3558         |                |
| A50C4                   | 0160-3558      | 9   |                                     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480                              | 0160-3558         |                |
| A50C5                   | 0160-3558      | 9   |                                     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480                              | 0160-3558         |                |
| A50C6                   | 0160-3558      | 9   |                                     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480                              | 0160-3558         |                |
| A50C7                   | 0160-3558      | 9   |                                     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480                              | 0160-3558         |                |
| A50C8                   | 0160-3558      | 9   |                                     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480                              | 0160-3558         |                |
| A50C9                   | 0160-3558      | 9   |                                     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480                              | 0160-3558         |                |
| A50C10                  | 0160-3558      | 9   |                                     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480                              | 0160-3558         |                |
| A50C11                  | 0160-3558      | 9   |                                     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480                              | 0160-3558         |                |
| A50C12                  | 0160-3558      | 9   |                                     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480                              | 0160-3558         |                |
| A50C13                  | 0160-3558      | 9   |                                     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480                              | 0160-3558         |                |
| A50C14                  | 0160-3558      | 9   |                                     | CAPACITOR-FXD .1UF +-20% 50VDC CER       | 28480                              | 0160-3558         |                |
| A50J1                   | 1250-1593      | 0   |                                     | ADAPTER-COAX STR M-SMB M-SMB             | 28480                              | 1250-1593         |                |
| A50J2                   | 1250-1593      | 0   |                                     | ADAPTER-COAX STR M-SMB M-SMB             | 28480                              | 1250-1593         |                |
| A50 MISCELLANEOUS PARTS |                |     |                                     |                                          |                                    |                   |                |
|                         | 03585-21213    | 9   | 2                                   | NUT, CONNECTOR GUIDE                     | 28480                              | 03585-21213       |                |
|                         | 1200-0474      | 9   | 3                                   | SOCKET-IC 14-CONT DIP-SLDR               | 28480                              | 1200-0474         |                |
|                         | 1251-2035      | 9   |                                     | CONNECTOR-PC EDGE 15-CONT/ROW 2-ROWS     | 28480                              | 1251-2035         |                |
|                         | 1251-3276      | 2   |                                     | CONNECTOR 6-PIN M POST TYPE              | 28480                              | 1251-3276         |                |
|                         | 1251-0600      | 0   |                                     | CONNECTOR-SGL CONT PIN 1,14-MM-BSC-SZ 56 | 28480                              | 1251-0600         |                |
| A51                     | 03585-66551    | 2   | 1                                   | TRACKING GENERATOR D/A                   | 28480                              | 03585-66551       |                |
| A51C1                   | 0140-0190      | 7   |                                     | CAPACITOR-FXD 39PF +-5% 300VDC MICA      | 72136                              | 0M15E390J0300V1C8 |                |
| A51C2                   | 0140-0190      | 7   |                                     | CAPACITOR-FXD 39PF +-5% 300VDC MICA      | 72136                              | 0M15E390J0300V1C8 |                |
| A51C5                   | 0160-2055      | 9   |                                     | CAPACITOR-FXD .01UF +-80-20% 100VDC CER  | 28480                              | 0160-2055         |                |
| A51C6                   | 0160-3622      | 8   |                                     | CAPACITOR-FXD .1UF +-80-20% 100VDC CER   | 26654                              | 2130Y5V100R104Z   |                |
| A51C8                   | 0160-0309      | 4   |                                     | CAPACITOR-FXD 4.7UF +-20% 10VDC TA       | 56289                              | 150D475X00104Z    |                |
| A51C9                   | 0160-3538      | 5   |                                     | CAPACITOR-FXD 750PF +-5% 100VDC MICA     | 28480                              | 0160-3538         |                |
| A51C10                  | 0160-2202      | 8   |                                     | CAPACITOR-FXD 75PF +-5% 300VDC MICA      | 28480                              | 0160-2202         |                |
| A51C12                  | 0160-2055      | 9   |                                     | CAPACITOR-FXD .01UF +-80-20% 100VDC CER  | 28480                              | 0160-2055         |                |
| A51C14                  | 0160-3622      | 8   |                                     | CAPACITOR-FXD .1UF +-80-20% 100VDC CER   | 26654                              | 2130Y5V100R104Z   |                |
| A51C17                  | 0160-3622      | 8   |                                     | CAPACITOR-FXD .1UF +-80-20% 100VDC CER   | 26654                              | 2130Y5V100R104Z   |                |
| A51C18                  | 0160-3622      | 8   |                                     | CAPACITOR-FXD .1UF +-80-20% 100VDC CER   | 26654                              | 2130Y5V100R104Z   |                |
| A51C19                  | 0160-3622      | 8   |                                     | CAPACITOR-FXD .1UF +-80-20% 100VDC CER   | 26654                              | 2130Y5V100R104Z   |                |
| A51C20                  | 0140-0190      | 7   |                                     | CAPACITOR-FXD 39PF +-5% 300VDC MICA      | 72136                              | 0M15E390J0300V1C8 |                |
| A51C21                  | 0150-0050      | 9   |                                     | CAPACITOR-FXD 1000PF +-80-20% 1KVDC CER  | 28480                              | 0150-0050         |                |
| A51C22                  | 0140-0190      | 7   | CAPACITOR-FXD 39PF +-5% 300VDC MICA | 72136                                    | 0M15E390J0300V1C8                  |                   |                |
| A51C23                  | 0150-0050      | 9   |                                     | CAPACITOR-FXD 1000PF +-80-20% 1KVDC CER  | 28480                              | 0150-0050         |                |
| A51C25                  | 0160-2055      | 9   |                                     | CAPACITOR-FXD .01UF +-80-20% 100VDC CER  | 28480                              | 0160-2055         |                |
| A51C26                  | 0160-0196      | 5   |                                     | CAPACITOR-FXD 24PF +-5% 300VDC MICA      | 28480                              | 0160-0196         |                |
| A51C27                  | 0160-2200      | 6   |                                     | CAPACITOR-FXD 43PF +-5% 300VDC MICA      | 28480                              | 0160-2200         |                |
| A51C28                  | 0160-2055      | 9   |                                     | CAPACITOR-FXD .01UF +-80-20% 100VDC CER  | 28480                              | 0160-2055         |                |
| A51C29                  | 0160-2055      | 9   |                                     | CAPACITOR-FXD .01UF +-80-20% 100VDC CER  | 28480                              | 0160-2055         |                |
| A51C30                  | 0160-2055      | 9   |                                     | CAPACITOR-FXD .01UF +-80-20% 100VDC CER  | 28480                              | 0160-2055         |                |
| A51C31                  | 0160-2055      | 9   |                                     | CAPACITOR-FXD .01UF +-80-20% 100VDC CER  | 28480                              | 0160-2055         |                |
| A51C33                  | 0160-2055      | 9   |                                     | CAPACITOR-FXD .01UF +-80-20% 100VDC CER  | 28480                              | 0160-2055         |                |
| A51C50                  | 0180-0195      | 6   |                                     | 3                                        | CAPACITOR-FXD .33UF +-20% 35VDC TA | 56289             | 150D334X00354Z |
| A51C51                  | 0180-0291      | 3   |                                     |                                          | CAPACITOR-FXD 1UF +-10% 35VDC TA   | 56289             | 150D105X90354Z |
| A51C52                  | 0180-1806      | 6   | CAPACITOR-FXD 2.2UF +-10% 35VDC TA  |                                          | 56289                              | 150D225X90354Z    |                |
| A51C53                  | 0180-0291      | 3   | CAPACITOR-FXD 1UF +-10% 35VDC TA    |                                          | 56289                              | 150D105X90354Z    |                |
| A51CR1                  | 1902-1329      | 5   | 3                                   | DIODE-ZNR 6.6V                           | 28480                              | 1902-1329         |                |
| A51CR2                  | 0122-0089      | 3   |                                     | DIODE-VVC 29PF 10% C3/C25-MIN=5 8VR=30V  | 04713                              | MV109             |                |
| A51CR4                  | 0122-0089      | 5   |                                     | DIODE-VVC 29PF 10% C3/C25-MIN=5 8VR=30V  | 04713                              | MV109             |                |
| A51CR5                  | 1901-0040      | 1   |                                     | DIODE-SWITCHING 30V 50MA 2NS DD-35       | 26480                              | 1901-0040         |                |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|------------------|
| A51J1                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512        |
| A51J2                 | 1250-1512      | 3   |     | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-1512        |
| A51L1                 | 9140-0210      | 1   |     | COIL-MLD 100UH 5% Q=50 .155DX,375LG-NOM  | 28480    | 9140-0210        |
| A51L2                 | 9100-1622      | 7   | 3   | COIL-MLD 24UH 5% Q=60 .155DX,375LG-NOM   | 28480    | 9100-1622        |
| A51L3                 | 9100-3551      | 5   |     | COIL-MLD 1UH 5% Q=50 .155DX,375LG-NOM    | 28480    | 9100-3551        |
| A51L5                 | 9140-0285      | 0   | 1   | COIL-MLD 3UH 5% Q=33 .155DX,375LG-NOM    | 28480    | 9140-0285        |
| A51L6                 | 9140-0210      | 1   |     | COIL-MLD 100UH 5% Q=50 .155DX,375LG-NOM  | 28480    | 9140-0210        |
| A51L7                 | 9140-0284      | 9   | 1   | COIL-MLD 2,4UH 5% Q=33 .155DX,375LG-NOM  | 28480    | 9140-0284        |
| A51L8                 | 9100-3551      | 5   |     | COIL-MLD 1UH 5% Q=50 .155DX,375LG-NOM    | 28480    | 9100-3551        |
| A51L9                 | 9100-3551      | 5   |     | COIL-MLD 1UH 5% Q=50 .155DX,375LG-NOM    | 28480    | 9100-3551        |
| A51L10                | 9100-3551      | 5   |     | COIL-MLD 1UH 5% Q=50 .155DX,375LG-NOM    | 28480    | 9100-3551        |
| A51L11                | 9140-0210      | 1   |     | COIL-MLD 100UH 5% Q=50 .155DX,375LG-NOM  | 28480    | 9140-0210        |
| A51G1                 | 1853-0010      | 2   |     | TRANSISTOR PNP SI TD=18 PD=360MW         | 28480    | 1853-0010        |
| A51G2                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904           |
| A51G3                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904           |
| A51G4                 | 1853-0089      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW        | 07263    | 2N4917           |
| A51G5                 | 1854-0485      | 7   |     | TRANSISTOR NPN SI TD=104 PD=175MW        | 28480    | 1854-0485        |
| A51G6                 | 1854-0485      | 7   |     | TRANSISTOR NPN SI TD=104 PD=175MW        | 28480    | 1854-0485        |
| A51R1                 | 0698-6801      | 0   | 3   | RESISTOR 3,48K 1% .125W F TC=0/+25       | 28480    | 0698-6801        |
| A51R2                 | 0698-4504      | 6   | 1   | RESISTOR 69.8K 1% .125W F TC=0/+100      | 24546    | C4=1/8-T0=6982-F |
| A51R3                 | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035           |
| A51R4                 | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035           |
| A51R5                 | 0698-6801      | 0   |     | RESISTOR 3,48K 1% .125W F TC=0/+25       | 28480    | 0698-6801        |
| A51R6                 | 0698-6801      | 0   |     | RESISTOR 3,48K 1% .125W F TC=0/+25       | 28480    | 0698-6801        |
| A51R7                 | 0698-3459      | 8   | 1   | RESISTOR 383K 1% .125W F TC=0/+100       | 28480    | 0698-3459        |
| A51R8                 | 0698-3558      | 8   |     | RESISTOR 4,02K 1% .125W F TC=0/+100      | 24546    | C4=1/8-T0=4021-F |
| A51R9                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025           |
| A51R10                | 0683-2245      | 7   |     | RESISTOR 220K 5% .25W FC TC=800/+900     | 01121    | CB2245           |
| A51R11                | 0683-1535      | 6   |     | RESISTOR 15K 5% .25W FC TC=400/+800      | 01121    | CB1535           |
| A51R12                | 0698-3456      | 3   |     | RESISTOR 3,57K 1% .125W F TC=0/+100      | 24546    | C4=1/8-T0=357R-F |
| A51R13                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705           |
| A51R14                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035           |
| A51R15                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025           |
| A51R16                | 0683-2725      | 4   |     | RESISTOR 2,7K 5% .25W FC TC=400/+700     | 01121    | CB2725           |
| A51R19                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705           |
| A51R20                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035           |
| A51R21                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025           |
| A51R22                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500       | 01121    | CB4705           |
| A51R23                | 0683-3925      | 2   |     | RESISTOR 3,9K 5% .25W FC TC=400/+700     | 01121    | CB3925           |
| A51R24                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035           |
| A51R25                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035           |
| A51R26                | 0683-4725      | 2   |     | RESISTOR 4,7K 5% .25W FC TC=400/+700     | 01121    | CB4725           |
| A51R27                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035           |
| A51R28                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035           |
| A51R29                | 0683-4725      | 2   |     | RESISTOR 4,7K 5% .25W FC TC=400/+700     | 01121    | CB4725           |
| A51R30                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025           |
| A51R31                | 0683-8225      | 5   | 1   | RESISTOR 8,2K 5% .25W FC TC=400/+700     | 01121    | CB8225           |
| A51R32                | 0683-2715      | 6   |     | RESISTOR 270 5% .25W FC TC=400/+600      | 01121    | CB2715           |
| A51R33                | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=400/+500       | 01121    | CB5105           |
| A51R34                | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=400/+500       | 01121    | CB5105           |
| A51R35                | 0683-1335      | 4   | 2   | RESISTOR 13K 5% .25W FC TC=400/+800      | 01121    | CB1335           |
| A51R36                | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=400/+500       | 01121    | CB5105           |
| A51R37                | 0683-4725      | 2   |     | RESISTOR 4,7K 5% .25W FC TC=400/+700     | 01121    | CB4725           |
| A51R38                | 0683-6215      | 9   |     | RESISTOR 620 5% .25W FC TC=400/+600      | 01121    | CB6215           |
| A51R39                | 0683-6215      | 9   |     | RESISTOR 620 5% .25W FC TC=400/+600      | 01121    | CB6215           |
| A51R40                | 0683-3305      | 2   |     | RESISTOR 33 5% .25W FC TC=400/+500       | 01121    | CB3305           |
| A51R41                | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=400/+500       | 01121    | CB5105           |
| A51R42                | 0683-3305      | 2   |     | RESISTOR 33 5% .25W FC TC=400/+500       | 01121    | CB3305           |
| A51R43                | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=400/+500       | 01121    | CB5105           |
| A51R45                | 0683-2415      | 3   |     | RESISTOR 240 5% .25W FC TC=400/+600      | 01121    | CB2415           |
| A51R46                | 0683-2415      | 3   |     | RESISTOR 240 5% .25W FC TC=400/+600      | 01121    | CB2415           |
| A51R47                | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=400/+500       | 01121    | CB5105           |
| A51R48                | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=400/+500       | 01121    | CB5105           |
| A51R49                | 0683-3315      | 4   |     | RESISTOR 330 5% .25W FC TC=400/+600      | 01121    | CB3315           |
| A51R50                | 0683-2425      | 5   |     | RESISTOR 2,4K 5% .25W FC TC=400/+700     | 01121    | CB2425           |
| A51R51                | 0683-4725      | 2   |     | RESISTOR 4,7K 5% .25W FC TC=400/+700     | 01121    | CB4725           |
| A51R52                | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=400/+500       | 01121    | CB5105           |
| A51R53                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025           |
| A51T1                 | 08552-6044     | 1   |     | TRANSFORMER, 6-TURNS                     | 28480    | 08552-6044       |
| A51P1                 | 0360-1653      | 5   | 3   | CONNECTOR-SGL CONT PIN .045-IN-BSC-SZ S3 | 28480    | 0360-1653        |
| A51P2                 | 0360-1653      | 5   |     | CONNECTOR-SGL CONT PIN .045-IN-BSC-SZ S3 | 28480    | 0360-1653        |
| A51P3                 | 0360-1653      | 5   |     | CONNECTOR-SGL CONT PIN .045-IN-BSC-SZ S3 | 28480    | 0360-1653        |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty                                      | Description                              | Mfr Code       | Mfr Part Number    |
|-----------------------|----------------|-----|------------------------------------------|------------------------------------------|----------------|--------------------|
| A51U1                 | 1820-1196      | 8   | 5                                        | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295          | SN74LS174N         |
| A51U2                 | 1826-0188      | 8   |                                          | CONV 8-B-D/A 16-DIP-C                    | 04713          | MC1408L-8          |
| A51U3                 | 1820-1196      | 8   |                                          | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295          | SN74LS174N         |
| A51U4                 | 1826-0188      | 8   |                                          | CONV 8-B-D/A 16-DIP-C                    | 04713          | MC1408L-8          |
| A51U5                 | 1826-0043      | 4   |                                          | OP AMP GP TU-99                          | 01928          | CA307T             |
| A51U6                 | 1826-0043      | 4   | OP AMP GP TO-99                          | 01928                                    | CA307T         |                    |
| A51U7                 | 1820-1197      | 9   | IC GATE TTL LS NAND QUAD 2-INP           | 01295                                    | SN74LS00N      |                    |
| A51U8                 | 1820-0693      | 8   | IC FF TTL S D-TYPE POS-EDGE-TRIG         | 01295                                    | SN74S74N       |                    |
| A51U9                 | 1826-0309      | 5   | OP AMP WR TO-99                          | 24355                                    | AD518J         |                    |
| A51U10                | 1858-0004      | 4   | TRANSISTOR ARRAY                         | 01928                                    | CA3049         |                    |
| A51U12                | 1826-0512      | 2   | 2                                        | IC 79M15C V RGLTR TO-39                  | 04713          | MC79M15CG          |
| A51U13                | 1826-0511      | 1   |                                          | IC 79M15A V RGLTR TO-39                  | 01295          | U479M15CLA         |
| A51x1                 | 0410-1137      | 7   | 1                                        | CRYSTAL 10,340 MHZ                       | 28480          | 0410-1137          |
|                       |                |     |                                          | AS1 MISCELLANEOUS PARTS                  |                |                    |
|                       | 03585-04109    | 6   | 1                                        | COVER, AS1                               | 28480          | 03585-04109        |
|                       | 0370-2583      | 3   | 4                                        | KNOB                                     | 28480          | 0370-2583          |
|                       | 1205-0011      | 0   |                                          | HEAT SINK TO-5/TO-39-PKG                 | 28480          | 1205-0011          |
|                       | 2950-0078      | 9   |                                          | NUT-HEX-DBL-CHAM 10-32-THD ,067-IN-TMK   | 28480          | 2950-0078          |
|                       | 2190-0124      | 4   |                                          | WASHER-LK INTL T NO. 10 ,195-IN-ID       | 28480          | 2190-0124          |
|                       | 1200-0185      | 9   | 2                                        | INSULATOR-XSTR NYLON                     | 28480          | 1200-0185          |
| A52                   | 03585-66552    | 3   | 1                                        | TRACKING GENERATOR OUTPUT                | 28480          | 03585-66552        |
| A52C1                 | 0160-0291      | 3   | 10                                       | CAPACITOR-FXD .1UF +-10% 35VDC TA        | 56289          | 150D105X9035A2     |
| A52C2                 | 0160-0291      | 3   |                                          | CAPACITOR-FXD .1UF +-10% 35VDC TA        | 56289          | 150D105X9035A2     |
| A52C3                 | 0160-3622      | 8   |                                          | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654          | 2130Y5V100R104Z    |
| A52C4                 | 0160-2055      | 9   |                                          | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480          | 0160-2055          |
| A52C5                 | 0160-3456      | 6   |                                          | CAPACITOR-FXD 1000PF +-10% 1KVDC CER     | 28480          | 0160-3456          |
| A52C6                 | 0160-3622      | 8   |                                          | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654          | 2130Y5V100R104Z    |
| A52C9                 | 0160-2055      | 9   |                                          | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480          | 0160-2055          |
| A52C10                | 0160-0210      | 6   |                                          | CAPACITOR-FXD 3.3UF +-20% 15VDC TA       | 56289          | 150D335X0015A2     |
| A52C11                | 0160-0228      | 6   |                                          | CAPACITOR-FXD 22UF +-10% 15VDC TA        | 56289          | 150D226X9015B2     |
| A52C12                | 0160-2055      | 9   |                                          | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480          | 0160-2055          |
| A52C13                | 0160-0210      | 6   | 6                                        | CAPACITOR-FXD 3.3UF +-20% 15VDC TA       | 56289          | 150D335X0015A2     |
| A52C14                | 0160-0228      | 6   |                                          | CAPACITOR-FXD 22UF +-10% 15VDC TA        | 56289          | 150D226X9015B2     |
| A52C15                | 0160-0228      | 6   |                                          | CAPACITOR-FXD 22UF +-10% 15VDC TA        | 56289          | 150D226X9015B2     |
| A52C16                | 0121-0105      | 4   | 1                                        | CAPACITOR-V TRMR-CER 9-35PF 200V PC-MTG  | 52763          | 304324 9/35PF N650 |
| A52C18                | 0160-2250      | 6   |                                          | CAPACITOR-FXD 5.1PF +-25PF 500VDC CER    | 28480          | 0160-2250          |
| A52C19                | 0160-2234      | 6   | 2                                        | CAPACITOR-FXD 5.1PF +-25PF 500VDC CER    | 28480          | 0160-2234          |
| A52C20                | 0160-2251      | 7   |                                          | CAPACITOR-FXD 5.6PF +-25PF 500VDC CER    | 28480          | 0160-2251          |
| A52C21                | 0150-0091      | 6   | 1                                        | CAPACITOR-FXD 1.5PF +-25PF 500VDC CER    | 28480          | 0150-0091          |
| A52C22                | 0160-2241      | 5   |                                          | CAPACITOR-FXD 2.2PF +-25PF 500VDC CER    | 28480          | 0160-2241          |
| A52C24                | 0160-2055      | 9   | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480                                    | 0160-2055      |                    |
| A52C25                | 0160-2055      | 9   | 9                                        | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480          | 0160-2055          |
| A52C26                | 0160-2055      | 9   |                                          | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480          | 0160-2055          |
| A52C27                | 0160-2055      | 9   | 8                                        | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480          | 0160-2055          |
| A52C28                | 0160-3622      | 8   |                                          | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654          | 2130Y5V100R104Z    |
| A52C29                | 0160-2261      | 9   | CAPACITOR-FXD 15PF +-5% 500VDC CER 0+-30 | 28480                                    | 0160-2261      |                    |
| A52C30                | 0160-2234      | 6   | 2                                        | CAPACITOR-FXD 5.1PF +-25PF 500VDC CER    | 28480          | 0160-2234          |
| A52C31                | 0160-2264      | 2   |                                          | CAPACITOR-FXD 20PF +-5% 500VDC CER 0+-30 | 28480          | 0160-2264          |
| A52C32                | 0160-2055      | 9   | 9                                        | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480          | 0160-2055          |
| A52C33                | 0160-2261      | 9   |                                          | CAPACITOR-FXD 15PF +-5% 500VDC CER 0+-30 | 28480          | 0160-2261          |
| A52C34                | 0160-2055      | 9   | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480                                    | 0160-2055      |                    |
| A52C35                | 0160-2055      | 9   | 9                                        | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480          | 0160-2055          |
| A52C36                | 0160-3456      | 6   |                                          | CAPACITOR-FXD 1000PF +-10% 1KVDC CER     | 28480          | 0160-3456          |
| A52C37                | 0160-2055      | 9   | 9                                        | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480          | 0160-2055          |
| A52C38                | 0160-2055      | 9   |                                          | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480          | 0160-2055          |
| A52C39                | 0160-2055      | 9   | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480                                    | 0160-2055      |                    |
| A52C40                | 0160-2055      | 9   | 9                                        | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480          | 0160-2055          |
| A52C41                | 0160-2055      | 9   |                                          | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480          | 0160-2055          |
| A52C42                | 0160-2257      | 3   | 1                                        | CAPACITOR-FXD 10PF +-5% 500VDC CER 0+-60 | 28480          | 0160-2257          |
| A52C44                | 0160-2046      | 8   |                                          | CAPACITOR-FXD 2PF +-5PF 500VDC MICA      | 28480          | 0160-2046          |
| A52C57                | 0160-2055      | 9   | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480                                    | 0160-2055      |                    |
| A52C58                | 0140-0190      | 7   | 7                                        | CAPACITOR-FXD 30PF +-5% 300VDC MICA      | 72156          | DM15E190J030GVV1CR |
| A52C59                | 0160-2197      | 0   |                                          | CAPACITOR-FXD 10PF +-5% 300VDC MICA      | 28480          | 0160-2197          |
| A52C61                | 0160-2055      | 9   | 9                                        | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480          | 0160-2055          |
| A52C62                | 0160-2055      | 9   |                                          | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480          | 0160-2055          |
| A52C63                | 0160-0210      | 6   | CAPACITOR-FXD 3.3UF +-20% 15VDC TA       | 56289                                    | 150D335X0015A2 |                    |
| A52C64                | 1902-3149      | 9   | 1                                        | DIODE-ZNR 9.09V 5% DD-7 PD=.4A TC=+.057% | 28480          | 1902-3149          |
| A52C65                | 1902-3149      | 9   |                                          | DIODE-ZNR 9.09V 5% DD-7 PD=.4A TC=+.057% | 28480          | 1902-3149          |
| A52C66                | 1902-3128      | 4   | 1                                        | DIODE-ZNR 7.32V 5% DD-7 PD=.4A TC=+.044% | 28480          | 1902-3128          |
| A52C67                | 1901-0040      | 1   |                                          | DIODE-SWITCHING 30V 50MA 2NS DD-35       | 28480          | 1901-0040          |
| A52C68                | 1901-0040      | 1   | DIODE-SWITCHING 30V 50MA 2NS DD-35       | 28480                                    | 1901-0040      |                    |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty                                     | Description                              | Mfr Code         | Mfr Part Number  |
|-----------------------|----------------|-----|-----------------------------------------|------------------------------------------|------------------|------------------|
| A52CR11               | 1901-0050      | 3   | 6                                       | DIODE-SWITCHING 80V 200MA 2NS DO-35      | 28480            | 1901-0050        |
| A52CR12               | 1901-0050      | 3   |                                         | DIODE-SWITCHING 80V 200MA 2NS DO-35      | 28480            | 1901-0050        |
| A52CR13               | 1902-3002      | 3   |                                         | DIODE-ZNR 2.37V 5% DO-7 PD=.4W TC=-.074% | 28480            | 1902-3002        |
| A52CR14               | 1902-3002      | 3   |                                         | DIODE-ZNR 2.37V 5% DO-7 PD=.4W TC=-.074% | 28480            | 1902-3002        |
| A52J1                 | 1250-1512      | 3   |                                         | CONNECTOR-RF SMB M PC 50-OHM             | 28480            | 1250-1512        |
| A52J2                 | 1250-1512      | 3   | CONNECTOR-RF SMB M PC 50-OHM            | 28480                                    | 1250-1512        |                  |
| A52J3                 | 1250-1512      | 3   | CONNECTOR-RF SMB M PC 50-OHM            | 28480                                    | 1250-1512        |                  |
| A52J4                 | 1250-1512      | 3   | CONNECTOR-RF SMB M PC 50-OHM            | 28480                                    | 1250-1512        |                  |
| A52J5                 | 1250-1512      | 3   | CONNECTOR-RF SMB M PC 50-OHM            | 28480                                    | 1250-1512        |                  |
| A52J7                 | 1251-5203      | 9   | 1                                       | CONNECTOR 6-PIN M POST TYPE              | 28480            | 1251-5203        |
| A52L2                 | 9140-0144      | 0   | 1                                       | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480            | 9140-0144        |
| A52L3                 | 9140-0144      | 0   |                                         | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480            | 9140-0144        |
| A52L4                 | 9140-0144      | 0   |                                         | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480            | 9140-0144        |
| A52L6                 | 9140-0283      | 8   |                                         | COIL-MLD 910NH 5% Q=50 .155DX.375LG-NOM  | 28480            | 9140-0283        |
| A52L7                 | 9100-2258      | 7   |                                         | COIL-MLD 1.2UH 10% Q=32 .095DX.25LG-NOM  | 28480            | 9100-2258        |
| A52L9                 | 9140-0144      | 0   |                                         | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM  | 28480            | 9140-0144        |
| A52L11                | 9100-2252      | 1   |                                         | COIL-MLD 270NH 10% Q=30 .095DX.25LG-NOM  | 28480            | 9100-2252        |
| A52L14                | 9140-0286      | 0   | COIL-MLD 300NH 5% Q=45 .155DX.375LG-NOM | 28480                                    | 9140-0286        |                  |
| A52L16                | 9140-0144      | 0   | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM | 28480                                    | 9140-0144        |                  |
| A52L17                | 9140-0158      | 6   | COIL-MLD 1UH 10% Q=32 .095DX.25LG-NOM   | 28480                                    | 9140-0158        |                  |
| A52L18                | 9140-0144      | 0   | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM | 28480                                    | 9140-0144        |                  |
| A52L30                | 9140-0144      | 0   | COIL-MLD 4.7UH 10% Q=45 .095DX.25LG-NOM | 28480                                    | 9140-0144        |                  |
| A52Q4                 | 1855-0395      | 0   | 2                                       | TRANSISTOR J-FET N-CHAN D-MODE SI        | 17856            | FN2645           |
| A52Q5                 | 1855-0395      | 0   |                                         | TRANSISTOR J-FET N-CHAN D-MODE SI        | 17856            | FN2645           |
| A52Q6                 | 1854-0345      | 8   |                                         | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW  | 04713            | 2N5179           |
| A52Q7                 | 1854-0019      | 3   |                                         | TRANSISTOR NPN SI TO-18 PD=360MW         | 28480            | 1854-0019        |
| A52Q8                 | 1853-0034      | 0   |                                         | TRANSISTOR PNP SI TO-18 PD=360MW         | 28480            | 1853-0034        |
| A52Q9                 | 1854-0345      | 8   | TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW | 04713                                    | 2N5179           |                  |
| A52Q10                | 1854-0019      | 3   | TRANSISTOR NPN SI TO-18 PD=360MW        | 28480                                    | 1854-0019        |                  |
| A52Q11                | 1853-0034      | 0   | TRANSISTOR PNP SI TO-18 PD=360MW        | 28480                                    | 1853-0034        |                  |
| A52Q12                | 1854-0485      | 7   | TRANSISTOR NPN SI TO-104 PD=175MW       | 28480                                    | 1854-0485        |                  |
| A52Q13                | 1854-0485      | 7   | TRANSISTOR NPN SI TO-104 PD=175MW       | 28480                                    | 1854-0485        |                  |
| A52Q14                | 1854-0485      | 7   | TRANSISTOR NPN SI TO-104 PD=175MW       | 28480                                    | 1854-0485        |                  |
| A52Q15                | 1854-0485      | 7   | TRANSISTOR NPN SI TO-104 PD=175MW       | 28480                                    | 1854-0485        |                  |
| A52Q16                | 1854-0485      | 7   | TRANSISTOR NPN SI TO-104 PD=175MW       | 28480                                    | 1854-0485        |                  |
| A52Q17                | 1854-0485      | 7   | TRANSISTOR NPN SI TO-104 PD=175MW       | 28480                                    | 1854-0485        |                  |
| A52Q30                | 1855-0420      | 2   | TRANSISTOR J-FET 2N4391 N-CHAN D-MODE   | 01295                                    | 2N4391           |                  |
| A52Q31                | 1855-0420      | 2   | TRANSISTOR J-FET 2N4391 N-CHAN D-MODE   | 01295                                    | 2N4391           |                  |
| A52Q32                | 1855-0420      | 2   | TRANSISTOR J-FET 2N4391 N-CHAN D-MODE   | 01295                                    | 2N4391           |                  |
| A52Q33                | 1855-0420      | 2   | TRANSISTOR J-FET 2N4391 N-CHAN D-MODE   | 01295                                    | 2N4391           |                  |
| A52Q34                | 1855-0420      | 2   | TRANSISTOR J-FET 2N4391 N-CHAN D-MODE   | 01295                                    | 2N4391           |                  |
| A52Q35                | 1855-0420      | 2   | TRANSISTOR J-FET 2N4391 N-CHAN D-MODE   | 01295                                    | 2N4391           |                  |
| A52Q36                | 1854-0019      | 3   | TRANSISTOR NPN SI TO-18 PD=360MW        | 28480                                    | 1854-0019        |                  |
| A52Q37                | 1853-0203      | 5   | TRANSISTOR PNP SI TO-18 PD=360MW        | 28480                                    | 1853-0203        |                  |
| A52Q38                | 1854-0019      | 3   | TRANSISTOR NPN SI TO-18 PD=360MW        | 28480                                    | 1854-0019        |                  |
| A52R3                 | 0683-1325      | 2   | 19                                      | RESISTOR 1.3K 5% .25W FC TC=-400/+700    | 01121            | CB1325           |
| A52R4                 | 0683-1505      | 0   |                                         | RESISTOR 15 5% .25W FC TC=-400/+500      | 01121            | CB1505           |
| A52R6                 | 0683-1025      | 9   |                                         | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121            | CB1025           |
| A52R9                 | 0683-1535      | 6   |                                         | RESISTOR 15K 5% .25W FC TC=-400/+800     | 01121            | CB1535           |
| A52R10                | 0683-1525      | 4   |                                         | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121            | CB1525           |
| A52R11                | 0683-2045      | 5   |                                         | RESISTOR 200K 5% .25W FC TC=-800/+900    | 01121            | CB2045           |
| A52R12                | 0683-1045      | 3   |                                         | RESISTOR 100K 5% .25W FC TC=-400/+800    | 01121            | CB1045           |
| A52R13                | 0683-1045      | 3   |                                         | RESISTOR 100K 5% .25W FC TC=-400/+800    | 01121            | CB1045           |
| A52R14                | 0683-4725      | 2   |                                         | RESISTOR 4.7K 5% .25W FC TC=-400/+700    | 01121            | CB4725           |
| A52R15                | 0683-2045      | 5   |                                         | RESISTOR 200K 5% .25W FC TC=-800/+900    | 01121            | CB2045           |
| A52R16                | 0683-3315      | 4   | RESISTOR 330 5% .25W FC TC=-400/+600    | 01121                                    | CB3315           |                  |
| A52R17                | 0683-1015      | 7   | RESISTOR 100 5% .25W FC TC=-400/+500    | 01121                                    | CB1015           |                  |
| A52R18                | 0683-3925      | 2   | RESISTOR 3.9K 5% .25W FC TC=-400/+700   | 01121                                    | CB3925           |                  |
| A52R19                | 0683-3325      | 6   | RESISTOR 3.3K 5% .25W FC TC=-400/+700   | 01121                                    | CB3325           |                  |
| A52R21                | 0699-0195      | 5   | 1                                       | RESISTOR 47.5 1% .25W F TC=0+-100        | 24546            | 0699-0195        |
| A52R22                | 0683-1035      | 1   | RESISTOR 10K 5% .25W FC TC=-400/+700    | 01121                                    | CB1035           |                  |
| A52R24                | 0683-2025      | 3   | RESISTOR 2K 5% .25W FC TC=-400/+700     | 01121                                    | CB2025           |                  |
| A52R25                | 0683-2035      | 1   | RESISTOR 20K 5% .25W FC TC=-400/+800    | 01121                                    | CB2035           |                  |
| A52R26                | 0683-1035      | 1   | RESISTOR 10K 5% .25W FC TC=-400/+700    | 01121                                    | CB1035           |                  |
| A52R27                | 0683-1255      | 7   | 1                                       | RESISTOR 1.2M 5% .25W FC TC=-900/+1100   | 01121            | CB1255           |
| A52R28                | 0757-0445      | 2   | RESISTOR 13K 1% .125W F TC=0+-100       | 24546                                    | C4=1/8-T0=1502-F |                  |
| A52R29                | 0698-4123      | 5   | RESISTOR 499 1% .125W F TC=0+-100       | 24546                                    | C4=1/8-T0=4992-F |                  |
| A52R30                | 0683-3325      | 6   | RESISTOR 3.3K 5% .25W FC TC=-400/+700   | 01121                                    | CB3325           |                  |
| A52R31                | 0683-2025      | 8   | RESISTOR 2K 5% .25W FC TC=-400/+700     | 01121                                    | CB2025           |                  |
| A52R32                | 0757-0277      | 1   | 1                                       | RESISTOR 49.9 1% .125W F TC=0+-100       | 24546            | C4=1/8-T0=4992-F |
| A52R33                | 0757-0411      | 2   | 1                                       | RESISTOR 332 1% .125W F TC=0+-100        | 24546            | C4=1/8-T0=332R-F |
| A52R34                | 0683-2035      | 3   | RESISTOR 20K 5% .25W FC TC=-400/+800    | 01121                                    | CB2035           |                  |
| A52R35                | 0683-2035      | 3   | RESISTOR 20K 5% .25W FC TC=-400/+800    | 01121                                    | CB2035           |                  |
| A52R36                | 0683-1505      | 0   | RESISTOR 15 5% .25W FC TC=-400/+500     | 01121                                    | CB1505           |                  |
| A52R37                | 0683-2035      | 3   | RESISTOR 20K 5% .25W FC TC=-400/+800    | 01121                                    | CB2035           |                  |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-------------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
| A52R38                  | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=-400/+800     | 01121    | C82035               |
| A52R39                  | 0698-4421      | 6   |     | RESISTOR 249 1% .125W F TC=0+-100        | 24546    | C4=1/8-T0=249R-F     |
| A52R42                  | 0698-4421      | 6   |     | RESISTOR 249 1% .125W F TC=0+-100        | 24546    | C4=1/8-T0=249R-F     |
| A52R43                  | 0683-2415      | 3   |     | RESISTOR 240 5% .25W FC TC=-400/+600     | 01121    | C82415               |
| A52R44                  | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500      | 01121    | C85105               |
| A52R45                  | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500      | 01121    | C85105               |
| A52R46                  | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | C84715               |
| A52R47                  | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=-400/+600     | 01121    | C82215               |
| A52R48                  | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500      | 01121    | C85105               |
| A52R49                  | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500      | 01121    | C85105               |
| A52R50                  | 0683-1335      | 4   |     | RESISTOR 13K 5% .25W FC TC=-400/+800     | 01121    | C81335               |
| A52R51                  | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700    | 01121    | C84725               |
| A52R52                  | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | C84715               |
| A52R53                  | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | C84715               |
| A52R54                  | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500      | 01121    | C85105               |
| A52R55                  | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500      | 01121    | C85105               |
| A52R56                  | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500      | 01121    | C85105               |
| A52R57                  | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700    | 01121    | C84725               |
| A52R58                  | 0683-2425      | 5   |     | RESISTOR 2.4K 5% .25W FC TC=-400/+700    | 01121    | C82425               |
| A52R59                  | 0757-0398      | 4   | 2   | RESISTOR 75 1% .125W F TC=0+-100         | 24546    | C4=1/8-T0=75R0-F     |
| A52R60                  | 0757-0398      | 4   |     | RESISTOR 75 1% .125W F TC=0+-100         | 24546    | C4=1/8-T0=75R0-F     |
| A52R61                  | 0683-3315      | 3   |     | RESISTOR 330 5% .25W FC TC=-400/+600     | 01121    | C83315               |
| A52R62                  | 0757-0394      | 0   | 1   | RESISTOR 51.1 1% .125W F TC=0+-100       | 24546    | C4=1/8-T0=511R-F     |
| A52R63                  | 0757-0284      | 7   | 4   | RESISTOR 150 1% .125W F TC=0+-100        | 24546    | C4=1/8-T0=151R-F     |
| A52R64                  | 0757-0407      | 6   |     | RESISTOR 200 1% .125W F TC=0+-100        | 24546    | C4=1/8-T0=201R-F     |
| A52R65                  | 0757-0440      | 7   |     | RESISTOR 7.5K 1% .125W F TC=0+-100       | 24546    | C4=1/8-T0=7501-F     |
| A52R66                  | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500      | 01121    | C85105               |
| A52R67                  | 0698-4196      | 2   | 1   | RESISTOR 1.07K 1% .125W F TC=0+-100      | 24546    | C4=1/8-T0=1071-F     |
| A52R68                  | 2100-3207      | 1   |     | RESISTOR-TRMR 5K 10% C SIDE=ADJ 1-TRN    | 28480    | 2100-3207            |
| A52R69                  | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500      | 01121    | C85105               |
| A52R70                  | 0757-0427      | 0   | 2   | RESISTOR 1.5K 1% .125W F TC=0+-100       | 24546    | C4=1/8-T0=1501-F     |
| A52R71                  | 0757-0427      | 0   |     | RESISTOR 1.5K 1% .125W F TC=0+-100       | 24546    | C4=1/8-T0=1501-F     |
| A52R72                  | 0683-2015      | 9   |     | RESISTOR 200 5% .25W FC TC=-400/+600     | 01121    | C82015               |
| A52R73                  | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500      | 01121    | C85105               |
| A52R74                  | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | C81015               |
| A52R75                  | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700    | 01121    | C84725               |
| A52R76                  | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500      | 01121    | C85105               |
| A52R77                  | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500      | 01121    | C85105               |
| A52R78                  | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | C81525               |
| A52R79                  | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | C81525               |
| A52R94                  | 0683-3615      | 7   |     | RESISTOR 360 5% .25W FC TC=-400/+600     | 01121    | C83615               |
| A52R100                 | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500      | 01121    | C85105               |
| A52T1                   | 08552-6044     | 1   |     | TRANSFORMER, 6-TURNS                     | 28480    | 08552-6044           |
| A52T2                   | 08552-6044     | 1   |     | TRANSFORMER, 6-TURNS                     | 28480    | 08552-6044           |
| A52U2                   | 1826-0138      | 8   |     | COMPARATOR GP QUAD 14-DIP-P              | 04713    | MLM339P              |
| A52U3                   | 1826-0111      | 7   |     | OP AMP GP DUAL TO-99                     | 04713    | MC1458G              |
| A52U4                   | 1858-0004      | 4   |     | TRANSISTOR ARRAY                         | 01928    | CA3049               |
| A52 MISCELLANEOUS PARTS |                |     |     |                                          |          |                      |
|                         | 03585-00602    | 6   | 1   | SHIELD, A52                              | 28480    | 03585-00602          |
|                         | 03585-04108    | 5   | 1   | COVER, A52                               | 28480    | 03585-04108          |
|                         | 03585-24113    | 4   | 1   | PLATE A52                                | 28480    | 03585-24113          |
|                         | 0370-2583      | 3   |     | KNOB                                     | 28480    | 0370-2583            |
|                         | 0590-0526      | 6   | 3   | THREADED INSEPT-NUT 4-40 .065-LG SST     | 28480    | 0590-0526            |
|                         | 5001-0173      | 7   |     |                                          | 28480    | 5001-0173            |
|                         | 2360-0193      | 8   | 4   | SCREW-MACH 6-32 .25-IN-LG PAN-HD-POZI    | 00000    | ORDER BY DESCRIPTION |
|                         | 2950-0078      | 9   |     | NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK   | 28480    | 2950-0078            |
|                         | 2190-0124      | 4   |     | WASHER-LK INTL T NO. 10 .195-IN-ID       | 28480    | 2190-0124            |
| A53                     | 03585-66553    | 4   | 1   | TRACKING GENERATOR VCO                   | 28480    | 03585-66553          |
| A53C45                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A53C46                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A53C47                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A53C48                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A53C49                  | 0160-2260      | 8   |     | CAPACITOR-FXD 13PF +-5% 500VDC CER 0+-30 | 28480    | 0160-2260            |
| A53C50                  | 0121-0059      | 7   | 1   | CAPACITOR-V TRMP-CER 2-8PF 350V PC-MTG   | 52763    | 304324 2/8PF NPO     |
| A53C51                  | 0160-4283      | 9   | 1   | CAPACITOR-FXD 100PF +-5% 200VDC CER      | 51642    | 150-200-NP0-101J     |
| A53C52                  | 0160-2257      | 3   |     | CAPACITOR-FXD 10PF +-5% 500VDC CER 0+-60 | 28480    | 0160-2257            |
| A53C53                  | 0160-3456      | 6   |     | CAPACITOR-FXD 1000PF +-10% 1KVDC CER     | 28480    | 0160-3456            |
| A53C54                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A53C55                  | 0160-2255      | 1   |     | CAPACITOR-FXD 8.2PF +-25PF 500VDC CER    | 28480    | 0160-2255            |
| A53C56                  | 0160-2266      | 4   |     | CAPACITOR-FXD 24PF +-5% 500VDC CER 0+-30 | 28480    | 0160-2266            |

See introduction to this section for ordering information  
 \*Indicates factory selected value



Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                             | Mfr Code | Mfr Part Number    |
|-----------------------|----------------|-----|-----|-----------------------------------------|----------|--------------------|
| A53CR5                | 0122-0089      | 5   |     | DIODE-VVC 29PF 10% C3/C25-MIN=5 BVP=30V | 04713    | MV109              |
| A53J5                 | 1251-5204      | 0   | 1   | CONNECTOR 6-PIN F POST TYPE             | 28480    | 1251-5204          |
| A53L24                | 9100-2247      | 4   |     | COIL-MLD 100NH 10% Q=34 .095DX,25LG-NOM | 28480    | 9100-2247          |
| A53L25                | 9100-3807      | 4   | 1   | COIL-MLD 110NH 5% Q=50 .1550X,375LG-NOM | 28480    | 9100-3807          |
| A53Q18                | 1853-0354      | 7   |     | TRANSISTOR PNP SI T0-92 PD=350MW        | 28480    | 1853-0354          |
| A53Q19                | 1854-0485      | 7   |     | TRANSISTOR NPN SI T0-104 PD=175MW       | 28480    | 1854-0485          |
| A53Q20                | 1853-0354      | 7   |     | TRANSISTOR PNP SI T0-92 PD=350MW        | 28480    | 1853-0354          |
| A53R22                | 0683-2015      | 9   |     | RESISTOR 200 5% .25W FC TC=-400/+600    | 01121    | C82015             |
| A53R23                | 0683-2015      | 9   |     | RESISTOR 200 5% .25W FC TC=-400/+600    | 01121    | C82015             |
| A53R47                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500    | 01121    | C81015             |
| A53R81                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500    | 01121    | C81015             |
| A53R82                | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700   | 01121    | C84725             |
| A53R83                | 0683-1635      | 7   | 1   | RESISTOR 16K 5% .25W FC TC=-400/+800    | 01121    | C81635             |
| A53R84                | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700   | 01121    | C84725             |
| A53R85                | 0683-2415      | 3   |     | RESISTOR 240 5% .25W FC TC=-400/+600    | 01121    | C82415             |
| A53R86                | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700   | 01121    | C84725             |
| A53R87                | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700   | 01121    | C84725             |
| A53R88                | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700   | 01121    | C84725             |
| A53R89                | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500     | 01121    | C85105             |
| A53R90                | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700   | 01121    | C84725             |
| A53R91                | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700   | 01121    | C84725             |
| A53R92                | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700   | 01121    | C84725             |
| A53R93                | 0683-5105      | 4   |     | RESISTOR 51 5% .25W FC TC=-400/+500     | 01121    | C85105             |
|                       |                |     |     | 453 MISCELLANEOUS PARTS                 |          |                    |
| A61                   | 03585-66561    | 4   | 1   | CLOCK ASSEMBLY                          | 28480    | 03585-66561        |
| A61C1                 | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER   | 28480    | 0160-3847          |
| A61C2                 | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER   | 28480    | 0160-3847          |
| A61C3                 | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER   | 28480    | 0160-3847          |
| A61C4                 | 0140-0198      | 5   |     | CAPACITOR-FXD 200PF +-5% 300VDC MICA    | 72136    | DM15F201J0300WVICR |
| A61C5                 | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER   | 28480    | 0160-3847          |
| A61C6                 | 0160-0168      | 1   | 2   | CAPACITOR-FXD .1UF +-10% 200VDC POLYE   | 28480    | 0160-0168          |
| A61C7                 | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER   | 28480    | 0160-3847          |
| A61C8                 | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA       | 56289    | 150D25X9020A2      |
| A61C9                 | 0140-0202      | 2   | 1   | CAPACITOR-FXD 15PF +-5% 500VDC MICA     | 72136    | DM15C150J0500WVICR |
| A61C10                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER   | 28480    | 0160-3847          |
| A61C11                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER   | 28480    | 0160-3847          |
| A61C12                | 0140-0198      | 5   |     | CAPACITOR-FXD 200PF +-5% 300VDC MICA    | 72136    | DM15F201J0300WVICR |
| A61C13                | 0160-0168      | 1   |     | CAPACITOR-FXD .1UF +-10% 200VDC POLYE   | 28480    | 0160-0168          |
| A61C14                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER   | 28480    | 0160-3847          |
| A61C15                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER   | 28480    | 0160-3847          |
| A61C16                | 0160-2199      | 2   |     | CAPACITOR-FXD 30PF +-5% 300VDC MICA     | 28480    | 0160-2199          |
| A61C17                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER   | 28480    | 0160-3847          |
| A61C18                | 0180-2614      | 8   | 2   | CAPACITOR-FXD 100UF+-10% 30VDC TA       | 56289    | 150D107X9030S2     |
| A61C19                | 0180-2614      | 8   |     | CAPACITOR-FXD 100UF+-10% 30VDC TA       | 56289    | 150D107X9030S2     |
| A61C20                | 0180-0094      | 4   | 1   | CAPACITOR-FXD 100UF+75-10% 25VDC AL     | 56289    | 30D107G0250D2      |
| A61C21                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER   | 28480    | 0160-3847          |
| A61C22                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER   | 28480    | 0160-3847          |
| A61C23                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER   | 28480    | 0160-3847          |
| A61CR1                | 1902-0041      | 4   | 2   | DIODE-ZAR 5.1V 5% DO-7 PD=.4W TC=-.069% | 28480    | 1902-0041          |
| A61J1                 | 1250-1368      | 7   |     | CONNECTOR-RF SMB M PC 50-OHM            | 28480    | 1250-1368          |
| A61L1                 | 9100-1629      | 4   | 1   | COIL-MLO 47UH 5% Q=55 .155DX,375LG-NOM  | 28480    | 9100-1629          |
| A61L4                 | 9100-1638      | 5   | 2   | COIL-MLO 130UH 5% Q=65 .155DX,375LG-NOM | 28480    | 9100-1638          |
| A61L5                 | 9100-1638      | 5   |     | COIL-MLO 130UH 5% Q=65 .155DX,375LG-NOM | 28480    | 9100-1638          |
| A61L6                 | 9100-1622      | 7   |     | COIL-MLO 24UH 5% Q=60 .155DX,375LG-NOM  | 28480    | 9100-1622          |
| A61Q1                 | 1853-0010      | 2   |     | TRANSISTOR PNP SI T0-18 PD=360MW        | 28480    | 1853-0010          |
| A61Q2                 | 1853-0010      | 2   |     | TRANSISTOR PNP SI T0-18 PD=360MW        | 28480    | 1853-0010          |
| A61R1                 | 0683-2715      | 6   |     | RESISTOR 270 5% .25W FC TC=-400/+600    | 01121    | C82715             |
| A61R2                 | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700   | 01121    | C82225             |
| A61R3                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | C84705             |
| A61R4                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500     | 01121    | C84705             |
| A61R5                 | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=-400/+700   | 01121    | C83325             |
| A61R6                 | 0683-7515      | 4   |     | RESISTOR 750 5% .25W FC TC=-400/+600    | 01121    | C87515             |
| A61R7                 | 0683-1625      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | C81025             |
| A61R8                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600     | 01121    | C81025             |
| A61R9                 | 0698-4509      | 1   | 2   | RESISTOR 80.6K 1% .125W F TC=0+/-100    | 24546    | C4=1/8-T0=8062=F   |
| A61R10                | 0698-4509      | 1   |     | RESISTOR 80.6K 1% .125W F TC=0+/-100    | 24546    | C4=1/8-T0=8062=F   |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty                                | Description                              | Mfr Code                           | Mfr Part Number        |
|-----------------------|----------------|-----|------------------------------------|------------------------------------------|------------------------------------|------------------------|
| A61R11                | 0698-3499      | 6   | 2                                  | RESISTOR 40.2K 1% .125W F TC=0+100       | 24546                              | C4-1/8-T0-4022-F       |
| A61R12                | 0757-0424      | 7   |                                    | RESISTOR 1.1K 1% .125W F TC=0+100        | 24546                              | C4-1/8-T0-1101-F       |
| A61R13                | 0683-2025      | 1   |                                    | RESISTOR 2K 5% .25W FC TC=400/+700       | 01121                              | C82025                 |
| A61R14                | 0683-3025      | 3   |                                    | RESISTOR 3K 5% .25W FC TC=400/+700       | 01121                              | C83025                 |
| A61R15                | 0686-2015      | 5   |                                    | RESISTOR 200 5% .5W CC TC=0+529          | 01121                              | C82015                 |
| A61R16                | 0683-1025      | 9   | 2                                  | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121                              | C81025                 |
| A61R17                | 0683-1025      | 9   |                                    | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121                              | C81025                 |
| A61R18                | 0698-4505      | 7   |                                    | RESISTOR 71.5K 1% .125W F TC=0+100       | 24546                              | C4-1/8-T0-7152-F       |
| A61R19                | 0698-4505      | 7   |                                    | RESISTOR 71.5K 1% .125W F TC=0+100       | 24546                              | C4-1/8-T0-7152-F       |
| A61R20                | 0698-4494      | 3   |                                    | RESISTOR 35.7K 1% .125W F TC=0+100       | 24546                              | C4-1/8-T0-3572-F       |
| A61R21                | 0757-0424      | 7   | 1                                  | RESISTOR 1.1K 1% .125W F TC=0+100        | 24546                              | C4-1/8-T0-1101-F       |
| A61R22                | 0683-2025      | 1   |                                    | RESISTOR 2K 5% .25W FC TC=400/+700       | 01121                              | C82025                 |
| A61R23                | 0683-3025      | 3   |                                    | RESISTOR 3K 5% .25W FC TC=400/+700       | 01121                              | C83025                 |
| A61R24                | 0683-1025      | 9   |                                    | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121                              | C81025                 |
| A61R25                | 0683-1025      | 9   |                                    | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121                              | C81025                 |
| A61TP1-7              | 0360-0124      |     |                                    | CONNECTOR-SGL CONT PIN .04-IN-RSC-SZ RND | 28480                              | 0360-0124              |
| A61U1                 | 1A20-1197      | 9   | 1                                  | IC GATE TTL LS NAND QUAD 2-INP           | 01295                              | SN74LS00N              |
| A61U2                 | 1A20-1277      | 6   |                                    | IC CNTR TTL LS DECD UP/DOWN SYNCHRO      | 01295                              | SN74LS192N             |
| A61U3                 | 1A20-0630      | 3   |                                    | IC MISC TTL                              | 04713                              | MC4044P                |
| A61U4                 | 1A20-1420      | 1   |                                    | IC CNTR TTL LS DIV-X=12 ASYNCHRO         | 01295                              | SN74LS92N              |
| A61U5                 | 1A26-0043      | 4   |                                    | OP AMP GP TO-99                          | 01928                              | CA307T                 |
| A61U6                 | 1A20-0567      | 5   | 2                                  | IC MV TTL DUAL                           | 04713                              | MC4024P                |
| A61U7                 | 1A20-0630      | 3   |                                    | IC MISC TTL                              | 04713                              | MC4044P                |
| A61U8                 | 1A20-1194      | 6   |                                    | IC CNTR TTL LS RIN UP/DOWN SYNCHRO       | 01295                              | SN74LS193N             |
| A61U9                 | 1A20-1201      | 6   |                                    | IC GATE TTL LS AND QUAD 2-INP            | 01295                              | SN74LS08N              |
| A61U10                | 1A20-1194      | 0   |                                    | IC GATE TTL LS NAND QUAD 2-INP           | 01295                              | SN74LS03N              |
| A61U11                | 1A20-1198      | 0   | 4                                  | IC GATE TTL LS NAND QUAD 2-INP           | 01295                              | SN74LS03N              |
| A61U12                | 1A26-0043      | 4   |                                    | OP AMP GP TO-99                          | 01928                              | CA307T                 |
| A61U13                | 1A20-0567      | 5   |                                    | IC MV TTL DUAL                           | 04713                              | MC4024P                |
|                       |                |     |                                    | A61 MISCELLANEOUS PARTS                  |                                    |                        |
|                       | 4040-0749      | 4   | 2                                  | EXTR-PC RD BRN POLYC .062-BD-TMKNS       | 28480                              | 03585-26561            |
|                       | 4040-0754      | 1   |                                    | EXTR-PC RD BLU POLYC .062-BD-TMKNS       | 28480                              | 4040-0749              |
|                       | 1480-0116      | 1   |                                    | PIN-GRV .062-IN-DIA .25-IN-LG STL        | 28480                              | 4040-0754<br>1480-0116 |
| A62                   | 03585-66562    | 5   | 1                                  | X-Y PLOTTER ANALYZER                     | 28480                              | 03585-66562            |
| A62C1                 | 0160-0097      | 7   | 7                                  | CAPACITOR-FXD 470F +-10% 35VDC TA        | 56289                              | 1500476x903552         |
| A62C2                 | 0160-0097      | 7   |                                    | CAPACITOR-FXD 470F +-10% 35VDC TA        | 56289                              | 1500476x903552         |
| A62C3                 | 0160-0097      | 7   |                                    | CAPACITOR-FXD 470F +-10% 35VDC TA        | 56289                              | 1500476x903552         |
| A62C4                 | 0160-0164      | 7   |                                    | CAPACITOR-FXD .039UF +-10% 200VDC POLYE  | 28480                              | 0160-0164              |
| A62C5                 | 0160-0161      | 4   |                                    | CAPACITOR-FXD .01UF +-10% 200VDC POLYE   | 28480                              | 0160-0161              |
| A62C6                 | 0160-0165      | 8   | 8                                  | CAPACITOR-FXD .056UF +-10% 200VDC POLYE  | 28480                              | 0160-0165              |
| A62C7                 | 0160-3847      | 1   |                                    | CAPACITOR-FXD .01UF 50V                  | 28480                              | 0160-3847              |
| A62C8                 | 0160-3847      | 1   |                                    | CAPACITOR-FXD .01UF 50V                  | 28480                              | 0160-3847              |
| A62C9                 | 0160-3847      | 1   |                                    | CAPACITOR-FXD .01UF 50V                  | 28480                              | 0160-3847              |
| A62C10                | 0160-3847      | 1   |                                    | CAPACITOR-FXD .01UF 50V                  | 28480                              | 0160-3847              |
| A62C11                | 0160-3847      | 1   | 1                                  | CAPACITOR-FXD .01UF 50V                  | 28480                              | 0160-3847              |
| A62C12                | 0160-3847      | 1   |                                    | CAPACITOR-FXD .01UF 50V                  | 28480                              | 0160-3847              |
| A62C13                | 0160-3847      | 1   |                                    | CAPACITOR-FXD .01UF 50V                  | 28480                              | 0160-3847              |
| A62C14                | 0160-3847      | 1   |                                    | CAPACITOR-FXD .01UF 50V                  | 28480                              | 0160-3847              |
| A62C15                | 0160-0291      | 3   |                                    | CAPACITOR-FXD 1UF +-10% 35VDC TA         | 56289                              | 1500105x903542         |
| A62CR1                | 1902-1329      | 3   | 3                                  | DIODE-ZNR 6.6V                           | 28480                              | 1902-1329              |
| A62CR2                | 1901-0050      | 3   |                                    | DIODE-SWITCHING 80V 200MA 2NS DO-35      | 28480                              | 1901-0050              |
| A62CR3                | 1901-0050      | 3   |                                    | DIODE-SWITCHING 80V 200MA 2NS DO-35      | 28480                              | 1901-0050              |
| A62CR4                | 1901-0050      | 3   |                                    | DIODE-SWITCHING 80V 200MA 2NS DO-35      | 28480                              | 1901-0050              |
| A62CR5                | 1901-0050      | 3   |                                    | DIODE-SWITCHING 80V 200MA 2NS DO-35      | 28480                              | 1901-0050              |
| A62CR6                | 1901-0518      | 8   | 1                                  | DIODE-SCHOTTKY                           | 28480                              | 1901-0518              |
| A62CR7                | 1901-0518      | 8   |                                    | DIODE-SCHOTTKY                           | 28480                              | 1901-0518              |
| A62CR8                | 1902-3104      | 6   |                                    | DIODE-ZNR 5.62V 5% DO-7 PD=.4W TC=+.016X | 28480                              | 1902-3104              |
| A62CR9                | 1901-0518      | 8   |                                    | DIODE-SCHOTTKY                           | 28480                              | 1901-0518              |
| A62F1                 | 2110-0384      | 0   |                                    | 5                                        | FUSE .062A 125V FAST-BLD .281X.093 | 28480                  |
| A62F2                 | 2110-0384      | 0   | FUSE .062A 125V FAST-BLD .281X.093 |                                          | 28480                              | 2110-0384              |
| A62J1                 | 1251-4795      | 2   | 2                                  | CUNNECTOR 2-PIN M POST TYPE              | 28480                              | 1251-4795              |
| A62J2                 | 1251-4795      | 2   |                                    | CUNNECTOR 2-PIN M POST TYPE              | 28480                              | 1251-4795              |
| A62L1                 | 9140-1622      | 7   | 1                                  | COIL-MLD 240H 5% Q=60 .155DX.375LG-NOM   | 28480                              | 9140-1622              |
| A62L2                 | 9140-0210      | 1   |                                    | COIL-MLD 100UH 5% Q=50 .155DX.375LG-NOM  | 28480                              | 9140-0210              |
| A62L3                 | 9140-0210      | 1   |                                    | COIL-MLD 100UH 5% Q=50 .155DX.375LG-NOM  | 28480                              | 9140-0210              |
| A62Q1                 | 1A54-0215      | 1   | 1                                  | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713                              | 2N3904                 |
| A62Q2                 | 1A54-0215      | 1   |                                    | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713                              | 2N3904                 |
| A62R1                 | 0698-4473      | 8   | 2                                  | RESISTOR 8.06K 1% .125W F TC=0+100       | 24546                              | C4-1/8-T0-8061-F       |
| A62R2                 | 0757-0286      | 1   |                                    | RESISTOR 9.09K 1% .125W F TC=0+100       | 19701                              | MF4C1/8-T0-9091-F      |
| A62R3                 | 0698-3152      | 4   |                                    | RESISTOR 3.48K 1% .125W F TC=0+100       | 24546                              | C4-1/8-T0-3481-F       |
| A62R4                 | 2100-3273      | 1   |                                    | RESISTOR-TRMR 2K 10% C SIDE-ADJ 1-TRV    | 28480                              | 2100-3273              |
| A62R5                 | 0757-0465      | 6   |                                    | RESISTOR 100K 1% .125W F TC=0+100        | 24546                              | C4-1/8-T0-1003-F       |

See introduction to this section for ordering information  
\*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                                | Mfr Code | Mfr Part Number   |
|-------------------------|----------------|-----|-----|--------------------------------------------|----------|-------------------|
| A62R6                   | 0757-0465      | 6   |     | RESISTOR 100K 1% .125W F TC=0+-100         | 24546    | C4-1/8-T0=1003-F  |
| A62R7                   | 0757-0465      | 6   |     | RESISTOR 100K 1% .125W F TC=0+-100         | 24546    | C4-1/8-T0=1003-F  |
| A62RA                   | 0757-0476      | 9   |     | RESISTOR 301K 1% .125W F TC=0+-100         | 24546    | C4-1/8-T0=3013-F  |
| A62R9                   | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0+-100           | 24546    | C4-1/8-T0=1001-F  |
| A62R10                  | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=400/+700       | 01121    | CB4725            |
| A62R11                  | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0+-100           | 24546    | C4-1/8-T0=1001-F  |
| A62R12                  | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=400/+700       | 01121    | CB4725            |
| A62R13                  | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=400/+700       | 01121    | CB3325            |
| A62R14                  | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600         | 01121    | CB1025            |
| A62U1                   | 1820-1195      | 7   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM      | 01295    | SN74LS175N        |
| A62U2                   | 1820-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM      | 01295    | SN74LS174N        |
| A62U3                   | 1820-1789      | 5   | 2   | CONV 10-B/D/A 16-DIP-P                     | 24355    | AD7530JN          |
| A62U4                   | 1820-1194      | 6   |     | IC CNTR TTL LS BIN JP/DOWN SYNCHRO         | 01295    | SN74LS193N        |
| A62U5                   | 1820-1194      | 6   |     | IC CNTR TTL LS BIN JP/DOWN SYNCHRO         | 01295    | SN74LS193N        |
| A62U6                   | 1820-1194      | 6   |     | IC CNTR TTL LS BIN UP/DOWN SYNCHRO         | 01295    | SN74LS193N        |
| A62U7                   | 1820-1789      | 5   |     | CONV 10-B/D/A 16-DIP-P                     | 24355    | AD7530JN          |
| A62U8                   | 1826-0315      | 3   |     | OP AMP GP QUAD 14-DIP-P                    | 27014    | LM348N            |
| A62U9                   | 1820-1207      | 2   |     | IC GATE TTL LS NAND 8-INP                  | 01295    | SN74LS30N         |
| A62 MISCELLANEOUS PARTS |                |     |     |                                            |          |                   |
|                         | 0360-0124      | 3   |     | CONNECTOR-SGL CNT PIN .04-IN-BSC-SZ WND    | 28480    | 0360-0124         |
|                         | 1480-0116      | 8   |     | PIN-GRV .062-IN-DIA .25-IN-LG STL          | 28480    | 1480-0116         |
|                         | 4040-0750      | 7   |     | EXTR-PC BD RED POLYC .062-BD-THKNS         | 28480    | 4040-0750         |
|                         | 4040-0754      | 1   |     | EXTR-PC RD BLU POLYC .062-BD-THKNS         | 28480    | 4040-0754         |
| A63                     | 03585-66563    | 6   | 1   | DISPLAY, LOGIC                             | 28480    | 03585-66563       |
| A63C1                   | 0160-2336      | 3   | 1   | CAPACITOR-FXD 650UF+-20% 13VDC TA          | 06001    | 69F233067         |
| A63C2                   | 0160-0097      | 7   |     | CAPACITOR-FXD 47UF+-10% 35VDC TA           | 56289    | 150D476X903552    |
| A63C3                   | 0160-0097      | 7   |     | CAPACITOR-FXD 47UF+-10% 35VDC TA           | 56289    | 150D476X903552    |
| A63C4                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847         |
| A63C5                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847         |
| A63C6                   | 0160-2198      | 1   | 1   | CAPACITOR-FXD 20PF +-5% 300VDC MICA        | 28480    | 0160-2198         |
| A63C7                   | 0160-3809      | 3   | 1   | CAPACITOR-FXD .39UF +-5% 50VDC MELT-POLYC  | 28480    | 0160-3809         |
| A63C9                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847         |
| A63C11                  | 0160-0191      | 8   |     | CAPACITOR-FXD 56PF +-5% 300VDC MICA        | 72136    | DM15656J0300AVICR |
| A63C20                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847         |
| A63C21                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847         |
| A63C23                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847         |
| A63C24                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847         |
| A63C25                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847         |
| A63C26                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847         |
| A63C27                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847         |
| A63C28                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847         |
| A63C29                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847         |
| A63C31                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847         |
| A63C32                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847         |
| A63C33                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER      | 28480    | 0160-3847         |
| A63C41                  | 1901-0050      | 3   |     | DIODE-SWITCHING 80V 200MA 2NS DO-35        | 28480    | 1901-0050         |
| A63C42                  | 1902-0597      | 5   | 1   | DIODE-ZNR 56.2V 5% DO-15 PD=1W TC=+.081%   | 28480    | 1902-0597         |
| A63C43                  | 1901-0050      | 3   |     | DIODE-SWITCHING 80V 200MA 2NS DO-35        | 28480    | 1901-0050         |
| A63C44                  | 1901-0050      | 3   |     | DIODE-SWITCHING 80V 200MA 2NS DO-35        | 28480    | 1901-0050         |
| A63C45                  | 1901-0050      | 3   |     | DIODE-SWITCHING 80V 200MA 2NS DO-35        | 28480    | 1901-0050         |
| A63F1                   | 2110-0343      | 1   | 1   | FUSE .25A 125V FAST-BLO .281X.093          | 28480    | 2110-0343         |
| A63F2                   | 2110-0384      | 0   |     | FUSE .062A 125V FAST-BLO .281X.093         | 28480    | 2110-0384         |
| A63J1                   | 1251-4047      | 7   |     | CONNECTOR 3-PIN M POST TYPE                | 28480    | 1251-4047         |
| A63J1                   | 1251-0141      | 4   |     | JUMPER REMOVABLE                           | 28480    | 1251-0141         |
| A63J3                   | 1251-4047      | 7   |     | CONNECTOR 3-PIN M POST TYPE                | 28480    | 1251-4047         |
| A63J3                   | 1251-0141      | 8   |     | JUMPER REMOVABLE                           | 28480    | 1251-0141         |
| A63J4                   | 1251-4795      | 2   |     | CONNECTOR 2-PIN M POST TYPE                | 28480    | 1251-4795         |
| A63J5                   | 1251-4795      | 2   |     | CONNECTOR 2-PIN M POST TYPE                | 28480    | 1251-4795         |
| A63J6                   | 1251-4795      | 2   |     | CONNECTOR 2-PIN M POST TYPE                | 28480    | 1251-4795         |
| A63L1                   | 9100-3560      | 6   |     | COIL-MLD 5.6UH 5% Q=45 .1550X.375LG-NOM    | 28480    | 9100-3560         |
| A63L2                   | 9100-3560      | 6   |     | COIL-MLD 5.6UH 5% Q=45 .1550X.375LG-NOM    | 28480    | 9100-3560         |
| A63L3                   | 9100-3458      | 1   |     | CHUKE, WIDE BAND                           | 28480    | 9100-3458         |
| A63Q1                   | 1853-0036      | 2   |     | TRANSISTOR PNP SI PD=310MW FT=250MHZ       | 28480    | 1853-0036         |
| A63Q2                   | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ       | 04713    | 2N3904            |
| A63Q3                   | 1854-0263      | 9   | 1   | TRANSISTOR NPN 2N3019 SI TO-39 PD=800MW    | 04713    | 2N3019            |
| A63Q4                   | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ       | 04713    | 2N3904            |
| A63R1                   | 1810-0307      | 0   |     | NETWORK-CONDUCT MODULE DIPJ 16 PINS; 0,100 | 28480    | 1810-0307         |
| A63R2                   | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=400/+700       | 01121    | CB4725            |
| A63R3                   | 0757-0440      | 7   |     | RESISTOR 7.5K 1% .125W F TC=0+-100         | 24546    | C4-1/8-T0=7501-F  |
| A63R4                   | 2100-3273      | 1   |     | RESISTOR-TMR 2K 1% C SIDE-ADJ 1-THN        | 28480    | 2100-3273         |
| A63R5                   | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0+-100           | 24546    | C4-1/8-T0=1001-F  |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number     |
|-------------------------|----------------|-----|-----|------------------------------------------|----------|---------------------|
| A63R6                   | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700    | 01121    | CB4725              |
| A63R7                   | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705              |
| A63R8                   | 0683-4715      | 4   |     | RESISTOR 750 5% .25W FC TC=-400/+600     | 01121    | CB4715              |
| A63R9                   | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700    | 01121    | CB4725              |
| A63R10                  | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | CB4715              |
| A63R12                  | 1810-0326      | 3   | 1   | NETWORK-RES 10-PIN-SIP .1-PIN-SPCG       | 28480    | 1810-0326           |
| A63R14                  | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035              |
| A63R15                  | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700    | 01121    | CB4725              |
| A63R16                  | 2100-3353      | 8   |     | RESISTOR-TRMR 20K 10% C SIDE-ADJ 1-TRN   | 32997    | 3386X-Y46-203       |
| A63R17                  | 0698-3265      | 4   | 1   | RESISTOR 118K 1% .125W F TC=0/+100       | 24546    | C4-178-T0-1183-F    |
| A63R18                  | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035              |
| A63R19                  | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | CB4715              |
| A63R20                  | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700    | 01121    | CB4725              |
| A63R21                  | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025              |
| A63R22                  | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700      | 01121    | CB2025              |
| A63R23                  | 0683-6225      | 1   |     | RESISTOR 6.2K 5% .25W FC TC=-400/+700    | 01121    | CB6225              |
| A63RF11                 | 1810-0279      | 5   | 2   | NETWORK-RES 10-PIN-SIP .1-PIN-SPCG       | 01121    | 210A472             |
| A63RF13                 | 1810-0279      | 5   |     | NETWORK-RES 10-PIN-SIP .1-PIN-SPCG       | 01121    | 210A472             |
| A63SR1                  | 1200-0473      | 8   |     | SOCKET-IC 16-CONT DIP DIP-SLDR           | 28480    | 1200-0473           |
| A63SU21                 | 1200-0659      | 2   |     | SOCKET-IC 40-CONT DIP-SLDR               | 28480    | 1200-0659           |
| A63TP1-10               | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480    | 0360-0124           |
| A63U11                  | 1816-1192      | 5   | 1   | IC TTL 8192-BIT ROM 80-NS 3-S            | 18324    | N42S181F PROGRAMMED |
| A63U13                  | 1820-1491      | 6   |     | IC BFR TTL LS NON-INV HEX 1-INP          | 01295    | SN746367AN          |
| A63U14                  | 1820-1195      | 7   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS175N          |
| A63U15                  | 1820-1202      | 7   | 1   | IC GATE TTL LS NAND TPL 3-INP            | 01295    | SN74LS10N           |
| A63U16                  | 1820-1212      | 9   |     | IC FF TTL LS J-K NEG-EDGE-TRIG           | 01295    | SN74LS112N          |
| A63U17                  | 1820-1423      | 4   | 1   | IC MV TTL LS MONOSTBL RETRIG DUAL        | 01295    | SN74LS123N          |
| A63U18                  | 1820-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N           |
| A63U19                  | 1820-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N           |
| A63U21                  | 1820-1692      | 9   | 1   | IC MICPROG MOS                           | 28480    | 1820-1692           |
| A63U24                  | 1820-1759      | 9   | 2   | IC BFR TTL LS NON-INV UCTL               | 27014    | DM81LS97N           |
| A63U25                  | 1820-1144      | 6   |     | IC GATE TTL LS NOR QUAD 2-INP            | 01295    | SN74LS02N           |
| A63U26                  | 1820-1197      | 9   |     | IC GATE TTL LS NAND QUAD 2-INP           | 01295    | SN74LS00N           |
| A63U27                  | 1820-1194      | 6   |     | IC CNTR TTL LS BIN UP/DOWN SYNCHRO       | 01295    | SN74LS193N          |
| A63U28                  | 181A-0531      | 8   | 1   | IC NMOS ROM 450-NS 3-S                   | 18324    | 2607F MASKED        |
| A63U33                  | 1820-1794      | 2   | 1   | IC BFR TTL LS NON-INV UCTL               | 27014    | DM81LS95N           |
| A63U34                  | 1820-1759      | 9   |     | IC BFR TTL LS NON-INV UCTL               | 27014    | DM81LS97N           |
| A63U35                  | 1820-1216      | 3   |     | IC DCDR TTL LS 3-TO-8-LINE 3-INP         | 01295    | SN74LS138N          |
| A63U36                  | 1816-1183      | 4   | 1   | IC TTL 1K ROM 50-NS 3-S                  | 07263    | 93427PC PROGRAMMED  |
| A63U37                  | 1820-1194      | 6   |     | IC CNTR TTL LS BIN UP/DOWN SYNCHRO       | 01295    | SN74LS193N          |
| A63U38                  | 1820-1194      | 6   |     | IC CNTR TTL LS BIN UP/DOWN SYNCHRO       | 01295    | SN74LS193N          |
| A63U41                  | 1820-1730      | 6   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS273N          |
| A63U42                  | 1820-1730      | 6   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS273N          |
| A63U43                  | 1820-1444      | 9   | 2   | IC MUXR/DATA-SEL TTL LS 2-TO-1-LINE QUAD | 01295    | SN74LS298N          |
| A63U44                  | 1820-1444      | 9   |     | IC MUXR/DATA-SEL TTL LS 2-TO-1-LINE QUAD | 01295    | SN74LS298N          |
| A63U45                  | 1820-1730      | 6   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS273N          |
| A63U46                  | 1820-1470      | 1   | 1   | IC MUXR/DATA-SEL TTL LS 2-TO-1-LINE QUAD | 01295    | SN74LS157N          |
| A63U47                  | 1820-1730      | 6   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS273N          |
| A63U48                  | 1820-1730      | 6   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | SN74LS273N          |
| A63 MISCELLANEOUS PARTS |                |     |     |                                          |          |                     |
|                         | 1480-0116      | 8   |     | PIN-GRV .062-IN-DIA .25-IN-LG STL        | 28480    | 1480-0116           |
|                         | 0380-0938      | 9   |     | INSULATOR-FLG-RSHG TFE                   | 28480    | 0380-0938           |
|                         | 4040-0751      | 8   |     | EXTR-PC BD ORN POLYC .062-80-THKNS       | 28480    | 4040-0751           |
|                         | 4040-0754      | 1   |     | EXTR-PC BD BLU POLYC .062-80-THKNS       | 28480    | 4040-0754           |
| A64                     | 03585-66564    | 7   | 1   | ANALOG DISPLAY                           | 28480    | 03585-66564         |
| A64C1                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847           |
| A64C2                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847           |
| A64C3                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847           |
| A64C4                   | 0160-2257      | 5   |     | CAPACITOR-FXD 10PF +-5% 500VDC CER 0+-60 | 28480    | 0160-2257           |
| A64C5                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847           |
| A64C6                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847           |
| A64C7                   | 0140-0190      | 7   |     | CAPACITOR-FXD 39PF +-5% 300VDC MICA      | 72136    | DM15E390J0300AV1CR  |
| A64C8                   | 0140-0190      | 7   |     | CAPACITOR-FXD 39PF +-5% 300VDC MICA      | 72136    | DM15E390J0300AV1CR  |
| A64C9                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847           |
| A64C10                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847           |
| A64C11                  | 0140-0190      | 7   |     | CAPACITOR-FXD 39PF +-5% 300VDC MICA      | 72136    | DM15E390J0300AV1CR  |
| A64C12                  | 0160-4265      | 7   | 1   | CAPACITOR-FXD .47UF +-20% 50VDC          | 84411    | HEW 386             |
| A64C15                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847           |
| A64C16                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847           |
| A64C17                  | 0160-1846      | 6   |     | CAPACITOR-FXD 2.2UF +-10% 35VDC TA       | 56289    | 150D225X9035B2      |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|-----------------|
| A64C18                | 0160-1846      | 6   |     | CAPACITOR-FXD 2.2UF±10% 35VDC TA         | 56289    | 150D225X9035B2  |
| A64C19                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C20                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C21                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C22                | 0160-2249      | 3   |     | CAPACITOR-FXD 4.7PF ±.25PF 500VDC CER    | 28480    | 0160-2249       |
| A64C23                | 0121-0493      | 3   | 1   | CAPACITOR-V TRMR-AIR 1.7-11PF 250V       | 74970    | 187-0306-105    |
| A64C24                | 0160-4438      | 6   | 1   | CAPACITOR-FXD 470PF ±2.5% 160VDC POLYP   | 28480    | 0160-4438       |
| A64C25                | 0160-4682      | 2   | 1   | CAPACITOR-FXD 1000PF ±2.5% 160VDC POLYP  | 28480    | 0160-4682       |
| A64C26                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C27                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C28                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C29                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C33                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C34                | 0180-0291      | 3   |     | CAPACITOR-FXD 1UF±10% 35VDC TA           | 56289    | 150D105X9035A2  |
| A64C35                | 0180-0291      | 3   |     | CAPACITOR-FXD 1UF±10% 35VDC TA           | 56289    | 150D105X9035A2  |
| A64C36                | 0180-2249      | 5   | 1   | CAPACITOR-FXD 47UF±10% 20VDC TA          | 56289    | 150D476X9020R2  |
| A64C37                | 0180-2205      | 3   | 2   | CAPACITOR-FXD .33UF±10% 35VDC 1A         | 56289    | 150D334X9035A2  |
| A64C38                | 0180-0097      | 7   |     | CAPACITOR-FXD 47UF±10% 35VDC TA          | 56289    | 150D476X9035S2  |
| A64C40                | 0180-2205      | 3   |     | CAPACITOR-FXD .33UF±10% 35VDC TA         | 56289    | 150D334X9035A2  |
| A64C41                | 0180-0097      | 7   |     | CAPACITOR-FXD 47UF±10% 35VDC TA          | 56289    | 150D476X9035S2  |
| A64C42                | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF±10% 20VDC TA         | 56289    | 150D225X9020A2  |
| A64C43                | 0180-0291      | 3   |     | CAPACITOR-FXD 1UF±10% 35VDC TA           | 56289    | 150D105X9035A2  |
| A64C44                | 0180-0291      | 3   |     | CAPACITOR-FXD 1UF±10% 35VDC TA           | 56289    | 150D105X9035A2  |
| A64C46                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C47                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C50                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C51                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C52                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C53                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C54                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C55                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C61                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C63                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C64                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C65                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C66                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64C67                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847       |
| A64CR3                | 1902-0041      | 4   |     | DIODE-ZNR 5.11V 5% DO-7 PD=.4W TC=-.009% | 28480    | 1902-0041       |
| A64CR4                | 1902-3002      | 3   |     | DIODE-ZNR 2.37V 5% DO-7 PD=.4W TC=-.074% | 28480    | 1902-3002       |
| A64CR5                | 1902-3002      | 3   |     | DIODE-ZNR 2.37V 5% DO-7 PD=.4W TC=-.074% | 28480    | 1902-3002       |
| A64CR6                | 1902-3002      | 3   |     | DIODE-ZNR 2.37V 5% DO-7 PD=.4W TC=-.074% | 28480    | 1902-3002       |
| A64CR7                | 1902-3002      | 3   |     | DIODE-ZNR 2.37V 5% DO-7 PD=.4W TC=-.074% | 28480    | 1902-3002       |
| A64CR12               | 1902-1329      | 3   |     | DIODE-ZNR 6.6V                           | 28480    | 1902-1329       |
| A64CR13               | 1901-0050      | 3   |     | DIODE-SWITCHING 80V 200MA 2NS DG-35      | 28480    | 1901-0050       |
| A64CR14               | 1901-0050      | 3   |     | DIODE-SWITCHING 80V 200MA 2NS DG-35      | 28480    | 1901-0050       |
| A64F1                 | 2110-0384      | 0   |     | FUSE .062A 125V FAST-BLO .281X.093       | 28480    | 2110-0384       |
| A64F2                 | 2110-0384      | 0   |     | FUSE .062A 125V FAST-BLO .281X.093       | 28480    | 2110-0384       |
| A64J1                 | 1251-4047      | 7   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-4047       |
| A64J1                 | 1258-0141      | 8   |     | JUMPER REMOVABLE                         | 28480    | 1258-0141       |
| A64J2                 | 1251-4047      | 7   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-4047       |
| A64J2                 | 1258-0141      | 8   |     | JUMPER REMOVABLE                         | 28480    | 1258-0141       |
| A64J3                 | 1251-4047      | 7   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-4047       |
| A64J3                 | 1258-0141      | 8   |     | JUMPER REMOVABLE                         | 28480    | 1258-0141       |
| A64J5                 | 1251-4795      | 2   |     | CONNECTOR 2-PIN M POST TYPE              | 28480    | 1251-4795       |
| A64J6                 | 1251-4795      | 2   |     | CONNECTOR 2-PIN M POST TYPE              | 28480    | 1251-4795       |
| A64J7                 | 1251-4795      | 2   |     | CONNECTOR 2-PIN M POST TYPE              | 28480    | 1251-4795       |
| A64J8                 | 1251-4795      | 2   |     | CONNECTOR 2-PIN M POST TYPE              | 28480    | 1251-4795       |
| A64L1                 | 9100-3561      | 7   | 3   | COIL-MLO 6.2UH 5% Q=45 .1550X.375LG-NDM  | 28480    | 9100-3561       |
| A64L3                 | 9100-3561      | 7   |     | COIL-MLO 6.2UH 5% Q=45 .1550X.375LG-NDM  | 28480    | 9100-3561       |
| A64L4                 | 9100-3561      | 7   |     | COIL-MLO 6.2UH 5% Q=45 .1550X.375LG-NDM  | 28480    | 9100-3561       |
| A64Q1                 | 1853-0036      | 2   |     | TRANSISTOR PNP SI PD=310MW FT=250MHZ     | 28480    | 1853-0036       |
| A64Q2                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904          |
| A64Q3                 | 1853-0036      | 2   |     | TRANSISTOR PNP SI PD=310MW FT=250MHZ     | 28480    | 1853-0036       |
| A64Q4                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904          |
| A64Q5                 | 1854-0515      | 4   | 1   | TRANSISTOR-DUAL NPN TO-77 PD=600MW       | 28480    | 1854-0515       |
| A64Q6                 | 1853-0036      | 2   |     | TRANSISTOR PNP SI PD=310MW FT=250MHZ     | 28480    | 1853-0036       |
| A64Q7                 | 1853-0036      | 2   |     | TRANSISTOR PNP SI PD=310MW FT=250MHZ     | 28480    | 1853-0036       |
| A64Q8                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904          |
| A64Q9                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904          |
| A64Q10                | 1853-0083      | 9   | 1   | TRANSISTOR-DUAL PNP PD=600MW             | 28480    | 1853-0083       |
| A64Q11                | 1855-0269      | 7   | 1   | TRANSISTOR MOSFET N-CHAN E-MODE SI       | 18524    | 80214           |
| A64Q14                | 1854-0475      | 5   | 3   | TRANSISTOR-DUAL NPN PD=750MW             | 28480    | 1854-0475       |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                            | Mfr Code | Mfr Part Number     |
|-----------------------|----------------|-----|-----|----------------------------------------|----------|---------------------|
| A64R1                 | 2100-3352      | 7   | 1   | RESISTOR-TRMR 1K 10% C SIDE-ADJ 1-TRN  | 28480    | 2100-3352           |
| A64R2                 | 0699-0165      | 9   | 1   | RESISTOR 5K 1% .125W F TC=0+50         | 26480    | 0699-0165           |
| A64R3                 | 0698-4435      | 2   |     | RESISTOR 2,49K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-2491-F    |
| A64R4                 | 0698-3223      | 4   | 1   | RESISTOR 1,24K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-1241-F    |
| A64R5                 | 0698-4435      | 2   |     | RESISTOR 2,49K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-2491-F    |
| A64R6                 | 0683-4725      | 2   |     | RESISTOR 4,7K 5% .25W FC TC=-400/+700  | 01121    | C84725              |
| A64R7                 | 0698-4435      | 2   |     | RESISTOR 2,49K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-2491-F    |
| A64R8                 | 0757-0430      | 5   |     | RESISTOR 2,21K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-2211-F    |
| A64R9                 | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0+100        | 24546    | C4-1/8-T0-1001-F    |
| A64R10                | 0698-4367      | 9   | 1   | RESISTOR 20,5 1% .125W F TC=0+100      | 03888    | PME55-1/8-T0-20R5-F |
| A64R11                | 0757-0123      | 3   | 1   | RESISTOR 34,8K 1% .125W F TC=0+100     | 28480    | 0757-0123           |
| A64R14                | 2100-3353      | 8   |     | RESISTOR-TRMR 20K 10% C SIDE-ADJ 1-TRN | 32997    | 3386X-V46-203       |
| A64R15                | 0698-4435      | 2   |     | RESISTOR 2,49K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-2491-F    |
| A64R16                | 2100-3273      | 1   |     | RESISTOR-TRMR 2K 10% C SIDE-ADJ 1-TRN  | 26480    | 2100-3273           |
| A64R17                | 0698-4435      | 2   |     | RESISTOR 2,49K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-2491-F    |
| A64R18                | 0698-4376      | 0   | 1   | RESISTOR 32,4 1% .125W F TC=0+100      | 24546    | C4-1/8-T0-32R4-F    |
| A64R19                | 0698-4468      | 1   | 3   | RESISTOR 1,13K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-1131-F    |
| A64R20                | 0698-4435      | 2   |     | RESISTOR 2,49K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-2491-F    |
| A64R22                | 0698-4435      | 2   |     | RESISTOR 2,49K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-2491-F    |
| A64R23                | 0698-3279      | 0   |     | RESISTOR 4,99K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-4991-F    |
| A64R25                | 0757-0442      | 9   |     | RESISTOR 10K 1% .125W F TC=0+100       | 24546    | C4-1/8-T0-1002-F    |
| A64R26                | 0757-0442      | 9   |     | RESISTOR 10K 1% .125W F TC=0+100       | 24546    | C4-1/8-T0-1002-F    |
| A64R27                | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0+100        | 24546    | C4-1/8-T0-1001-F    |
| A64R28                | 0757-0436      | 1   | 1   | RESISTOR 4,32K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-4321-F    |
| A64R29                | 0698-3258      | 5   |     | RESISTOR 5,36K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-5361-F    |
| A64R30                | 0683-3325      | 6   |     | RESISTOR 3,3K 5% .25W FC TC=-400/+700  | 01121    | C83325              |
| A64R31                | 0683-1525      | 4   |     | RESISTOR 1,5K 5% .25W FC TC=-400/+700  | 01121    | C81525              |
| A64R32                | 0698-0063      | 4   | 1   | RESISTOR 5,23K 1% .125W F TC=0+100     | 91637    | CMF-1/8-T1-5231-F   |
| A64R33                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700   | 01121    | C81035              |
| A64R34                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700   | 01121    | C81035              |
| A64R36                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700    | 01121    | C82025              |
| A64R37                | 0698-4471      | 6   |     | RESISTOR 7,15K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-7151-F    |
| A64R38                | 0698-3549      | 7   | 1   | RESISTOR 2,49K 1% .125W F TC=0+25      | 26480    | 0698-3549           |
| A64R39                | 0698-6329      | 7   | 1   | RESISTOR 845 1% .125W F TC=0+25        | 26480    | 0698-6329           |
| A64R40                | 0698-6317      | 7   | 4   | RESISTOR 500 .1% .125W F TC=0+25       | 03888    | PME55-1/8-T9-500R-B |
| A64R41                | 0698-6317      | 3   |     | RESISTOR 500 .1% .125W F TC=0+25       | 03888    | PME55-1/8-T9-500R-B |
| A64R42                | 0698-6317      | 3   |     | RESISTOR 500 .1% .125W F TC=0+25       | 03888    | PME55-1/8-T9-500R-B |
| A64R43                | 0698-6317      | 3   |     | RESISTOR 500 .1% .125W F TC=0+25       | 03888    | PME55-1/8-T9-500R-B |
| A64R44                | 0698-6340      | 2   | 1   | RESISTOR 4K 1% .125W F TC=0+25         | 26480    | 0698-6340           |
| A64R45                | 0698-5552      | 6   | 1   | RESISTOR 1K 1% .125W F TC=0+25         | 26480    | 0698-5552           |
| A64R46                | 0757-0465      | 6   |     | RESISTOR 100K 1% .125W F TC=0+100      | 24546    | C4-1/8-T0-1003-F    |
| A64R47                | 0757-0465      | 6   |     | RESISTOR 100K 1% .125W F TC=0+100      | 24546    | C4-1/8-T0-1003-F    |
| A64R48                | 2100-3354      | 9   | 3   | RESISTOR-TRMR 50K 10% C SIDE-ADJ 1-TRN | 28480    | 2100-3354           |
| A64R49                | 0683-6825      | 7   |     | RESISTOR 6,8K 5% .25W FC TC=-400/+700  | 01121    | C86825              |
| A64R50                | 0698-0479      | 4   | 2   | RESISTOR 14K 1% .125W F TC=0+100       | 24546    | C4-1/8-T0-1402-F    |
| A64R51                | 0683-1525      | 4   |     | RESISTOR 1,5K 5% .25W FC TC=-400/+700  | 01121    | C81525              |
| A64R52                | 0698-4432      | 9   |     | RESISTOR 2,1K 1% .125W F TC=0+100      | 24546    | C4-1/8-T0-2101-F    |
| A64R53                | 0683-2425      | 1   |     | RESISTOR 2,4K 5% .25W FC TC=-400/+700  | 01121    | C82425              |
| A64R54                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700    | 01121    | C82025              |
| A64R55                | 0683-3325      | 6   |     | RESISTOR 3,3K 5% .25W FC TC=-400/+700  | 01121    | C83325              |
| A64R56                | 0683-3325      | 6   |     | RESISTOR 3,3K 5% .25W FC TC=-400/+700  | 01121    | C83325              |
| A64R57                | 0683-1125      | 0   |     | RESISTOR 1,1K 5% .25W FC TC=-400/+700  | 01121    | C81125              |
| A64R59                | 0683-4725      | 2   |     | RESISTOR 4,7K 5% .25W FC TC=-400/+700  | 01121    | C84725              |
| A64R60                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700   | 01121    | C81035              |
| A64R61                | 0698-0092      | 9   | 1   | RESISTOR 2,61K 1% .125W F TC=0+25      | 03888    | PME55-1/8-T0-2611-F |
| A64R62                | 2100-3351      | 6   |     | RESISTOR-TRMR 500 10% C SIDE-ADJ 1-TRN | 28480    | 2100-3351           |
| A64R63                | 0698-3151      | 7   | 1   | RESISTOR 2,87K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-2871-F    |
| A64R65                | 0683-1225      | 1   |     | RESISTOR 1,2K 5% .25W FC TC=-400/+700  | 01121    | C81225              |
| A64R66                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800  | 01121    | C81045              |
| A64R67                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500    | 01121    | C84705              |
| A64R68                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=-400/+800  | 01121    | C81045              |
| A64R69                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500    | 01121    | C84705              |
| A64R70                | 0698-4121      | 3   |     | RESISTOR 11,3K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-1132-F    |
| A64R71                | 0698-4478      | 1   | 1   | RESISTOR 10,7K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-1072-F    |
| A64R72                | 2100-3207      | 1   |     | RESISTOR-TRMR 5K 10% C SIDE-ADJ 1-TRN  | 28480    | 2100-3207           |
| A64R73                | 0698-4492      | 1   | 1   | RESISTOR 32,4K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-3242-F    |
| A64R74                | 0698-4473      | 8   |     | RESISTOR 8,06K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-8061-F    |
| A64R75                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700    | 01121    | C82025              |
| A64R76                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700    | 01121    | C82025              |
| A64R79                | 0683-3015      | 1   |     | RESISTOR 300 5% .25W FC TC=-400/+600   | 01121    | C83015              |
| A64R80                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=-400/+700    | 01121    | C82025              |
| A64R81                | 0698-0083      | 8   | 1   | RESISTOR 1,96K 1% .125W F TC=0+100     | 24546    | C4-1/8-T0-1961-F    |
| A64R82                | 0757-0283      | 6   |     | RESISTOR 2K 1% .125W F TC=0+100        | 24546    | C4-1/8-T0-2001-F    |
| A64R83                | 0683-0515      | 0   | 2   | RESISTOR 5,1 5% .25W FC TC=-400/+500   | 01121    | C85165              |
| A64R84                | 0683-0515      | 0   |     | RESISTOR 5,1 5% .25W FC TC=-400/+500   | 01121    | C85165              |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-------------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
| A64R85                  | 0683-3025      | 3   |     | RESISTOR 3K 5% .25W FC TC=400/+700       | 01121    | CB3025               |
| A64R86                  | 0683-3025      | 3   |     | RESISTOR 3K 5% .25W FC TC=400/+700       | 01121    | CB3025               |
| A64R87                  | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=400/+600      | 01121    | CB4715               |
| A64R90                  | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800     | 01121    | CB1045               |
| A64R91                  | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800     | 01121    | CB1045               |
| A64R92                  | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015               |
| A64TP1-11               | 0306-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-52 RND | 28480    | 0306-0124            |
| A64U1                   | 1A26-0396      | 0   | 1   | IC 7815 V RGLTR TO-220                   | 07263    | 7815UC               |
| A64U2                   | 1A26-0214      | 1   | 1   | IC V RGLTR TO-220                        | 04713    | MC7915CT             |
| A64U3                   | 1A26-0508      | 6   | 1   | CONV 10-B-D/A 16-DIP-C                   | 24355    | AD561JD              |
| A64U4                   | 1A26-0413      | 2   | 2   | OP AMP LOW-BIAS-H-IMPD TO-99             | 34371    | HA2-2605-5           |
| A64U5                   | 1A26-0188      | 8   |     | CONV 8-B-D/A 16-DIP-C                    | 14713    | MC1408L-8            |
| A64U6                   | 1A26-0340      | 4   |     | OP AMP BIFET TO-99                       | 28480    | 1A26-0340            |
| A64U7                   | 1A26-0188      | 8   |     | CONV 8-B-D/A 16-DIP-C                    | 04713    | MC1408L-8            |
| A64U8                   | 1A26-0188      | 8   |     | CONV 8-B-D/A 16-DIP-C                    | 04713    | MC1408L-8            |
| A64U9                   | 1A26-0043      | 4   |     | OP AMP GP TO-99                          | 0192B    | CA307T               |
| A64U10                  | 1A26-0413      | 2   |     | OP AMP LOW-BIAS-H-IMPD TO-99             | 34371    | HA2-2605-5           |
| A64U11                  | 1A26-0374      | 4   | 1   | SWITCH CUR 16-DIP-C                      | 07263    | 9650-1DC             |
| A64U12                  | 1A26-0340      | 4   |     | OP AMP BIFET TO-99                       | 28480    | 1A26-0340            |
| A64U13                  | 1A26-1546      | 2   | 1   | MULTIPLXR ANLG DUAL 16-DIP-C             | 04713    | MC140528CL           |
| A64U14                  | 1A26-0340      | 4   |     | OP AMP BIFET TO-99                       | 28480    | 1A26-0340            |
| A64U15                  | 1A26-0340      | 4   |     | OP AMP BIFET TO-99                       | 28480    | 1A26-0340            |
| A64U16                  | 1A26-0340      | 4   |     | OP AMP BIFET TO-99                       | 28480    | 1A26-0340            |
| A64U17                  | 1A26-0510      | 0   |     | SWITCH ANLG QUAD 16-DIP-P                | 27014    | LF13332N             |
| A64U18                  | 1A26-0340      | 4   |     | OP AMP BIFET TO-99                       | 28480    | 1A26-0340            |
| A64U19                  | 1A26-0340      | 4   |     | OP AMP BIFET TO-99                       | 28480    | 1A26-0340            |
| A64U20                  | 1A26-0340      | 4   |     | OP AMP BIFET TO-99                       | 28480    | 1A26-0340            |
| A64U21                  | 1A26-0340      | 4   |     | OP AMP BIFET TO-99                       | 28480    | 1A26-0340            |
| A64U22                  | 1A26-1274      | 3   | 1   | IC GATE TTL LS NAND DUAL 4-INP           | 01295    | SN74LS22N            |
| A64U23                  | 1A26-0043      | 4   |     | OP AMP GP TO-99                          | 0192B    | CA307T               |
| A64U24                  | 1A26-0043      | 4   |     | OP AMP GP TO-99                          | 0192B    | CA307T               |
| A64 MISCELLANEOUS PARTS |                |     |     |                                          |          |                      |
|                         | 0380-0938      | 9   |     | INSULATOR-FLG-PSHG TFE                   | 28480    | 0380-0938            |
|                         | 4040-0752      | 9   |     | EXTR-PC HD YEL POLYC .062-BD-THKNS       | 28480    | 4040-0752            |
|                         | 4040-0754      | 1   |     | EXTR-PC HD BLU POLYC .062-BD-THKNS       | 28480    | 4040-0754            |
| A65                     | 03583-66565    |     |     | HIGH VOLTAGE BOARD                       | 28480    | 03583-66565          |
|                         | 2360-0115      | 4   |     | SCREW-P4CH 6-32 .312-IN-LG PAN-HD-PDZI   | 00000    | ORDER BY DESCRIPTION |
|                         | 0590-1054      | 7   |     | THREADED INSERT-NUT 6-32 .065-LG SST     | 28480    | 0590-1054            |
|                         | 1480-0116      | 8   |     | PIN-GRV .062-IN-DIA .25-IN-LG STL        | 28480    | 1480-0116            |
| A67                     | 03585-66567    | 0   | 1   | X-Y-Z BOARD                              | 28480    | 03585-66567          |
| A67C1                   | 0150-0012      | 3   | 21  | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38     |
| A67C2                   | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38     |
| A67C3                   | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A67C4                   | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38     |
| A67C6                   | 0180-0269      | 5   | 2   | CAPACITOR-FXD 1UF+50-10% 150VDC AL       | 56289    | 30D105G150B42        |
| A67C8                   | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A67C10                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A67C11                  | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847            |
| A67C12                  | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38     |
| A67C13                  | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38     |
| A67C14                  | 0180-0269      | 5   |     | CAPACITOR-FXD 1UF+50-10% 150VDC AL       | 56289    | 30D105G150B42        |
| A67C16                  | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X9020A2       |
| A67C17                  | 0160-2237      | 9   | 1   | CAPACITOR-FXD 1.2PF +-25PF 500VDC CER    | 28480    | 0160-2237            |
| A67C18                  | 0160-0195      | 4   | 1   | CAPACITOR-FXD 1000PF +-20% 250VAC(RMS)   | 28480    | 0160-0195            |
| A67C19                  | 0180-0089      | 7   | 2   | CAPACITOR-FXD 10UF+50-10% 150VDC AL      | 56289    | 30D105G150D02        |
| A67C20                  | 0160-0164      | 7   |     | CAPACITOR-FXD .039UF +-10% 200VDC POLYE  | 28480    | 0160-0164            |
| A67C21                  | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A67C22                  | 0160-0166      | 9   |     | CAPACITOR-FXD .068UF +-10% 200VDC POLYE  | 28480    | 0160-0166            |
| A67C23                  | 0180-0141      | 2   | 3   | CAPACITOR-FXD 50UF+75-10% 50VDC AL       | 56289    | 30D50G050D02         |
| A67C24                  | 0180-0229      | 7   |     | CAPACITOR-FXD 33UF+-10% 10VDC TA         | 56289    | 150D336X9010B2       |
| A67C25                  | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38     |
| A67C26                  | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38     |
| A67C27                  | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38     |
| A67C28                  | 0160-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X9020A2       |
| A67C29                  | 0160-2235      | 7   | 4   | CAPACITOR-FXD .75PF +-25PF 500VDC CER    | 28480    | 0160-2235            |
| A67C30                  | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38     |
| A67C31                  | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38     |
| A67C32                  | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38     |
| A67C33                  | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X9020A2       |
| A67C34                  | 0160-2235      | 7   |     | CAPACITOR-FXD .75PF +-25PF 500VDC CER    | 28480    | 0160-2235            |
| A67C35                  | 0180-0229      | 7   |     | CAPACITOR-FXD 33UF+-10% 10VDC TA         | 56289    | 150D336X9010B2       |
| A67C36                  | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38     |
| A67C37                  | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38     |
| A67C38                  | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38     |
| A67C39                  | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X9020A2       |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|------------------|
| A67C40                | 0160-2235      | 7   |     | CAPACITOR-FXD .75PF +-25PF 500VDC CER    | 28480    | 0160-2235        |
| A67C41                | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38 |
| A67C42                | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38 |
| A67C43                | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38 |
| A67C44                | 0180-0197      | 8   |     | CAPACITOR-FXD 2.2UF+-10% 20VDC TA        | 56289    | 150D225X9020A2   |
| A67C45                | 0160-2235      | 7   |     | CAPACITOR-FXD .75PF +-25PF 500VDC CER    | 28480    | 0160-2235        |
| A67C46                | 0180-0089      | 7   |     | CAPACITOR-FXD 10UF+50-10% 150VDC AL      | 56289    | 30D106F150DD2    |
| A67C47                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A67C48                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A67C49                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A67C50                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A67C51                | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38 |
| A67C52                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A67C53                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A67C54                | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38 |
| A67C55                | 0160-0161      | 4   |     | CAPACITOR-FXD .01UF +-10% 200VDC POLYE   | 28480    | 0160-0161        |
| A67C64                | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38 |
| A67C65                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A67C66                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A67C67                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A67C68                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A67C69                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A67C70                | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER    | 28480    | 0160-3847        |
| A67C71                | 0180-0195      | 6   |     | CAPACITOR-FXD .33UF+-20% 35VDC TA        | 56289    | 150D334X0035A2   |
| A67C72                | 0180-0195      | 6   |     | CAPACITOR-FXD .33UF+-20% 35VDC TA        | 56289    | 150D334X0035A2   |
| A67C73                | 0180-0291      | 3   |     | CAPACITOR-FXD 1UF+-10% 35VDC TA          | 56289    | 150D105X9035A2   |
| A67C74                | 0180-0291      | 3   |     | CAPACITOR-FXD 1UF+-10% 35VDC TA          | 56289    | 150D105X9035A2   |
| A67C75                | 0150-0012      | 3   |     | CAPACITOR-FXD .01UF +-20% 1KVDC CER      | 56289    | C023A102J103MS38 |
| A67CR1                | 1902-3237      | 6   | 2   | DIODE-ZNR 20V 5% DO-7 PD=.4W TC=+.073%   | 28480    | 1902-3237        |
| A67CR2                | 1902-3311      | 7   | 3   | DIODE-ZNR 38.3V 5% DO-7 PD=.4W TC=+.081% | 28480    | 1902-3311        |
| A67CR3                | 1902-3311      | 7   |     | DIODE-ZNR 38.3V 5% DO-7 PD=.4W TC=+.081% | 28480    | 1902-3311        |
| A67CR4                | 1901-0096      | 7   | 1   | DIODE-SWITCHING 120V 50MA 100NS          | 28480    | 1901-0096        |
| A67CR5                | 1902-3237      | 6   |     | DIODE-ZNR 20V 5% DO-7 PD=.4W TC=+.073%   | 28480    | 1902-3237        |
| A67CR6                | 1901-0050      | 3   |     | DIODE-SWITCHING 80V 200MA 2NS DO-35      | 28480    | 1901-0050        |
| A67CR8                | 1902-0049      | 2   |     | DIODE-ZNR 6.19V 5% DO-7 PD=.4W TC=+.022% | 28480    | 1902-0049        |
| A67CR10               | 1902-3193      | 3   | 1   | DIODE-ZNR 13.3V 5% DO-7 PD=.4W TC=+.059% | 28480    | 1902-3193        |
| A67CR11               | 1902-0049      | 2   |     | DIODE-ZNR 6.19V 5% DO-7 PD=.4W TC=+.022% | 28480    | 1902-0049        |
| A67CR12               | 1902-0934      | 4   | 1   | DIODE-ZNR 1453A08 120V 5% DO-29 PD=5W    | 04713    | 1N53806          |
| A67CR13               | 1902-3311      | 7   |     | DIODE-ZNR 38.3V 5% DO-7 PD=.4W TC=+.081% | 28480    | 1902-3311        |
| A67CR14               | 1902-0049      | 2   |     | DIODE-ZNR 6.19V 5% DO-7 PD=.4W TC=+.022% | 28480    | 1902-0049        |
| A67CR15               | 1902-0049      | 2   |     | DIODE-ZNR 6.19V 5% DO-7 PD=.4W TC=+.022% | 28480    | 1902-0049        |
| A67CR16               | 1901-0050      | 3   |     | DIODE-SWITCHING 80V 200MA 2NS DO-35      | 28480    | 1901-0050        |
| A67CR17               | 1901-0050      | 3   |     | DIODE-SWITCHING 80V 200MA 2NS DO-35      | 28480    | 1901-0050        |
| A67CR18               | 1901-0029      | 6   | 3   | DIODE-PNR RECT 600V 750MA DO-29          | 28480    | 1901-0029        |
| A67CR19               | 1901-0029      | 6   |     | DIODE-PNR RECT 600V 750MA DO-29          | 28480    | 1901-0029        |
| A67CR20               | 1902-0049      | 2   |     | DIODE-ZNR 6.19V 5% DO-7 PD=.4W TC=+.022% | 28480    | 1902-0049        |
| A67CR21               | 1902-0049      | 2   |     | DIODE-ZNR 6.19V 5% DO-7 PD=.4W TC=+.022% | 28480    | 1902-0049        |
| A67CR22               | 1902-0049      | 2   |     | DIODE-ZNR 6.19V 5% DO-7 PD=.4W TC=+.022% | 28480    | 1902-0049        |
| A67CR23               | 1902-0049      | 2   |     | DIODE-ZNR 6.19V 5% DO-7 PD=.4W TC=+.022% | 28480    | 1902-0049        |
| A67CR24               | 1902-0049      | 2   |     | DIODE-ZNR 6.19V 5% DO-7 PD=.4W TC=+.022% | 28480    | 1902-0049        |
| A67CR25               | 1902-0049      | 2   |     | DIODE-ZNR 6.19V 5% DO-7 PD=.4W TC=+.022% | 28480    | 1902-0049        |
| A67CR26               | 1902-3301      | 5   | 2   | DIODE-ZNR 34.8V 5% DO-7 PD=.4W TC=+.078% | 28480    | 1902-3301        |
| A67CR27               | 1902-3301      | 5   |     | DIODE-ZNR 34.8V 5% DO-7 PD=.4W TC=+.078% | 28480    | 1902-3301        |
| A67CR29               | 1901-0029      | 6   |     | DIODE-PNR RECT 600V 750MA DO-29          | 28480    | 1901-0029        |
| A67F1                 | 2110-0001      | 8   | 1   | FUSE 1A 250V FAST-BLO 1.25X.25 UL IEC    | 75915    | 312001           |
| A67J2                 | 1251-4794      | 1   | 3   | CONNECTOR-SGL CONT PIN .025-IN-BSC-SZ S9 | 28480    | 1251-4794        |
| A67J3                 | 1251-4794      | 1   |     | CONNECTOR-SGL CONT PIN .025-IN-BSC-SZ SC | 28480    | 1251-4794        |
| A67J4                 | 1251-3618      | 6   | 5   | CONNECTOR 2-PIN M POST TYPE              | 28480    | 1251-3618        |
| A67J5                 | 1251-3618      | 6   |     | CONNECTOR 2-PIN M POST TYPE              | 28480    | 1251-3618        |
| A67J6                 | 1251-3618      | 6   |     | CONNECTOR 2-PIN M POST TYPE              | 28480    | 1251-3618        |
| A67J11                | 1251-4794      | 1   |     | CONNECTOR-SGL CONT PIN .025-IN-BSC-SZ S9 | 28480    | 1251-4794        |
| A67J11                | 1258-0141      | 8   |     | JUMPER REMOVABLE                         | 28480    | 1258-0141        |
| A67L1                 | 9140-0171      | 3   | 1   | COIL-MLD 400H 10% G=20 .2960X.968LG-NDM  | 28480    | 9140-0171        |
| A67L2                 | 9100-1641      | 0   |     | COIL-MLD 2400H 5% G=65 .1550X.375LG-NDM  | 28480    | 9100-1641        |
| A67Q1                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904           |
| A67Q2                 | 1853-0089      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MW        | 07263    | 2N4917           |
| A67Q3                 | 1853-0089      | 5   |     | TRANSISTOR PNP 2N4917 SI PD=200MA        | 07263    | 2N4917           |
| A67Q4                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904           |
| A67Q5                 | 1853-0036      | 2   |     | TRANSISTOR PNP SI PD=310VW FT=250VW      | 28480    | 1853-0036        |
| A67Q6                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ     | 28480    | 1854-0071        |
| A67Q7                 | 1853-0232      | 0   | 5   | TRANSISTOR PNP SI TO-39 PD=1W FT=200MHZ  | 28480    | 1853-0232        |
| A67Q8                 | 1854-0419      | 7   |     | TRANSISTOR NPN SI TO-39 PD=1W FT=200MHZ  | 28480    | 1854-0419        |
| A67Q9                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904           |
| A67Q10                | 1854-0039      | 7   |     | TRANSISTOR NPN 2N3053S SI TO-39 PD=1W    | 01928    | 2N3053S          |

See introduction to this section for ordering information  
 \*Indicates factory selected value



Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                             | Mfr Code | Mfr Part Number   |
|-----------------------|----------------|-----|-----|-----------------------------------------|----------|-------------------|
| A67Q11                | 1854-0237      | 7   | 1   | TRANSISTOR NPN SI TO-66 PD=20W FT=10MHZ | 28480    | 1854-0237         |
| A67Q12                | 1854-0234      | 4   | 1   | TRANSISTOR NPN 2N3440 SI TO-5 PD=1W     | 01928    | 2N3440            |
| A67Q13                | 1854-0476      | 6   | 1   | TRANSISTOR NPN 2N3879 SI TO-66 PD=35W   | 01928    | 2N3879            |
| A67Q14                | 1854-0475      | 5   |     | TRANSISTOR-DUAL NPN PD=750mW            | 28480    | 1854-0475         |
| A67Q15                | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300mW FT=200MHZ    | 28480    | 1854-0071         |
| A67Q16                | 1853-0036      | 2   |     | TRANSISTOR PNP SI PD=310mW FT=250MHZ    | 28480    | 1853-0036         |
| A67Q17                | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300mW FT=200MHZ    | 28480    | 1854-0071         |
| A67Q18                | 1853-0232      | 0   |     | TRANSISTOR PNP SI TO-39 PD=1W FT=200MHZ | 28480    | 1853-0232         |
| A67Q19                | 1854-0419      | 7   |     | TRANSISTOR NPN SI TO-39 PD=1W FT=200MHZ | 28480    | 1854-0419         |
| A67Q20                | 1853-0036      | 2   |     | TRANSISTOR PNP SI PD=310mW FT=250MHZ    | 28480    | 1853-0036         |
| A67Q21                | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300mW FT=200MHZ    | 28480    | 1854-0071         |
| A67Q22                | 1853-0232      | 0   |     | TRANSISTOR PNP SI TO-39 PD=1W FT=200MHZ | 28480    | 1853-0232         |
| A67Q23                | 1854-0419      | 7   |     | TRANSISTOR NPN SI TO-39 PD=1W FT=200MHZ | 28480    | 1854-0419         |
| A67Q24                | 1854-0475      | 5   |     | TRANSISTOR-DUAL NPN PD=750mW            | 28480    | 1854-0475         |
| A67Q25                | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300mW FT=200MHZ    | 28480    | 1854-0071         |
| A67Q26                | 1853-0036      | 2   |     | TRANSISTOR PNP SI PD=310mW FT=250MHZ    | 28480    | 1853-0036         |
| A67Q27                | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300mW FT=200MHZ    | 28480    | 1854-0071         |
| A67Q28                | 1853-0232      | 0   |     | TRANSISTOR PNP SI TO-39 PD=1W FT=200MHZ | 28480    | 1853-0232         |
| A67Q29                | 1854-0419      | 7   |     | TRANSISTOR NPN SI TO-39 PD=1W FT=200MHZ | 28480    | 1854-0419         |
| A67Q30                | 1853-0036      | 2   |     | TRANSISTOR PNP SI PD=310mW FT=250MHZ    | 28480    | 1853-0036         |
| A67Q31                | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300mW FT=200MHZ    | 28480    | 1854-0071         |
| A67Q32                | 1853-0232      | 0   |     | TRANSISTOR PNP SI TO-39 PD=1W FT=200MHZ | 28480    | 1853-0232         |
| A67Q33                | 1854-0419      | 7   |     | TRANSISTOR NPN SI TO-39 PD=1W FT=200MHZ | 28480    | 1854-0419         |
| A67Q35                | 1884-0073      | 2   | 1   | THYRISTOR-SCR TO-5 VRRM=100             | 28480    | 1884-0073         |
| A67R1                 | 2100-3353      | 8   |     | RESISTOR-TRMR 20K 10% C SIDE=ADJ 1-TRN  | 32997    | 3386X-Y46-203     |
| A67R2                 | 2100-3353      | 8   |     | RESISTOR-TRMR 20K 10% C SIDE=ADJ 1-TRN  | 32997    | 3386X-Y46-203     |
| A67R3                 | 2100-3354      | 9   |     | RESISTOR-TRMR 50K 10% C SIDE=ADJ 1-TRN  | 28480    | 2100-3354         |
| A67R4                 | 0683-5135      | 0   | 1   | RESISTOR 51K 5% .25W FC TC=400/+800     | 01121    | CB5135            |
| A67R5                 | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=400/+700    | 01121    | CB2225            |
| A67R6                 | 2100-3354      | 9   |     | RESISTOR-TRMR 50K 10% C SIDE=ADJ 1-TRN  | 28480    | 2100-3354         |
| A67R7                 | 0698-3497      | 4   | 3   | RESISTOR 6.04K 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-604R-F  |
| A67R8                 | 0698-4510      | 4   |     | RESISTOR 84.5K 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-8452-F  |
| A67R9                 | 0683-0275      | 9   |     | RESISTOR 2.7 5% .25W FC TC=400/+500     | 01121    | CB275             |
| A67R21                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500     | 01121    | CB1015            |
| A67R22                | 0757-0442      | 9   |     | RESISTOR 10K 1% .125W F TC=0/+100       | 24546    | C4-1/8-T0-1002-F  |
| A67R23                | 0683-2425      | 5   |     | RESISTOR 2.4K 5% .25W FC TC=400/+700    | 01121    | CB2425            |
| A67R24                | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=400/+800     | 01121    | CB4715            |
| A67R25                | 0698-3279      | 0   |     | RESISTOR 0.99K 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-4991-F  |
| A67R26                | 0683-5125      | 8   |     | RESISTOR 5.1K 5% .25W FC TC=400/+700    | 01121    | CB5125            |
| A67R27                | 0757-0437      | 2   |     | RESISTOR 4.75K 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-4751-F  |
| A67R28                | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=400/+700    | 01121    | CB1525            |
| A67R29                | 0757-0346      | 2   | 10  | RESISTOR 10 1% .125W F TC=0/+100        | 24546    | C4-1/8-T0-10R0-F  |
| A67R30                | 0757-0346      | 2   |     | RESISTOR 10 1% .125W F TC=0/+100        | 24546    | C4-1/8-T0-10R0-F  |
| A67R31                | 0757-0190      | 4   | 5   | RESISTOR 20K 1% .5W F TC=0/+100         | 28480    | 0757-0190         |
| A67R32                | 0686-4335      | 6   | 5   | RESISTOR 43K 5% .5W CC TC=0/+765        | 01121    | EB4335            |
| A67R33                | 0698-4479      | 6   |     | RESISTOR 14K 1% .125W F TC=0/+100       | 24546    | C4-1/8-T0-1402-F  |
| A67R34                | 0698-4471      | 6   |     | RESISTOR 7.15K 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-7151-F  |
| A67R35                | 0764-0005      | 5   | 1   | RESISTOR 10K 5% 2W MO TC=0/+200         | 28480    | 0764-0005         |
| A67R36                | 0757-0273      | 4   | 2   | RESISTOR 3.01K 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-3011-F  |
| A67R37                | 0686-7535      | 4   | 1   | RESISTOR 75K 5% .5W CC TC=0/+765        | 01121    | EB7535            |
| A67R38                | 2100-0558      | 9   |     | RESISTOR-TRMR 20K 10% C TOP=ADJ 1-TRN   | 28480    | 2100-0558         |
| A67R39                | 0698-3497      | 4   |     | RESISTOR 6.04K 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-604R-F  |
| A67R40                | 0698-3497      | 4   |     | RESISTOR 6.04K 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-604R-F  |
| A67R41                | 0686-3005      | 5   | 1   | RESISTOR 30 5% .5W CC TC=0/+412         | 01121    | EB3005            |
| A67R42                | 0757-0273      | 4   |     | RESISTOR 3.01K 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-3011-F  |
| A67R43                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800    | 01121    | CB1045            |
| A67R44                | 0698-3457      | 6   | 1   | RESISTOR 316K 1% .125W F TC=0/+100      | 28480    | 0698-3457         |
| A67R45                | 0757-0467      | 8   | 1   | RESISTOR 121K 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-1213-F  |
| A67R46                | 2100-3253      | 7   | 2   | RESISTOR-TRMR 50K 10% C TOP=ADJ 1-TRN   | 28480    | 2100-3253         |
| A67R47                | 0757-0465      | 6   |     | RESISTOR 100K 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-1003-F  |
| A67R48                | 0757-0465      | 6   |     | RESISTOR 100K 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-1003-F  |
| A67R49                | 0683-2265      | 1   | 1   | RESISTOR 22K 5% .25W FC TC=900/+1200    | 01121    | CB2265            |
| A67R50                | 0683-1215      | 9   | 1   | RESISTOR 120 5% .25W FC TC=400/+600     | 01121    | CB1215            |
| A67R51                | 0757-0479      | 2   | 1   | RESISTOR 392K 1% .125W F TC=0/+100      | 19701    | MF4C1/8-T0-3923-F |
| A67R52                | 0683-3915      | 0   | 5   | RESISTOR 390 5% .25W FC TC=400/+600     | 01121    | CB3915            |
| A67R53                | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0/+100        | 24546    | C4-1/8-T0-1001-F  |
| A67R54                | 2100-3351      | 6   |     | RESISTOR-TRMR 500 10% C SIDE=ADJ 1-TRN  | 28480    | 2100-3351         |
| A67R55                | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0/+100        | 24546    | C4-1/8-T0-1001-F  |
| A67R56                | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0/+100        | 24546    | C4-1/8-T0-1001-F  |
| A67R57                | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0/+100        | 24546    | C4-1/8-T0-1001-F  |
| A67R58                | 0757-0431      | 6   | 1   | RESISTOR 2.43K 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-2431-F  |
| A67R59                | 2100-3349      | 2   | 2   | RESISTOR-TRMR 100 10% C SIDE=ADJ 1-TRN  | 28480    | 2100-3349         |
| A67R60                | 0757-0284      | 7   |     | RESISTOR 150 1% .125W F TC=0/+100       | 24546    | C4-1/8-T0-151-F   |
| A67R61                | 0757-0428      | 1   |     | RESISTOR 1.62K 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-1621-F  |

See introduction to this section for ordering information.  
\*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                               | Mfr Code | Mfr Part Number      |
|-------------------------|----------------|-----|-----|-------------------------------------------|----------|----------------------|
| A67R62                  | 0698-4468      | 1   |     | RESISTOR 1.13K 1% .125W F TC=0+/-100      | 24546    | C4-1/8-T0-1131-F     |
| A67R63                  | 0698-3279      | 0   |     | RESISTOR 4.99K 1% .125W F TC=0+/-100      | 24546    | C4-1/8-T0-4991-F     |
| A67R64                  | 0683-5125      | 8   |     | RESISTOR 5.1K 5% .25W FC TC=-400/+700     | 01121    | CB5125               |
| A67R65                  | 0757-0437      | 2   |     | RESISTOR 4.75K 1% .125W F TC=0+/-100      | 24546    | C4-1/8-T0-4751-F     |
| A67R66                  | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700     | 01121    | CB1525               |
| A67R67                  | 0757-0346      | 2   |     | RESISTOR 10 1% .125W F TC=0+/-100         | 24546    | C4-1/8-T0-10R0-F     |
| A67R68                  | 0686-4335      | 6   |     | RESISTOR 43K 5% .5W CC TC=0+765           | 01121    | EB4335               |
| A67R69                  | 0757-0346      | 2   |     | RESISTOR 10 1% .125W F TC=0+/-100         | 24546    | C4-1/8-T0-10R0-F     |
| A67R70                  | 0757-0190      | 4   |     | RESISTOR 20K 1% .5W F TC=0+/-100          | 28480    | 0757-0190            |
| A67R71                  | 0698-3279      | 0   |     | RESISTOR 4.99K 1% .125W F TC=0+/-100      | 24546    | C4-1/8-T0-4991-F     |
| A67R72                  | 0683-5125      | 8   |     | RESISTOR 5.1K 5% .25W FC TC=-400/+700     | 01121    | CB5125               |
| A67R73                  | 0757-0437      | 2   |     | RESISTOR 4.75K 1% .125W F TC=0+/-100      | 24546    | C4-1/8-T0-4751-F     |
| A67R74                  | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700     | 01121    | CB1525               |
| A67R75                  | 0757-0346      | 2   |     | RESISTOR 10 1% .125W F TC=0+/-100         | 24546    | C4-1/8-T0-10R0-F     |
| A67R76                  | 0686-4335      | 6   |     | RESISTOR 43K 5% .5W CC TC=0+765           | 01121    | EB4335               |
| A67R78                  | 0757-0346      | 2   |     | RESISTOR 10 1% .125W F TC=0+/-100         | 24546    | C4-1/8-T0-10R0-F     |
| A67R79                  | 0757-0190      | 4   |     | RESISTOR 20K 1% .5W F TC=0+/-100          | 28480    | 0757-0190            |
| A67R80                  | 2100-3351      | 0   |     | RESISTOR-TRMR 500 10% C SIDE-ADJ 1-TRN    | 28480    | 2100-3351            |
| A67R81                  | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0+/-100         | 24546    | C4-1/8-T0-1001-F     |
| A67R82                  | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0+/-100         | 24546    | C4-1/8-T0-1001-F     |
| A67R83                  | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0+/-100         | 24546    | C4-1/8-T0-1001-F     |
| A67R84                  | 0698-4439      | 6   | 1   | RESISTOR 3.24K 1% .125W F TC=0+/-100      | 24546    | C4-1/8-T0-3241-F     |
| A67R85                  | 2100-3349      | 2   |     | RESISTOR-TRMR 100 10% C SIDE-ADJ 1-TRN    | 28480    | 2100-3349            |
| A67R86                  | 0757-0284      | 7   |     | RESISTOR 150 1% .125W F TC=0+/-100        | 24546    | C4-1/8-T0-151-F      |
| A67R87                  | 0757-0428      | 1   |     | RESISTOR 1.62K 1% .125W F TC=0+/-100      | 24546    | C4-1/8-T0-1621-F     |
| A67R88                  | 0698-4468      | 1   |     | RESISTOR 1.13K 1% .125W F TC=0+/-100      | 24546    | C4-1/8-T0-1131-F     |
| A67R89                  | 0698-3279      | 0   |     | RESISTOR 4.99K 1% .125W F TC=0+/-100      | 24546    | C4-1/8-T0-4991-F     |
| A67R90                  | 0683-5125      | 8   |     | RESISTOR 5.1K 5% .25W FC TC=-400/+700     | 01121    | CB5125               |
| A67R91                  | 0757-0437      | 2   |     | RESISTOR 4.75K 1% .125W F TC=0+/-100      | 24546    | C4-1/8-T0-4751-F     |
| A67R92                  | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700     | 01121    | CB1525               |
| A67R93                  | 0757-0346      | 2   |     | RESISTOR 10 1% .125W F TC=0+/-100         | 24546    | C4-1/8-T0-10R0-F     |
| A67R94                  | 0686-4335      | 6   |     | RESISTOR 43K 5% .5W CC TC=0+765           | 01121    | EB4335               |
| A67R95                  | 0757-0346      | 2   |     | RESISTOR 10 1% .125W F TC=0+/-100         | 24546    | C4-1/8-T0-10R0-F     |
| A67R96                  | 0757-0190      | 4   |     | RESISTOR 20K 1% .5W F TC=0+/-100          | 28480    | 0757-0190            |
| A67R97                  | 0698-3279      | 0   |     | RESISTOR 4.99K 1% .125W F TC=0+/-100      | 24546    | C4-1/8-T0-4991-F     |
| A67R98                  | 0683-5125      | 8   |     | RESISTOR 5.1K 5% .25W FC TC=-400/+700     | 01121    | CB5125               |
| A67R99                  | 0757-0437      | 2   |     | RESISTOR 4.75K 1% .125W F TC=0+/-100      | 24546    | C4-1/8-T0-4751-F     |
| A67R100                 | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700     | 01121    | CB1525               |
| A67R101                 | 0757-0346      | 2   |     | RESISTOR 10 1% .125W F TC=0+/-100         | 24546    | C4-1/8-T0-10R0-F     |
| A67R102                 | 0686-4335      | 6   |     | RESISTOR 43K 5% .5W CC TC=0+765           | 01121    | EB4335               |
| A67R103                 | 0757-0346      | 2   |     | RESISTOR 10 1% .125W F TC=0+/-100         | 24546    | C4-1/8-T0-10R0-F     |
| A67R104                 | 0757-0190      | 4   |     | RESISTOR 20K 1% .5W F TC=0+/-100          | 28480    | 0757-0190            |
| A67R105                 | 2100-3253      | 7   |     | RESISTOR-TRMR 50K 10% C TOP-ADJ 1-TRN     | 28480    | 2100-3253            |
| A67R106                 | 0698-4510      | 4   |     | RESISTOR 84.5K 1% .125W F TC=0+/-100      | 24546    | C4-1/8-T0-8452-F     |
| A67R107                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600       | 01121    | CB1025               |
| A67R108                 | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600      | 01121    | CB4715               |
| A67R110                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500       | 01121    | CB4705               |
| A67R111                 | 0757-0407      | 6   |     | RESISTOR 200 1% .125W F TC=0+/-100        | 24546    | C4-1/8-T0-201-F      |
| A67R112                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500       | 01121    | CB4705               |
| A67R113                 | 0757-0407      | 6   |     | RESISTOR 200 1% .125W F TC=0+/-100        | 24546    | C4-1/8-T0-201-F      |
| A67R114                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500       | 01121    | CB4705               |
| A67R115                 | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700     | 01121    | CB4725               |
| A57TR1-9                | 0560-0124      | 5   |     | CONNECTOR-SGL CONT PIN .084-IN-BSC-SZ RND | 28480    | 0306-0124            |
| A67U1                   | 1A26-0512      | 2   |     | IC 78M15C V RGLTR T0=39                   | 04713    | MC78M15CG            |
| A67U2                   | 1A26-0167      | 3   | 1   | OP AMP PRGMBL T0=99                       | 01928    | CA3094AT             |
| A67U3                   | 1A20-0196      | 6   | 1   | IC 723 V RGLTR T0=100                     | 04713    | MC1723CG             |
| A67U4                   | 1A26-0511      | 1   |     | IC 79M15A V RGLTR T0=39                   | 01295    | U479M15CLA           |
| A67 MISCELLANEOUS PARTS |                |     |     |                                           |          |                      |
|                         | 0340-0566      | 5   | 1   | INSULATOR-XSTR RUBBER RED                 | 28480    | 0340-0566            |
|                         | 1205-0033      | 6   | 10  | HEAT SINK T0=5/T0=39-PKG                  | 28480    | 1205-0033            |
|                         | 1205-0050      | 7   | 2   | HEAT SINK T0=5/T0=39-PKG                  | 28480    | 1205-0050            |
|                         | 1205-0085      | 2   | 2   | HEAT SINK T0=66-PKG                       | 28480    | 1205-0085            |
|                         | 1205-0247      | 4   | 5   | HEAT SINK T0=66-PKG                       | 28480    | 1205-0247            |
|                         | 2110-0269      | 0   | 12  | FUSEHOLDER-CLIP TYPE,250-FUSE             | 28480    | 2110-0269            |
|                         | 2260-0001      | 5   | 3   | NUT-HEX-DBL-CHAM 4=40-THD .094-IN=THK     | 28480    | 2260-0001            |
|                         | 1251-0600      | 0   |     | CONNECTOR-SGL CONT PIN 1.14-MM-BSC-SZ S0  | 28480    | 1251-0600            |
|                         | 0403-0029      | 9   | 2   | BUMPER FOOT-SCR .5-IN=OD .25-IN=THK BLK   | 28480    | 0403-0029            |
|                         | 2360-0117      | 6   | 0   | SCREW-MACH 6=32 .375-IN=LG PAN=HD=POZI    | 00000    | ORDER BY DESCRIPTION |
|                         | 0400-0018      | 0   | 2   | GROMMET-CHAN NCH .052-IN=THK-PAL          | 28480    | 0400-0018            |
|                         | 2190-0007      | 2   | 4   | WASHER-LK INTL T NO. 6 .141-IN=TD         | 28480    | 2190-0007            |
|                         | 0590-1054      | 7   |     | THREADDED INSERT-NUT 6=32 .065=LG SST     | 28480    | 0590-1054            |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-------------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
|                         | 2190-0005      | 0   | 2   | WASHER=LK EXT T NO. 4 .116-IN-ID         | 28480    | 2190-0005            |
|                         | 3050-0716      | 5   | 4   | WASHER=FL MTLG NO. 5 .128-IN-ID          | 28480    | 3050-0716            |
|                         | 2200-0105      | 4   | 2   | SCREW=MACH 4-40 .312-IN-LG PAN=HD=POZI   | 00000    | ORDER BY DESCRIPTION |
| A70                     | 03585-66570    | 5   | 1   | POWER SUPPLY BOARD                       | 28480    | 03585-66570          |
| A70C1                   | 0180-0696      | 2   | 1   | CAPACITOR=FXD 2600UF+50-10% 75VDC AL     | 00853    | 1012627075882A       |
| A70C2                   | 0180-2316      | 7   | 1   | CAPACITOR=FXD 900UF+50-10% 100VDC AL     | 56289    | 36D901F100A82A       |
| A70C3                   | 0180-0291      | 3   | 3   | CAPACITOR=FXD 1UF+-10% 35VDC TA          | 56289    | 150D105X9035A2       |
| A70C4                   | 0180-0291      | 3   | 3   | CAPACITOR=FXD 1UF+-10% 35VDC TA          | 56289    | 150D105X9035A2       |
| A70C5                   | 0180-0291      | 3   | 3   | CAPACITOR=FXD 1UF+-10% 35VDC TA          | 56289    | 150D105X9035A2       |
| A70C6                   | 0180-0291      | 3   | 3   | CAPACITOR=FXD 1UF+-10% 35VDC TA          | 56289    | 150D105X9035A2       |
| A70C7                   | 0180-0291      | 3   | 3   | CAPACITOR=FXD 1UF+-10% 35VDC TA          | 56289    | 150D105X9035A2       |
| A70CR1                  | 1902-1204      | 3   | 2   | DIODE=ZNR 1N2984B 20V 5% DO-4 PD=10W     | 12954    | 1N2984B              |
| A70CR2                  | 1902-1204      | 3   | 3   | DIODE=ZNR 1N2984B 20V 5% DO-4 PD=10W     | 12954    | 1N2984B              |
| A70CR3                  | 1902-0643      | 2   | 1   | DIODE=ZNR 1N2979B 15V 5% DO-4 PD=10W     | 28480    | 1902-0643            |
| A70CR4                  | 1902-1198      | 4   | 1   | DIODE=ZNR 1N2973B 9.1V 5% DO-4 PD=10W    | 12954    | 1N2973B              |
| A70CR5                  | 1902-1217      | 8   | 1   | DIODE=ZNR 6.2V 5% DO-4 PD=10W TC=+.035%  | 28480    | 1902-1217            |
| A70R1                   | 0764-0020      | 4   | 2   | RESISTOR 5.6K 5% 2W MO TC=0+-200         | 28480    | 0764-0020            |
| A70R2                   | 0764-0020      | 4   | 2   | RESISTOR 5.6K 5% 2W MO TC=0+-200         | 28480    | 0764-0020            |
| A70R3                   | 0687-1031      | 5   | 1   | RESISTOR 10K 10% .5W CC TC=0+765         | 01121    | E81031               |
| A70 MISCELLANEOUS PARTS |                |     |     |                                          |          |                      |
|                         | 2740-0002      | 4   | 5   | NUT=HEX=DBG=CHAM 10-32=THD .125-IN-TMK   | 00000    | ORDER BY DESCRIPTION |
|                         | 0380-0741      | 2   | 2   | STANDOFF=RVT=DN .187-IN-LG 6-32THD       | 00000    | ORDER BY DESCRIPTION |
|                         | 2190-0011      | 8   | 9   | WASHER=LK INTL T NO. 10 .195-IN-ID       | 28480    | 2190-0011            |
|                         | 0590-1136      | 6   | 6   | THREADED INSERT=NUT 10-32 .125-LG        | 28480    | 0590-1136            |
|                         | 2880-0128      | 7   | 4   | SCREW=MACH 10-32 .25-IN-LG PAN=HD=POZI   | 00000    | ORDER BY DESCRIPTION |
|                         | 0380-0059      | 5   | 7   | SPACER=RVT=DN .25-IN-LG .152-IN-ID       | 00000    | ORDER BY DESCRIPTION |
|                         | 1251-2034      | 8   | 5   | CONNECTOR=PC EDGE 10=CONT/ROW 2=ROWS     | 28480    | 1251-2034            |
|                         | 1251-0600      | 0   | 0   | CONNECTOR=SGL CONT PIN 1.14=MM=BSC=SZ SQ | 28480    | 1251-0600            |
|                         | 1251-2035      | 9   | 9   | CONNECTOR=PC EDGE 15=CONT/ROW 2=ROWS     | 28480    | 1251-2035            |
|                         | 1251-3276      | 2   | 2   | CONNECTOR 6-PIN M POST TYPE              | 28480    | 1251-3276            |
|                         | 8150-0406      | 7   | 7   | WIRE 18AWG R 300V PVC 19X30 80C          | 28480    | 8150-0406            |
|                         | 1251-4659      | 7   | 2   | CONNECTOR 14-PIN M POST TYPE             | 28480    | 1251-4659            |
|                         | 8150-0404      | 5   | 5   | WIRE 18AWG D 300V PVC 19X30 80C          | 28480    | 8150-0404            |
|                         | 1251-4692      | 8   | 1   | CONNECTOR 8-PIN M POST TYPE              | 22526    | 65645-408            |
|                         | 8150-0403      | 8   | 8   | WIRE 18AWG BK PVC 19 X 30 80C            | 28480    | 8150-0403            |
|                         | 8150-0408      | 9   | 9   | WIRE 18AWG BL 300V PVC 19X30 80C         | 28480    | 8150-0408            |
| A71                     | 03585-66571    | 6   | 1   | +7.7V POWER SUPPLY                       | 28480    | 03585-66571          |
| A71C1                   | 0180-2687      | 5   | 4   | CAPACITOR=FXD 47UF+100-10% 100VDC AL     | 28480    | 0180-2687            |
| A71C2                   | 0160-3622      | 8   | 8   | CAPACITOR=FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A71C3                   | 0180-2686      | 4   | 3   | CAPACITOR=FXD 470UF+100-10% 25VDC AL     | 28480    | 0180-2686            |
| A71C4                   | 0160-3456      | 6   | 6   | CAPACITOR=FXD 1000PF +-10% 1KVDC CER     | 28480    | 0160-3456            |
| A71C5                   | 0180-0116      | 1   | 1   | CAPACITOR=FXD 6.8UF+-10% 35VDC TA        | 56289    | 150D685X9035B2       |
| A71C6                   | 0180-0309      | 4   | 4   | CAPACITOR=FXD 4.7UF+-20% 10VDC TA        | 56289    | 150D475X0010A2       |
| A71C7                   | 0180-3622      | 8   | 8   | CAPACITOR=FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A71C8                   | 0180-0309      | 4   | 4   | CAPACITOR=FXD 4.7UF+-20% 10VDC TA        | 56289    | 150D475X0010A2       |
| A71C9                   | 0160-0300      | 3   | 3   | CAPACITOR=FXD 2700PF +-10% 200VDC POLYE  | 28480    | 0160-0300            |
| A71C10                  | 0180-0116      | 1   | 1   | CAPACITOR=FXD 6.8UF+-10% 35VDC TA        | 56289    | 150D685X9035B2       |
| A71C11                  | 0160-2055      | 9   | 9   | CAPACITOR=FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055            |
| A71C12                  | 0160-3456      | 6   | 6   | CAPACITOR=FXD 1000PF +-10% 1KVDC CER     | 28480    | 0160-3456            |
| A71C13                  | 0160-3622      | 8   | 8   | CAPACITOR=FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A71C14                  | 0160-3456      | 6   | 6   | CAPACITOR=FXD 1000PF +-10% 1KVDC CER     | 28480    | 0160-3456            |
| A71C15                  | 0160-3622      | 8   | 8   | CAPACITOR=FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A71CR1                  | 1901-0040      | 1   | 1   | DIODE=SWITCHING 30V 50MA 2NS DO-35       | 28480    | 1901-0040            |
| A71CR2                  | 1902-0202      | 9   | 4   | DIODE=ZNR 15V 5% DO-15 PD=1W TC=+.05%    | 28480    | 1902-0202            |
| A71CR3                  | 1990-0598      | 1   | 4   | LED=VISIBLE LUM=INT=800UDD IF=60MA=MAX   | 28480    | 5082-4190            |
| A71CR4                  | 1901-0026      | 3   | 14  | DIODE=PNR RECT 200V 750MA DO-29          | 28480    | 1901-0026            |
| A71CR5                  | 1990-0597      | 0   | 0   | LED=VISIBLE LUM=INT=1MCD IF=60MA=MAX     | 28480    | 5082-4150            |
| A71F1                   | 2110-0043      | 8   | 4   | FUSE 1.5A 250V FAST-BLO 1.25X.25 UL IEC  | 28480    | 2110-0043            |
| A71L1                   | 9140-0244      | 1   | 3   | INDUCTOR 1MH                             | 28480    | 9140-0244            |
| A71Q1                   | 1853-0086      | 2   | 2   | TRANSISTOR PNP SI PD=310MW FT=40MHZ      | 27014    | 2N5087               |
| A71Q2                   | 1854-0022      | 8   | 3   | TRANSISTOR NPN SI T0-39 PD=700MW         | 07263    | 517843               |
| A71Q4                   | 1854-0215      | 1   | 1   | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904               |
| A71R1                   | 0811-1826      | 1   | 3   | RESISTOR .05 10% 3W PA TC=0+-200         | 28480    | 0811-1826            |
| A71R2                   | 0757-0407      | 6   | 6   | RESISTOR 200 1% .125W F TC=0+-100        | 24546    | C4-1/8-TU-201-F      |
| A71R3                   | 0683-0715      | 0   | 0   | RESISTOR 470 5% .25W FC TC=400/+600      | 01121    | CB0715               |
| A71R5                   | 0757-0453      | 2   | 1   | RESISTOR 30.1K 1% .125W F TC=0+-100      | 24546    | C4-1/8-TU-3012-F     |
| A71R7                   | 0683-1505      | 0   | 0   | RESISTOR 15 5% .25W FC TC=400/+500       | 01121    | CB1505               |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
| A71R8                 | 0683-1505      | 0   |     | RESISTOR 15 5% .25W FC TC=-400/+500      | 01121    | CB1505               |
| A71R9                 | 0683-1505      | 0   |     | RESISTOR 15 5% .25W FC TC=-400/+500      | 01121    | CB1505               |
| A71R10                | 0683-1505      | 0   |     | RESISTOR 15 5% .25W FC TC=-400/+500      | 01121    | CB1505               |
| A71R11                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A71R12                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A71R13                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A71R14                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A71R15                | 0757-0442      | 9   |     | RESISTOR 10K 1% .125W F TC=0/+100        | 24546    | C4=1/8-T0=10Q2-F     |
| A71R16                | 0683-1515      | 2   |     | RESISTOR 150 5% .25W FC TC=-400/+600     | 01121    | CB1515               |
| A71R17                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A71R18                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A71R19                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | CB1015               |
| A71R20                | 0698-6704      | 2   | 2   | RESISTOR 24.9K .25% .125W F TC=0/+100    | 28480    | 0698-6704            |
| A71R21                | 0757-0448      | 5   |     | RESISTOR 18.2K 1% .125W F TC=0/+100      | 24546    | C4=1/8-T0=1822-F     |
| A71R22                | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700    | 01121    | CB6825               |
| A71R23                | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | CB1525               |
| A71R24                | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700    | 01121    | CB4725               |
| A71R25                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A71R26                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A71R27                | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=-400/+700    | 01121    | CB2725               |
| A71R29                | 0683-3915      | 0   |     | RESISTOR 390 5% .25W FC TC=-400/+600     | 01121    | CB3915               |
| A71R29                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A71R30                | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=-400/+700    | 01121    | CB2725               |
| A71R31                | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700    | 01121    | CB4725               |
| A71TP1                | 0360-0124      | 3   |     | CONNECTOR-SGL-CONT PIN .04-IN-BSC-S7 RND | 28480    | 0360-0124            |
| A71U1                 | 1813-0110      | 9   | 1   | IC V RGLTR TO-66                         | 12969    | PIC626               |
| A71U2                 | 1R26-0026      | 3   |     | COMPARATOR PRCN TO-99                    | 04713    | MLM311G              |
| A71U3                 | 1R26-0026      | 3   |     | COMPARATOR PRCN TO-99                    | 04713    | MLM311G              |
| A71U4                 | 1R20-1199      | 1   |     | IC INV TTL LS HEX 1-INP                  | 01295    | SN74LS04N            |
| A71U5                 | 1R20-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N            |
|                       |                |     |     | A71 MISCELLANEOUS PARTS                  |          |                      |
|                       | 03582-01103    | 1   | 3   | HEAT SINK                                | 28480    | 03582-01103          |
|                       | 1205-0247      | 4   |     | HEAT SINK TO-66-PKG                      | 28480    | 1205-0247            |
|                       | 1251-2551      | 4   | 10  | CONNECTOR-SGL CONT SKT .031-IN-BSC-SZ    | 28480    | 1251-2551            |
|                       | 2110-0269      | 0   |     | FUSEHOLDER-CLIP TYPE,250-FUSE            | 28480    | 2110-0269            |
|                       | 4040-0749      | 4   |     | EXTR-PC BD BRN POLYC .062-BD-THKNS       | 28480    | 4040-0749            |
|                       | 4040-0755      | 2   | 5   | EXTR-PC BD VID POLYC .062-BD-THKNS       | 28480    | 4040-0755            |
|                       | 0590-1054      | 7   |     | THREADED INSERT-NUT 6-32 .065-LG SST     | 28480    | 0590-1054            |
|                       | 1480-0116      | 6   |     | PIN-GRV .062-IN-DIA .25-IN-LG STL        | 28480    | 1480-0116            |
|                       | 2360-0117      | 6   |     | SCREW-MACH 6-32 .375-IN-LG PAN=HD=POZI   | 00000    | ORDER BY DESCRIPTION |
|                       | 2360-0115      | 4   |     | SCREW-MACH 6-32 .312-IN-LG PAN=HD=POZI   | 00000    | ORDER BY DESCRIPTION |
|                       | 2200-0103      | 2   |     | SCREW-MACH 4-40 .25-IN-LG PAN=HO=POZI    | 00000    | ORDER BY DESCRIPTION |
| A72                   | 03585-66572    | 7   | 1   | POWER SUPPLY, +5V                        | 28480    | 03585-66572          |
| A72C1                 | 0180-2667      | 5   |     | CAPACITOR-FXD 47UF+100-10% 100VDC AL     | 28480    | 0180-2667            |
| A72C2                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A72C3                 | 0180-2695      | 5   | 1   | CAPACITOR-FXD 1000UF+100-10% 12VDC AL    | 28480    | 0180-2695            |
| A72C4                 | 0160-0154      | 5   |     | CAPACITOR-FXD 2200PF +-10% 200VDC POLYE  | 28480    | 0160-0154            |
| A72C5                 | 0180-0309      | 4   |     | CAPACITOR-FXD 4.7UF+-20% 10VDC TA        | 56289    | 1500475X0010A2       |
| A72C6                 | 0180-0309      | 4   |     | CAPACITOR-FXD 4.7UF+-20% 10VDC TA        | 56289    | 1500475X0010A2       |
| A72C7                 | 0180-0309      | 4   |     | CAPACITOR-FXD 4.7UF+-20% 10VDC TA        | 56289    | 1500475X0010A2       |
| A72C8                 | 0180-0116      | 1   |     | CAPACITOR-FXD 6.8UF+-10% 35VDC TA        | 56289    | 1500685X9035B2       |
| A72C9                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055            |
| A72C10                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A72C11                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A72C12                | 0160-3456      | 6   |     | CAPACITOR-FXD 1000PF +-10% 1KVDC CER     | 28480    | 0160-3456            |
| A72C13                | 0180-0116      | 1   |     | CAPACITOR-FXD 6.8UF+-10% 35VDC TA        | 56289    | 1500685X9035B2       |
| A72C14                | 0160-3456      | 6   |     | CAPACITOR-FXD 1000PF +-10% 1KVDC CER     | 28480    | 0160-3456            |
| A72CR1                | 1902-0202      | 9   |     | DIODE-ZNR 15V 5% 00-15 PD=1W TC=+.057X   | 28480    | 1902-0202            |
| A72CR3                | 1990-0598      | 1   |     | LED-VISIBLE LUM-INT=800UCD IF=60MA-MAX   | 28480    | 5082-0190            |
| A72CR4                | 1901-0662      | 3   |     | DIODE-PWR RECT 100V 6A                   | 04713    | 4R751                |
| A72CR5                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS 00-35       | 28480    | 1901-0040            |
| A72CR6                | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-0190            |
| A72F1                 | 2110-0043      | 8   |     | FUSE 1.5A 250V FAST-BLD 1.25X.25 UL IEC  | 28480    | 2110-0043            |
| A72L1                 | 9140-0243      | 0   | 1   |                                          | 28480    | 9140-0243            |
| A72Q3                 | 1A54-0022      | 6   |     | TRANSISTOR NPN SI TO-39 PD=700MW         | 07263    | S17843               |
| A72Q4                 | 1A54-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904               |
| A72Q5                 | 1A53-0086      | 2   |     | TRANSISTOR PNP SI PD=310MW FT=40MHZ      | 27014    | 2N5087               |
| A72R4                 | 0683-1615      | 3   |     | RESISTOR 160 5% .25W FC TC=-400/+600     | 01121    | CB1615               |
| A72R5                 | 0683-3915      | 0   |     | RESISTOR 390 5% .25W FC TC=-400/+600     | 01121    | CB3915               |
| A72R6                 | 0683-1505      | 0   |     | RESISTOR 15 5% .25W FC TC=-400/+500      | 01121    | CB1505               |
| A72R7                 | 0683-1505      | 0   |     | RESISTOR 15 5% .25W FC TC=-400/+500      | 01121    | CB1505               |
| A72R8                 | 0683-1505      | 0   |     | RESISTOR 15 5% .25W FC TC=-400/+500      | 01121    | CB1505               |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
| A72R9                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A72R10                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | CB1015               |
| A72R11                | 0683-1505      | 0   |     | RESISTOR 15 5% .25W FC TC=-400/+500      | 01121    | CB1505               |
| A72R12                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A72R13                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A72R14                | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=-400/+700    | 01121    | CB6825               |
| A72R15                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | CB1015               |
| A72R16                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A72R17                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A72R18                | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700    | 01121    | CB4725               |
| A72R19                | 2100-3273      | 1   |     | RESISTOR-TRMR 2K 10% C SIDE-ADJ 1-TRN    | 28480    | 2100-3273            |
| A72R20*               | 0757-0459      | 8   | 1   | RESISTOR 56.2K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-5622-F     |
| A72R21                | 0683-1505      | 0   |     | RESISTOR 15 5% .25W FC TC=-400/+500      | 01121    | CB1505               |
| A72R22                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | CB1015               |
| A72R23                | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=-400/+700    | 01121    | CB2725               |
| A72R24                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A72R25                | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=-400/+700    | 01121    | CB2725               |
| A72R26                | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | CB1525               |
| A72R27                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A72R28                | 0757-0442      | 9   |     | RESISTOR 10K 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-1002-F     |
| A72R29                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A72R30                | 0698-4480      | 7   | 1   | RESISTOR 15.8K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-1582-F     |
| A72R31                | 2100-3207      | 1   |     | RESISTOR-TRMR 5K 10% C SIDE-ADJ 1-TRN    | 28480    | 2100-3207            |
| A72R32                | 0698-4470      | 5   | 1   | RESISTOR 6.98K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-6981-F     |
| A72R33                | 0812-0031      | 0   | 1   | RESISTOR 200 5% .25W PWR TC=-4000+-400   | 54294    | PC312-1/4=201-J      |
| A72R34                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A72R35                | 0683-3335      | 8   | 1   | RESISTOR 33K 5% .25W FC TC=-400/+800     | 01121    | CB3335               |
| A72T21                | 0360-0124      | 5   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-5Z RND | 28480    | 0360-0124            |
| A72U1                 | 1826-0026      | 3   |     | COMPARATOR PRCN TO-99                    | 04713    | MLM311G              |
| A72U2                 | 1826-0026      | 3   |     | COMPARATOR PRCN TO-99                    | 04713    | MLM311G              |
| A72U3                 | 1820-1199      | 1   |     | IC INV TTL LS HEX 1-INP                  | 01295    | SN74LS04N            |
| A72U4                 | 1820-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N            |
| A72U5                 | 1813-0082      | 4   | 1   | IC TO-3                                  | 12969    | PIC646               |
|                       |                |     |     | A72 MISCELLANEOUS PARTS                  |          |                      |
| A734                  | 03585-01102    | 3   | 1   | HEAT SINK                                | 28480    | 03585-01102          |
|                       | 1251-2551      | 4   |     | CONNECTOR-SGL CONT 8KT .033-IN-BSC-8Z    | 28480    | 1251-2551            |
|                       | 2110-0269      | 0   |     | FUSEHOLDER-CLIP TYPE .250-FUSE           | 28480    | 2110-0269            |
|                       | 4040-0755      | 2   |     | EXTR-PC HD VID POLYC .062-BD-THKNS       | 28480    | 4040-0755            |
|                       | 0590-1054      | 7   |     | THREADED INSERT-NUT 6-32 .065-LG SST     | 28480    | 0590-1054            |
|                       | 1480-0116      | 8   |     | PIN-GRV .062-IN-DIA .25-IN-LG STL        | 28480    | 1480-0116            |
|                       | 2360-0115      | 4   |     | SCREW-MACH 6-32 .312-IN-LG PAN-HD-POZI   | 00000    | ORDER BY DESCRIPTION |
| A734                  | 03585-66573    | 8   | 1   | +18, +12V POWER SUPPLY                   | 28480    | 03585-66573          |
| A73C1                 | 0180-2687      | 5   |     | CAPACITOR-FXD 47UF+100-10% 100VDC AL     | 28480    | 0180-2687            |
| A73C2                 | 0160-3622      | 6   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A73C3                 | 0180-2686      | 4   |     | CAPACITOR-FXD 470UF+100-10% 25VDC AL     | 28480    | 0180-2686            |
| A73C4                 | 0160-3456      | 6   |     | CAPACITOR-FXD 1000PF +-10% 1KVDC CER     | 28480    | 0160-3456            |
| A73C5                 | 0180-0116      | 1   |     | CAPACITOR-FXD 6.8UF+-10% 35VDC TA        | 56289    | 1500685X9035B2       |
| A73C6                 | 0180-0309      | 4   |     | CAPACITOR-FXD 4.7UF+-20% 10VDC TA        | 56289    | 1500475X0010A2       |
| A73C7                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A73C8                 | 0180-0309      | 4   |     | CAPACITOR-FXD 4.7UF+-20% 10VDC TA        | 56289    | 1500475X0010A2       |
| A73C9                 | 0160-0300      | 3   |     | CAPACITOR-FXD 2700PF +-10% 200VDC POLYE  | 28480    | 0160-0300            |
| A73C10                | 0180-0116      | 1   |     | CAPACITOR-FXD 6.8UF+-10% 35VDC TA        | 56289    | 1500685X9035B2       |
| A73C11                | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055            |
| A73C12                | 0160-3456      | 6   |     | CAPACITOR-FXD 1000PF +-10% 1KVDC CER     | 28480    | 0160-3456            |
| A73C13                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A73C14                | 0160-3456      | 6   |     | CAPACITOR-FXD 1000PF +-10% 1KVDC CER     | 28480    | 0160-3456            |
| A73C15                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A73CR1                | 1901-0040      | 1   |     | DICOD-SWITCHING 30V 50MA 2NS DD-35       | 28480    | 1901-0040            |
| A73CR2                | 1902-0202      | 9   |     | DICOD-ZNR 15V 5K DG-15 PD=1% TC=+.057%   | 28480    | 1902-0202            |
| A73CR3                | 1999-0598      | 1   |     | LED-VISIBLE LUM-INT=800UCD IF=60MA-MAX   | 28480    | 5082-4190            |
| A73CR4                | 1901-0026      | 5   |     | DICOD-PAR RECT 200V 750MA DD-29          | 28480    | 1901-0026            |
| A73CR5                | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT=1MCD IF=60MA-MAX     | 28480    | 5082-4150            |
| A73F1                 | 2110-0043      | 8   |     | FUSE 1.5A 250V FAST-BLD 1.25X.25 UL IEC  | 28480    | 2110-0043            |
| A73L1                 | 9140-0244      | 1   |     |                                          | 28480    | 9140-0244            |
| A73Q1                 | 1853-0086      | 2   |     | TRANSISTOR PNP SI PD=310MW FT=40MHZ      | 27014    | 2N5087               |
| A73Q2                 | 1854-0022      | 8   |     | TRANSISTOR NPN SI TO-39 PD=700MW         | 07263    | S17843               |
| A73Q3                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904               |
| A73Q4                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904               |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
| A73R1                 | 0811-1826      | 1   |     | RESISTOR .05 10K 3W PW TC=0+-200         | 28480    | 0811-1826            |
| A73R2                 | 0757-0404      | 3   | 1   | RESISTOR 130 1% .125W F TC=0+-100        | 24546    | C4=1/8-T0-151-F      |
| A73R3                 | 0687-1021      | 3   | 2   | RESISTOR 1K 10% .5W CC TC=0+647          | 01121    | EB1021               |
| A73R4                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025               |
| A73R5                 | 0757-0449      | 6   |     | RESISTOR 20K 1% .125W F TC=0+-100        | 24546    | C4=1/8-T0-2002-F     |
| A73R7                 | 0683-1505      | 0   |     | RESISTOR 15 5% .25W FC TC=400/+500       | 01121    | CB1505               |
| A73R8                 | 0683-1505      | 0   |     | RESISTOR 15 5% .25W FC TC=400/+500       | 01121    | CB1505               |
| A73R9                 | 0683-1505      | 0   |     | RESISTOR 15 5% .25W FC TC=400/+500       | 01121    | CB1505               |
| A73R10                | 0683-1505      | 0   |     | RESISTOR 15 5% .25W FC TC=400/+500       | 01121    | CB1505               |
| A73R11                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025               |
| A73R12                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025               |
| A73R13                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035               |
| A73R14                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035               |
| A73R15                | 0757-0442      | 9   |     | RESISTOR 10K 1% .125W F TC=0+-100        | 24546    | C4=1/8-T0-1002-F     |
| A73R16                | 0683-1515      | 2   |     | RESISTOR 150 5% .25W FC TC=400/+600      | 01121    | CB1515               |
| A73R17                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035               |
| A73R18                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035               |
| A73R19                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015               |
| A73R20                | 0698-6704      | 2   |     | RESISTOR 24.9K .25% .125W F TC=0+-100    | 28480    | 0698-6704            |
| A73R22                | 0683-6825      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=400/+700     | 01121    | CB6825               |
| A73R23                | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=400/+700     | 01121    | CB1525               |
| A73R24                | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=400/+700     | 01121    | CB4725               |
| A73R25                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035               |
| A73R26                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121    | CB1035               |
| A73R27                | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=400/+700     | 01121    | CB2725               |
| A73R28                | 0683-3915      | 0   |     | RESISTOR 390 5% .25W FC TC=400/+600      | 01121    | CB3915               |
| A73R29                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025               |
| A73R30                | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=400/+700     | 01121    | CB2725               |
| A73R31                | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=400/+700     | 01121    | CB4725               |
| A73R32                | 0698-3228      | 9   |     | RESISTOR 49.9K 1% .125W F TC=0+-100      | 28480    | 0698-3228            |
| A73TP1                | 0369-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-S7 RND | 28480    | 0369-0124            |
| A73U1                 | 1813-0083      | 3   | 1   | IC TO-66                                 | 12969    | PI6601               |
| A73U2                 | 1826-0026      | 5   |     | COMPARATOR PRCN TO-99                    | 04713    | MLM311G              |
| A73U3                 | 1826-0026      | 3   |     | COMPARATOR PRCN TO-99                    | 04713    | MLM311G              |
| A73U4                 | 1820-1199      | 1   |     | IC INV TTL LS HEX 1-INP                  | 01295    | SN74LS04A            |
| A73U5                 | 1820-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N            |
|                       |                |     |     | 473 MISCELLANEOUS PARTS                  |          |                      |
|                       | 03582-01103    | 1   |     | HEAT SINK                                | 28480    | 03582-01103          |
|                       | 1205-0247      | 4   |     | HEAT SINK TO-66-PKG                      | 28480    | 1205-0247            |
|                       | 1251-2551      | 1   |     | CONNECTOR-SGL CONT SKT .033-IN-BSC-S2    | 28480    | 1251-2551            |
|                       | 2110-0269      | 0   |     | FUSEHOLDER-CLIP TYPE .250-FUSE           | 28480    | 2110-0269            |
|                       | 4040-0751      | 8   |     | EXTR-PC BD ORN POLYIC .062-BD-THKNS      | 28480    | 4040-0751            |
|                       | 4040-0755      | 2   |     | EXTR-PC BD VID POLYIC .062-BD-THKNS      | 28480    | 4040-0755            |
|                       | 0590-1054      | 7   |     | THREADED INSERT-NUT 6-32 .065-LG SST     | 28480    | 0590-1054            |
|                       | 1480-0116      | 8   |     | PIN-GRV .062-IN-DIA .25-IN-LG STL        | 28480    | 1480-0116            |
|                       | 2200-0103      | 2   |     | SCREW-MACH 4-40 .25-IN-LG PAN-HD-POZI    | 00000    | ORDER BY DESCRIPTION |
|                       | 2360-0117      | 6   |     | SCREW-MACH 6-32 .375-IN-LG PAN-HD-POZI   | 00000    | ORDER BY DESCRIPTION |
|                       | 2360-0115      | 4   |     | SCREW-MACH 6-32 .312-IN-LG PAN-HD-POZI   | 00000    | ORDER BY DESCRIPTION |
| A74                   | 03585-66574    | 9   | 1   | POWER SUPPLY, -18V                       | 28480    | 03585-66574          |
| A74C1                 | 0180-0309      | 4   |     | CAPACITOR-FXD 4.7UF+-20% 10VDC TA        | 56289    | 1500475X0010A2       |
| A74C2                 | 0180-0309      | 4   |     | CAPACITOR-FXD 4.7UF+-20% 10VDC TA        | 56289    | 1500475X0010A2       |
| A74C3                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A74C4                 | 0180-0116      | 1   |     | CAPACITOR-FXD 6.8UF+-10% 35VDC TA        | 56289    | 1500685X9035b2       |
| A74C5                 | 0160-0300      | 3   |     | CAPACITOR-FXD 2700PF +-10% 200VDC POLYE  | 28480    | 0160-0300            |
| A74C6                 | 0160-2204      | 0   |     | CAPACITOR-FXD 100PF +-5% 300VDC MICA     | 28480    | 0160-2204            |
| A74C7                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER   | 28480    | 0160-2055            |
| A74C8                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A74C9                 | 0160-3456      | 6   |     | CAPACITOR-FXD 1000PF +-10% 1KVDC CER     | 28480    | 0160-3456            |
| A74C10                | 0160-3456      | 6   |     | CAPACITOR-FXD 1000PF +-10% 1KVDC CER     | 28480    | 0160-3456            |
| A74C11                | 0180-0309      | 4   |     | CAPACITOR-FXD 4.7UF+-20% 10VDC TA        | 56289    | 1500475X0010A2       |
| A74C12                | 0180-2687      | 5   |     | CAPACITOR-FXD 47UF+100-10% 100VDC AL     | 28480    | 0180-2687            |
| A74C13                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A74C14                | 0180-2686      | 4   |     | CAPACITOR-FXD 470UF+100-10% 25VDC AL     | 28480    | 0180-2686            |
| A74C15                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z      |
| A74C16                | 0160-3456      | 6   |     | CAPACITOR-FXD 1000PF +-10% 1KVDC CER     | 28480    | 0160-3456            |
| A74CR1                | 1990-0597      | 0   |     | LED-VISIBLE LUM-INT#1MCD IF=60MA-MAX     | 28480    | 5082-4150            |
| A74CR2                | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DD-35       | 28480    | 1901-0040            |
| A74CR3                | 1902-0202      | 9   |     | DIODE-ZNR 15V 5% DD-15 PD=1W TC=+.057K   | 28480    | 1902-0202            |
| A74CR4                | 1990-0598      | 1   |     | LED-VISIBLE LUM-INT#800UCD IF=60MA-MAX   | 28480    | 5082-4190            |
| A74CR5                | 1901-0026      | 3   |     | DIODE-PWR RECT 200V 750MA DD-29          | 28480    | 1901-0026            |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
| A741                  | 2110-0043      | 8   |     | FUSE 1.5A 250V FAST-BLQ 1.25x.25 UL IEC  | 28480    | 2110-0043            |
| A74L1                 | 9140-0244      | 1   |     |                                          | 28480    | 9140-0244            |
| A7401                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904               |
| A7402                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904               |
| A7403                 | 1853-0210      | 4   | 1   | TRANSISTOR PNP SI T0=39 PD=1W FT=50MHZ   | 28480    | 1853-0210            |
| A74R1                 | 0683-1505      | 0   |     | RESISTOR 15 5% .25W FC TC=-400/+500      | 01121    | CB1505               |
| A74R2                 | 0683-1505      | 0   |     | RESISTOR 15 5% .25W FC TC=-400/+500      | 01121    | CB1505               |
| A74R3                 | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | CB1525               |
| A74R4                 | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | CB1525               |
| A74R5                 | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=-400/+700    | 01121    | CB2725               |
| A74R6                 | 0683-3915      | 0   |     | RESISTOR 390 5% .25W FC TC=-400/+600     | 01121    | CB3915               |
| A74R7                 | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A74R8                 | 0683-2725      | 8   |     | RESISTOR 2.7K 5% .25W FC TC=-400/+700    | 01121    | CB2725               |
| A74R9                 | 0683-1525      | 4   |     | RESISTOR 1.5K 5% .25W FC TC=-400/+700    | 01121    | CB1525               |
| A74R10                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A74R11                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A74R12                | 0683-4725      | 2   |     | RESISTOR 4.7K 5% .25W FC TC=-400/+700    | 01121    | CB4725               |
| A74R13                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A74R14                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A74R15                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A74R16                | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=-400/+600      | 01121    | CB1025               |
| A74R17                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | CB1015               |
| A74R18                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A74R19                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=-400/+500     | 01121    | CB1015               |
| A74R20                | 0683-1505      | 0   |     | RESISTOR 15 5% .25W FC TC=-400/+500      | 01121    | CB1505               |
| A74R21                | 0683-1505      | 0   |     | RESISTOR 15 5% .25W FC TC=-400/+500      | 01121    | CB1505               |
| A74R22                | 0683-1035      | 9   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A74R23                | 0757-0442      | 1   |     | RESISTOR 10K 1% .125W F TC=0+100         | 24546    | C4=1/8-T0=1002-F     |
| A74R24                | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=-400/+700     | 01121    | CB1035               |
| A74R25                | 0683-0715      | 0   |     | RESISTOR 470 5% .25W FC TC=-400/+600     | 01121    | CB4715               |
| A74R26                | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705               |
| A74R27                | 0698-3522      | 8   |     | RESISTOR 41.2K 1% .125W F TC=0+100       | 24546    | C4=1/8-T0=4122-F     |
| A74R28                | 0757-0284      | 7   |     | RESISTOR 150 1% .125W F TC=0+100         | 24546    | C4=1/8-T0=151-F      |
| A74R29                | 0811-1826      | 1   |     | RESISTOR .05 10% 3W Pw TC=0+200          | 28480    | 0811-1826            |
| A74R30                | 0687-1021      | 3   |     | RESISTOR 1K 10% .5W CC TC=0+647          | 01121    | EB1021               |
| A74TP1                | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-S2 RND | 28480    | 0360-0124            |
| A74U1                 | 1A20-1199      | 1   |     | IC INV TTL LS HEX 1-INP                  | 01295    | SN74LS04N            |
| A74U2                 | 1A20-1112      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG        | 01295    | SN74LS74N            |
| A74U3                 | 1A26-0026      | 3   |     | COMPARATOR PRCN T0=99                    | 04713    | MLM311G              |
| A74U4                 | 1A26-0026      | 3   |     | COMPARATOR PRCN T0=99                    | 04713    | MLM311G              |
| A74U5                 | 1R13-0084      | 8   | 1   | IC T0=66                                 | 12969    | PLC611               |
|                       |                |     |     | A74 MISCELLANEOUS PARTS                  |          |                      |
|                       | 03582-01103    | 1   |     | HEAT SINK                                | 28480    | 03582-01103          |
|                       | 1205-0247      | 4   |     | HEAT SINK T0=66-PKG                      | 28480    | 1205-0247            |
|                       | 1251-2551      | 4   |     | CONNECTOR-SGL CONT SKT .033-IN-BSC-S2    | 28480    | 1251-2551            |
|                       | 2110-0269      | 0   |     | FUSEHOLDER-CLIP TYPE,250-FUSE            | 28480    | 2110-0269            |
|                       | 4040-0752      | 9   |     | EXTR-PC RD YEL POLYC .062=RD=THKNS       | 28480    | 4040-0752            |
|                       | 4040-0755      | 2   |     | EXTR-PC RD VIO POLYC .062=RD=THKNS       | 28480    | 4040-0755            |
|                       | 2360-0295      | 1   | 1   | SCREW-MACH 6-32 .312-IN-LG PAN=HD=PHL    | 28480    | 2360-0295            |
|                       | 0590-1054      | 7   |     | THREADED INSERT-NUT 6-32 .065-LG SST     | 28480    | 0590-1054            |
|                       | 1480-0116      | 8   |     | PIN=GRV .062-IN-DIA .25-IN-LG STL        | 28480    | 1480-0116            |
|                       | 2360-0117      | 8   |     | SCREW-MACH 6-32 .375-IN-LG PAN=HD=POZI   | 00000    | ORDER BY DESCRIPTION |
|                       | 2200-0103      | 2   |     | SCREW-MACH 4-40 .25-IN-LG PAN=HD=POZI    | 00000    | ORDER BY DESCRIPTION |
| A75                   | 03585-66575    | 0   | 1   | POWER SUPPLY CONTROL                     | 28480    | 03585-66575          |
| A75C1                 | 0180-1748      | 7   | 1   | CAPACITOR-FXD 45UF+50-10% 250VDC AL      | 56289    | 190456F250FL4        |
| A75C2                 | 0180-2216      | 6   | 2   | CAPACITOR-FXD 350UF+75-10% 16VDC AL      | 56289    | 300357G016DH2        |
| A75C3                 | 0180-2216      | 6   |     | CAPACITOR-FXD 350UF+75-10% 16VDC AL      | 56289    | 300357G016DH2        |
| A75C4                 | 0180-0228      | 6   |     | CAPACITOR-FXD 22UF+10% 15VDC TA          | 56289    | 1500226X9015B2       |
| A75C5                 | 0180-0228      | 6   |     | CAPACITOR-FXD 22UF+10% 15VDC TA          | 56289    | 1500226X9015B2       |
| A75C6                 | 0180-0141      | 2   |     | CAPACITOR-FXD 50UF+75-10% 50VDC AL       | 56289    | 300506G0500D2        |
| A75C7                 | 0180-0141      | 2   |     | CAPACITOR-FXD 50UF+75-10% 50VDC AL       | 56289    | 300506G0500D2        |
| A75C8                 | 0180-0291      | 3   |     | CAPACITOR-FXD 1UF+10% 35VDC TA           | 56289    | 1500105X9035A2       |
| A75C9                 | 0180-0228      | 6   |     | CAPACITOR-FXD 22UF+10% 15VDC TA          | 56289    | 1500226X9015B2       |
| A75C10                | 0160-2373      | 4   | 1   | CAPACITOR-FXD 4700PF +-2% 300VDC MICA    | 28480    | 0160-2373            |
| A75C11                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 28654    | 2130Y5V100R104Z      |
| A75CR1                | 1906-0069      | 4   | 2   | DIODE-FW BRDG 400V 1A                    | 28480    | 1906-0069            |
| A75CR2                | 1906-0069      | 4   |     | DIODE-FW BRDG 400V 1A                    | 28480    | 1906-0069            |
| A75CR3                | 1901-0026      | 3   |     | DIODE-PWR RECT 200V 750MA D0=29          | 28480    | 1901-0026            |
| A75CR4                | 1901-0026      | 3   |     | DIODE-PWR RECT 200V 750MA D0=29          | 28480    | 1901-0026            |
| A75CR5                | 1901-0026      | 3   |     | DIODE-PWR RECT 200V 750MA D0=29          | 28480    | 1901-0026            |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation   | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-------------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
| A75CR6                  | 1901-0026      | 3   |     | DIODE-PWR RECT 200V 750MA DO-29          | 28480    | 1901-0026            |
| A75CR7                  | 1902-3073      | 8   | 1   | DIODE-ZNR 4.32V 5% DO-7 PD=.4W TC=+.035% | 28480    | 1902-3073            |
| A75CR8                  | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35       | 28480    | 1901-0040            |
| A75CR9                  | 1901-0026      | 3   |     | DIODE-PWR RECT 200V 750MA DO-29          | 28480    | 1901-0026            |
| A75CR10                 | 1901-0026      | 3   |     | DIODE-PWR RECT 200V 750MA DO-29          | 28480    | 1901-0026            |
| A75CR11                 | 1902-0557      | 7   | 2   | DIODE-ZNR 24.3V 5% DO-15 PD=1W TC=+.078% | 28480    | 1902-0557            |
| A75CR12                 | 1902-0557      | 7   |     | DIODE-ZNR 24.3V 5% DO-15 PD=1W TC=+.078% | 28480    | 1902-0557            |
| A75CR13                 | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35       | 28480    | 1901-0040            |
| A75CR14                 | 1901-0026      | 3   |     | DIODE-PWR RECT 200V 750MA DO-29          | 28480    | 1901-0026            |
| A75CR15                 | 1901-0026      | 3   |     | DIODE-PWR RECT 200V 750MA DO-29          | 28480    | 1901-0026            |
| A75CR16                 | 1902-0777      | 3   |     | DIODE-ZNR 1N825 6.2V 5% DO-7 PD=.4W      | 04713    | 1N825                |
| A75CR17                 | 1902-3205      | 8   | 1   | DIODE-ZNR 15V 5% DO-7 PD=.4W TC=+.057%   | 28480    | 1902-3205            |
| A75CR18                 | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35       | 28480    | 1901-0040            |
| A75CR19                 | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35       | 28480    | 1901-0040            |
| A75CR20                 | 1901-0040      | 1   |     | DIODE-SWITCHING 30V 50MA 2NS DO-35       | 28480    | 1901-0040            |
| A75CR21                 | 1884-0052      | 7   | 1   | THYRISTOR-SCR VRRM=60                    | 01295    | TIC45                |
| A75F1                   | 2110-0004      | 1   | 1   | FUSE .25A 250V FAST-BLO 1.25X.25 UL IEC  | 28480    | 2110-0004            |
| A75Q1                   | 1854-0216      | 2   | 1   | TRANSISTOR NPN 2N3441 SI TO-66 PD=25W    | 01928    | 2N3441               |
| A75Q2                   | 1853-0323      | 0   | 1   | TRANSISTOR PNP 2N4900 SI TO-66 PD=25W    | 04713    | 2N4900               |
| A75R1                   | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=+400/+800     | 01121    | C82035               |
| A75R2                   | 0764-0042      | 0   | 2   | RESISTOR 2.2K 5% 2W MO TC=+200           | 28480    | 0764-0042            |
| A75R3                   | 0683-1005      | 5   |     | RESISTOR 10 5% .25W FC TC=+400/+500      | 01121    | C81005               |
| A75R4                   | 0764-0042      | 0   |     | RESISTOR 2.2K 5% 2W MO TC=+200           | 28480    | 0764-0042            |
| A75R5                   | 0683-1005      | 5   |     | RESISTOR 10 5% .25W FC TC=+400/+500      | 01121    | C81005               |
| A75R6                   | 0698-4426      | 1   | 1   | RESISTOR 1.58K 1% .125W F TC=+100        | 24546    | C4=1/8-T0-1581-F     |
| A75R7                   | 0757-0161      | 9   |     | RESISTOR 604 1% .125W F TC=+100          | 24546    | C4=1/8-T0-604R-F     |
| A75R8                   | 0757-0443      | 0   | 1   | RESISTOR 11K 1% .125W F TC=+100          | 24546    | C4=1/8-T0-1102-F     |
| A75R9                   | 2100-3109      | 2   |     | RESISTOR-TRMR 2K 10% C SIDE-ADJ 17-TRN   | 02111    | 43P202               |
| A75R10                  | 0698-3279      | 0   |     | RESISTOR 4.99K 1% .125W F TC=+100        | 24546    | C4=1/8-T0-4991-F     |
| A75R11                  | 0698-6678      | 9   | 2   | RESISTOR 15K .5% .125W F TC=+50          | 28480    | 0698-6678            |
| A75R12                  | 0698-6678      | 9   |     | RESISTOR 15K .5% .125W F TC=+50          | 28480    | 0698-6678            |
| A75R13                  | 0687-1841      | 5   | 1   | RESISTOR 180K 10% .5W CC TC=+882         | 01121    | E81841               |
| A75R14                  | 0683-1005      | 5   |     | RESISTOR 10 5% .25W FC TC=+400/+500      | 01121    | C81005               |
| A75R15                  | 2100-3056      | 8   |     | RESISTOR-TRMR 5K 10% C SIDE-ADJ 17-TRN   | 02111    | 43P502               |
| A75R16                  | 0698-4482      | 9   | 1   | RESISTOR 17.4K 1% .125W F TC=+100        | 03888    | PM55=1/8-T0-1742-F   |
| A75R17                  | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=+400/+600      | 01121    | C81025               |
| A75R18                  | 0757-0455      | 4   | 1   | RESISTOR 36.5K 1% .125W F TC=+100        | 24546    | C4=1/8-T0-3652-F     |
| A75R19                  | 0757-0464      | 5   | 1   | RESISTOR 90.9K 1% .125W F TC=+100        | 24546    | C4=1/8-T0-9092-F     |
| A75R20                  | 0757-0409      | 6   |     | RESISTOR 20K 1% .125W F TC=+100          | 24546    | C4=1/8-T0-2002-F     |
| A75R21                  | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=+400/+600      | 01121    | C81025               |
| A75R22                  | 0683-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=+400/+600      | 01121    | C81025               |
| A75R23                  | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=+400/+700     | 01121    | C81035               |
| A75R24                  | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=+400/+700     | 01121    | C81035               |
| A75R25                  | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=+400/+700     | 01121    | C81035               |
| A75R26                  | 0683-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=+400/+600     | 01121    | C84715               |
| A75R27                  | 0683-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=+400/+700     | 01121    | C81035               |
| A75S1                   | 3103-0015      | 0   | 1   | SWITCH-THRM FXD +75C 6A OPN-ON-RISE      | 28480    | 3103-0015            |
| A75TP1-2                | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-57 RND | 28480    | 0360-0124            |
| A75U1                   | 1A20-0429      | 8   | 1   | IC V RGLTR TO-39                         | 18324    | LM309M               |
| A75U2                   | 1A26-0220      | 9   | 1   | IC V RGLTR TO-39                         | 27014    | LM320H-05            |
| A75U3                   | 1A20-0203      | 6   | 2   | OP AMP GP TO-99                          | 01928    | CA741CT              |
| A75U4                   | 1A20-0203      | 6   |     | OP AMP GP TO-99                          | 01928    | CA741CT              |
| A75U5                   | 1A26-0026      | 3   |     | COMPARATOR PRCN TO-99                    | 04713    | MLM311G              |
| A75U6                   | 1A20-1201      | 6   |     | IC GATE TTL LS AND QUAD 2-INP            | 01295    | 8474LS08N            |
| A75 MISCELLANEOUS PARTS |                |     |     |                                          |          |                      |
|                         | 0340-0162      | 7   | 2   | INSULATOR-XSTR ALUMINUM                  | 28480    | 0340-0162            |
|                         | 03585-01103    | 4   | 1   | HEAT SINK, A75                           | 28480    | 03585-01103          |
|                         | 1205-0011      | 0   |     | HEAT SINK TO-5/T0-39-PKG                 | 28480    | 1205-0011            |
|                         | 2110-0269      | 0   |     | FUSEHOLDER-CLIP TYPE,250-FUSE            | 28480    | 2110-0269            |
|                         | 4040-0753      | 0   |     | EXTR-PC BD GRN POLYC .062-BD-THKNS       | 28480    | 4040-0753            |
|                         | 4040-0755      | 2   |     | EXTR-PC BD VIG POLYC .062-BD-THKNS       | 28480    | 4040-0755            |
|                         | 0590-1054      | 7   |     | THREADED INSERT-NUT 6-32 .065-LG SST     | 28480    | 0590-1054            |
|                         | 1480-0116      | 8   |     | PIN-GRV .062-IN-DIA .25-IN-LG STL        | 28480    | 1480-0116            |
|                         | 2360-0115      | 4   |     | SCREW-MACH 6-32 .312-IN-LG PAN-RO-POZI   | 00000    | ORDER BY DESCRIPTION |
|                         | 2420-0003      | 7   | 8   | NUT-HEX-OBL-CHAM 6-32-THD .094-IN-THK    | 00000    | ORDER BY DESCRIPTION |
|                         | 2190-0918      | 4   | 9   | WASHER-LK HLCL NO. 6 .141-IN-ID          | 28480    | 2190-0918            |
|                         | 3050-0066      | 8   | 6   | WASHER-FL MTLCL NO. 6 .147-IN-ID         | 28480    | 3050-0066            |
|                         | 8150-0038      | 1   |     | WIRE 22AWG Y 300V PVC 7X30 BOC           | 28480    | 8150-0038            |

See introduction to this section for ordering information  
 \*Indicates factory selected value



Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                             | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|-----|-----|-----------------------------------------|----------|----------------------|
| A76                   | 03585-66576    | 1   | 1   | POWER DISTRIBUTION BOARD                | 28480    | 03585-66576          |
| A76C1                 | 0180-0291      | 3   |     | CAPACITOR-FXD 1UF+10% 35VDC TA          | 56289    | 1500105X9035A2       |
| A76C2                 | 0180-0291      | 3   |     | CAPACITOR-FXD 1UF+10% 35VDC TA          | 56289    | 1500105X9035A2       |
| A76C3                 | 0180-0049      | 9   | 1   | CAPACITOR-FXD 20UF+75-10% 50VDC AL      | 56289    | 3002060500CC2        |
| A76C4                 | 0180-0291      | 3   |     | CAPACITOR-FXD 1UF+10% 35VDC TA          | 56289    | 1500105X9035A2       |
| A76C5                 | 0180-0291      | 3   |     | CAPACITOR-FXD 1UF+10% 35VDC TA          | 56289    | 1500105X9035A2       |
| A76C6                 | 0180-0291      | 3   |     | CAPACITOR-FXD 1UF+10% 35VDC TA          | 56289    | 1500105X9035A2       |
| A76C7                 | 0180-0291      | 3   |     | CAPACITOR-FXD 1UF+10% 35VDC TA          | 56289    | 1500105X9035A2       |
| A76CR1                | 1901-0026      | 3   |     | DIODE-PWR RECT 200V 750MA DO-29         | 28480    | 1901-0026            |
| A76CR2                | 1901-0026      | 3   |     | DIODE-PWR RECT 200V 750MA DO-29         | 28480    | 1901-0026            |
| A76CR3                | 1901-0026      | 3   |     | DIODE-PWR RECT 200V 750MA DO-29         | 28480    | 1901-0026            |
| A76CR4                | 1901-0662      | 3   |     | DIODE-PWR RECT 100V 6A                  | 04713    | MR751                |
| A76CR6                | 1902-0909      | 3   | 1   | DIODE-ZNR 1N2972A 8,2V 10% DO-4 PD=10W  | 04713    | 1N2972A              |
| A76J1                 | 1251-3196      | 5   | 1   | CONNECTOR 8-PIN M POST TYPE             | 28480    | 1251-3196            |
| A76J2                 | 1251-3475      | 3   |     | CONNECTOR 10-PIN M POST TYPE            | 28480    | 1251-3475            |
| A76J3                 | 1251-3276      | 2   |     | CONNECTOR 6-PIN M POST TYPE             | 28480    | 1251-3276            |
| A76J4                 | 1251-3981      | 6   | 1   | CONNECTOR 9-PIN M POST TYPE             | 28480    | 1251-3981            |
| A76J5                 | 1251-3618      | 6   |     | CONNECTOR 2-PIN M POST TYPE             | 28480    | 1251-3618            |
| A76J6                 | 1251-4659      | 7   |     | CONNECTOR 14-PIN M POST TYPE            | 28480    | 1251-4659            |
| A76J7                 | 1251-3618      | 6   |     | CONNECTOR 2-PIN M POST TYPE             | 28480    | 1251-3618            |
| A76J9                 | 1251-3192      | 1   | 1   | CONNECTOR 3-PIN M POST TYPE             | 28480    | 1251-3192            |
| A76J10                | 1251-3195      | 4   | 1   | CONNECTOR 4-PIN M POST TYPE             | 28480    | 1251-3195            |
| A76L1                 | 9140-0270      | 3   | 1   | INDUCTOR FAN                            | 28480    | 9140-0270            |
| A76R1                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=+400/+500     | 01121    | CB4705               |
| A76T1                 | 9100-4031      | 8   | 1   | BALUM TRANSFORMER                       | 28480    | 9100-4031            |
| A76T2                 | 9100-3454      | 7   | 1   | TRANSFORMER, GROUND ISOLATOR            | 28480    | 9100-3454            |
| A76U1                 | 1826-0403      | 0   |     | IC V RGLTR T0-3                         | 80103    | LAG-1815             |
|                       |                |     |     | A76 MISCELLANEOUS PARTS                 |          |                      |
|                       | 03585-01212    | 6   | 1   | BRACKET, HEAT SINK                      | 28480    | 03585-01212          |
|                       | 0590-0526      | 6   |     | THREADED INSERT-NUT 4-40 .065-LG SST    | 28480    | 0590-0526            |
|                       | 0590-1136      | 6   |     | THREADED INSERT-NUT 10-32 .125-LG       | 28480    | 0590-1136            |
|                       | 1200-0452      | 3   | 1   | SOCKET-XSTR 2-CONT T0-3 SLDR-EYE        | 28480    | 1200-0452            |
|                       | 0590-1054      | 7   |     | THREADED INSERT-NUT 6-32 .065-LG SST    | 28480    | 0590-1054            |
|                       | 0380-0046      | 0   | 6   | SPACER-RVT-ON .375-IN-LG .152-IN-ID     | 00000    | ORDER BY DESCRIPTION |
|                       | 1251-0600      | 0   |     | CONNECTOR-SGL CONT PIN 1,14MM-BSC-S2 80 | 28480    | 1251-0600            |
|                       | 2200-0169      | 0   | 2   | SCREW-MACH 4-40 .5-IN-LG 82 DEG         | 00000    | ORDER BY DESCRIPTION |
|                       | 3050-0066      | 8   |     | WASHER-FL MTLC NO. 6 .147-IN-ID         | 28480    | 3050-0066            |
|                       | 2190-0913      | 9   | 2   | WASHER-LK HLCL NO. 4 .115-IN-ID         | 28480    | 2190-0913            |
|                       | 2280-0002      | 6   | 2   | NUT-HEX-DBL-CHAM 4-40-THD .062-IN-THK   | 00000    | ORDER BY DESCRIPTION |
|                       | 2360-0115      | 4   |     | SCREW-MACH 6-32 .312-IN-LG PAN-HD-POZI  | 00000    | ORDER BY DESCRIPTION |
|                       | 2360-0195      | 0   | 2   | SCREW-MACH 6-32 .312-IN-LG PAN-HD-POZI  | 00000    | ORDER BY DESCRIPTION |
|                       | 0340-0580      | 3   |     | INSULATOR-XSTR RUBBER RED               | 28480    | 0340-0580            |
|                       | 2360-0117      | 6   |     | SCREW-MACH 6-32 .375-IN-LG PAN-HD-POZI  | 00000    | ORDER BY DESCRIPTION |
|                       | 3050-0716      | 5   |     | WASHER-FL MTLC NO. 5 .128-IN-ID         | 28480    | 3050-0716            |
|                       | 0360-0053      | 7   | 1   | TERMINAL-SLDR LUG LK-MTG FOR=10-SCR     | 28480    | 0360-0053            |
|                       | 2190-0918      | 4   |     | WASHER-LK HLCL NO. 6 .141-IN-ID         | 28480    | 2190-0918            |
| A77                   | 03585-66577    | 2   | 1   | AC PROTECT BOARD                        | 28480    | 03585-66577          |
| A77C1                 | 0160-2055      | 9   |     | CAPACITOR-FXD .01UF +80-20% 100VDC CER  | 28480    | 0160-2055            |
| A77C2                 | 0160-4603      | 7   | 2   | CAPACITOR-FXD 1UF +20% 200VDC MET-POLYP | 28480    | 0160-4603            |
| A77Q1                 | 1884-0272      | 3   | 1   | THYRISTOR-DIAC TRIG IPK=2A VRCA D=3202Y | 0192B    | D3202Y               |
| A77Q2                 | 1884-0270      | 1   | 1   | THYRISTOR-TRIAC 2N5569                  | 0192B    | 2N5569               |
| A77R1                 | 0698-3228      | 9   |     | RESISTOR 49.9K 1% .125W F TC=0+100      | 28480    | 0698-3228            |
| A77R2                 | 0757-0454      | 3   |     | RESISTOR 33.2K 1% .125W F TC=0+100      | 24546    | C4-1/8-T0-3322-F     |
| A77R3                 | 0757-0454      | 3   |     | RESISTOR 33.2K 1% .125W F TC=0+100      | 24546    | C4-1/8-T0-3322-F     |
|                       |                |     |     | A77 MISCELLANEOUS PARTS                 |          |                      |
|                       | 2950-0134      | 8   | 1   | NUT-HEX-DBL-CHAM 1/4-28-THD .125-IN-THK | 00000    | ORDER BY DESCRIPTION |
|                       | 0380-0046      | 0   |     | SPACER-RVT-ON .375-IN-LG .152-IN-ID     | 00000    | ORDER BY DESCRIPTION |
|                       | 2190-0027      | 6   | 1   | WASHER-LK INTL T 1/4 IN .256-IN-ID      | 28480    | 2190-0027            |
| AR1                   | 03585-66581    | 8   | 1   | OSCILLATOR BOARD (STD)                  | 28480    | 03585-66581          |
| AR1C1                 | 0160-1794      | 3   |     | CAPACITOR-FXD 22UF+10% 35VDC TA         | 56289    | 1500226X9035R2       |
| AR1C2                 | 0160-3847      | 9   |     | CAPACITOR-FXD .01UF +100-0% 50VDC CER   | 28480    | 0160-3847            |
| AR1C3                 | 0160-2222      | 2   | 2   | CAPACITOR-FXD 1500PF +5% 300VDC MICA    | 28480    | 0160-2222            |
| AR1C4                 | 0160-2222      | 2   |     | CAPACITOR-FXD 1500PF +5% 300VDC MICA    | 28480    | 0160-2222            |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|------------------|
| AB1J1                 | 1250-1368      | 7   |     | CONNECTOR-RF SMD M PC 50-OHM             | 28480    | 1250-1368        |
| AB1J2                 | 1251-4795      | 2   |     | CONNECTOR 2-PIN M POST TYPE              | 28480    | 1251-4795        |
| AB1L1                 | 9100-1618      | 1   |     | COIL-MLD 5.6UH 10% Q=45 .155DX.375LG-NOM | 28480    | 9100-1618        |
| AB1L2                 | 9100-2486      | 3   |     | COIL-MLD 330NH 5% Q=45 .156DX.375LG-NOM  | 28480    | 9100-2486        |
| AB1Q1                 | 1853-0020      | 4   |     | TRANSISTOR PNP SI PD=300MW FT=150MHZ     | 28480    | 1853-0020        |
| AB1R1                 | 0757-0442      | 9   |     | RESISTOR 10K 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-1002-F |
| AB1R2                 | 2100-3207      | 1   |     | RESISTOR-TRMR 5K 10% C SIDE-ADJ 1-TRN    | 28480    | 2100-3207        |
| AB1R3                 | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=-400/+700    | 01121    | CB2225           |
| AB1R4                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| AB1R5                 | 0690-6811      | 6   |     | RESISTOR 680 10% 1W CC TC=0+529          | 01121    | GB6811           |
| AB1R6                 | 0683-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=-400/+500      | 01121    | CB4705           |
| AB1R7                 | 0698-3279      | 0   |     | RESISTOR 4.99K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-4991-F |
| AB1R8                 | 0757-0449      | 6   |     | RESISTOR 20K 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-2002-F |
| AB1R9                 | 2100-3351      | 6   |     | RESISTOR-TRMR 500 10% C SIDE-ADJ 1-TRN   | 28480    | 2100-3351        |
| AB1R10                | 0698-4442      | 1   |     | RESISTOR 0.42K 1% .125W F TC=0+-100      | 24546    | C4-1/8-T0-4421-F |
| AB1R11                | 0757-0449      | 6   |     | RESISTOR 20K 1% .125W F TC=0+-100        | 24546    | C4-1/8-T0-2002-F |
| AB1R12                | 0683-1055      | 5   |     | RESISTOR 1M 5% .25W FC TC=-800/+900      | 01121    | CB1055           |
| AB1U1                 | 0960-0465      | 7   |     | OSCILATOR, HIGH STANDBY                  | 28480    | 0960-0465        |
| AB1U2                 | 1826-0026      | 3   |     | COMPARATOR PRCN TC=99                    | 04713    | MLM311G          |
|                       |                |     |     | AB1 MISCELLANEOUS PARTS                  |          |                  |
|                       | 03585-04132    | 5   | 1   | INSULATOR, OVEN                          | 28480    | 03585-04132      |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                             | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|-----|-----|-----------------------------------------|----------|----------------------|
| HARDWARE LIST         |                |     |     |                                         |          |                      |
|                       | 0380-0640      | 0   | 2   | STANDOFF-RND .5-IN-LG 6-32TMD .25-IN-OD | 00000    | ORDER BY DESCRIPTION |
|                       | 0400-0018      | 0   |     | GROMMET-CHAN NCH .052-IN-TMK-PNL        | 28480    | 0400-0018            |
|                       | 0590-1059      | 2   | 30  | THREADED INSERT-STDF 4-40 .188-LG       | 28480    | 0590-1059            |
|                       | 0890-0025      | 6   |     | SPIRAL WRAP .188-2-DIA POLYETH          | 28480    | 0890-0025            |
|                       | 0510-0015      | 0   | 2   | RETAINER-RING E-WR EXT .125-IN-DIA STL  | 28480    | 0510-0015            |
|                       | 2260-0009      | 3   |     | NUT-HEX-W/LKWR 4-40-TMD .094-IN-TMK     | 00000    | ORDER BY DESCRIPTION |
|                       | 2190-0016      | 3   | 2   | WASHER-LK INTL T 1/8 IN .377-IN-ID      | 28480    | 2190-0016            |
|                       | 3050-0067      | 9   | 1   | WASHER-FL MTLG 5/16 IN .375-IN-ID       | 28480    | 3050-0067            |
|                       | 2950-0043      | 8   | 2   | NUT-HEX-DBL-CHAM 3/8-32-TMD .094-IN-TMK | 00000    | ORDER BY DESCRIPTION |
|                       | 0400-0009      | 9   | 4   | GROMMET-RND .125-IN-ID .25-IN-GRV-OD    | 28480    | 0400-0009            |
|                       | 2200-0101      | 0   |     | SCREW-MACH 4-40 .188-IN-LG PAN-HD-POZI  | 00000    | ORDER BY DESCRIPTION |
|                       | 2190-0060      | 7   | 5   | WASHER-LK INTL T 1/4 IN .256-IN-ID      | 28480    | 2190-0060            |
|                       | 2950-0072      | 3   | 5   | NUT-HEX-DBL-CHAM 1/4-32-TMD .062-IN-TMK | 00000    | ORDER BY DESCRIPTION |
|                       | 2190-0068      | 5   | 2   | WASHER-LK INTL T 1/2 IN .505-IN-ID      | 28480    | 2190-0068            |
|                       | 2950-0054      | 1   | 3   | NUT-HEX-DBL-CHAM 1/2-28-TMD .125-IN-TMK | 00000    | ORDER BY DESCRIPTION |
|                       | 2190-0014      | 1   | 2   | WASHER-LK INTL T NO. 2 .089-IN-ID       | 28480    | 2190-0014            |
|                       | 0610-0001      | 6   | 2   | NUT-HEX-DBL-CHAM 2-56-TMD .062-IN-TMK   | 00000    | ORDER BY DESCRIPTION |
|                       | 0360-0042      | 4   | 1   | TERMINAL-SLDR LUG PL-MTG FOR-#6-SCR     | 28480    | 0360-0042            |
|                       | 1400-0090      | 9   | 1   | WASHER-RUBBER 5/8" OD                   | 00000    | 080                  |
|                       | 2190-0037      | 8   | 1   | WASHER-LK INTL T 1/2 IN .512-IN-ID      | 28480    | 2190-0037            |
|                       | 2360-0139      | 2   | 4   | SCREW-MACH 6-32 2-IN-LG PAN-HD-POZI     | 00000    | ORDER BY DESCRIPTION |
|                       | 2420-0001      | 5   | 4   | NUT-HEX-W/LKWR 6-32-TMD .109-IN-TMK     | 00000    | ORDER BY DESCRIPTION |
|                       | 1400-0024      | 9   | 1   | CLAMP-CABLE .25-DIA .5-AD NYL           | 28480    | 1400-0024            |
|                       | 2360-0121      | 2   | 9   | SCREW-MACH 6-32 .5-IN-LG PAN-HD-POZI    | 00000    | ORDER BY DESCRIPTION |
|                       | 3050-0066      | 8   |     | WASHER-FL MTLG NO. 6 .147-IN-ID         | 28480    | 3050-0066            |
|                       | 2190-0916      | 4   |     | WASHER-LK HLCL NO. 6 .141-IN-ID         | 28480    | 2190-0916            |
|                       | 2420-0003      | 7   |     | NUT-HEX-DBL-CHAM 6-32-TMD .094-IN-TMK   | 00000    | ORDER BY DESCRIPTION |
|                       | 2190-0034      | 5   | 4   | WASHER-LK HLCL NO. 10 .194-IN-ID        | 28480    | 2190-0034            |
|                       | 2360-0113      | 2   | 9   | SCREW-MACH 6-32 .25-IN-LG PAN-HD-POZI   | 00000    | ORDER BY DESCRIPTION |
|                       | 2950-0004      | 6   | 4   | NUT-HEX-DBL-CHAM 8-32-TMD .125-IN-TMK   | 00000    | ORDER BY DESCRIPTION |
|                       | 2190-0099      | 2   | 13  | WASHER-LK INTL T 7/16 IN .472-IN-ID     | 28480    | 2190-0099            |
|                       | 2950-0035      | 8   | 13  | NUT-HEX-DBL-CHAM 15/32-32-TMD           | 00000    | ORDER BY DESCRIPTION |
|                       | 2360-0117      | 6   |     | SCREW-MACH 6-32 .375-IN-LG PAN-HD-POZI  | 00000    | ORDER BY DESCRIPTION |
|                       | 2360-0115      | 4   |     | SCREW-MACH 6-32 .312-IN-LG PAN-HD-POZI  | 00000    | ORDER BY DESCRIPTION |
|                       | 2360-0207      | 5   | 1   | SCREW-MACH 6-32 .475-IN-LG PAN-HD-POZI  | 00000    | ORDER BY DESCRIPTION |
|                       | 2360-0123      | 4   | 5   | SCREW-MACH 6-32 .625-IN-LG PAN-HD-POZI  | 00000    | ORDER BY DESCRIPTION |
|                       | 2200-0103      | 2   |     | SCREW-MACH 4-40 .25-IN-LG PAN-HD-POZI   | 00000    | ORDER BY DESCRIPTION |
|                       | 2200-0103      | 2   |     | SCREW-MACH 4-40 .25-IN-LG PAN-HD-POZI   | 00000    | ORDER BY DESCRIPTION |
|                       | 2360-0197      | 2   | 2   | SCREW-MACH 6-32 .375-IN-LG PAN-HD-POZI  | 00000    | ORDER BY DESCRIPTION |
|                       | 3050-0010      | 2   | 2   | WASHER-FL MTLG NO. 6 .147-IN-ID         | 28480    | 3050-0010            |
|                       | 2200-0111      | 2   | 16  | SCREW-MACH 4-40 .5-IN-LG PAN-HD-POZI    | 00000    | ORDER BY DESCRIPTION |
|                       | 1400-0290      | 1   | 1   | BRACKET-RTANG .5-LG X .578-LG .5-AD STL | 28480    | 1400-0290            |
|                       | 2360-0193      | 9   |     | SCREW-MACH 6-32 .25-IN-LG PAN-HD-POZI   | 00000    | ORDER BY DESCRIPTION |
|                       | 2360-0116      | 5   | 15  | SCREW-MACH 6-32 .312-IN-LG 82 DEG       | 00000    | ORDER BY DESCRIPTION |
|                       | 0520-0127      | 6   | 7   | SCREW-MACH 2-56 .188-IN-LG PAN-HD-POZI  | 00000    | ORDER BY DESCRIPTION |
|                       | 0360-0001      | 5   | 2   | TERMINAL-SLDR LUG LK-MTG FOR-#6-SCR     | 28480    | 0360-0001            |
|                       | 2260-0003      | 7   | 2   | NUT-HEX-PLSTC LKG 4-40-TMD .141-IN-TMK  | 00000    | ORDER BY DESCRIPTION |
|                       | 2200-0143      | 0   | 7   | SCREW-MACH 4-40 .375-IN-LG PAN-HD-POZI  | 00000    | ORDER BY DESCRIPTION |
|                       | 2190-0003      | 8   | 2   | WASHER-LK HLCL NO. 4 .115-IN-ID         | 28480    | 2190-0003            |
|                       | 3050-0016      | 8   | 2   | WASHER-FL MTLG NO. 6 .147-IN-ID         | 28480    | 3050-0016            |
|                       | 2510-0046      | 9   | 6   | SCREW-MACH 8-32 .375-IN-LG 82 DEG       | 00000    | ORDER BY DESCRIPTION |
|                       | 3050-0071      | 5   | 3   | WASHER-FL MTLG NO. 8 .169-IN-ID         | 28480    | 3050-0071            |
|                       | 2360-0200      | 8   | 3   | SCREW-MACH 6-32 .5-IN-LG 100 DEG        | 00000    | ORDER BY DESCRIPTION |
|                       | 2510-0041      | 4   | 23  | SCREW-MACH 8-32 .25-IN-LG PAN-HD-POZI   | 00000    | ORDER BY DESCRIPTION |
|                       | 2510-0045      | 8   | 4   | SCREW-MACH 8-32 .375-IN-LG PAN-HD-POZI  | 00000    | ORDER BY DESCRIPTION |
|                       | 2510-0192      | 6   | 16  | SCREW-MACH 8-32 .25-IN-LG 100 DEG       | 28480    | 2510-0192            |
|                       | 0624-0004      | 8   | 6   | SCREW-TPG 4-24 .375-IN-LG PAN-HD-SLT    | 00000    | ORDER BY DESCRIPTION |
|                       | 3050-0001      | 1   | 2   | WASHER-FL MTLG NO. 8 .172-IN-ID         | 28480    | 3050-0001            |
|                       | 2260-0107      | 6   | 1   | SCREW-MACH 4-40 .375-IN-LG PAN-HD-POZI  | 00000    | ORDER BY DESCRIPTION |
|                       | 2360-0111      | 0   | 6   | SCREW-MACH 6-32 .188-IN-LG PAN-HD-POZI  | 00000    | ORDER BY DESCRIPTION |
|                       | 2360-0190      | 5   | 2   | SCREW-MACH 6-32 .188-IN-LG 100 DEG      | 00000    | ORDER BY DESCRIPTION |
|                       | 1400-0093      | 2   | 1   | STRAP-CABLE .438-DIA                    | 28480    | 1400-0093            |
|                       | 2190-0057      | 2   | 4   | WASHER-LK INTL T NO. 12 .218-IN-ID      | 28480    | 2190-0057            |
|                       | 0360-0368      | 7   | 1   | TERMINAL-SLDR LUG LK-MTG FOR-#12-SCR    | 28480    | 0360-0368            |
|                       | 0520-0128      | 7   | 46  | SCREW-MACH 2-56 .25-IN-LG PAN-HD-POZI   | 00000    | ORDER BY DESCRIPTION |
|                       | 2200-0137      | 2   | 16  | SCREW-MACH 4-40 .188-IN-LG PAN-HD-POZI  | 00000    | ORDER BY DESCRIPTION |
|                       | 2200-0165      | 6   | 13  | SCREW-MACH 4-40 .25-IN-LG 82 DEG        | 00000    | ORDER BY DESCRIPTION |
|                       | 8151-0011      | 2   |     | WIRE 18AWG 1x18                         | 28480    | 8151-0011            |
|                       | 8150-0299      | 6   | 2   | WIRE 24AWG Y 300V PVC 7x32 80C          | 28480    | 8150-0299            |
|                       | 8150-0299      | 6   |     | WIRE 24AWG Y 300V PVC 7x32 80C          | 28480    | 8150-0299            |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|----------------------|
|                       | 8150-0299      | 6   |     | WIRE 24AWG Y 300V PVC 7X32 80C           | 28480    | 8150-0299            |
|                       | 8150-0301      | 1   | 1   | WIRE 24AWG R 300V PVC 7X32 80C           | 28480    | 8150-0301            |
|                       | 0360-0124      | 3   |     | CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND | 28480    | 0360-0124            |
|                       | 0520-0133      | 4   | 2   | SCREW-MACH 2-56 .5-IN-LG PAN-HD-PGZI     | 00000    | ORDER BY DESCRIPTION |
|                       | 0590-0060      | 3   | 1   | NUT-HEX-OBL-CHAM 12-32-THD .078-IN-THK   | 00000    | ORDER BY DESCRIPTION |
|                       | 9211-2934      | 1   | 1   |                                          | 28480    | 9211-2934            |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                             | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|-----|-----|-----------------------------------------|----------|----------------------|
| MISCELLANEOUS PARTS   |                |     |     |                                         |          |                      |
|                       | 0340-0618      | 8   | 2   | INSULATOR MYL/VNL                       | 28480    | 0340-0618            |
|                       | 03582-04104    | 8   | 1   | GUARD, FAN SWITCH                       | 28480    | 03582-04104          |
|                       | 03582-22701    | 9   | 1   | FILTER, GRAY                            | 28480    | 03582-22701          |
|                       | 03582-60103    | 5   | 1   | SHIELD                                  | 28480    | 03582-60103          |
|                       | 03585-00101    | 0   | 1   | DECK, HVPS                              | 28480    | 03585-00101          |
|                       | 03585-00105    | 4   | 1   | DECK, MOUNTING HVPS                     | 28480    | 03585-00105          |
|                       | 03585-00201    | 1   | 1   | PANEL, FRONT, TOP                       | 28480    | 03585-00201          |
|                       | 03585-00202    | 2   | 1   | SUB-PANEL, FRONT                        | 28480    | 03585-00202          |
|                       | 03585-00203    | 3   | 1   | PANEL, REAR                             | 28480    | 03585-00203          |
|                       | 03585-00302    | 3   | 1   | COVER, INPUT                            | 28480    | 03585-00302          |
|                       | 03585-00306    | 7   | 1   | SHIELD, BOTTOM                          | 28480    | 03585-00306          |
|                       | 03585-00307    | 8   | 1   | SHIELD, FRONT                           | 28480    | 03585-00307          |
|                       | 03585-00308    | 9   | 1   | SHIELD, REAR                            | 28480    | 03585-00308          |
|                       | 03585-00310    | 3   | 2   |                                         | 28480    | 03585-00310          |
|                       | 03585-00311    | 4   | 1   | CLAMP, END                              | 28480    | 03585-00311          |
|                       | 03585-00601    | 5   | 1   | DIVIDER-DIGITAL                         | 28480    | 03585-00601          |
|                       | 03585-01201    | 3   | 1   | BRACKET B                               | 28480    | 03585-01201          |
|                       | 03585-01203    | 5   | 1   | BRACKET, PC BOARD                       | 28480    | 03585-01203          |
|                       | 03585-01205    | 7   | 1   | CLAMP, CRT SHIELD                       | 28480    | 03585-01205          |
|                       | 03585-01206    | 8   | 1   | BRACKET, CAP C                          | 28480    | 03585-01206          |
|                       | 03585-01207    | 9   | 1   | BRACKET, CONNECTOR                      | 28480    | 03585-01207          |
|                       | 03585-01209    | 1   | 1   | BOARD GUIDE, DIGITAL                    | 28480    | 03585-01209          |
|                       | 03585-01210    | 4   | 1   | CLAMP B, DIGITAL                        | 28480    | 03585-01210          |
|                       | 03585-01211    | 5   | 1   | BRACKET-T                               | 28480    | 03585-01211          |
|                       | 03585-01213    | 7   | 1   | BRACKET-T MOUNT                         | 28480    | 03585-01213          |
|                       | 03585-01214    | 8   | 1   | BRACKET, X-Y-Z COVER                    | 28480    | 03585-01214          |
|                       | 03585-01216    | 0   | 1   | BRACKET, REAR, HVPS                     | 28480    | 03585-01216          |
|                       | 03585-01217    | 1   | 1   | BRACKET, REAR COVER                     | 28480    | 03585-01217          |
|                       | 03585-01219    | 3   | 1   | BRACKET, BAR                            | 28480    | 03585-01219          |
|                       | 03585-01221    | 7   | 1   | SUPPORT, CONTROL PANEL                  | 28480    | 03585-01221          |
|                       | 03585-01222    | 8   | 1   | BRACKET, CRT BEZEL                      | 28480    | 03585-01222          |
|                       | 03585-04101    | 8   | 1   | COVER, HVPS                             | 28480    | 03585-04101          |
|                       | 03585-04102    | 9   | 1   | COVER, FRONT IF                         | 28480    | 03585-04102          |
|                       | 03585-04103    | 0   | 1   | COVER, REAR IF                          | 28480    | 03585-04103          |
|                       | 03585-04106    | 3   | 1   | BRACKET, LD MOUNTING                    | 28480    | 03585-04106          |
|                       | 03585-04111    | 0   | 1   | COVER, 40                               | 28480    | 03585-04111          |
|                       | 03585-04112    | 1   | 1   | COVER, A67                              | 28480    | 03585-04112          |
|                       | 03585-04113    | 2   | 1   | COVER, A67B                             | 28480    | 03585-04113          |
|                       | 03585-04114    | 3   | 1   | COVER, REAR FRAME                       | 28480    | 03585-04114          |
|                       | 03585-04115    | 4   | 1   | COVER, POWER SUPPLY                     | 28480    | 03585-04115          |
|                       | 03585-04130    | 3   | 1   | INSULATOR, HVPS                         | 28480    | 03585-04130          |
|                       | 03585-04131    | 4   | 1   | COVER, REAR PANEL                       | 28480    | 03585-04131          |
|                       | 03585-20302    | 5   | 1   | NUT, SHOULDERED                         | 28480    | 03585-20302          |
|                       | 03585-20303    | 6   | 1   | RETAINER, CONNECTOR                     | 28480    | 03585-20303          |
|                       | 03585-21203    | 7   | 1   | BAR, ANALOG MOUNTING                    | 28480    | 03585-21203          |
|                       | 03585-21204    | 8   | 1   | DIGITAL, CLAMP-A                        | 28480    | 03585-21204          |
|                       | 03585-21207    | 1   | 1   | BAR, INPUT MOUNTING                     | 28480    | 03585-21207          |
|                       | 03585-21209    | 3   | 1   | EXTRACTOR, FRONT PANEL, LOWER           | 28480    | 03585-21209          |
|                       | 03585-21210    | 6   | 1   | BAR SUPPORT                             | 28480    | 03585-21210          |
|                       | 03585-21211    | 7   | 1   | BAR, PS CLAMP                           | 28480    | 03585-21211          |
|                       | 03585-21212    | 8   | 1   | BAR, INPUT SUPPORT                      | 28480    | 03585-21212          |
|                       | 03585-21214    | 0   | 1   | CLAMP, POWER SUPPLY                     | 28480    | 03585-21214          |
|                       | 03585-32404    | 3   | 1   | WIRE FORM, RF                           | 28480    | 03585-32404          |
|                       | 03585-60201    | 7   | 1   | LEFT SIDE ASSEMBLY                      | 28480    | 03585-60201          |
|                       | 03585-60202    | 8   | 1   | RIGHT SIDE ASSEMBLY                     | 28480    | 03585-60202          |
|                       | 03585-60204    | 0   | 1   | IF SECTION ASSEMBLY                     | 28480    | 03585-60204          |
|                       | 03585-60205    | 1   | 1   | TRACK GENERATOR ASSEMBLY                | 28480    | 03585-60205          |
|                       | 03585-60206    | 2   | 1   | LD BOX ASSEMBLY                         | 28480    | 03585-60206          |
|                       | 03585-60301    | 8   | 1   | COVER ASSEMBLY                          | 28480    | 03585-60301          |
|                       | 03585-84401    | 9   | 1   | KIT ACCESSORY                           | 28480    | 03585-84401          |
|                       | 03585-86501    | 0   | 1   | THIRD IF KIT                            | 28480    | 03585-86501          |
|                       | 03585-90001    | 8   | 1   | SERVICE MANUAL-A                        | 28480    | 03585-90001          |
|                       | 03585-90002    | 9   | 1   | MANUAL ASSEMBLY-A                       | 28480    | 03585-90002          |
|                       | 0370-1005      | 2   | 5   | KNDB-BASE-PTR 3/8 JGK .125-IN-ID        | 28480    | 0370-1005            |
|                       | 0370-1303      | 3   | 1   | KNDB-BASE 1-1/8 JGK .25-IN-ID           | 28480    | 0370-1303            |
|                       | 0380-0643      | 3   | 2   | STANDOFF-MEX .255-IN-LG 6-32TMD         | 00000    | ORDER BY DESCRIPTION |
|                       | 0590-0167      | 1   | 4   | NUT-THUMB 6-32-TMD BRS                  | 28480    | 0590-0167            |
|                       | 0905-0573      | 2   | 1   | GASKET RND NBRN-FM 1-TMK 2.9-OD 2.15-ID | 28480    | 0905-0573            |
|                       | 09825-67908    | 8   | 1   | CONNECTOR, GASKET ASSEMBLY              | 28480    | 09825-67908          |
|                       | 1250-0102      | 5   | 2   | CONNECTOR-RF HNC FEM SGL-HOLE-FR 50-OHM | 28480    | 1250-0102            |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C<br>D | Qty | Description                              | Mfr Code | Mfr Part Number      |
|-----------------------|----------------|--------|-----|------------------------------------------|----------|----------------------|
|                       | 1250-1499      | 5      | 1   | CONNECTOR, BNC                           | 28480    | 1250-1499            |
|                       | 1251-3982      | 7      | 2   | CONNECTOR 2-PIN F UTILITY                | 28480    | 1251-3982            |
|                       | 1400-0118      | 2      | 2   | STRAP-CABLE .625-DIA                     | 28480    | 1400-0118            |
|                       | 1400-0908      | 8      | 1   | CLAMP-CABLE .188-DIA .75-OD PVC          | 08915    | KKC-3                |
|                       | 1400-0972      | 6      | 1   | CLIP-CABLE 0.500 IN CABLE DIA; ADHESIVE  | 34785    | 021-0500             |
|                       | 1531-0056      | 4      | 1   |                                          | 28480    | 1531-0056            |
|                       | 2110-0465      | 8      | 1   | FUSEHOLDER CAP EXTR PST; BAYONET; 20A    | 28480    | 2110-0465            |
|                       | 2110-0467      | 0      | 1   | NUT-HEX 1/2-28 THD 0.688 A/F             | 75915    | 903-070              |
|                       | 2110-0470      | 5      | 1   | FUSEHOLDER BODY EXTR PST; BAYONET; TND   | 75915    | 345003-010           |
|                       | 2260-0001      | 5      | 1   | NUT-HEX-DBL-CHAM 4-40-THD .094-IN-THK    | 28480    | 2260-0001            |
|                       | 2520-0037      | 9      | 4   | SCREW-MACH 8-32 3-IN-LG RD-ND-SLT STL    | 00000    | ORDER BY DESCRIPTION |
|                       | 3050-0152      | 3      | 4   | WASHER-SHLDR NO. 8 .172-IN-ID .438-IN-OD | 28480    | 3050-0152            |
|                       | 3150-0218      | 4      | 1   | FILTER-AIR 32 STD MESH MET SCREEN        | 28480    | 3150-0218            |
|                       | 4324-0094      | 4      | 8   |                                          | 28480    | 4324-0094            |
|                       | 5001-0441      | 2      | 2   |                                          | 28480    | 5001-0441            |
|                       | 5020-8807      | 0      | 1   |                                          | 28480    | 5020-8807            |
|                       | 5020-8808      | 1      | 1   |                                          | 28480    | 5020-8808            |
|                       | 5020-8838      | 7      | 4   |                                          | 28480    | 5020-8838            |
|                       | 5040-7201      | 8      | 4   | FOOT (STANDARD)                          | 28480    | 5040-7201            |
|                       | 5040-7202      | 9      | 1   | TRIM, TOP                                | 28480    | 5040-7202            |
|                       | 5040-7783      | 1      | 1   | SUPPORT, CRT SHIELD                      | 28480    | 5040-7783            |
|                       | 5040-8336      | 2      | 1   | STANDOFF                                 | 28480    | 5040-8336            |
|                       | 5040-8399      | 7      | 1   | BEZEL, CRT                               | 28480    | 5040-8399            |
|                       | 5041-0310      | 8      | 1   | KEY, BLANK                               | 28480    | 5041-0310            |
|                       | 5041-0319      | 7      | 19  | KEY, BLACK W/LIGHT                       | 28480    | 5041-0319            |
|                       | 5041-0352      | 8      | 5   | KEY, BLACK W/LIGHT                       | 28480    | 5041-0352            |
|                       | 5041-0668      | 9      | 1   | KEY, START FREQUENCY                     | 28480    | 5041-0668            |
|                       | 5041-0669      | 0      | 1   | KEY, STOP FREQUENCY                      | 28480    | 5041-0669            |
|                       | 5041-0670      | 3      | 1   | KEY, 1 REG                               | 28480    | 5041-0670            |
|                       | 5041-0671      | 4      | 1   | KEY, 2 REG                               | 28480    | 5041-0671            |
|                       | 5041-0672      | 5      | 1   | KEY, 3 REG                               | 28480    | 5041-0672            |
|                       | 5041-0673      | 6      | 1   | KEY, CENTER FREQUENCY                    | 28480    | 5041-0673            |
|                       | 5041-0674      | 7      | 1   | KEY, FREQUENCY SPAN                      | 28480    | 5041-0674            |
|                       | 5041-0675      | 8      | 1   | KEY, REFERENCE LEVEL                     | 28480    | 5041-0675            |
|                       | 5041-0720      | 4      | 1   | KEY, INSTRUMENT PRESET                   | 28480    | 5041-0720            |
|                       | 5041-0731      | 7      | 1   | KEY, OPS SPAN                            | 28480    | 5041-0731            |
|                       | 5041-0736      | 2      | 1   | KEY, DB/DIV                              | 28480    | 5041-0736            |
|                       | 5041-0737      | 3      | 1   | KEY, REF LEVEL VOLT                      | 28480    | 5041-0737            |
|                       | 5041-0739      | 5      | 1   | KEY, MHZ, DBM, V                         | 28480    | 5041-0739            |
|                       | 5041-0740      | 8      | 1   | KEY, KHZ, DBV, MV                        | 28480    | 5041-0740            |
|                       | 5041-0741      | 9      | 1   | KEY, HZ, DB, UV                          | 28480    | 5041-0741            |
|                       | 5041-0742      | 0      | 1   | KEY, SEC                                 | 28480    | 5041-0742            |
|                       | 5041-0743      | 1      | 1   | KEY, ENTER OFFSET                        | 28480    | 5041-0743            |
|                       | 5041-0744      | 2      | 1   | KEY, RANGE                               | 28480    | 5041-0744            |
|                       | 5041-0745      | 3      | 1   | KEY, MKR-DFS STEP                        | 28480    | 5041-0745            |
|                       | 5041-0746      | 4      | 1   | KEY, 1                                   | 28480    | 5041-0746            |
|                       | 5041-0749      | 7      | 1   | KEY, 5                                   | 28480    | 5041-0749            |
|                       | 5041-0750      | 0      | 1   | KEY, 6                                   | 28480    | 5041-0750            |
|                       | 5041-0754      | 4      | 1   | KEY, 0                                   | 28480    | 5041-0754            |
|                       | 5041-0755      | 5      | 1   | KEY, DECIMAL                             | 28480    | 5041-0755            |
|                       | 5041-0756      | 6      | 2   | KEY, ARROW                               | 28480    | 5041-0756            |
|                       | 5041-0772      | 6      | 1   | KEY, LOCAL                               | 28480    | 5041-0772            |
|                       | 5041-0773      | 7      | 1   | KEY, FULL SWEEP                          | 28480    | 5041-0773            |
|                       | 5041-0776      | 0      | 1   | KEY, CLEAR                               | 28480    | 5041-0776            |
|                       | 5041-0777      | 1      | 1   | KEY, MKR CF                              | 28480    | 5041-0777            |
|                       | 5041-0778      | 2      | 1   | KEY, MKR REFERENCE LEVEL                 | 28480    | 5041-0778            |
|                       | 5041-0779      | 3      | 1   | KEY, MANUAL                              | 28480    | 5041-0779            |
|                       | 5041-0780      | 6      | 1   | KEY, OFF                                 | 28480    | 5041-0780            |
|                       | 5041-0781      | 7      | 1   | KEY, RES BW                              | 28480    | 5041-0781            |
|                       | 5041-0782      | 8      | 1   | KEY, VIDEO BW                            | 28480    | 5041-0782            |
|                       | 5041-0783      | 9      | 1   | KEY, SWEEP TIME                          | 28480    | 5041-0783            |
|                       | 5041-0923      | 9      | 1   | SAVE (OFF)                               | 28480    | 5041-0923            |
|                       | 5041-0924      | 0      | 1   | RECALL (ON)                              | 28480    | 5041-0924            |
|                       | 5041-0939      | 7      | 1   | KEY, STORE A-B                           | 28480    | 5041-0939            |
|                       | 5041-0940      | 0      | 1   | KEY, CLEAR A                             | 28480    | 5041-0940            |
|                       | 5041-0945      | 5      | 1   | KEY, CF STEP SIZE                        | 28480    | 5041-0945            |
|                       | 5041-0958      | 0      | 1   | KEY, 4 (CAL)                             | 28480    | 5041-0958            |
|                       | 5041-0959      | 1      | 1   | KEY, 7 (UPPER RIGHT)                     | 28480    | 5041-0959            |
|                       | 5041-0960      | 4      | 1   | KEY, 8 (PLOT 1)                          | 28480    | 5041-0960            |
|                       | 5041-0961      | 5      | 1   | KEY, 9 (PLOT 2)                          | 28480    | 5041-0961            |
|                       | 5060-0467      | 6      | 1   | CONNECTORIAL PROBE                       | 28480    | 5060-0467            |
|                       | 5060-7474      | 9      | 1   | BEZEL FRAME                              | 28480    | 5060-7474            |
|                       | 5060-9836      | 1      | 1   |                                          | 28480    | 5060-9836            |
|                       | 5060-9848      | 5      | 1   |                                          | 28480    | 5060-9848            |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                       | Mfr Code | Mfr Part Number |
|-----------------------|----------------|-----|-----|-----------------------------------|----------|-----------------|
|                       | 5060-9923      | 7   | 2   | COVER, SIDE                       | 28480    | 5060-9923       |
|                       | 5061-2034      | 9   | 1   | CARD HOLDER                       | 28480    | 5061-2034       |
|                       | 5083-5789      | 3   | 1   | CRT TUBE                          | 28480    | 5083-5789       |
|                       | 7120-1254      | 1   | 1   | NAMEPLATE .312-IN-WD .54-IN-LG AL | 28480    | 7120-1254       |
|                       | 7120-3416      | 1   | 1   | LABEL, INFO                       | 28480    | 7120-3416       |
|                       | 7120-3528      | 6   | 1   | LABEL, CAUTION                    | 28480    | 7120-3528       |
|                       | 7120-3530      | 0   | 1   | LABEL, CAUTION                    | 28480    | 7120-3530       |
|                       | 7120-6957      | 1   | 1   | LABEL, INFO                       | 28480    | 7120-6957       |
|                       | 7120-6958      | 2   | 1   | LABEL, INFO                       | 28480    | 7120-6958       |
|                       | 7120-6959      | 3   | 1   | LABEL, INFO                       | 28480    | 7120-6959       |
|                       | 7120-7183      | 7   | 1   | FRONT PANEL INSERT                | 28480    | 7120-7183       |
|                       | 7122-0058      | 5   | 1   | PLATE, SERIAL                     | 28480    | 7122-0058       |
|                       | 8120-1348      | 5   | 1   | CABLE ASSY 18AWG 3-CNDCT BLK-JKT  | 28480    | 8120-1348       |
|                       | 9320-3883      | 2   | 1   | INSTRUMENT CARD                   | 28480    | 9320-3883       |
|                       | 9320-3884      | 3   | 1   | HP-IB INSTRUMENT CARD             | 28480    | 9320-3884       |

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Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number           |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|---------------------------|
| CHASSIS PARTS         |                |     |     |                                          |          |                           |
| A1                    | 03585-66501    | 2   |     | INPUT ASSEMBLY                           | 28480    | 03585-66501               |
| A2                    | 03585-66502    | 3   |     | PC ASSEMBLY, 1ST MIXER                   | 28480    | 03585-66502               |
| A3                    | 03585-66503    | 4   |     | 100-35 MHZ IF                            | 28480    | 03585-66503               |
| A4                    | 03585-66504    | 5   |     | PC ASSEMBLY, 2ND MIXER                   | 28480    | 03585-66504               |
| A5                    | 03585-66505    | 6   |     | 3RD MIXER                                | 28480    | 03585-66505               |
| A6A                   | 03585-66506    | 7   |     | CONNECTOR BOARD                          | 28480    | 03585-66506               |
| A6B                   | 03585-66506    | 7   |     | CONNECTOR BOARD                          | 28480    | 03585-66506               |
| A6C                   | 03585-66506    | 7   |     | CONNECTOR BOARD                          | 28480    | 03585-66506               |
| A6D                   | 03585-66506    | 7   |     | CONNECTOR BOARD                          | 28480    | 03585-66506               |
| A10                   | 03585-66510    | 3   |     | ANALOG MOTHER BOARD                      | 28480    | 03585-66510               |
| A14                   | 03585-66514    | 7   |     | PC ASSEMBLY, LOG AMPLIFIER               | 28480    | 03585-66514               |
| A15                   | 03585-66515    | 8   |     | VIDEO FILTER & DB BOARD                  | 28480    | 03585-66515               |
| A16                   | 03585-66516    | 9   |     | A-DT REGISTER                            | 28480    | 03585-66516               |
| A21                   | 03585-66521    | 6   |     | 90/10 MHZ/REFERENCE DIVIDER              | 28480    | 03585-66521               |
| A22                   | 03585-66522    | 7   |     | 1ST LO VOLTAGE CONTROLLED OSCILLATOR     | 28480    | 03585-66522               |
| A23                   | 03585-66523    | 8   |     | STEP SYN VTO                             | 28480    | 03585-66523               |
| A24                   | 03585-66524    | 9   |     | PC ASSEMBLY, BUFFER                      | 28480    | 03585-66524               |
| A25                   | 03585-66525    | 0   |     | SM LOOP MIXER                            | 28480    | 03585-66525               |
| A26                   | 03585-66526    | 1   |     | STEP PHASE DETECTOR                      | 28480    | 03585-66526               |
| A27                   | 03585-66527    | 2   |     | 1ST LO VCO CONTROLLER                    | 28480    | 03585-66527               |
| A28                   | 03585-66528    | 3   |     | SM LOOP PHASE DETECTOR                   | 28480    | 03585-66528               |
| A31                   | 03585-66531    | 8   |     | VTO DIVIDER                              | 28480    | 03585-66531               |
| A32                   | 03585-66532    | 9   |     | PC ASSEMBLY, ANALOG                      | 28480    | 03585-66532               |
| A33                   | 03585-66533    | 0   |     | PC ASSEMBLY, FFS ACC                     | 28480    | 03585-66533               |
| A34                   | 03585-66534    | 1   |     | INTERFACE, REGULATOR                     | 28480    | 03585-66534               |
| A40                   | 03585-66540    | 9   |     | DIGITAL MOTHERBOARD                      | 28480    | 03585-66540               |
| A41                   | 03585-66541    | 0   |     | PROCESSOR BOARD                          | 28480    | 03585-66541               |
| A42                   | 03585-66542    | 1   |     | RAM BOARD                                | 28480    | 03585-66542               |
| A43                   | 03585-66543    | 2   |     | ROM BOARD                                | 28480    | 03585-66543               |
| A44                   | 03585-66544    | 3   |     | HP-IB INTERFACE                          | 28480    | 03585-66544               |
| A45                   | 03585-66545    | 4   |     | I/O BOARD                                | 28480    | 03585-66545               |
| A46                   | 03585-66546    | 5   |     | COUNTER                                  | 28480    | 03585-66546               |
| A47                   | 03585-66547    | 6   |     | ASSEMBLY, KEYBOARD                       | 28480    | 03585-66547               |
| A50                   | 03585-66550    | 1   |     | TRACK GENERATOR MOTHERBOARD              | 28480    | 03585-66550               |
| A51                   | 03585-66551    | 2   |     | TRACKING GENERATOR D/A                   | 28480    | 03585-66551               |
| A52                   | 03585-66552    | 3   |     | TRACKING GENERATOR OUTPUT                | 28480    | 03585-66552               |
| A53                   | 03585-66553    | 4   |     | TRACKING GENERATOR VCO                   | 28480    | 03585-66553               |
| A61                   | 03585-66561    | 4   |     | CLOCK ASSEMBLY                           | 28480    | 03585-66561               |
| A62                   | 03585-66562    | 5   |     | X-Y PLOTTER ANALYZER                     | 28480    | 03585-66562               |
| A63                   | 03585-66563    | 6   |     | DISPLAY, LOGIC                           | 28480    | 03585-66563               |
| A64                   | 03585-66564    | 7   |     | ANALOG DISPLAY                           | 28480    | 03585-66564               |
| A67                   | 03585-66567    | 0   |     | X-Y-Z BOARD                              | 28480    | 03585-66567               |
| A70                   | 03585-66570    | 5   |     | POWER SUPPLY BOARD                       | 28480    | 03585-66570               |
| A71                   | 03585-66571    | 6   |     | +7.7V POWER SUPPLY                       | 28480    | 03585-66571               |
| A72                   | 03585-66572    | 7   |     | POWER SUPPLY, +5V                        | 28480    | 03585-66572               |
| A73A                  | 03585-66573    | 8   |     | +18, +12V POWER SUPPLY                   | 28480    | 03585-66573               |
| A73B                  | 03585-66573    | 8   |     | +18, +12V POWER SUPPLY                   | 28480    | 03585-66573               |
| A74                   | 03585-66574    | 9   |     | POWER SUPPLY, -18V                       | 28480    | 03585-66574               |
| A75                   | 03585-66575    | 0   |     | POWER SUPPLY CONTROL                     | 28480    | 03585-66575               |
| A76                   | 03585-66576    | 1   |     | POWER DISTRIBUTION BOARD                 | 28480    | 03585-66576               |
| A77                   | 03585-66577    | 2   |     | AC PROTECT BOARD                         | 28480    | 03585-66577               |
| A81                   | 03585-66581    | 8   |     | OSCILLATOR BOARD (STD)                   | 28480    | 03585-66581               |
| A201                  | 03585-64201    | 5   |     | HOUSING, H.V.P.S.                        | 28480    | 03585-64201               |
| C1                    | 0160-0345      | 6   | 5   | CAPACITOR-FDTHRU 1000PF 6MV 500V CER     | 01121    | FR2R-1024                 |
| C2                    | 0160-4603      | 7   |     | CAPACITOR-FXD 1UF +-20% 200VDC MET-POLYP | 28480    | 0160-4603                 |
| CR1                   | 1906-0212      | 9   | 1   | DIODE-FW BRDG 400V 35A                   | 04713    | MOA3504                   |
| CR2                   | 1901-0526      | 8   | 1   | DIODE-FW BRDG 100V 5A                    | 14099    | SC4J1                     |
| F1                    | 2110-0003      | 0   | 1   | FUSE 3A 250V FAST-BLO 1.25X.25 UL IEC    | 75915    | 312003                    |
| L1                    | 01332-66001    | 6   | 1   | COIL                                     | 28480    | 01332-66001               |
| L2                    | 01701-66001    | 5   | 1   | COIL                                     | 28480    | 01701-66001               |
| M1                    | 3160-0306      | 2   | 1   | FAN-TB4X 120-CFM 19-28VDC 1.5-TMX        | 23936    | 4124X                     |
| R1                    | 2100-2838      | 2   | 1   | RESISTOR-VAR CONTROL CCP 20K 10% LIN     | 28480    | 2100-2838                 |
| R2                    | 2100-3169      | 8   | 1   | RESISTOR-VAR CONTROL CCP 50K 20% LIN     | 28480    | 2100-3169                 |
| R3                    | 2100-3705      | 4   | 1   | RESISTOR-VAR W/SW 10K 10% LIN OPST-NO-AC | 01121    | 70LIN04841034/1001 SWITCH |
| R4                    | 2100-3718      | 9   | 1   | RESISTOR-VAR CONTROL CP 5K 10% LIN       | 28480    | 2100-3718                 |
| T1                    | 9100-4060      | 3   | 1   |                                          | 28480    | 9100-4060                 |
| J2                    | 1820-0430      | 1   | 1   | IC 309 V RGLTR TO-3                      | 07263    | LM309K                    |
| J3                    | 1826-0402      | 9   | 1   | IC V RGLTR TO-3                          | 80103    | LAS-1515                  |
| U13                   | 09A25-67907    | 7   | 1   | HYBRID H-S ASSEMBLY                      | 28480    | 09A25-67907               |

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Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                         | Mfr Code | Mfr Part Number |
|-----------------------|----------------|-----|-----|-------------------------------------|----------|-----------------|
| W1                    | 03585-61602    | 4   | 34  | CABLE ASSEMBLY, RED                 | 28480    | 03585-61602     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1107      | 4   |     | CABLE-COAX 50-OHM 1KV RED           | 28480    | 8120-1107       |
|                       | 03585-61602    | 4   |     | CABLE ASSEMBLY, RED                 | 28480    | 03585-61602     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1107      | 4   |     | CABLE-COAX 50-OHM 1KV RED           | 28480    | 8120-1107       |
|                       | 03585-61602    | 4   |     | CABLE ASSEMBLY, RED                 | 28480    | 03585-61602     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1107      | 4   |     | CABLE-COAX 50-OHM 1KV RED           | 28480    | 8120-1107       |
|                       | 03585-61602    | 4   |     | CABLE ASSEMBLY, RED                 | 28480    | 03585-61602     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1107      | 4   |     | CABLE-COAX 50-OHM 1KV RED           | 28480    | 8120-1107       |
| W5                    | 03585-61603    | 5   | 9   | CABLE ASSEMBLY, ORANGE              | 28480    | 03585-61603     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1108      | 5   |     | CABLE-COAX 50-OHM 1KV ORN           | 28480    | 8120-1108       |
| W6                    | 03585-61603    | 5   | 11  | CABLE ASSEMBLY, ORANGE              | 28480    | 03585-61603     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1108      | 5   |     | CABLE-COAX 50-OHM 1KV ORN           | 28480    | 8120-1108       |
| W7                    | 03585-61603    | 5   |     | CABLE ASSEMBLY, ORANGE              | 28480    | 03585-61603     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1108      | 5   |     | CABLE-COAX 50-OHM 1KV ORN           | 28480    | 8120-1108       |
| W8                    | 03585-61603    | 5   |     | CABLE ASSEMBLY, ORANGE              | 28480    | 03585-61603     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1108      | 5   |     | CABLE-COAX 50-OHM 1KV ORN           | 28480    | 8120-1108       |
| W9                    | 03585-61603    | 5   |     | CABLE ASSEMBLY, ORANGE              | 28480    | 03585-61603     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1108      | 5   |     | CABLE-COAX 50-OHM 1KV ORN           | 28480    | 8120-1108       |
| W10                   | 03585-61603    | 5   |     | CABLE ASSEMBLY, ORANGE              | 28480    | 03585-61603     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1108      | 5   |     | CABLE-COAX 50-OHM 1KV ORN           | 28480    | 8120-1108       |
| W11                   | 03585-61603    | 5   |     | CABLE ASSEMBLY, ORANGE              | 28480    | 03585-61603     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1108      | 5   |     | CABLE-COAX 50-OHM 1KV ORN           | 28480    | 8120-1108       |
| W12                   | 03585-61603    | 5   |     | CABLE ASSEMBLY, ORANGE              | 28480    | 03585-61603     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1108      | 5   |     | CABLE-COAX 50-OHM 1KV ORN           | 28480    | 8120-1108       |
| W13                   | 03585-61603    | 5   |     | CABLE ASSEMBLY, ORANGE              | 28480    | 03585-61603     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1108      | 5   |     | CABLE-COAX 50-OHM 1KV ORN           | 28480    | 8120-1108       |
| W14                   | 03585-61604    | 6   | 9   | CABLE ASSEMBLY, YELLOW              | 28480    | 03585-61604     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1109      | 6   |     | CABLE-COAX 50-OHM 1KV YEL           | 28480    | 8120-1109       |
| W15                   | 03585-61604    | 6   | 10  | CABLE ASSEMBLY, YELLOW              | 28480    | 03585-61604     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1109      | 6   |     | CABLE-COAX 50-OHM 1KV YEL           | 28480    | 8120-1109       |
| W16                   | 03585-61604    | 6   |     | CABLE ASSEMBLY, YELLOW              | 28480    | 03585-61604     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1109      | 6   |     | CABLE-COAX 50-OHM 1KV YEL           | 28480    | 8120-1109       |
| W17                   | 03585-61604    | 6   |     | CABLE ASSEMBLY, YELLOW              | 28480    | 03585-61604     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1109      | 6   |     | CABLE-COAX 50-OHM 1KV YEL           | 28480    | 8120-1109       |
| W18                   | 03585-61604    | 6   |     | CABLE ASSEMBLY, YELLOW              | 28480    | 03585-61604     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1109      | 6   |     | CABLE-COAX 50-OHM 1KV YEL           | 28480    | 8120-1109       |
| W19                   | 03585-61604    | 6   |     | CABLE ASSEMBLY, YELLOW              | 28480    | 03585-61604     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1109      | 6   |     | CABLE-COAX 50-OHM 1KV YEL           | 28480    | 8120-1109       |
| W20                   | 03585-61604    | 6   |     | CABLE ASSEMBLY, YELLOW              | 28480    | 03585-61604     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1109      | 6   |     | CABLE-COAX 50-OHM 1KV YEL           | 28480    | 8120-1109       |
| W21                   | 03585-61604    | 6   |     | CABLE ASSEMBLY, YELLOW              | 28480    | 03585-61604     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1109      | 6   |     | CABLE-COAX 50-OHM 1KV YEL           | 28480    | 8120-1109       |
| W22                   | 03585-61604    | 6   |     | CABLE ASSEMBLY, YELLOW              | 28480    | 03585-61604     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1109      | 6   |     | CABLE-COAX 50-OHM 1KV YEL           | 28480    | 8120-1109       |
| W23                   | 03585-61605    | 7   | 1   | CABLE ASSEMBLY, GREEN               | 28480    | 03585-61605     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-0549      | 6   |     | CABLE-COAX 50-OHM 1KV GRN           | 28480    | 8120-0549       |
| W24                   | 03585-61606    | 6   | 1   | CABLE ASSEMBLY, BLUE                | 28480    | 03585-61606     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1111      | 0   |     | CABLE-COAX 50-OHM 1KV BLU           | 28480    | 8120-1111       |
| W25                   | 03585-61607    | 9   | 1   | CABLE ASSEMBLY, VIOLET              | 28480    | 03585-61607     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-0885      | 1   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 8120-0885       |
| W26                   | 03585-61609    | 0   | 1   | CABLE-COAX 50-OHM 1KV VID           | 28480    | 8120-1112       |
|                       | 1250-0050      | 2   |     | CABLE ASSEMBLY, RED                 | 28480    | 03585-61608     |
|                       | 1250-0051      | 3   |     | MUT-RF CONNECTOR BNC1,562 LI,042ID  | 02660    | 31-2125-2       |
|                       | 1250-0666      | 6   | 13  | CONTACT-RF COAX SERIES B4C1 FE MALE | 02660    | 31-2109         |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM   | 28480    | 1250-0666       |
|                       | 8120-1107      | 4   |     | CABLE-COAX 50-OHM 1KV RED           | 28480    | 8120-1107       |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                             | Mfr Code | Mfr Part Number |
|-----------------------|----------------|-----|-----|-----------------------------------------|----------|-----------------|
| *27                   | 03585-61609    | 1   | 1   | CABLE ASSEMBLY, VIOLET                  | 28480    | 03585-61609     |
|                       | 1250-0050      | 2   |     | NUT-RF CONNECTOR BNC1,562 L1,062ID      | 02660    | 31-2125-2       |
|                       | 1250-0051      | 3   |     | CONTACT-RF CONN SERIES BNC1 FEMALE      | 02660    | 31-2109         |
|                       | 1250-0252      | 6   | 11  | CONNECTOR-RF BNC FEM SGL-HOLE-RR 50-OHM | 28480    | 1250-0252       |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM       | 28480    | 1250-0666       |
|                       | 8120-1112      | 1   |     | CABLE-COAX 50-OHM 1KV VID               | 28480    | 8120-1112       |
| *28                   | 03585-61610    | 4   | 1   | CABLE ASSEMBLY, GREY                    | 28480    | 03585-61610     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM       | 28480    | 1250-0666       |
|                       | 8120-0789      | 6   | 4   | CABLE-COAX 50-OHM 1KV JGK               | 28480    | 8120-0789       |
| *29                   | 03585-61611    | 6   | 1   | CABLE ASSEMBLY, GREY                    | 28480    | 03585-61611     |
|                       | 1250-0050      | 2   |     | NUT-RF CONNECTOR BNC1,562 L1,062ID      | 02660    | 31-2125-2       |
|                       | 1250-0051      | 3   |     | CONTACT-RF CONN SERIES BNC1 FEMALE      | 02660    | 31-2109         |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM       | 28480    | 1250-0666       |
|                       | 8120-0789      | 6   |     | CABLE-COAX 50-OHM 1KV JGK               | 28480    | 8120-0789       |
|                       |                |     |     |                                         |          |                 |
| *30                   | 03585-61612    | 6   | 1   | CABLE ASSEMBLY, GREY                    | 28480    | 03585-61612     |
|                       | 1250-0050      | 2   |     | NUT-RF CONNECTOR BNC1,562 L1,062ID      | 02660    | 31-2125-2       |
|                       | 1250-0051      | 3   |     | CONTACT-RF CONN SERIES BNC1 FEMALE      | 02660    | 31-2109         |
|                       | 1250-0252      | 6   |     | CONNECTOR-RF BNC FEM SGL-HOLE-RR 50-OHM | 28480    | 1250-0252       |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM       | 28480    | 1250-0666       |
|                       | 8120-0789      | 6   |     | CABLE-COAX 50-OHM 1KV JGK               | 28480    | 8120-0789       |
| *31                   | 03585-61613    | 7   | 1   | CABLE ASSEMBLY, GREEN                   | 28480    | 03585-61613     |
|                       | 1250-0050      | 2   |     | NUT-RF CONNECTOR BNC1,562 L1,062ID      | 02660    | 31-2125-2       |
|                       | 1250-0051      | 3   |     | CONTACT-RF CONN SERIES BNC1 FEMALE      | 02660    | 31-2109         |
|                       | 1250-0252      | 6   |     | CONNECTOR-RF BNC FEM SGL-HOLE-RR 50-OHM | 28480    | 1250-0252       |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM       | 28480    | 1250-0666       |
|                       | 8120-1110      | 9   | 2   | CABLE-COAX 50-OHM 1KV GRN               | 28480    | 8120-1110       |
| *32                   | 03585-61614    | 8   | 1   | CABLE ASSEMBLY, WHITE                   | 28480    | 03585-61614     |
|                       | 1250-0050      | 2   |     | NUT-RF CONNECTOR BNC1,562 L1,062ID      | 02660    | 31-2125-2       |
|                       | 1250-0051      | 3   |     | CONTACT-RF CONN SERIES BNC1 FEMALE      | 02660    | 31-2109         |
|                       | 1250-0252      | 6   |     | CONNECTOR-RF BNC FEM SGL-HOLE-RR 50-OHM | 28480    | 1250-0252       |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM       | 28480    | 1250-0666       |
|                       | 8120-1113      | 2   | 2   | CABLE-COAX 50-OHM 1KV WHT               | 28480    | 8120-1113       |
| *33                   | 03585-61615    | 9   | 1   | CABLE ASSEMBLY, BLACK                   | 28480    | 03585-61615     |
|                       | 1250-0050      | 2   |     | NUT-RF CONNECTOR BNC1,562 L1,062ID      | 02660    | 31-2125-2       |
|                       | 1250-0051      | 3   |     | CONTACT-RF CONN SERIES BNC1 FEMALE      | 02660    | 31-2109         |
|                       | 1250-0252      | 6   |     | CONNECTOR-RF BNC FEM SGL-HOLE-RR 50-OHM | 28480    | 1250-0252       |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM       | 28480    | 1250-0666       |
|                       | 8120-1105      | 2   | 2   | CABLE-COAX 50-OHM 1KV BLK               | 28480    | 8120-1105       |
| *34                   | 03585-61617    | 1   | 1   | CABLE ASSEMBLY, COAX                    | 28480    | 03585-61617     |
|                       | 1250-0666      | 6   |     | CONNECTOR-RF SMB FEM UNMTD 50-OHM       | 28480    | 1250-0666       |
|                       | 8120-1108      | 5   |     | CABLE-COAX 50-OHM 1KV DRN               | 28480    | 8120-1108       |
|                       |                |     |     |                                         |          |                 |
| *35                   | 03585-61620    | 6   | 1   | CABLE ASSEMBLY, BROWN                   | 28480    | 03585-61620     |
|                       | 1250-0050      | 2   |     | NUT-RF CONNECTOR BNC1,562 L1,062ID      | 02660    | 31-2125-2       |
|                       | 1250-0051      | 3   |     | CONTACT-RF CONN SERIES BNC1 FEMALE      | 02660    | 31-2109         |
|                       | 1250-0252      | 6   |     | CONNECTOR-RF BNC FEM SGL-HOLE-RR 50-OHM | 28480    | 1250-0252       |
|                       | 1251-3613      | 1   | 10  | CONNECTOR 2-PIN F POST TYPE             | 28480    | 1251-3613       |
|                       | 8120-1106      | 3   | 1   | CABLE-COAX 50-OHM 1KV BRN               | 28480    | 8120-1106       |
| *36                   | 03585-61621    | 7   | 1   | CABLE ASSEMBLY, RED                     | 28480    | 03585-61621     |
|                       | 1250-0050      | 2   |     | NUT-RF CONNECTOR BNC1,562 L1,062ID      | 02660    | 31-2125-2       |
|                       | 1250-0051      | 3   |     | CONTACT-RF CONN SERIES BNC1 FEMALE      | 02660    | 31-2109         |
|                       | 1250-0252      | 6   |     | CONNECTOR-RF BNC FEM SGL-HOLE-RR 50-OHM | 28480    | 1250-0252       |
|                       | 1251-3613      | 1   |     | CONNECTOR 2-PIN F POST TYPE             | 28480    | 1251-3613       |
|                       | 8120-1107      | 4   |     | CABLE-COAX 50-OHM 1KV RED               | 28480    | 8120-1107       |
| *37                   | 03585-61622    | 8   | 1   | CABLE ASSEMBLY, YELLOW                  | 28480    | 03585-61622     |
|                       | 1250-0050      | 2   |     | NUT-RF CONNECTOR BNC1,562 L1,062ID      | 02660    | 31-2125-2       |
|                       | 1250-0051      | 3   |     | CONTACT-RF CONN SERIES BNC1 FEMALE      | 02660    | 31-2109         |
|                       | 1250-0252      | 6   |     | CONNECTOR-RF BNC FEM SGL-HOLE-RR 50-OHM | 28480    | 1250-0252       |
|                       | 1251-3613      | 1   |     | CONNECTOR 2-PIN F POST TYPE             | 28480    | 1251-3613       |
|                       | 8120-1109      | 6   |     | CABLE-COAX 50-OHM 1KV YEL               | 28480    | 8120-1109       |
| *38                   | 03585-61623    | 9   | 1   | CABLE ASSEMBLY, ORANGE                  | 28480    | 03585-61623     |
|                       | 1250-0050      | 2   |     | NUT-RF CONNECTOR BNC1,562 L1,062ID      | 02660    | 31-2125-2       |
|                       | 1250-0051      | 3   |     | CONTACT-RF CONN SERIES BNC1 FEMALE      | 02660    | 31-2109         |
|                       | 1250-0252      | 6   |     | CONNECTOR-RF BNC FEM SGL-HOLE-RR 50-OHM | 28480    | 1250-0252       |
|                       | 1251-3613      | 1   |     | CONNECTOR 2-PIN F POST TYPE             | 28480    | 1251-3613       |
|                       | 8120-1108      | 5   |     | CABLE-COAX 50-OHM 1KV DRN               | 28480    | 8120-1108       |
| *39                   | 03585-61624    | 0   | 1   | CABLE ASSEMBLY, GREEN                   | 28480    | 03585-61624     |
|                       | 1250-0050      | 2   |     | NUT-RF CONNECTOR BNC1,562 L1,062ID      | 02660    | 31-2125-2       |
|                       | 1250-0051      | 3   |     | CONTACT-RF CONN SERIES BNC1 FEMALE      | 02660    | 31-2109         |
|                       | 1250-0252      | 6   |     | CONNECTOR-RF BNC FEM SGL-HOLE-RR 50-OHM | 28480    | 1250-0252       |
|                       | 1251-3613      | 1   |     | CONNECTOR 2-PIN F POST TYPE             | 28480    | 1251-3613       |
|                       | 8120-1110      | 0   |     | CABLE-COAX 50-OHM 1KV GRN               | 28480    | 8120-1110       |
| *40                   | 03585-61625    | 1   | 1   | CABLE ASSEMBLY, BLUE                    | 28480    | 03585-61625     |
|                       | 1250-0050      | 2   |     | NUT-RF CONNECTOR BNC1,562 L1,062ID      | 02660    | 31-2125-2       |
|                       | 1250-0051      | 3   |     | CONTACT-RF CONN SERIES BNC1 FEMALE      | 02660    | 31-2109         |
|                       | 1250-0252      | 6   |     | CONNECTOR-RF BNC FEM SGL-HOLE-RR 50-OHM | 28480    | 1250-0252       |
|                       | 1251-3613      | 1   |     | CONNECTOR 2-PIN F POST TYPE             | 28480    | 1251-3613       |
|                       | 8120-1111      | 0   |     | CABLE-COAX 50-OHM 1KV BLU               | 28480    | 8120-1111       |

See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|-----------------|
| w41                   | 03585-61626    | 2   | 1   | CABLE ASSEMBLY, WHITE                    | 28480    | 03585-61626     |
|                       | 1251-3613      | 1   |     | CONNECTOR 2-PIN F POST TYPE              | 28480    | 1251-3613       |
|                       | 8120-1113      | 2   |     | CABLE-COAX 50-OHM 1KV WHT                | 28480    | 8120-1113       |
| w42                   | 03585-61627    | 3   | 1   | CABLE ASSEMBLY, GREY                     | 28480    | 03585-61627     |
|                       | 1251-3613      | 1   |     | CONNECTOR 2-PIN F POST TYPE              | 28480    | 1251-3613       |
|                       | 8120-0789      | 6   |     | CABLE-COAX 50-OHM 1KV JGK                | 28480    | 8120-0789       |
| w43                   | 03585-61628    | 4   | 1   | CABLE ASSEMBLY, BLACK                    | 28480    | 03585-61628     |
|                       | 1251-3613      | 1   |     | CONNECTOR 2-PIN F POST TYPE              | 28480    | 1251-3613       |
|                       | 8120-1105      | 2   |     | CABLE-COAX 50-OHM 1KV BLK                | 28480    | 8120-1105       |
| w44                   | 03585-61630    | 8   | 1   | CABLE ASSEMBLY, RPG                      | 28480    | 03585-61630     |
|                       | 1251-3808      | 6   | 4   | KEYING PLUG-POST CONN                    | 28480    | 1251-3808       |
|                       | 1251-4182      | 1   | 3   | CONNECTOR-SGL CONT SKT .025-IN-BSC-SZ S0 | 28480    | 1251-4182       |
|                       | 125105043      | 9   | 1   |                                          | 28480    | 125105043       |
|                       | 5060-0329      | 9   | 1   |                                          | 28480    | 5060-0329       |
| w45                   | 03585-61631    | 9   | 1   | CABLE ASSEMBLY, 34P LONG                 | 28480    | 03585-61631     |
|                       | 1251-3511      | 8   | 1   | CONNECTOR 34-PIN F POST TYPE             | 28480    | 1251-3511       |
|                       | 1251-3916      | 7   | 2   | CONNECTOR-PC EDGE 17-CONT/ROW 2-ROWS     | 28480    | 1251-3916       |
|                       | 8120-1727      | 4   | 2   | CABLE-FL-RBN 28AWG 34-CNDCT UL-2651      | 28480    | 8120-1727       |
| w46                   | 03585-61632    | 0   | 1   | CABLE ASSEMBLY, 34P SHORT                | 28480    | 03585-61632     |
|                       | 1251-3916      | 7   |     | CONNECTOR-PC EDGE 17-CONT/ROW 2-ROWS     | 28480    | 1251-3916       |
| w47                   | 8120-1727      | 4   |     | CABLE-FL-RBN 28AWG 34-CNDCT UL-2651      | 28480    | 8120-1727       |
|                       | 03585-61634    | 2   | 1   | CABLE 16P PDB-A70                        | 28480    | 03585-61634     |
| w48                   | 1251-0627      | 1   | 9   | POLARIZING KEY-POST CONN                 | 28480    | 1251-0627       |
|                       | 1251-5208      | 4   | 1   | CONNECTOR 16-PIN F POST TYPE             | 28480    | 1251-5208       |
|                       | 03585-61635    | 3   | 1   | CABLE 10P PDB-A10                        | 28480    | 03585-61635     |
|                       | 1251-0627      | 1   |     | POLARIZING KEY-POST CONN                 | 28480    | 1251-0627       |
| w49                   | 1251-2573      | 0   | 1   | CONNECTOR-PC EDGE 10-CONT/ROW 1-ROW      | 28480    | 1251-2573       |
|                       | 1251-3537      | 8   | 1   | CONNECTOR 10-PIN F POST TYPE             | 28480    | 1251-3537       |
| w50                   | 03585-61636    | 4   | 1   | CABLE, 8P PDB-A50                        | 28480    | 03585-61636     |
|                       | 1251-0627      | 1   |     | POLARIZING KEY-POST CONN                 | 28480    | 1251-0627       |
|                       | 1251-3278      | 4   | 2   | CONNECTOR 8-PIN F POST TYPE              | 28480    | 1251-3278       |
| w51                   | 03585-61637    | 5   | 1   | CABLE ASSEMBLY                           | 28480    | 03585-61637     |
|                       | 00140-44702    | 6   | 2   | SPACER, FOAM                             | 28480    | 00140-44702     |
|                       | 1251-2039      | 3   | 3   | CONNECTOR-SGL CONT SKT .041-IN-BSC-SZ    | 28480    | 1251-2039       |
| w52                   | 03585-61638    | 6   | 1   | CABLE ASSEMBLY                           | 28480    | 03585-61638     |
|                       | 00140-44702    | 6   |     | SPACER, FOAM                             | 28480    | 00140-44702     |
|                       | 1251-2039      | 3   |     | CONNECTOR-SGL CONT SKT .041-IN-BSC-SZ    | 28480    | 1251-2039       |
| w53                   | 03585-61639    | 7   | 1   | CABLE, 12P PDB-A40                       | 28480    | 03585-61639     |
|                       | 1251-0627      | 1   |     | POLARIZING KEY-POST CONN                 | 28480    | 1251-0627       |
|                       | 1251-3279      | 5   | 1   | CONNECTOR 12-PIN F POST TYPE             | 28480    | 1251-3279       |
| w54                   | 03585-61640    | 0   | 1   | CABLE, 2P PDB-FAB                        | 28480    | 03585-61640     |
|                       | 1251-3613      | 1   |     | CONNECTOR 2-PIN F POST TYPE              | 28480    | 1251-3613       |
|                       | 03585-61641    | 1   | 1   | CABLE, PDB-b7-HVPS                       | 28480    | 03585-61641     |
|                       | 1251-0595      | 2   | 1   | CONNECTOR-PC EDGE 10-CONT/ROW 2-ROWS     | 28480    | 1251-0595       |
|                       | 1251-0627      | 1   |     | POLARIZING KEY-POST CONN                 | 28480    | 1251-0627       |
|                       | 1251-2496      | 6   | 1   | CONNECTOR 9-PIN M UTILITY                | 28480    | 1251-2496       |
| w55                   | 1251-3021      | 5   | 1   | CONTACT-CONN U/X-PC-EDGE FEM CRP         | 28480    | 1251-3021       |
|                       | 1251-4886      | 2   | 1   | CONNECTOR 11-PIN F POST TYPE             | 28480    | 1251-4886       |
| w56                   | 03585-61642    | 2   | 1   | CABLE ASSEMBLY, POWER                    | 28480    | 03585-61642     |
|                       | 1251-0627      | 1   |     | POLARIZING KEY-POST CONN                 | 28480    | 1251-0627       |
|                       | 1251-3275      | 1   | 1   | CONNECTOR 6-PIN F POST TYPE              | 28480    | 1251-3275       |
| w57                   | 03585-61643    | 3   | 1   | CABLE, 5P PDB-PROBE                      | 28480    | 03585-61643     |
|                       | 1251-0512      | 3   | 1   | CONNECTOR 5-PIN F POST TYPE              | 28480    | 1251-0512       |
| w58                   | 1251-0627      | 1   |     | POLARIZING KEY-POST CONN                 | 28480    | 1251-0627       |
|                       | 03585-61644    | 4   | 1   | CABLE, 4P PDB-OVEN                       | 28480    | 03585-61644     |
| w59                   | 1251-0627      | 1   |     | POLARIZING KEY-POST CONN                 | 28480    | 1251-0627       |
|                       | 1251-3277      | 3   | 1   | CONNECTOR 4-PIN F POST TYPE              | 28480    | 1251-3277       |
|                       | 03585-61646    | 6   | 1   | CABLE ASSEMBLY, FOCUS                    | 28480    | 03585-61646     |
|                       | 1251-5036      | 6   | 1   | CONNECTOR 2-PIN M UTILITY                | 28480    | 1251-5036       |
|                       | 1251-5296      | 0   | 1   | CONTACT-CONN U/X-UTIL MALE CRP           | 28480    | 1251-5296       |
|                       | 2100-0571      | 6   | 1   | RESISTOR-VAR CONTROL CC 5M LIN           | 28480    | 2100-0571       |
| w60                   | 5040-0453      | 8   | 1   | COVER,POTENTIOMETER(FOCUS)               | 28480    | 5040-0453       |
|                       | 8150-2639      | 2   | 1   | WIRE 22AWG BK 600V PVC 7X30 105C         | 28480    | 8150-2639       |
|                       | 8150-2981      | 7   | 1   | WIRE 22AWG W 600V PVC 7X30 105C          | 28480    | 8150-2981       |
| w61                   | 03585-61647    | 7   | 1   | CABLE ASSEMBLY, POWER                    | 28480    | 03585-61647     |
|                       | 03570-02345    | 1   | 1   | COVER, M/N POWER SWITCH                  | 28480    | 03570-02345     |
|                       | 03585-01208    | 0   | 1   | BRACKET, POWER SWITCH                    | 28480    | 03585-01208     |
|                       | 3101-1656      | 3   | 1   | SWITCH-TGL BASIC DPDT 3A 125VAC SLDR-LUG | 28480    | 3101-1656       |
| w62                   | 8120-1425      | 9   | 1   | CABLE-SHLD 22AWG 4-CNDCT JGK-JKT         | 28480    | 8120-1425       |
|                       | 03585-61649    | 9   | 1   | CABLE, 16P 67-CRT                        | 28480    | 03585-61649     |
|                       | 1251-2039      | 3   |     | CONNECTOR-SGL CONT SKT .041-IN-BSC-SZ    | 28480    | 1251-2039       |
|                       | 1251-3808      | 6   |     | KEYING PLUG-POST CONN                    | 28480    | 1251-3808       |
|                       | 1251-3977      | 0   | 1   | CONNECTOR 2-PIN M UTILITY                | 28480    | 1251-3977       |
|                       | 1251-4182      | 1   |     | CONNECTOR-SGL CONT SKT .025-IN-BSC-SZ S0 | 28480    | 1251-4182       |
| w63                   | 1251-5207      | 3   | 1   | CONNECTOR 16-PIN F POST TYPE             | 28480    | 1251-5207       |
|                       | 03585-61650    | 2   | 1   | CABLE, 67-POTS                           | 28480    | 03585-61650     |
|                       | 1251-3808      | 6   |     | KEYING PLUG-POST CONN                    | 28480    | 1251-3808       |
|                       | 1251-4182      | 1   |     | CONNECTOR-SGL CONT SKT .025-IN-BSC-SZ S0 | 28480    | 1251-4182       |
| w64                   | 1251-5206      | 2   | 1   | CONNECTOR 11-PIN F POST TYPE             | 28480    | 1251-5206       |
|                       | 03585-61652    | 4   | 1   | CABLE, RP .1 70                          | 28480    | 03585-61652     |
| w65                   | 1251-3808      | 6   |     | KEYING PLUG-POST CONN                    | 28480    | 1251-3808       |
|                       | 1251-5060      | 6   | 1   | MINI-PV HOUSING                          | 28480    | 1251-5060       |

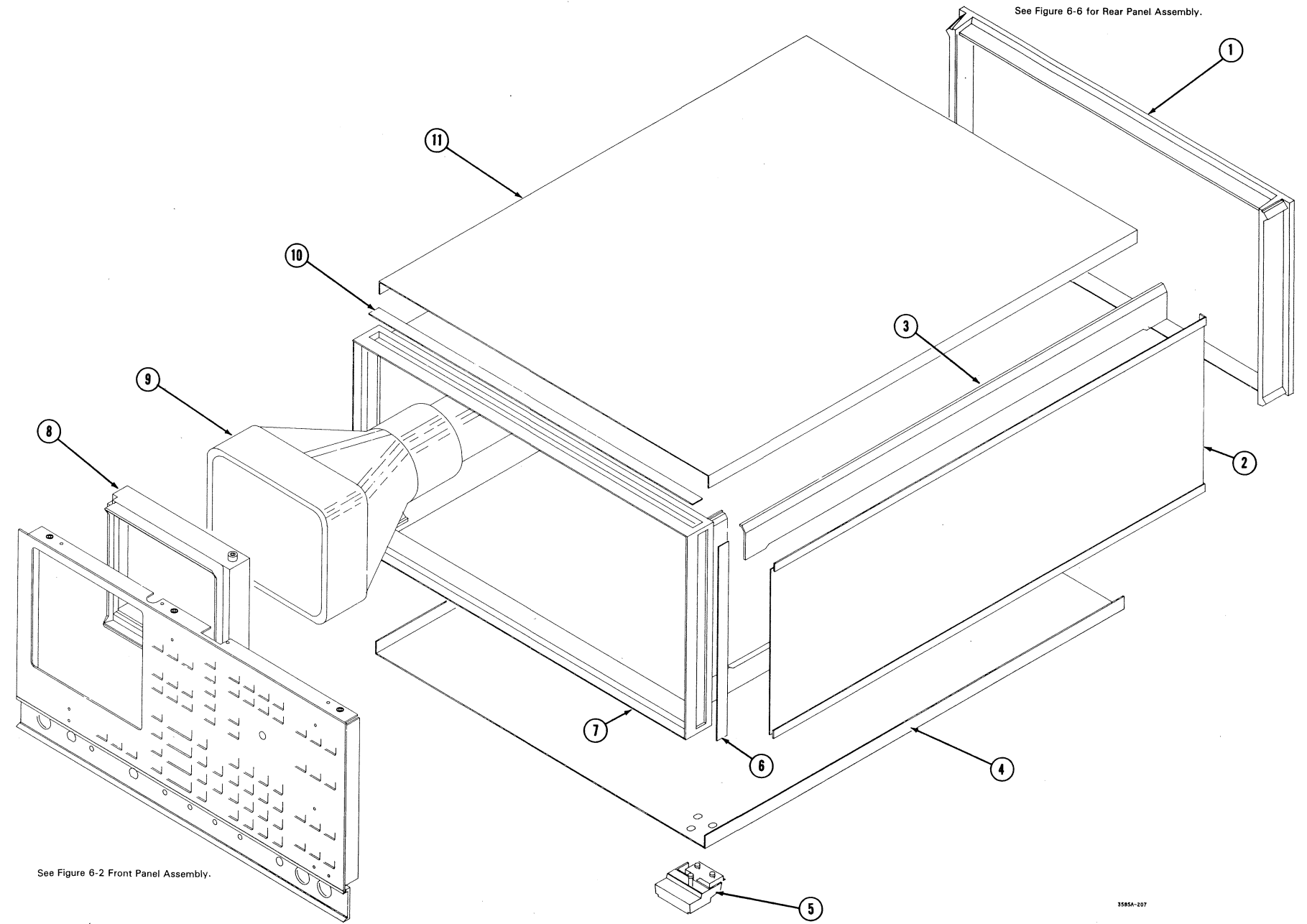
See introduction to this section for ordering information  
 \*Indicates factory selected value

Table 6-3. Replaceable Parts

| Reference Designation | HP Part Number | C D | Qty | Description                    | Mfr Code | Mfr Part Number |
|-----------------------|----------------|-----|-----|--------------------------------|----------|-----------------|
| #65                   | 03585-61653    | 5   | 1   | CABLE, 8P 70-RP                | 28480    | 03585-61653     |
|                       | 1251-0627      | 1   |     | POLARIZING KEY-POST CONN       | 28480    | 1251-0627       |
|                       | 1251-3278      | 4   |     | CONNECTOR 8-PIN F POST TYPE    | 28480    | 1251-3278       |
| #67                   | 03585-61667    | 1   | 3   | JUMPER COAXIAL                 | 28480    | 03585-61667     |
|                       | 03585-20301    | 4   | 2   | BUSHING, JUMPER                | 28480    | 03585-20301     |
|                       | 8120-1220      | 2   | 2   |                                | 28480    | 8120-1220       |
| #68                   | 03585-61667    | 1   |     | JUMPER COAXIAL                 | 28480    | 03585-61667     |
| #69                   | 03585-61667    | 1   |     | JUMPER COAXIAL                 | 28480    | 03585-61667     |
| #70                   | 8120-2616      | 2   | 1   | CABLE, HP-18                   | 28480    | 8120-2616       |
| #71                   | 03330-61603    | 8   | 1   | CABLE ASSEMBLY, FLAT           | 28480    | 03330-61603     |
|                       | 1251-2499      | 9   | 4   | CONNECTOR 14-PIN M RECTANGULAR | 28480    | 1251-2499       |
|                       | 8120-1458      | 8   | 2   | CABLE, RIBBON                  | 28480    | 8120-1458       |
| #72                   | 03330-61602    | 7   | 1   | CABLE ASSEMBLY, FLAT           | 28480    | 03330-61602     |
|                       | 1251-2499      | 9   |     | CONNECTOR 14-PIN M RECTANGULAR | 28480    | 1251-2499       |
|                       | 8120-1458      | 8   |     | CABLE, RIBBON                  | 28480    | 8120-1458       |

See introduction to this section for ordering information  
 \*Indicates factory selected value

| Designator | Qty | Part Number | Description   |
|------------|-----|-------------|---------------|
| 1          | 1   | 5020-8808   | FRAME, REAR   |
| 2          | 2   | 5060-9923   | COVER, SIDE   |
| 3          | 4   | 5020-8838   | RAILS, SIDE   |
| 4          | 1   | 5060-9848   | COVER, BOTTOM |
| 5          | 4   | 5040-7201   | FOOT, PLASTIC |
| 6          | 1   | 5001-0441   | TRIM, SIDE    |
| 7          | 1   | 5020-8807   | FRAME, FRONT  |
| 8          | 1   | 5040-8399   | BEZEL, CRT    |
| 9          | 1   | 03582-60103 | SHIELD, CRT   |
| 10         | 1   | 5040-7202   | TRIM, TOP     |
| 11         | 1   | 5060-9836   | COVER, TOP    |



3585A-207

Figure 6-1. External Covers.  
6-97/6-98

| Designator | Qty | Part Number | Description                              |
|------------|-----|-------------|------------------------------------------|
| 1          | 1   | 03585-61630 | POTENTIOMETER, RPG                       |
| 2          | 1   | 03585-66547 | KEYBOARD PRINTED CIRCUIT ASSEMBLY, A47   |
| 3          | 1   | 03585-00202 | SUB-PANEL, FRONT                         |
| 4          | 1   | 03585-00201 | PANEL, FRONT                             |
| 5          | 1   | 03585-21209 | EXTR-FRT PNL-LWR                         |
| 6          | 1   | 7120-7183   | INSERT, FRONT PANEL                      |
| 7          | 1   | 5060-0467   | CONNECTOR, MALE PROBE                    |
| 8          | 2   | 2190-0016   | WASHER-LK 3/8 IN .377-IN-ID              |
| 9          | 2   | 2950-0043   | NUT HEX, DBL-CHAM 3/8-32-THD .094-IN-THK |
| 10         | 5   | 0370-1005   | KNOB-BASE-PTS 3/8 JGK .125-IN-ID         |
| 11         | 5   | 2950-0072   | NUT HEX, DBL CHAM 1/4-32-THD .062-IN-THK |
| 12         | 5   | 2190-0060   | WASHER-LK INTL 1/4 IN .256-IN-ID         |
| 13         | 1   | 2100-2838   | RESISTOR-VAR                             |
| 14         | 1   | 2100-3189   | RESISTOR-VAR                             |
| 15         | 1   | 03585-61646 | CBL-ASSY-FOCUS                           |
| 16         | 1   | 2100-3705   | POT 10K 1001SW                           |
| 17         | 1   | 2950-0054   | NUT HEX, DBL CHAM 1/2-28-THD .125-IN-THK |
| 18         | 1   | 2190-0029   | WASHER-LK HLCL 1/4 IN .26-IN-ID          |
| 19         | 2   | 1250-0102   | CONNECTOR-RF BNC FEM SGL-HOLE-FR 50-OHM  |
| 20         | 1   | 2100-3718   | RESISTOR-VAR                             |
| 21         | 1   | 0370-1303   | KNOB-BASE 1-1/8 JGK .25-IN-ID            |
| 22         | 1   | 2950-0043   | NUT HEX                                  |
| 23         | 1   | 3050-0067   | WASHER-FLAT                              |
| 24         | 1   | 03585-01208 | BRKT-PWR SW                              |
| 25         | 1   | 3101-1656   | SW TOGGLE                                |
| 26         | 1   | 03570-02345 | COVER-MN PWR SW                          |
| 27         | 1   | 2190-0016   | WSHR-LK INTL T                           |
|            |     |             | FRONT PANEL KEYCAPS                      |
| 1          |     | 5041-0310   | KEY, BLANK                               |
| 19         |     | 5041-0319   | KEY, BLANK W/LIGHT                       |
| 5          |     | 5041-0352   | KEY, BLACK W/LIGHT                       |
| 1          |     | 5041-0668   | KEY, START FREQUENCY                     |
| 1          |     | 5041-0669   | KEY, STOP FREQUENCY                      |
| 1          |     | 5041-0670   | KEY, 1 REG                               |
| 1          |     | 5041-0671   | KEY, 2 REG                               |
| 1          |     | 5041-0672   | KEY, 3 REG                               |
| 1          |     | 5041-0673   | KEY, CENTER FREQUENCY                    |
| 1          |     | 5041-0674   | KEY, FREQUENCY SPAN                      |
| 1          |     | 5041-0675   | KEY, REFERENCE LEVEL                     |
| 1          |     | 5041-0720   | KEY, INSTRUMENT PRESET                   |
| 1          |     | 5041-0731   | KEY, OFS SPAN                            |
| 1          |     | 5041-0736   | KEY, DB/DIV                              |
| 1          |     | 5041-0737   | KEY, REF LEVEL VOLT                      |
| 1          |     | 5041-0739   | KEY, MHz, DBM, V                         |
| 1          |     | 5041-0740   | KEY, kHz, DBV, MV                        |
| 1          |     | 5041-0741   | KEY, Hz, DB, UV                          |
| 1          |     | 5041-0742   | KEY, SEC                                 |
| 1          |     | 5041-0743   | KEY, ENTER OFFSET                        |
| 1          |     | 5041-0744   | KEY, RANGE                               |
| 1          |     | 5041-0745   | KEY MKR-OFS STEP                         |
| 1          |     | 5041-0746   | KEY                                      |
| 1          |     | 5041-0749   | KEY, 5                                   |
| 1          |     | 5041-0750   | KEY, 6                                   |
| 1          |     | 5041-0754   | KEY, 0                                   |
| 1          |     | 5041-0755   | KEY, DECIMAL                             |
| 2          |     | 5041-0756   | KEY, ARROW                               |
| 1          |     | 5041-0772   | KEY, LOCAL                               |
| 1          |     | 5041-0773   | KEY, FULL SWEEP                          |
| 1          |     | 5041-0776   | KEY, CLEAR                               |
| 1          |     | 5041-0777   | KEY, MKR CF                              |
| 1          |     | 5041-0778   | KEY, MRK REFERENCE                       |
| 1          |     | 5041-0779   | KEY, MANUAL                              |
| 1          |     | 5041-0780   | KEY, OFF                                 |
| 1          |     | 5041-0781   | KEY, RES BW                              |
| 1          |     | 5041-0782   | KEY, VIDEO BW                            |
| 1          |     | 5041-0783   | KEY, SWEEP TIME                          |
| 1          |     | 5041-0923   | KEY, SAVE (OFF)                          |
| 1          |     | 5041-0924   | KEY, RECALL (ON)                         |
| 1          |     | 5041-0939   | KEY, STORE A-B                           |
| 1          |     | 5041-0940   | KEY, CLEAR A                             |
| 1          |     | 5041-0945   | KEY, CF STEP SIZE                        |
| 1          |     | 5041-0958   | KEY, 4 (CAL)                             |
| 1          |     | 5041-0959   | KEY, 7 (UPPER RIGHT)                     |
| 1          |     | 5041-0960   | KEY, 8 (PLOT 1)                          |
| 1          |     | 5041-0961   | KEY, 9 (PLOT 2)                          |

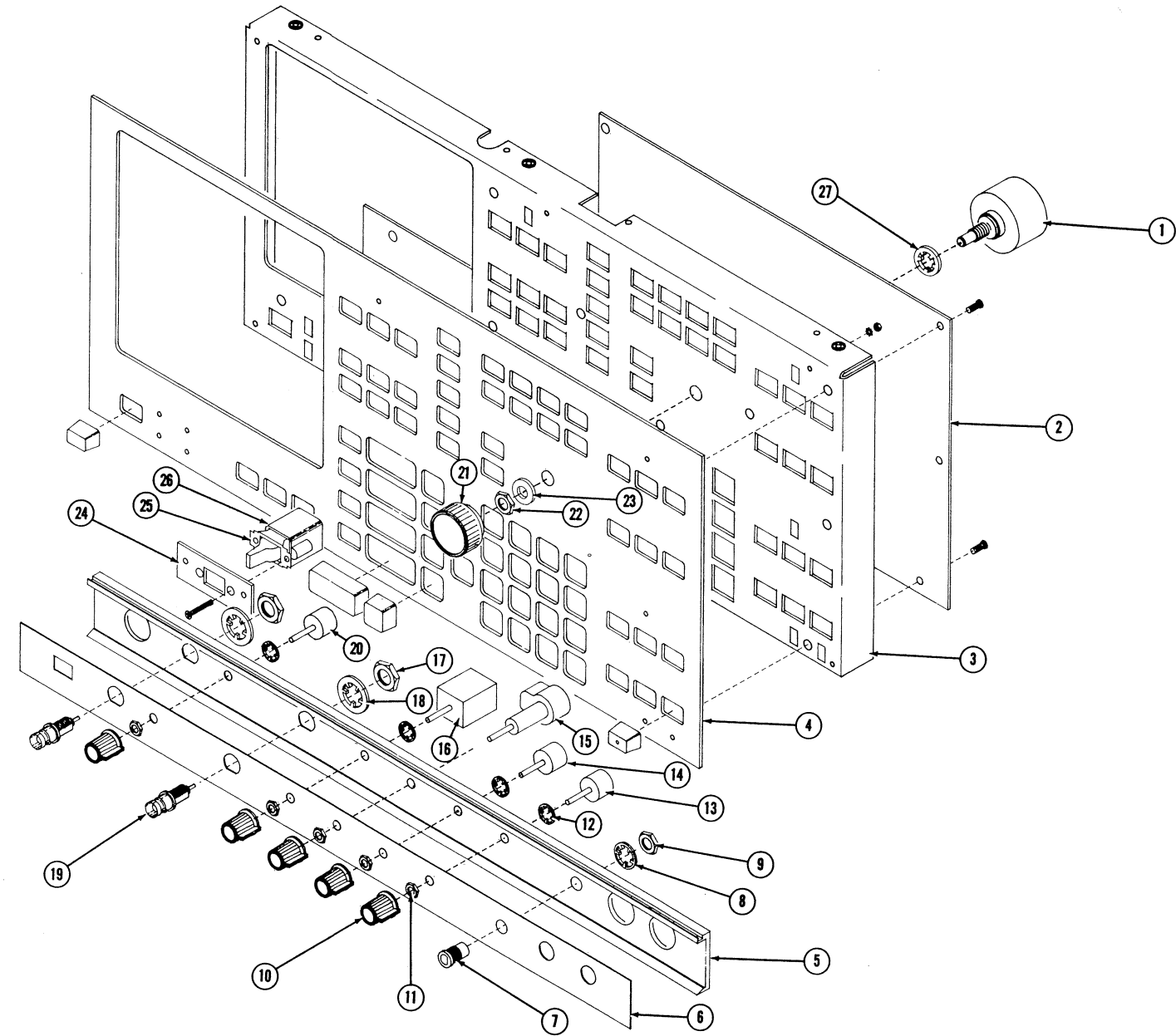


Figure 6-2. Front Panel Assembly.  
6-99/6-100

| Designator | Qty | Part Number | Description      |
|------------|-----|-------------|------------------|
| 1          | 1   | 03585-60201 | LEFT SIDE ASSY   |
| 2          | 1   | 03585-21207 | BAR-INP MTG      |
| 3          | 1   | 03585-21203 | BAR-ANALOG MTG   |
| 4          | 1   | 03585-04106 | BRKT-LO MTG      |
| 5          | 1   | 03585-04101 | CVR-HVPS         |
| 6          | 1   | 03585-64201 | HSG-HVPS         |
| 7          | 1   | 03585-00105 | DECK-MTG HVPS    |
| 8          | 1   | 03585-00101 | DECK-HVPS        |
| 9          | 1   | 03585-01221 | SPRT-CTR PNL     |
| 10         | 1   | 1400-0908   | CLAMP            |
| 11         | 1   | 03585-01204 | BRKT-SYZ CVR     |
| 12         | 1   | 03585-01205 | CLAMP-CRT SHLD   |
| 13         | 1   | 5040-7783   | SUPPORT-CRT SH   |
| 14         | 1   | 03585-21210 | BAR SUPPORT      |
| 15         | 1   | 03585-04112 | COVER-67         |
| 16         | 1   | 03585-01216 | BRKT-REAR HVPS   |
| 17         | 1   | 03585-00601 | DIVIDER-DIGITAL  |
| 18         | 1   | 03585-01209 | BD GUIDE DIGITAL |
| 19         | 1   | 03585-21204 | DIGITAL CLAMP-A  |
| 20         | 1   | 03585-01210 | CLAMP-B DIGITAL  |
| 21         | 1   | 03585-04113 | CUR-67B          |
| 22         | 1   | 03585-01207 | BRKT-CONN        |
| 23         | 1   | 03585-61641 | CBL PDB-67-HVPS  |

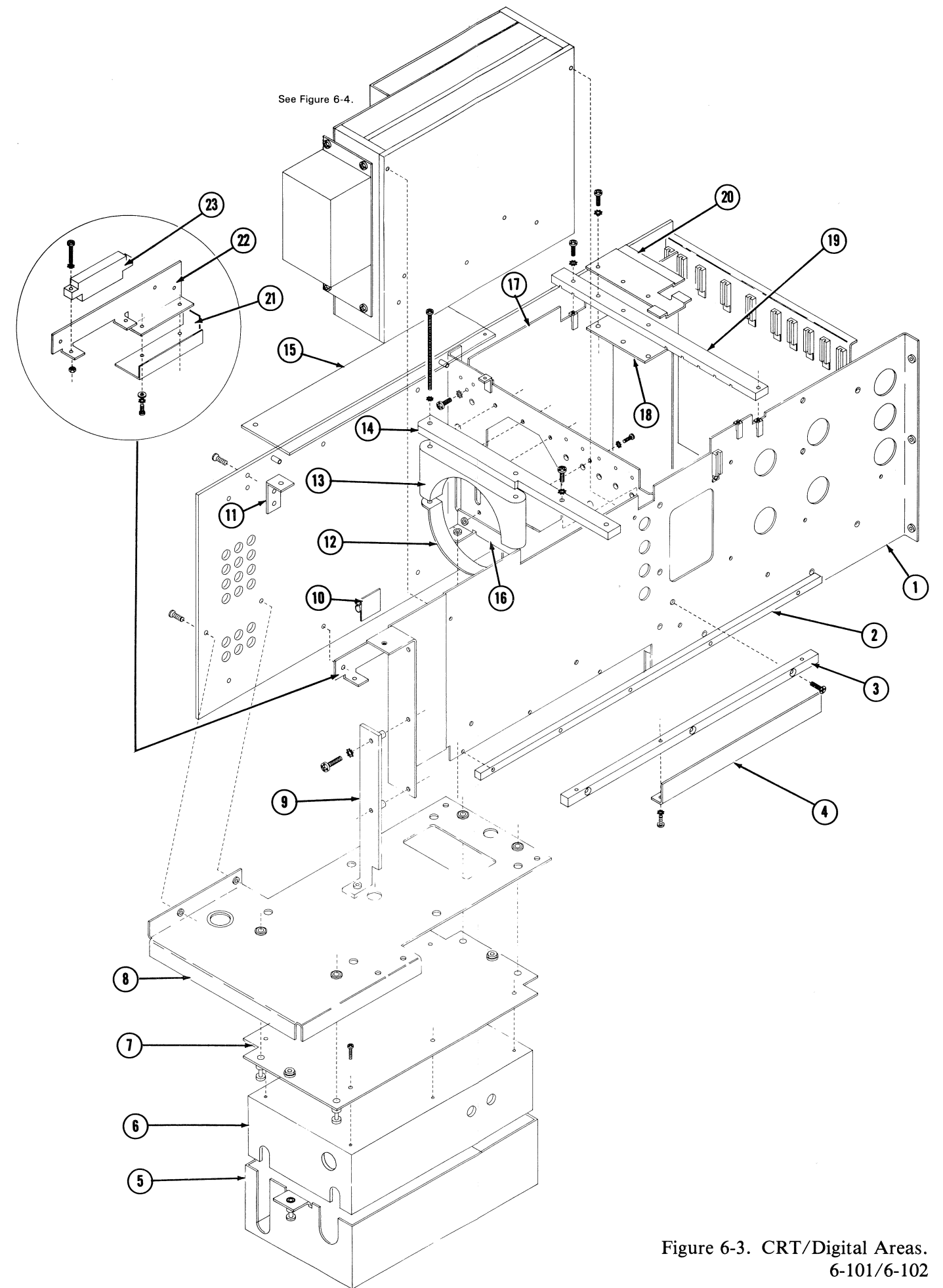


Figure 6-3. CRT/Digital Areas.  
6-101/6-102

| Designator | Qty | Part Number | Description   |
|------------|-----|-------------|---------------|
| 1          | 1   | 03585-01220 | BRKT-TR&R     |
| 2          |     | 03585-25106 | TG&R PLATE-6  |
| 3          | 1   | 03585-25104 | TG&R PLATE-4  |
| 4          | 1   | 03585-66581 | OSC BRD STD   |
| 5          |     | 03585-25105 | TG&R PLATE-5  |
| 6          |     | 03585-25103 | TG&R PLATE-3  |
| 7          |     | 03585-05101 | TG REAR-PLT-1 |
| 8          |     | 03585-05102 | TG REAR-PLT-2 |

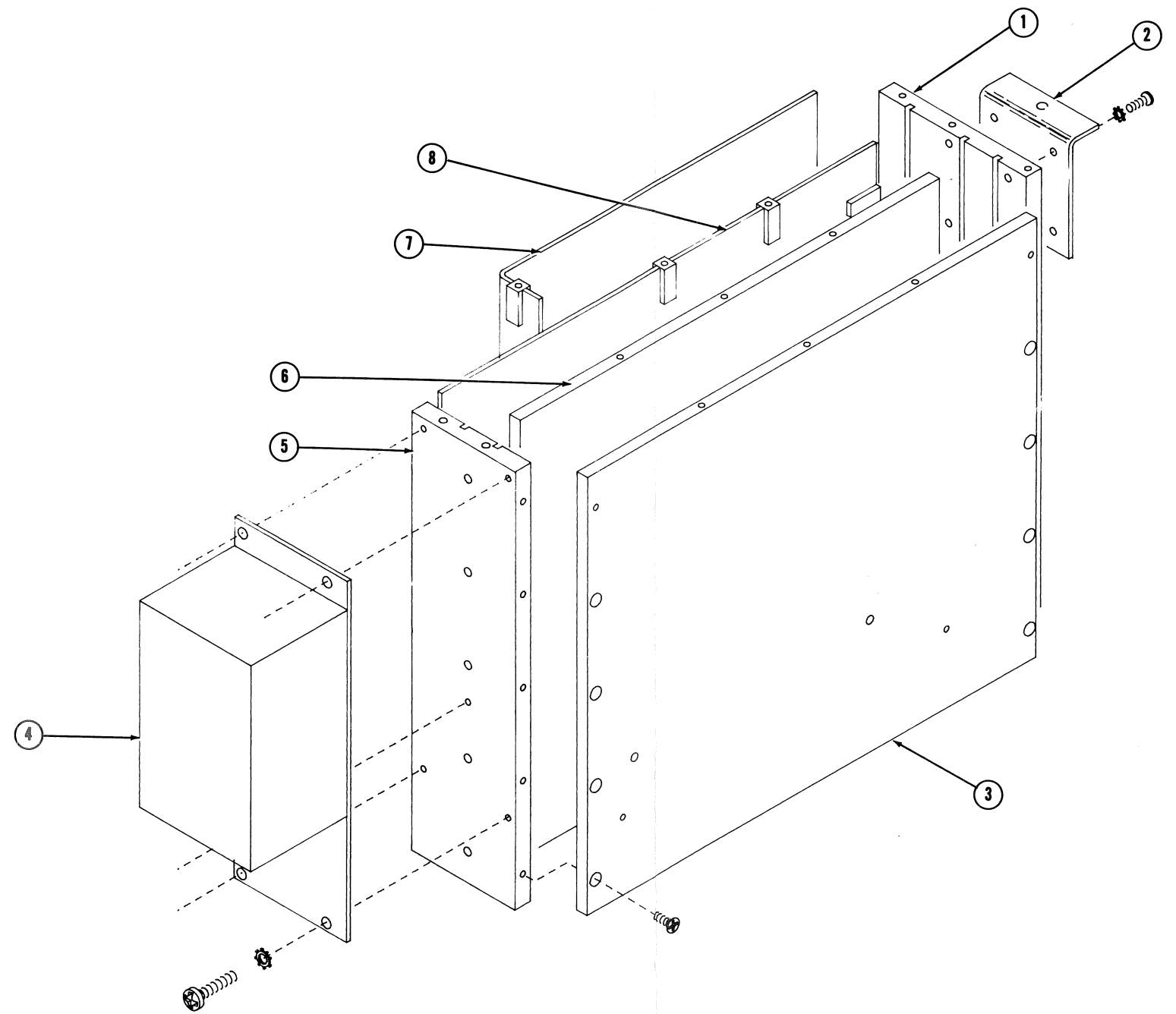


Figure 6-4. Tracking Generator/Oscillator Assembly.  
6-103/6-104



| Designator | Qty | Part Number | Description      |
|------------|-----|-------------|------------------|
| 1          | 1   | 03585-21211 | BAR PS CLAMP     |
| 2          |     | 03585-60202 | RIGHT SIDE ASSY  |
| 3          |     | 03585-60301 | COVER ASSY       |
| 4          |     | 1400-0015   | CLAMP-CABLE      |
| 5          |     | 03585-00311 | CLAMP END        |
| 6          |     | 03585-21002 | RF-INPUT/CONV BX |
| 7          |     | 03585-00302 | CUR-INP          |
| 8          |     | 03585-00308 | SHLD-REAR        |
| 9          |     | 03585-00310 | CLAMP-LONG       |
| 10         |     | 03585-00306 | SHLF-BTM         |
| 11         |     | 03585-00307 | SHLD-FRT         |
| 12         |     | 03585-60204 | IF SEC ASSY      |
| 13         |     | 03585-60206 | LO BOX ASSY      |
| 14         |     | 03585-01219 | BRKT-BAR         |
| 15         |     | 03585-21214 | CAMP-PS          |
| 16         |     | 5040-8336   | STANDOFF         |

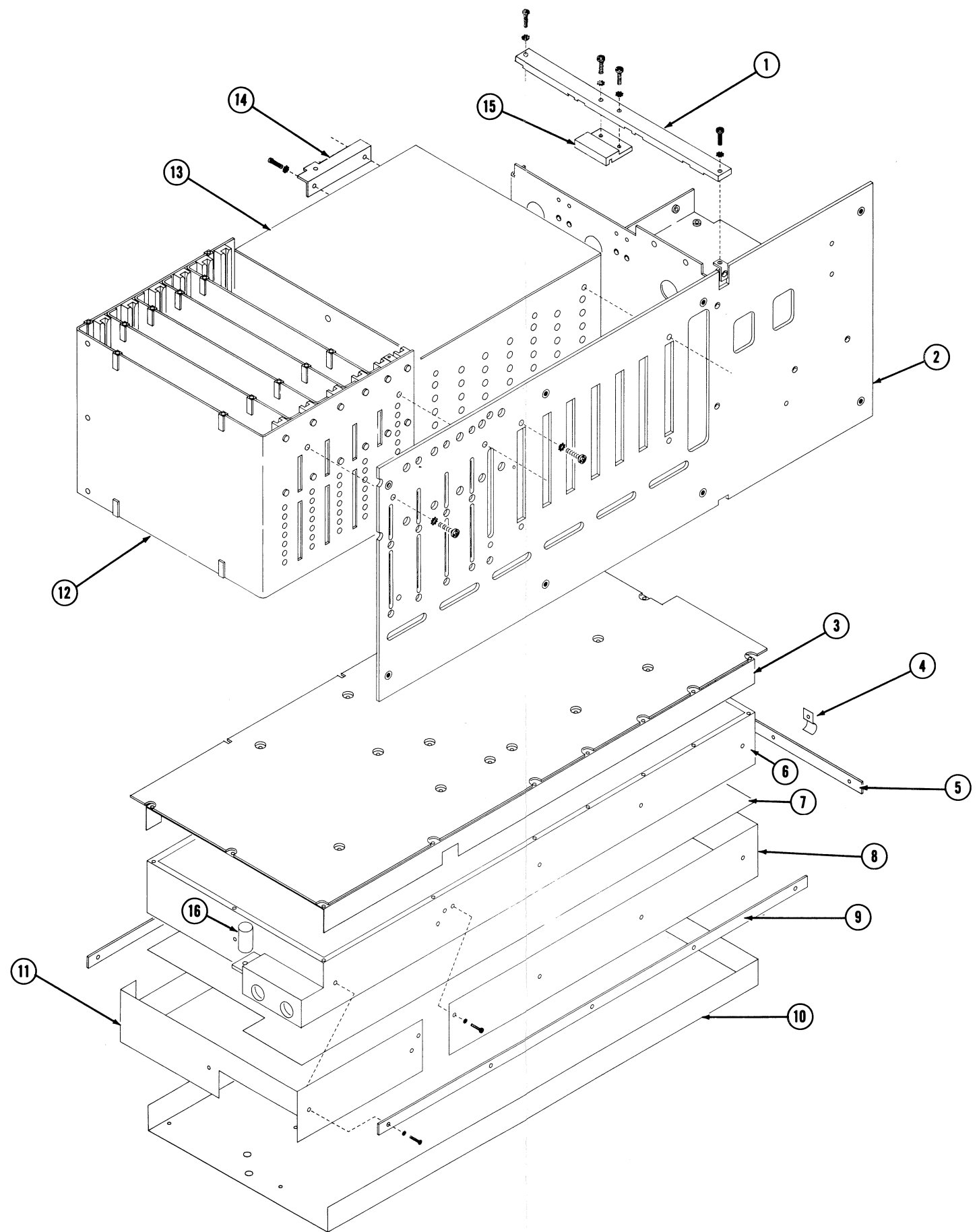


Figure 6-5. RF/IF Assembly.  
6-105/6-106

| Designator | Qty | Part Number | Description       |
|------------|-----|-------------|-------------------|
| 1          | 1   | 5020-8808   | FRAME, REAR       |
| 2          | 11  | 1250-0252   | BODY              |
| 3          | 1   | 2110-0467   | NUT-HEX 1/2-28    |
| 4          | 1   | 2190-0037   | WSHR-LK INTL T    |
| 5          | 11  | 2190-0090   | WSHR-LK INTL T    |
| 6          | 11  | 2950-0035   | NUT-HEX-DBL CHAM  |
| 7          | 1   | 1400-0090   | WASHER            |
| 8          | 1   | 2110-0470   | FUSE HOLDER       |
| 9          | 1   | 2110-0465   | CAP, FUSE HOLDER  |
| 10         | 2   | 0380-0643   | STDF-STUD MT      |
| 11         | 2   | 2190-0009   | WSHR-LK INTL T    |
| 12         | 1   | 8120-2616   | CABLE-HPIB        |
| 13         | 4   | 0590-0167   | NUT-THUMB         |
| 14         | 4   | 2190-0009   | WASHER-LK INTL T  |
| 15         | 1   | 3150-0218   | FILTER, FAN       |
| 16         | 1   | 03585-04131 | COVER REAR PNL    |
| 17         | 1   | 03582-04104 | SCREEN FAN        |
| 18         | 1   | 3160-0306   | FAN               |
| 19(U2)     | 1   | 1820-0430   | LIN REG 5V LM309K |
| 20         | 1   | 1901-0526   | D10 ASSY-S1       |
| 21         | 1   | 1906-0212   | RECT MDA3504      |
| 22(U3)     | 1   | 1826-0402   | PWR V REG +15V    |
| 23         | 1   | 03585-66577 | AC PROTECT BRD    |
| 24         | 1   | 03585-01217 | BRKT-REAR CVR     |
| 25         | 1   | 03585-00203 | PANEL, REAR       |
| 26         | 1   | 9100-4060   | XFMR-PWR          |
| 27         | 1   | 03585-01213 | BRKT-T MOUNT      |
| 28         | 1   | 03585-01211 | BRKT-T            |

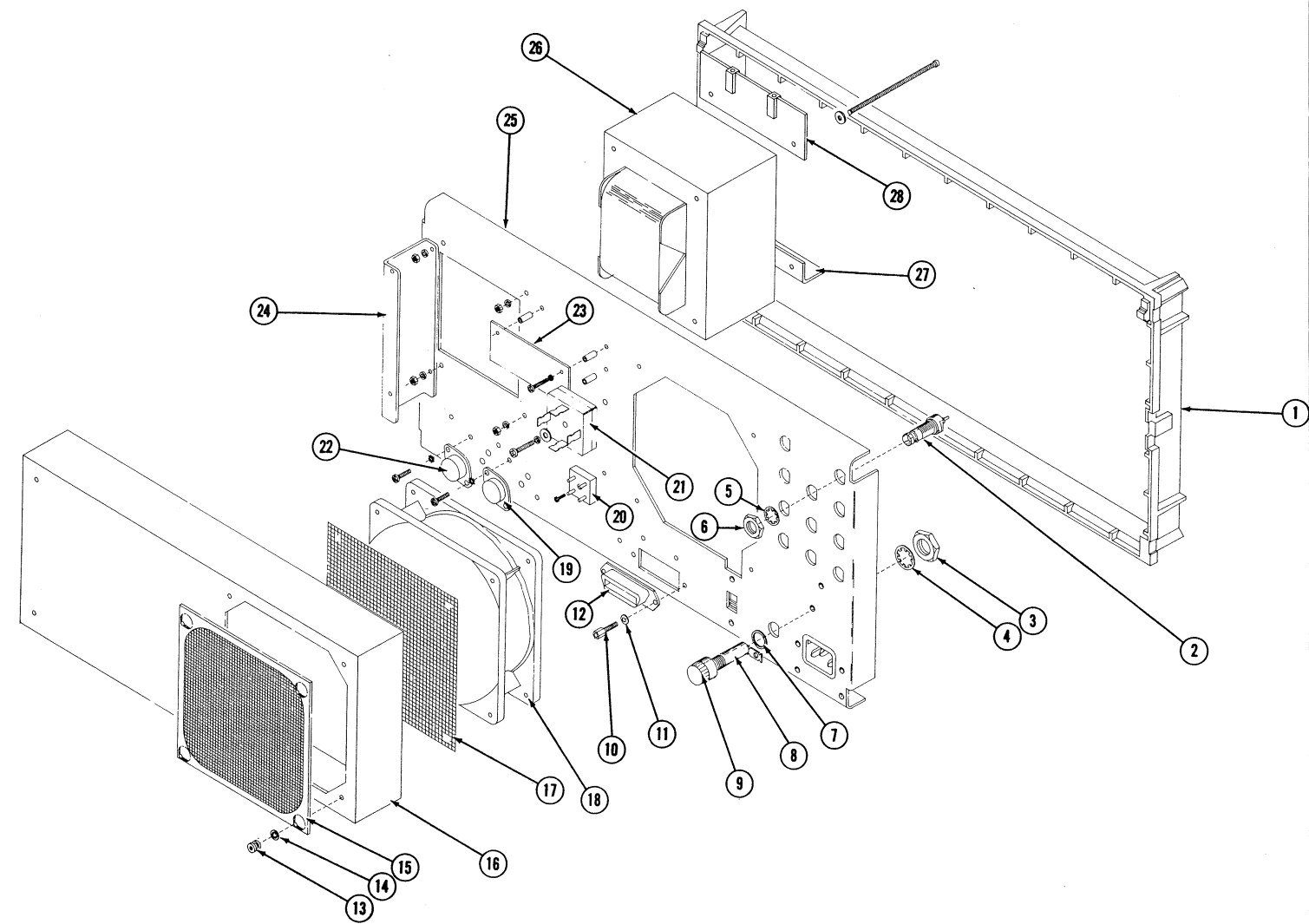


Figure 6-6. Rear Panel Assembly.  
6-107/6-108

## SECTION VII

# BACKDATING

### 7-1. INTRODUCTION.

7-2. This manual section contains information on instruments which are older than the instruments documented in other manual sections. These backdating changes are referenced throughout the manual by a numbered delta ( $\Delta$ #). The number indicates the number of the corresponding backdating change.

### 7-3. $\Delta$ 1—90MHz FILTER CIRCUIT.

### 7-4. Applicable Serial Numbers.

- Conversion Section Adjustments, Paragraph 5-43 tt/xx.
  - 1750A 00230 and below.
- ### 7-5. Affected Serial Numbers.
- SG A2—Conversion Section, Schematic A-2.
  - Replaceable Parts, Table 6-3.

### 7-6. Description of Change.

7-7. Models with serial numbers listed above have no adjustments for the 2nd Mixer Board (A-4), 90MHz Filter Circuit. Schematic Drawing 7-1 and Replaceable Parts Table 7-1 show the circuit and part differences respectively. Schematics and parts tables are located at the end of this manual section.

### 7-8. $\Delta$ 2—IF FILTER CIRCUITS.

### 7-9. Applicable Serial Numbers.

- Information not available at this time.

### 7-10. Affected Manual Areas.

- IF Filter Adjustments, Paragraphs 5-29/5-40.
- 16 dB Amplifier Adjustments, Paragraph 5-41.
- SG A3—Final IF Section, Schematics A-3a/b/c.
- Replaceable Parts, Table 6-3.

### 7-11. Description of Change.

7-12. Models with serial numbers listed above use an A-11, A-12, and A-13 Board as the IF circuit instead of the A-17, A-18, and A-19 Boards. The differences in these boards do not affect the IF adjustment principles; however, some of the adjusting components have changed. Schematic Drawings 7-2a/b/c and Replaceable Parts Table 7-2 show the circuit and part differences respectively. Schematics and parts tables are located at the end of this manual section.

**7-13. Procedures.**

7-14. For the serial numbers listed, these IF Adjustment procedures should be followed.

**NOTE**

*Before performing these adjustments, check that the IF Input Level adjustment (A11R105) is properly set. See Paragraphs 5-26i/1.*

**7-15. Preliminary IF Filter Adjustment.**

7-16. These procedures establish a reference that must be used for the IF Filter Adjustments. The reference signal will be stored in Display Register B.

**Note**

*Do NOT turn the instrument power off during IF Filter Adjustment procedures. To do so will cause the adjustment reference to be lost.*

7-17. The preliminary procedures must be performed prior to adjusting any IF stage.

a. Turn the -hp- 3585A power off and remove the A-11, A-12, and A-13 aluminum cover. Place the A-13 Board on a PC Extender.

b. Turn the -hp- 3585A power on.

c. Place jumper A13J1 to the "T" position.

**NOTE**

*Component locators for the IF Filter Boards (A-11/A-13) are in Drawings 7-2a/b/c.*


d. Set the synthesizer to:

FREQUENCY ..... 350kHz  
AMPLITUDE ..... -2.0dBm

e. Disconnect the cable connector from A11J1.

f. Connect the synthesizer output through a 50Ω termination to A11J1.

g. Set the -hp- 3585A to:

RECALL 609  
INSTRUMENT PRESET  
CENTER FREQUENCY..... 350kHz  
CF STEP SIZE..... 1.3Hz  
RES BW.....  3Hz  
RES BW..... 3Hz  
dB/DIV ..... 1dB  
MANUAL SWEEP..... on  
CLEAR A

h. Adjust A13C39 for a maximum marker amplitude. If necessary, set the REF LEVEL so that the marker remains within the graticule area.

i. Press the STOR A → B key.

j. Disconnect the synthesizer.

k. Connect the Tracking Generator output through a 50Ω termination to A11J1.

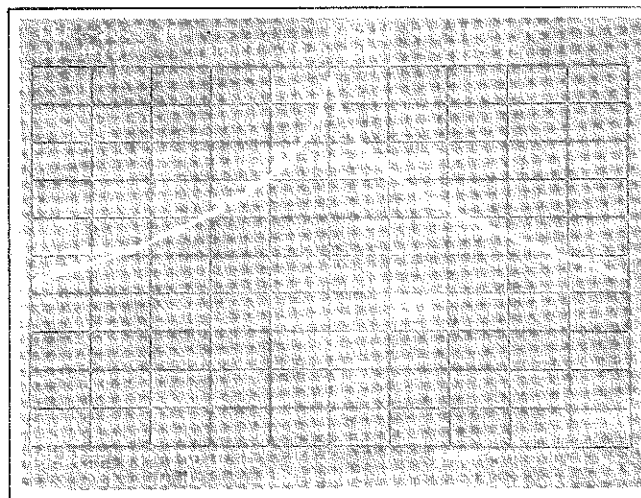
l. Set the -hp- 3585A to:

```

FREQUENCY SPAN.....50kHz
RES BW.....300Hz
SWEEP.....cont
dB/DIV.....10dB
B TRACE.....off
    
```

m. Move the marker to the peak of the trace and press MKR → CF.

n. Adjust A13C41 so that the trace is symmetrical about the marker.



**Figure 7-1. Symmetry Adjustment, A13C41.**

o. Narrow the FREQUENCY SPAN to 10Hz by using the STEP keys. As you narrow the span, the peak of the trace will move to the left or right. When this occurs, move the marker to the peak of the trace and press the MKR CF key.

p. Set the -hp- 3585A to:

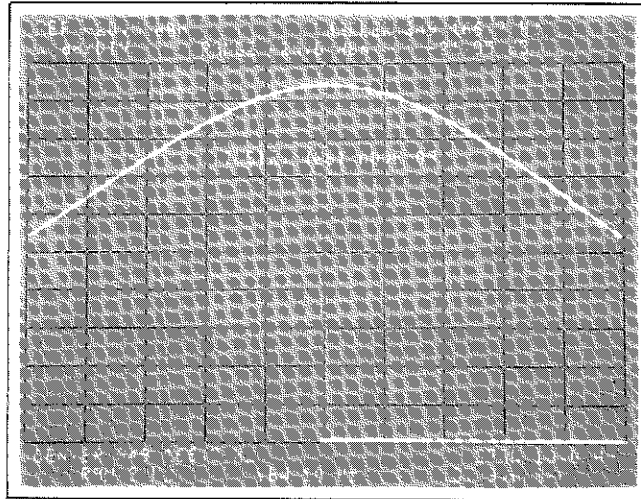
```

dB/DIV.....1dB
SWEEP TIME.....9.6 sec
B TRACE.....on
    
```

q. Move the marker to the peak of the trace and press MKR → CF.

r. Adjust the Tracking Generator amplitude control so that the peak of the A trace and peak of the B trace are equal in amplitude.

s. Repeat steps 'q' and 'r' until the A trace is symmetrical and equal to the amplitude of the B trace.



**Figure 7-2. Preliminary Adjustment.**

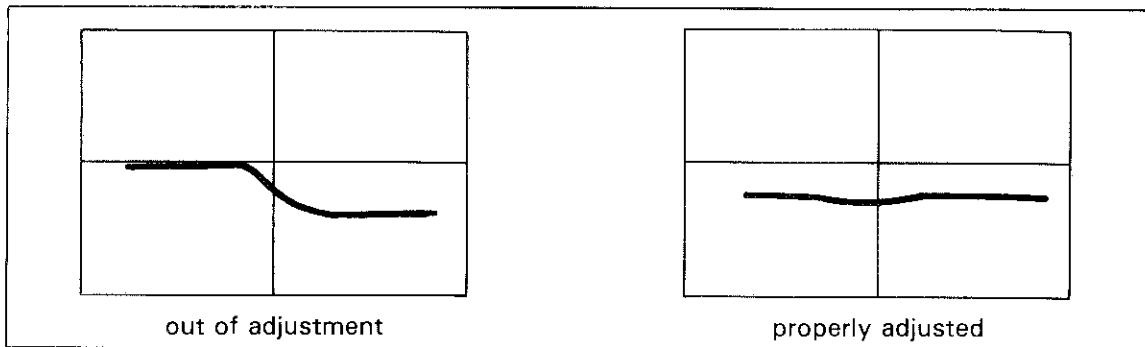
t. Press the STORE A → B key.

**NOTE**

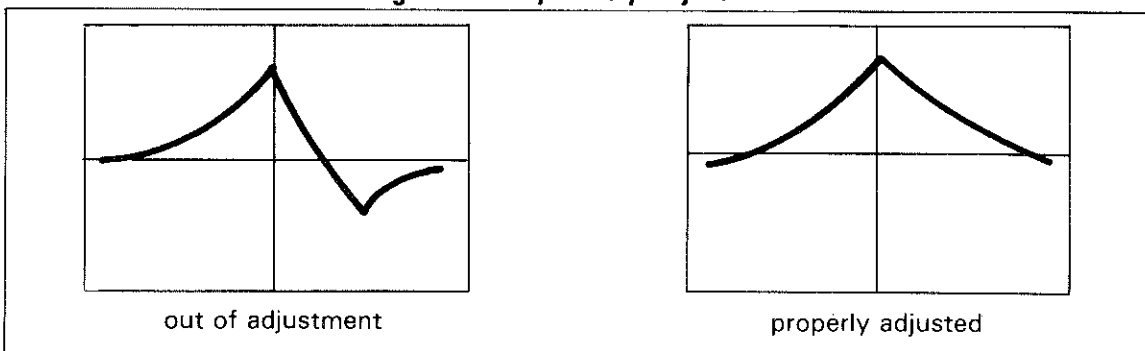
*The stored trace in B serves as a reference for the remaining IF Filter Adjustments. Do NOT turn the -hp- 3585A power off unless told to do so.*

**NOTE**

*Figures 7-3 and 7-4 will be referred to throughout the remaining IF Adjustment procedures.*



**Figure 7-3. Symmetry Adjustment.**



**Figure 7-4. Symmetry Adjustment.**

**7-18. Fifth Crystal State Adjustment (A-13: L7 and C41).**

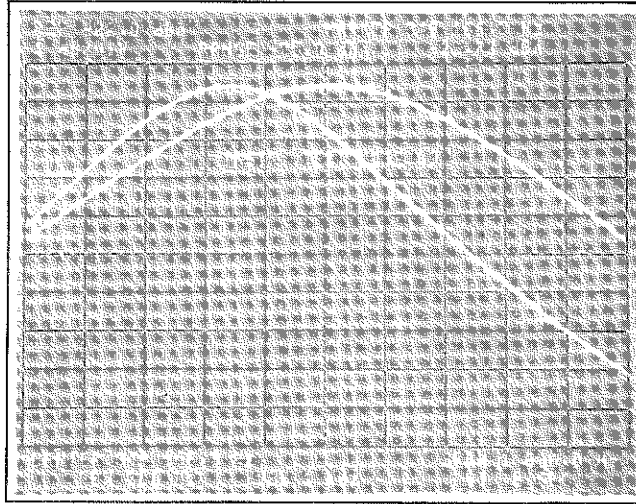
a. Set the -hp- 3585A to:

```

RES BW.....300Hz
RES BW HOLD.....on
FREQUENCY SPAN.....1kHz
REF LVL.....on

```

b. Adjust the reference level, using the Continuous Entry Control, until the A trace peak is equal in amplitude to the B trace peak.



**Figure 7-5. Reference Level Set-up.**

c. Set the -hp- 3585A to:

```

B TRACE.....off
MARKER.....on
A-B.....on
SWEEP.....cont
dB/DIV.....1dB

```

d. Adjust A13L7 so that the trace approximates a straight, horizontal line. (See Figure 7-3.)

e. Set the -hp- 3585A to:

```

A-B.....off
FREQUENCY.....50kHz
dB/DIV.....10dB

```

f. Adjust A13C41 so that the trace is symmetrical about the marker. (See Figure 7-4.)

g. Place jumper A13J1 to the "OP" position.

**7-19. Fourth Crystal Stage Adjustment (A-13: L6 and C30).**

a. Place jumper A13J2 to the "T" position.

- b. Set the -hp- 3585A to:

```
FREQUENCY SPAN.....1kHz
RES BW.....300Hz
dB/DIV.....1dB
A-B.....on
```

- c. Adjust A13L6 so that the trace approximates a straight, horizontal line. (See Figure 7-3.)

- d. Set the -hp- 3585A to:

```
A-B.....off
FREQUENCY SPAN.....50kHz
dB/DIV.....10dB
```

- e. Adjust A13C30 so that the trace is symmetrical about the marker. (See Figure 7-4.)

- f. Place jumper A13J2 to the “OP” position.

**7-20. Fifth LC Stage Adjustment (A13: L5 and R28).**

- a. Place jumper A13J3 to the “T” position.

- b. Set the -hp- 3585A to:

```
RES BW.....1kHz
FREQUENCY SPAN.....3.3kHz
dB/DIV.....1dB
A-B.....on
```

- c. Adjust A13L5 so that the trace approximates a straight, horizontal line. (See Figure 7-3.)

- d. Set the -hp- 3585A to:

```
A-B.....off
RES BW.....30kHz
OFFSET.....on
```

(allow one complete sweep)

```
ENTER OFFSET
RES BW.....1kHz
```

- e. Adjust A13R28 for a .00dB marker amplitude.

- f. Place jumper A13J3 to the “OP” position.

**7-21. Fourth LC Stage Adjustment (A13: L4 and R20).**

- a. Place jumper A13J4 to the “T” position.



b. Set the -hp- 3585A to:

```

OFFSET ..... off
FREQUENCY SPAN.....3.3kHz
dB/DIV ..... 1dB
A-B ..... on

```

c. Adjust A13L4 so that the trace approximates a straight, horizontal line. (See Figure 7-3.)

d. Set the -hp- 3585A to:

```

A-B .....off
RES BW .....30kHz
OFFSET ..... on

```

(allow one complete sweep)

```

ENTER OFFSET
RES BW .....1kHz

```

e. Adjust A13R20 for a .00dB marker amplitude.

f. Place jumper A13J4 to the "OP" position.

g. DO NOT TURN POWER OFF. Remove the A-13 Board and the PC Extender. Install the A-13 Board into the card nest.

**7-22. Third Crystal Stage Adjustment (A-12; L6, L4, and C24).**

a. DO NOT TURN POWER OFF. Place th A-12 board on PC Extender.

**NOTE**

*If the B trace has been lost or altered, repeat the Preliminary Adjustment procedures to re-establish the reference trace.*

b. Check that the B trace is still intact.

c. Set the -hp- 3585A to:

```

OFFSET ..... off
CF STEP SIZE.....1.2Hz
RES BW ..... 300
RES BW .....300Hz
FREQUENCY SPAN.....1kHz
dB/DIV ..... 1dB

```

d. Adjust A12L6 for a maximum marker amplitude.

e. Set the -hp- 3585A to:

```

A-B ..... on

```

f. Adjust A12L4 so that the trace approximates a straight, horizontal line. (Figure 7-3.)

g. Set the -hp- 3585A to:

```

A-B.....off
FREQUENCY SPAN.....50kHz
dB/DIV.....10dB

```

h. Adjust A12C24 so that the trace is symmetrical about the marker. (See Figure 7-4.)

**7-23. Third LC Stage Adjustment (A12: L5 and R15).**

a. Set the -hp- 3585A to:

```

SWEEP.....Cont
RES BW.....1kHz
FREQUENCY SPAN.....3.3kHz
dB/DIV.....1dB
A-B.....on

```

b. Adjust A12L5 so that the trace approximates a straight, horizontal line. (See Figure 7-3.)

c. Set the -hp- 3585A to:

```

A-B.....off
RES BW.....30kHz
OFFSET.....on

```

(allow one complete sweep)

```

ENTER OFFSET
RES BW.....1kHz

```

d. Adjust A12R15 for a .00dB marker amplitude.

e. DO NOT TURN POWER OFF. Remove the A-12 Board and PC Extender. Install the A-12 board into the card nest.

**7-24. Second Crystal Stage Adjustment (A-11: L7, C39, and L8).**

a. DO NOT TURN POWER OFF. Place the A-11 Board on a PC Extender.

b. Place jumper A11J4 to the "T" position.

**NOTE**

*If the B trace has been lost or altered, repeat the Preliminary Adjustment procedures to re-establish the reference trace.*

c. Check that the B trace is still intact.

d. Set the -hp- 3585A to:

```

OFFSET ..... off
CF STEP SIZE ..... 1.1Hz
RES BW ..... ↑ ↓
RES BW ..... 300Hz
FREQUENCY SPAN ..... 1kHz
dB/DIV ..... 1dB
A-B ..... on
    
```

e. Adjust A11L7 so that the trace approximates a straight, horizontal line. (See Figure 7-3.)

f. Set the -hp- 3585A to:

```

A-B ..... off
FREQUENCY SPAN ..... 50kHz
dB/DIV ..... 10dB
    
```

g. Adjust A11C39 so that the trace is symmetrical about the marker. (See Figure 7-4.)

h. Set the -hp- 3585A to:

```

dB/DIV ..... 1dB
FREQUENCY SPAN ..... 1kHz
    
```

i. Adjust A11L8 for a maximum marker amplitude.

j. Place jumper A11J4 to the "OP" position.

**7-25. First Crystal Stage Adjustment (A-11: L6 and C29).**

a. DO NOT TURN POWER OFF. Place jumper A11J5 to the "T" position.

b. Set the -hp- 3585A to:

```

FREQUENCY SPAN ..... 1kHz
dB/DIV ..... 1dB
A-B ..... on
    
```

c. Adjust A11L6 so that the trace approximates a straight, horizontal line. (See Figure 7-3.)

d. Set the -hp- 3585A to:

```

A-B ..... off
FREQUENCY SPAN ..... 50kHz
dB/DIV ..... 10dB
    
```

e. Adjust A11C29 so that the trace is symmetrical about the marker. (See Figure 7-4.)

f. Place jumper A11J5 to the "OP" position.

**7-26. Second LC Stage Adjustment (A-11: L5 and R20).**

a. Place jumper A11J2 to the "T" position.

b. Set the -hp- 3585A to:

```

RES BW.....1kHz
FREQUENCY SPAN.....3.3kHz
dB/DIV.....1dB
A-B.....on

```

c. Adjust A11L5 so that the trace approximates a straight, horizontal line. (See Figure 7-3.)

d. Set the -hp- 3585A to:

```

A-B.....off
RES BW.....30kHz
OFFSET.....on

```

(allow one complete sweep)

```

ENTER OFFSET
RES BW.....1kHz

```

e. Adjust A11R20 for a .00dB marker amplitude.

f. Place jumper A11J2 to the "OP" position.

**7-27. First LC Stage Adjustment (A-11: L4 and R12).**

a. Place jumper A11J3 to the "T" position.

b. Set the -hp- 3585A to:

```

OFFSET.....off
FREQUENCY SPAN.....3.3kHz
dB/DIV.....1dB
A-B.....on

```

c. Adjust A11J4 so that the trace approximates a straight, horizontal line. (See Figure 7-3.)

d. Set the -hp- 3585A to:

```

A-B.....off
RES BW.....30kHz
OFFSET.....on

```

(allow one complete sweep)

```

ENTER OFFSET
RES BW.....1kHz

```

- e. Adjust A11R12 for a .00dB marker amplitude.
- f. Place jumper A11J3 to the "OP" position.
- g. Turn the -hp- 3585A power off. Remove the A-11 Board and the PC Extender. Re-install the A-11 Board into the card nest.

**7-28. Final IF Filter Adjustments.**

- a. Ensure that all jumpers on the A-11, A-12, and A-13 Boards are in the "OP" position.
- b. Install the metal cover over the IF Boards (A-11/A-13).
- c. Set the synthesizer to:

```

FREQUENCY ..... 350kHz
AMPLITUDE ..... -2.0dBm

```

- d. Connect the synthesizer output through a 50Ω termination to A11J1.

**NOTE**

*Disregard any calibration error messages.*

- e. Turn the -hp- 3585A power on.
- f. Set the -hp- 3585A to:

```

RECALL 609
INSTRUMENT PRESET
CF STEP SIZE ..... 1.1Hz
RES BW ..... 3Hz
MANUAL SWEEP ..... on
dB/DIV ..... 1dB
REF LEVEL ..... -35dBm
CLEAR A


```

g. Adjust A11C27 for a maximum marker amplitude. If necessary, set the REF LEVEL so that the marker remains within the graticule area.

- h. Adjust A11C37 for a maximum marker amplitude.

- i. Set the -hp- 3585A to:

```


CF STEP SIZE ..... 1.2Hz
RES BW ..... 

```

- j. Adjust A12C22 for a maximum marker amplitude.

- k. Set the -hp- 3585A to:

```

CF STEP SIZE ..... 1.3Hz
RES BW ..... 

```


- l. Adjust A13C28 for a maximum marker amplitude.
- m. Adjust A13C39 for a maximum marker amplitude.
- n. Set the -hp- 3585A to:

```

RECALL 601
INSTRUMENT PRESET
MANUAL SWEEP.....on
dB/DIV ..... 1dB
CLEAR A
OFFSET.....on
ENTER OFFSET
RES BW..... 300Hz
    
```


- o. Adjust the REF LEVEL as necessary to keep the marker within the graticule area.
- p. Adjust A11R26 for a .00dB marker reading.
- q. Set the -hp- 3585A to:

```

RES BW..... 
    
```

- r. Adjust A11R28 for a .00dB marker reading.
- s. Set the -hp- 3585A to:

```

RES BW..... 
    
```

- t. Adjust A11R30 for a .00dB marker reading.
- u. Set the -hp- 3585A to:

```

RES BW..... 
    
```

- v. Adjust A11R32 for a .00dB marker reading.
- w. Set the -hp- 3585A to:

```

RES BW..... 
    
```

- x. Adjust A11R34 for a .00dB marker reading.
- y. Disconnect the synthesizer from connector A11J1.

**7-29. 16dB Amplifier Adjustment.**

a. Connect the Tracking Generator output to a 10dB/step attenuator. Connect the 10dB/step attenuator to a 1dB/step attenuator and place a 50 ohm termination on the output of the 1dB/step attenuator. Connect the output of the 50 ohm termination to -hp-3585A connector A11J1.

**NOTE**

*Disregard any calibration error messages.*

- b. Set the -hp- 3585A to:

```

INSTRUMENT PRESET
CENTER FREQUENCY.....350kHz
FREQUENCY SPAN.....10kHz
RES BW.....10kHz
dB/DIV.....2dB
MANUAL SWEEP.....on
RANGE.....-25dBm
REFERENCE LEVEL.....-28dBm
CLEAR A
    
```

- c. Adjust the Tracking Generator amplitude for a -28.00dBm marker amplitude.

- d. Set the -hp- 3585A to:

```

OFFSET.....on
ENTER OFFSET
    
```

- e. Set the external attenuators for 16dB of attenuation.

- f. Set the -hp- 3585A to:

```

REFERENCE LEVEL.....-44dBm
    
```

- g. Adjust A12R77 for an offset marker amplitude of -16.00dBm.

- h. Set the external attenuators for 32dB of attenuations.

- i. Set the -hp- 3585A to:

```

REFERENCE LEVEL.....-60dBm
    
```

- j. Adjust A12R71 for an offset marker amplitude of -32.00dBm.

- k. Set the external attenuators for 48dB of attenuation.

- l. Set the -hp- 3585A to:

```

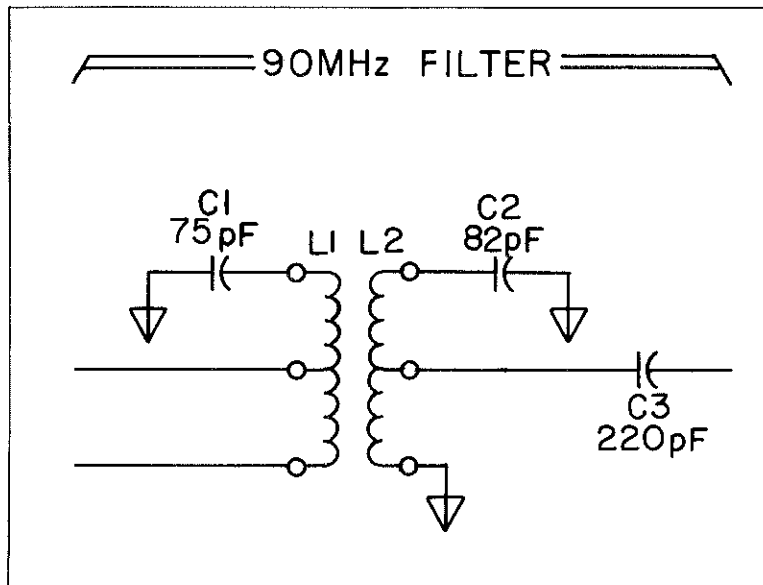
REFERENCE LEVEL.....-76dBm
    
```

- m. Adjust A12R65 for an offset marker amplitude of -48.00dBm.

- n. Disconnect the Tracking Generator from A11J1 and reconnect the cable from A6CJ1 to A11J1.

**Table 7-1. Δ1 Replaceable Parts, 90MHz Filter.**

| Reference Designator | hp- Part Number | Qty | Description            | Mfr Code | Mfr Part Number |
|----------------------|-----------------|-----|------------------------|----------|-----------------|
| A4C1                 | 0160-3691       | 1   | C:FXD 75 pF 100V       |          |                 |
| A4C2                 | 0160-0145       | 1   | C:FXD 82 pF 100V       |          |                 |
| A4C3                 | 0160-0952       | 1   | C:FXD 220 pF 300V      |          |                 |
| A4L1                 | none            |     | trace on circuit board |          |                 |
| A4L2                 | none            |     | trace on circuit board |          |                 |



Drawing 7-1. Δ1 90MHz Filter, p/o Schematic A-2



**NOTE**

*Disregard any calibration error messages.*

- b. Set the -hp- 3585A to:

```

INSTRUMENT PRESET
CENTER FREQUENCY.....350kHz
FREQUENCY SPAN.....10kHz
RES BW.....10kHz
dB/DIV..... 2dB
MANUAL SWEEP.....on
RANGE..... - 25dBm
REFERENCE LEVEL..... - 28dBm
CLEAR A

```

- c. Adjust the Tracking Generator amplitude for a - 28.00dBm marker amplitude.

- d. Set the -hp- 3585A to:

```

OFFSET.....on
ENTER OFFSET

```

- e. Set the external attenuators for 16dB of attenuation.

- f. Set the -hp- 3585A to:

```

REFERENCE LEVEL..... - 44dBm

```

- g. Adjust A12R77 for an offset marker amplitude of - 16.00dBm.

- h. Set the external attenuators for 32dB of attenuations.

- i. Set the -hp- 3585A to:

```

REFERENCE LEVEL..... - 60dBm

```

- j. Adjust A12R71 for an offset marker amplitude of - 32.00dBm.

- k. Set the external attenuators for 48dB of attenuation.

- l. Set the -hp- 3585A to:

```

REFERENCE LEVEL..... - 76dBm

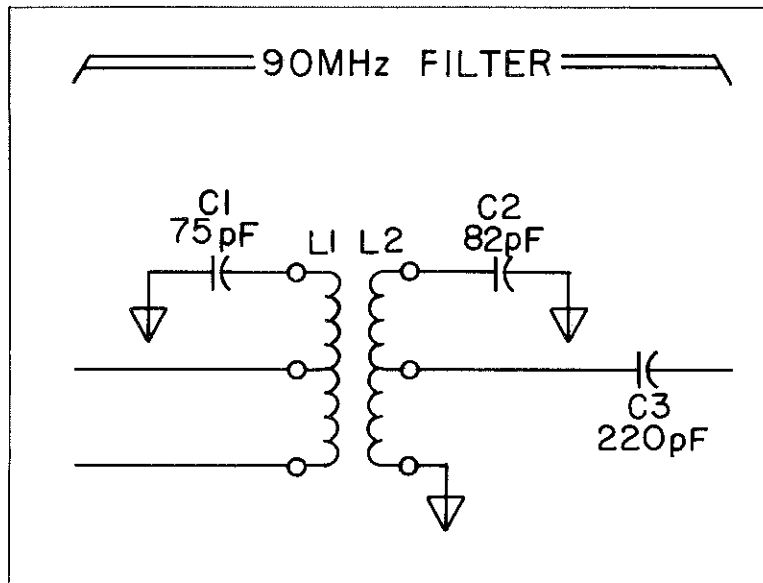
```

- m. Adjust A12R65 for an offset marker amplitude of - 48.00dBm.

- n. Disconnect the Tracking Generator from A11J1 and reconnect the cable from A6CJ1 to A11J1.

**Table 7-1. Δ1 Replaceable Parts, 90MHz Filter.**

| Reference Designator | -hp- Part Number | Qty | Description            | Mfr Code | Mfr Part Number |
|----------------------|------------------|-----|------------------------|----------|-----------------|
| A4C1                 | 0160-3691        | 1   | C:FXD 75 pF 100V       |          |                 |
| A4C2                 | 0160-0145        | 1   | C:FXD 82 pF 100V       |          |                 |
| A4C3                 | 0160-0952        | 1   | C:FXD 220 pF 300V      |          |                 |
| A4L1                 | none             |     | trace on circuit board |          |                 |
| A4L2                 | none             |     | trace on circuit board |          |                 |



Drawing 7-1. Δ1 90MHz Filter, p/o Schematic A-2

Table 7-2. Δ2 Replaceable Parts, IF Filter Circuits.

| Reference Designation | HP Part Number | C D | Qty | Description                            | Mfr Code | Mfr Part Number    |
|-----------------------|----------------|-----|-----|----------------------------------------|----------|--------------------|
| A11                   | 03585-66511    | 4   | 1   | FILTER BOARD NO. 1                     | 28480    | 03585-66511        |
| A11C1                 | 0180-0116      | 1   | 2   | CAPACITOR-FXD 6.8UF±10% 35VDC TA       | 56289    | 1500685X9035B2     |
| A11C2                 | 0180-0116      | 1   | 2   | CAPACITOR-FXD 6.8UF±10% 35VDC TA       | 56289    | 1500685X9035B2     |
| A11C3                 | 0180-0229      | 7   | 3   | CAPACITOR-FXD 330F±10% 10VDC TA        | 56289    | 1500336X9010B2     |
| A11C4                 | 0160-3622      | 8   | 174 | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C5                 | 0160-3622      | 8   | 174 | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C6                 | 0160-2257      | 3   | 1   | CAPACITOR-FXD 10PF ±5% 500VDC CER Δ+60 | 28480    | 0160-2257          |
| A11C7                 | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C8                 | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C9                 | 0140-0184      | 9   | 5   | CAPACITOR-FXD 2200PF ±1% 100VDC MICA   | 72136    | DM20F822F0100AV1CR |
| A11C10                | 0160-3622      | 8   | 5   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C11                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C12                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C13                | 0140-0184      | 9   | 1   | CAPACITOR-FXD 2200PF ±1% 100VDC MICA   | 72136    | DM20F822F0100AV1CR |
| A11C14                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C15                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C16                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C17                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C18                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C19                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C20                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C21                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C22                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C23                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C24                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C25                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C26                | 0140-0196      | 3   | 4   | CAPACITOR-FXD 150PF ±5% 300VDC MICA    | 72136    | DM15F151J0300AV1CR |
| A11C27                | 0121-0102      | 9   | 5   | CAPACITOR-V TRMR-MICA 16-150PF 175V    | 72136    | 751417-5 REV. B    |
| A11C28                | 0160-0376      | 3   | 5   | CAPACITOR-FXD 68PF ±5% 500VDC MICA     | 28480    | 0160-0376          |
| A11C29                | 0121-0131      | 6   | 3   | CAPACITOR-V TRMR-AIR 1.2-4.2PF 350V    | 74970    | 189-0501-005       |
| A11C30                | 0160-3622      | 8   | 5   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C31                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C32                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C33                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C34                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C35                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C36                | 0140-0217      | 9   | 1   | CAPACITOR-FXD 140PF ±2% 300VDC MICA    | 72136    | DM15F141J0300AV1CR |
| A11C37                | 0121-0102      | 9   | 1   | CAPACITOR-V TRMR-MICA 16-150PF 175V    | 72136    | 751417-5 REV. B    |
| A11C38                | 0160-0376      | 3   | 3   | CAPACITOR-FXD 68PF ±5% 500VDC MICA     | 28480    | 0160-0376          |
| A11C39                | 0121-0131      | 6   | 3   | CAPACITOR-V TRMR-AIR 1.2-4.2PF 350V    | 74970    | 189-0501-005       |
| A11C40                | 0160-3622      | 8   | 3   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C41                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C42                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C43                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C44                | 0140-0198      | 5   | 2   | CAPACITOR-FXD 200PF ±5% 300VDC MICA    | 72136    | DM15F201J0300AV1CR |
| A11C45                | 0160-3622      | 8   | 2   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C46                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C47                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C48                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C49                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C50                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C51                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C52                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C53                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C54                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C55                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C56                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C57                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C58                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C59                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C60                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C61                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C62                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C63                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C64                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C65                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C66                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C67                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C68                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C69                | 0160-3622      | 8   | 1   | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A11C70*               | 0160-2247      | 1   | 4   | CAPACITOR-FXD 3.9PF ±.25PF 500VDC CER  | 28480    | 0160-2247          |
| A11C70*               | 0160-2250      | 6   | 5   | CAPACITOR-FXD 5.1PF ±.25PF 500VDC CER  | 28480    | 0160-2250          |

See Section VI for ordering information  
 \*Indicates factory selected value

Table 7-2. Δ2 Replaceable Parts, IF Filter Circuits (Cont'd).

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|------------------|
| A11C71*               | 0160-2250      | 6   |     | CAPACITOR-FXD 5.1PF +/-25PF 500VDC CER   | 28480    | 0160-2250        |
| A11C71*               | 0160-2252      | 8   | 1   | CAPACITOR-FXD 6.2PF +/-25PF 500VDC CER   | 28480    | 0160-2252        |
| A11C71*               | 0160-2254      | 8   | 1   | CAPACITOR-FXD 7.5PF +/-25PF 500VDC CER   | 28480    | 0160-2254        |
| A11CR1                | 1901-0376      | 6   | 33  | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A11CR2                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A11CR3                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A11CR4                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A11CR5                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A11CR6                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A11CR7                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A11CR8                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A11CR9                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A11CR10               | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A11CR11               | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A11CR12               | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35             | 28480    | 1901-0376        |
| A11CR13               | 1902-3149      | 8   | 3   | DIODE-ZNR 9.09V 5% DO-7 PDS.4W TC=+.057% | 28480    | 1902-3149        |
| A11CR14               | 1901-0518      | 8   | 6   | DIODE-SCHOTTKY                           | 28480    | 1901-0518        |
| A11CR15               | 1901-0518      | 8   | 6   | DIODE-SCHOTTKY                           | 28480    | 1901-0518        |
| A11J1                 | 1250-136A      | 7   | 1   | CONNECTOR-RF SMB M PC 50-OHM             | 28480    | 1250-136A        |
| A11J2                 | 1251-4822      | 8   | 10  | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-4822        |
| A11J3                 | 125A-0141      | 8   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 125A-0141        |
| A11J4                 | 1251-4822      | 8   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 1251-4822        |
| A11J5                 | 125A-0141      | 8   |     | CONNECTOR 3-PIN M POST TYPE              | 28480    | 125A-0141        |
| A11L1                 | 9140-0210      | 1   | 2   | COIL-MLD 100UH 5% Q=50 .155DX.375LG-NOM  | 28480    | 9140-0210        |
| A11L2                 | 9140-0210      | 1   |     | COIL-MLD 100UH 5% Q=50 .155DX.375LG-NOM  | 28480    | 9140-0210        |
| A11L3                 | 9100-1618      | 1   | 1   | COIL-MLD 5.6UH 10% Q=45 .155DX.375LG-NOM | 28480    | 9100-1618        |
| A11L4                 | 9140-0289      | 4   | 5   | COIL-VAR 23UH-27UH Q=200 PC-MTG          | 28480    | 9140-0289        |
| A11L5                 | 9140-0289      | 4   |     | COIL-VAR 23UH-27UH Q=200 PC-MTG          | 28480    | 9140-0289        |
| A11L6                 | 9140-028A      | 3   | 1   | COIL-VAR 920UH-1.08MH Q=500 PC-MTG       | 28480    | 9140-028A        |
| A11L7                 | 9140-0287      | 2   | 4   | COIL-VAR 920UH-1.08MH Q=300 PC-MTG       | 28480    | 9140-0287        |
| A11L8                 | 9100-0543      | 9   | 2   | COIL-VAR 900UH-1.1MH Q=112 PC-MTG        | 28480    | 9100-0543        |
| A11O1                 | 1854-0071      | 1   | 3   | TRANSISTOR NPN SI PD=300MW FT=200MHZ     | 04713    | 2N3904           |
| A11O2                 | 1853-00A9      | 5   | 1   | TRANSISTOR PNP 2N4917 SI PD=200MA        | 07263    | 2N4917           |
| A11O3                 | 1854-0351      | 6   | 1   | TRANSISTOR NPN SI TO-18 PD=360MW         | 28480    | 1854-0351        |
| A11O4                 | 1854-0071      | 7   | 17  | TRANSISTOR NPN SI PD=300MW FT=200MHZ     | 28480    | 1854-0071        |
| A11O5                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ     | 28480    | 1854-0071        |
| A11O6                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ     | 28480    | 1854-0071        |
| A11O7                 | 1853-0010      | 2   | 3   | TRANSISTOR PNP SI TO-18 PD=360MW         | 28480    | 1853-0010        |
| A11O8                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904           |
| A11O9                 | 1854-0215      | 1   |     | TRANSISTOR NPN SI PD=350MW FT=300MHZ     | 04713    | 2N3904           |
| A11O10                | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ     | 28480    | 1854-0071        |
| A11R1                 | 0683-3925      | 2   | 1   | RESISTOR 3.9K 5% .25W FC TC=400/+700     | 01121    | CB3925           |
| A11R2                 | 0683-2205      | 9   | 1   | RESISTOR 22 5% .25W FC TC=400/+500       | 01121    | CB2205           |
| A11R3                 | 0683-1525      | 4   | 2   | RESISTOR 1.5K 5% .25W FC TC=400/+700     | 01121    | CB1525           |
| A11R4                 | 0683-2215      | 1   |     | RESISTOR 220 5% .25W FC TC=400/+600      | 01121    | CB2215           |
| A11R5                 | 0683-1015      | 7   | 1   | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015           |
| A11R6                 | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015           |
| A11R7                 | 0683-2035      | 3   | 15  | RESISTOR 20K 5% .25W FC TC=400/+800      | 01121    | CB2035           |
| A11R8                 | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800      | 01121    | CB2035           |
| A11R9                 | 069A-3518      | 0   | 5   | RESISTOR 7.32K 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-7321-F |
| A11R10                | 0757-0279      | 0   | 3   | RESISTOR 3.16K 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-3161-F |
| A11R11                | 069A-4451      | 2   | 3   | RESISTOR 340 1% .125W F TC=0/+100        | 24546    | C4-1/8-T0-340R-F |
| A11R12                | 2100-2497      | 9   | 5   | RESISTOR-TRMR 2K 10% C TOP-ADJ 1-TRN     | 73138    | 82PR2K           |
| A11R13                | 0757-0283      | 6   |     | RESISTOR 2K 1% .125W F TC=0/+100         | 24546    | C4-1/8-T0-2001-F |
| A11R14                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015           |
| A11R15                | 0683-3325      | 6   | 5   | RESISTOR 3.3K 5% .25W FC TC=400/+700     | 01121    | CB3325           |
| A11R16                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015           |
| A11R17                | 069A-3518      | 0   |     | RESISTOR 7.32K 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-7321-F |
| A11R18                | 069A-3496      | 3   | 2   | RESISTOR 3.57K 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-357R-F |
| A11R19                | 0757-0416      | 7   |     | RESISTOR 511 1% .125W F TC=0/+100        | 24546    | C4-1/8-T0-511R-F |
| A11R20                | 2100-2497      | 9   |     | RESISTOR-TRMR 2K 10% C TOP-ADJ 1-TRN     | 73138    | 82PR2K           |
| A11R21                | 0757-0283      | 6   |     | RESISTOR 2K 1% .125W F TC=0/+100         | 24546    | C4-1/8-T0-2001-F |
| A11R22                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015           |
| A11R23                | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=400/+700     | 01121    | CB3325           |
| A11R24                | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800      | 01121    | CB2035           |
| A11R25                | 0757-0442      | 9   | 2   | RESISTOR 10K 1% .125W F TC=0/+100        | 24546    | C4-1/8-T0-1002-F |
| A11R26                | 2100-3274      | 2   | 1   | RESISTOR-TRMP 10K 10% C SIDE-ADJ 1-TRN   | 28480    | 2100-3274        |
| A11R27                | 0757-0200      | 7   | 3   | RESISTOR 5.62K 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-5621-F |
| A11R28                | 2100-3207      | 1   | 2   | RESISTOR-TRMR 5K 10% C SIDE-ADJ 1-TRN    | 28480    | 2100-3207        |
| A11R29                | 0757-0283      | 6   |     | RESISTOR 2K 1% .125W F TC=0/+100         | 24546    | C4-1/8-T0-2001-F |
| A11R30                | 2100-3273      | 1   | 3   | RESISTOR-TRMR 2K 10% C SIDE-ADJ 1-TRN    | 28480    | 2100-3273        |

See Section VI for ordering information  
 \*Indicates factory selected value

Table 7-2. Δ2 Replaceable Parts, IF Filter Circuits (Cont'd).

| Reference Designation | HP Part Number | C D | Qty | Description                           | Mfr Code | Mfr Part Number   |
|-----------------------|----------------|-----|-----|---------------------------------------|----------|-------------------|
| A11R31                | 0757-0428      | 1   | 2   | RESISTOR 1.62K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=1621-F  |
| A11R32                | 2100-3273      | 1   |     | RESISTOR-TRMR 2K 10% C S10E-A0J 1-TRN | 28480    | P100-3273         |
| A11R33                | 0757-0426      | 9   | 2   | RESISTOR 1.3K 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0=1301-F  |
| A11R34                | 2100-3273      | 1   |     | RESISTOR-TRMR 2K 10% C S10E-A0J 1-TRN | 28480    | 2100-3273         |
| A11R35                | 0683-1025      | 9   | 39  | RESISTOR 1K 5% .25W FC TC=400/+600    | 01121    | CB1025            |
| A11R36                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500   | 01121    | CB1015            |
| A11R37                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500   | 01121    | CB1015            |
| A11R38                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500   | 01121    | CB1015            |
| A11R39                | 0683-2225      | 3   |     | RESISTOR 2.2K 5% .25W FC TC=400/+700  | 01121    | CB2225            |
| A11R40                | 0683-3315      | 4   | 1   | RESISTOR 330 5% .25W FC TC=400/+600   | 01121    | CB3315            |
| A11R41                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500   | 01121    | CB1015            |
| A11R42                | 0683-3025      | 3   | 6   | RESISTOR 3K 5% .25W FC TC=400/+700    | 01121    | CB3025            |
| A11R43                | 0683-1235      | 3   | 4   | RESISTOR 12K 5% .25W FC TC=400/+800   | 01121    | CB1235            |
| A11R44*               | 0698-3158      | 4   | 1   | RESISTOR 23.7K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=2377-F  |
| A11R44*               | 0757-0199      | 3   | 1   | RESISTOR 21.5K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=2152-F  |
| A11R44*               | 0757-0349      | 5   | 1   | RESISTOR 22.6K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=2262-F  |
| A11R45*               | 0698-4473      | 8   | 1   | RESISTOR 8.06K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=8061-F  |
| A11R45*               | 0698-4476      | 1   | 1   | RESISTOR 10.2K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=1022-F  |
| A11R45*               | 0757-0268      | 1   | 1   | RESISTOR 9.09K 1% .125W F TC=0/+100   | 19701    | MF401/8-T0=9091-F |
| A11R46*               | 0698-3202      | 9   | 1   | RESISTOR 1.74K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=1741-F  |
| A11R46*               | 0698-4429      | 4   | 1   | RESISTOR 1.87K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=1871-F  |
| A11R46*               | 0698-4431      | 8   | 1   | RESISTOR 2.05K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=2051-F  |
| A11R47*               | 0698-4123      | 5   | 1   | RESISTOR 499 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0=4998-F  |
| A11R47*               | 0698-4455      | 6   | 1   | RESISTOR 536 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0=5368-F  |
| A11R47*               | 0698-4457      | 8   | 1   | RESISTOR 576 1% .125W F TC=0/+100     | 28480    | 0698-4457         |
| A11R48*               | 0698-0088      | 3   | 2   | RESISTOR 215 1% .25W F TC=0/+100      | 24546    | C5-1/4-T0=2150-F  |
| A11R48*               | 0698-3178      | 8   | 3   | RESISTOR 487 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0=4878-F  |
| A11R48*               | 0698-3447      | 4   | 5   | RESISTOR 422 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0=4228-F  |
| A11R48*               | 0698-3448      | 5   | 1   |                                       | 28480    | 0698-3448         |
| A11R48*               | 0698-4453      | 4   | 5   | RESISTOR 402 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0=4028-F  |
| A11R48*               | 0757-0416      | 7   | 4   | RESISTOR 511 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0=5118-F  |
| A11R49                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700    | 01121    | CB2025            |
| A11R50                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700    | 01121    | CB2025            |
| A11R51                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700    | 01121    | CB2025            |
| A11R52                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700    | 01121    | CB2025            |
| A11R53                | 0683-1045      | 3   | 15  | RESISTOR 100K 5% .25W FC TC=400/+800  | 01121    | CB1045            |
| A11R54                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800  | 01121    | CB1045            |
| A11R55                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800  | 01121    | CB1045            |
| A11R56                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800  | 01121    | CB1045            |
| A11R57                | 0683-1225      | 1   | 2   | RESISTOR 1.2K 5% .25W FC TC=400/+700  | 01121    | CB1225            |
| A11R58                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500   | 01121    | CB1015            |
| A11R59                | 0683-3025      | 3   |     | RESISTOR 3K 5% .25W FC TC=400/+700    | 01121    | CB3025            |
| A11R60                | 0683-1235      | 3   |     | RESISTOR 12K 5% .25W FC TC=400/+800   | 01121    | CB1235            |
| A11R61*               | 0698-4511      | 5   | 4   | RESISTOR 86.6K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=8662-F  |
| A11R61*               | 0757-0464      | 5   | 4   | RESISTOR 90.9K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=9092-F  |
| A11R61*               | 0757-0978      | 6   | 4   | RESISTOR 95.3K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=9532-F  |
| A11R62*               | 0698-3161      | 9   | 4   | RESISTOR 3A,3K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=3832-F  |
| A11R62*               | 0698-4492      | 1   | 4   | RESISTOR 32.4K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=3242-F  |
| A11R62*               | 0698-4493      | 2   | 4   | RESISTOR 34K 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0=3402-F  |
| A11R62*               | 0757-0455      | 4   | 4   | RESISTOR 36.5K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=3652-F  |
| A11R63*               | 0698-4470      | 5   | 4   | RESISTOR 6.98K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=6981-F  |
| A11R63*               | 0757-0440      | 7   | 0   | RESISTOR 7.5K 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0=7501-F  |
| A11R63*               | 0757-0441      | 8   | 0   | RESISTOR 8.25K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=8251-F  |
| A11R64*               | 0698-4472      | 9   | 4   | RESISTOR 2.1K 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0=2101-F  |
| A11R64*               | 0698-4433      | 6   | 4   | RESISTOR 2.26K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=2261-F  |
| A11R64*               | 0757-0283      | 6   | 11  | RESISTOR 2K 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0=2001-F  |
| A11R64*               | 0757-0431      | 6   | 4   | RESISTOR 2.43K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=2431-F  |
| A11R65*               | 0698-0088      | 8   |     | RESISTOR 215 1% .25W F TC=0/+100      | 24546    | C5-1/4-T0=2150-F  |
| A11R65*               | 0698-3178      | 8   |     | RESISTOR 487 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0=4878-F  |
| A11R65*               | 0698-3447      | 0   |     | RESISTOR 422 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0=4228-F  |
| A11R65*               | 0698-3488      | 3   | 4   | RESISTOR 442 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0=4428-F  |
| A11R65*               | 0698-4453      | 4   |     | RESISTOR 402 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0=4028-F  |
| A11R65*               | 0757-0416      | 7   |     | RESISTOR 511 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0=5118-F  |
| A11R66                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700    | 01121    | CB2025            |
| A11R67                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700    | 01121    | CB2025            |
| A11R68                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700    | 01121    | CB2025            |
| A11R68                | 0683-2025      | 1   | 1A  | RESISTOR 2K 5% .25W FC TC=400/+700    | 01121    | CB2025            |
| A11R68                | 0683-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700    | 01121    | CB2025            |
| A11R71                | 0683-7525      | 6   | 2   | RESISTOR 7.5K 5% .25W FC TC=400/+700  | 01121    | CB7525            |
| A11R72                | 0683-4705      | 8   | 0   | RESISTOR 47 5% .25W FC TC=400/+500    | 01121    | CB4705            |
| A11R73                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500   | 01121    | CB1015            |
| A11R74                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500   | 01121    | CB1015            |
| A11R75                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500   | 01121    | CB1015            |
| A11R76                | 0698-4500      | 2   | 1   | RESISTOR 57.6K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=5762-F  |
| A11R77                | 0757-0200      | 7   |     | RESISTOR 5.62K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=5621-F  |
| A11R78                | 0757-0200      | 7   |     | RESISTOR 5.62K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=5621-F  |
| A11R79                | 0698-3382      | 6   | 1   | RESISTOR 5.49K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0=5491-F  |
| A11R80                | 0683-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800  | 01121    | CB1045            |

See Section VI for ordering information  
\*Indicates factory selected value

Table 7-2. Δ2 Replaceable Parts, IF Filter Circuits (Cont'd).

| Reference Designation   | HP Part Number | C D | Qty                                | Description                              | Mfr Code         | Mfr Part Number   |
|-------------------------|----------------|-----|------------------------------------|------------------------------------------|------------------|-------------------|
| A11R81                  | 0683-1015      | 7   | 5                                  | RESISTOR 100 5% .25W FC TC=400/+500      | 01121            | CB1015            |
| A11R82                  | 0683-5125      | 8   |                                    | RESISTOR 5.1K 5% .25W FC TC=400/+700     | 01121            | CB5125            |
| A11R83                  | 0683-1015      | 7   |                                    | RESISTOR 100 5% .25W FC TC=400/+500      | 01121            | CB1015            |
| A11R84                  | 0683-2025      | 1   |                                    | RESISTOR 2K 5% .25W FC TC=400/+700       | 01121            | CB2025            |
| A11R85                  | 0683-1035      | 1   |                                    | RESISTOR 10K 5% .25W FC TC=400/+700      | 01121            | CB1035            |
| A11R86                  | 0683-1025      | 9   | 9                                  | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121            | CB1025            |
| A11R87                  | 0683-1025      | 9   |                                    | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121            | CB1025            |
| A11R88                  | 0683-1025      | 9   |                                    | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121            | CB1025            |
| A11R89                  | 0683-1025      | 9   |                                    | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121            | CB1025            |
| A11R90                  | 0683-1025      | 9   |                                    | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121            | CB1025            |
| A11R91                  | 0683-1025      | 9   | 9                                  | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121            | CB1025            |
| A11R92                  | 0683-1025      | 9   |                                    | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121            | CB1025            |
| A11R93                  | 0683-1025      | 9   |                                    | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121            | CB1025            |
| A11R94                  | 0683-1025      | 9   |                                    | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121            | CB1025            |
| A11R95                  | 0683-4705      | 8   |                                    | RESISTOR 47 5% .25W FC TC=400/+500       | 01121            | CB4705            |
| A11R96*                 | 0698-3262      | 1   | 5                                  | RESISTOR 40.2 1% .125W F TC=0/+100       | 24546            | C4=1/8-T0-4022-F  |
| A11R96*                 | 0698-4387      | 3   |                                    | RESISTOR 60.4 1% .125W F TC=0/+100       | 24546            | C4=1/8-T0-60R4-F  |
| A11R96*                 | 0757-0277      | A   |                                    | RESISTOR 49.9 1% .125W F TC=0/+100       | 24546            | C4=1/8-T0-4992-F  |
| A11R96*                 | 0757-0346      | 2   |                                    | RESISTOR 10 1% .125W F TC=0/+100         | 24546            | C4=1/8-T0-10R0-F  |
| A11R96*                 | 0757-0384      | 2   |                                    | RESISTOR 20 1% .125W F TC=0/+100         | 19701            | MF4C1/8-T0-20R0-F |
| A11R96*                 | 0757-0388      | 2   | RESISTOR 30.1 1% .125W F TC=0/+100 | 24546                                    | C4=1/8-T0-30R1-F |                   |
| A11R97*                 | 0698-3262      | 1   | 3                                  | RESISTOR 40.2 1% .125W F TC=0/+100       | 24546            | C4=1/8-T0-4022-F  |
| A11R97*                 | 0698-4387      | 3   |                                    | RESISTOR 60.4 1% .125W F TC=0/+100       | 24546            | C4=1/8-T0-60R4-F  |
| A11R97*                 | 0757-0277      | 8   |                                    | RESISTOR 49.9 1% .125W F TC=0/+100       | 24546            | C4=1/8-T0-4992-F  |
| A11R97*                 | 0757-0346      | 2   |                                    | RESISTOR 10 1% .125W F TC=0/+100         | 24546            | C4=1/8-T0-10R0-F  |
| A11R97*                 | 0757-0384      | A   |                                    | RESISTOR 20 1% .125W F TC=0/+100         | 19701            | MF4C1/8-T0-20R0-F |
| A11R97*                 | 0757-0388      | 2   | RESISTOR 30.1 1% .125W F TC=0/+100 | 24546                                    | C4=1/8-T0-30R1-F |                   |
| A11R98                  | 0698-4467      | 0   | 1                                  | RESISTOR 1.05K 1% .125W F TC=0/+100      | 24546            | C4=1/8-T0-1051-F  |
| A11R99                  | 0698-4471      | 6   |                                    | RESISTOR 7.15K 1% .125W F TC=0/+100      | 24546            | C4=1/8-T0-7151-F  |
| A11R100                 | 0683-4705      | 8   |                                    | RESISTOR 47 5% .25W FC TC=400/+500       | 01121            | CB4705            |
| A11R101                 | 0757-0283      | 6   |                                    | RESISTOR 2K 1% .125W F TC=0/+100         | 24546            | C4=1/8-T0-2001-F  |
| A11R102                 | 0683-5125      | A   |                                    | RESISTOR 5.1K 5% .25W FC TC=400/+700     | 01121            | CB5125            |
| A11R103                 | 0683-3025      | 3   | 2                                  | RESISTOR 3K 5% .25W FC TC=400/+700       | 01121            | CB3025            |
| A11R104                 | 0683-1525      | 1   |                                    | RESISTOR 1.5K 5% .25W FC TC=400/+700     | 01121            | CB1525            |
| A11R105                 | 2100-3207      | 4   |                                    | RESISTOR-TMR 5K 10% C SIDE=ADJ 1=TRN     | 28480            | 2100-3207         |
| A11R106                 | 0757-0439      | A   |                                    | RESISTOR 6.1K 1% .125W F TC=0/+100       | 24546            | C4=1/8-T0-6811-F  |
| A11R107                 | 0683-4705      | 8   |                                    | RESISTOR 47 5% .25W FC TC=400/+500       | 01121            | CB4705            |
| A11R108                 | 0683-1015      | 7   | 7                                  | RESISTOR 100 5% .25W FC TC=400/+500      | 01121            | CB1015            |
| A11R109                 | 0683-4705      | A   |                                    | RESISTOR 47 5% .25W FC TC=400/+500       | 01121            | CB4705            |
| A11R110                 | 0683-1015      | 7   |                                    | RESISTOR 100 5% .25W FC TC=400/+500      | 01121            | CB1015            |
| A11R111                 | 0683-1015      | 7   |                                    | RESISTOR 100 5% .25W FC TC=400/+500      | 01121            | CB1015            |
| A11R112                 | 0683-1015      | 7   |                                    | RESISTOR 100 5% .25W FC TC=400/+500      | 01121            | CB1015            |
| A11R113                 | 0683-1025      | 9   | 1                                  | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121            | CB1025            |
| A11R114                 | 0757-0406      | 3   |                                    | RESISTOR 15K 1% .125W F TC=0/+100        | 24546            | C4=1/8-T0-1502-F  |
| A11RT1                  | 0837-0086      | 7   | 7                                  | THERMISTOR DISC 200-ΩHM TC=-.4%/C-DEG    | 28480            | 0837-0086         |
| A11RT2                  | 0837-0086      | 6   |                                    | THERMISTOR DISC 200-ΩHM TC=-.4%/C-DEG    | 28480            | 0837-0086         |
| A11RT3                  | 0837-0085      | 6   |                                    | THERMISTOR ROD 600-ΩHM TC=+.7%/C-DEG     | 28480            | 0837-0085         |
| A11RT4                  | 0837-0119      | 7   |                                    | THERMISTOR ROD 5K-ΩHM TC=+.7%/C-DEG      | 28480            | 0837-0119         |
| A11T1                   | 9100-3262      | 5   | 5                                  | TRANSFORMER TRANSFORMER; TOROIDAL PULSE  | 28480            | 9100-3262         |
| A11T2                   | 9100-3262      | 5   |                                    | TRANSFORMER TRANSFORMER; TOROIDAL PULSE  | 28480            | 9100-3262         |
| A11U1                   | 1820-1196      | A   | 9                                  | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295            | 8N74LS174N        |
| A11U2                   | 1820-0510      | 0   |                                    | IC SWITCH ANLG QUAD 16-DIP-P             | 27014            | LF13332N          |
| A11U3                   | 1820-0510      | 0   |                                    | IC SWITCH ANLG QUAD 16-DIP-P             | 27014            | LF13332N          |
| A11U4                   | 1820-0510      | 0   |                                    | IC SWITCH ANLG QUAD 16-DIP-P             | 27014            | LF13332N          |
| A11U5                   | 1820-0510      | 0   |                                    | IC SWITCH ANLG QUAD 16-DIP-P             | 27014            | LF13332N          |
| A11U6                   | 1820-0510      | 0   | 3                                  | IC SWITCH ANLG QUAD 16-DIP-P             | 27014            | LF13332N          |
| A11U7                   | 1820-1216      | 3   |                                    | IC DCDP TTL LS 3-T0-R-LINE 3-INP         | 01295            | 8N74LS138N        |
| A11U8                   | 1820-1195      | 7   |                                    | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295            | 8N74LS175N        |
| A11U9                   | 1820-1196      | R   |                                    | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295            | 8N74LS174N        |
| A11Y1                   |                |     |                                    | PART OF MATCHED SET                      |                  |                   |
| A11Y2                   |                |     |                                    | PART OF MATCHED SET                      |                  |                   |
| A11Y1-5                 | 03585-82501    | 6   | 1                                  | CRYSTALS, IF FILTER (MATCHED SET OF 5)   | 28480            | 03585-82501       |
| A11 MISCELLANEOUS PARTS |                |     |                                    |                                          |                  |                   |
|                         | 1400-0249      | 0   | 5                                  | CARLE TIE .062-.625-DIA .091-WD NYL      | 28480            | 1400-0249         |
|                         | 1480-0116      | 3   |                                    | PIN-GRV .062-IN-DIA .25-IN-LG STL        | 28480            | 1480-0116         |
|                         | 0403-0211      | 1   |                                    | EXTR-PC BD BRN POLYC .062-BD-TMKNS       | 28480            | 0403-0211         |
|                         | 0360-1653      | 5   |                                    | CONNECTOR-SGL CONT PIN .045-IN-ØSC-ØZ SQ | 28480            | 0360-1653         |
| A12                     | 03585-66512    | 5   | 1                                  | IF GAIN BOARD                            | 28480            | 03585-66512       |
| A12C1                   | 0180-1974      | 1   | 4                                  | CAPACITOR-FXD 100F+/-10% 35VDC TA        | 56289            | 150D106X9035R2    |
| A12C2                   | 0180-1974      | 1   |                                    | CAPACITOR-FXD 100F+/-10% 35VDC TA        | 56289            | 150D106X9035R2    |
| A12C3                   | 0180-0229      | 7   |                                    | CAPACITOR-FXD 330F+/-10% 10VDC TA        | 56289            | 150D336X9010R2    |
| A12C4                   | 0160-3622      | 3   |                                    | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654            | 2130Y5V100R104Z   |
| A12C5                   | 0160-3622      | 8   |                                    | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654            | 2130Y5V100R104Z   |

See Section VI for ordering information  
 \*Indicates factory selected value

Table 7-2. Δ2 Replaceable Parts, IF Filter Circuits (Cont'd).

| Reference Designation | HP Part Number | C D | Qty | Description                            | Mfr Code | Mfr Part Number    |
|-----------------------|----------------|-----|-----|----------------------------------------|----------|--------------------|
| A12C6                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C7                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C8                 | 0140-0184      | 9   |     | CAPACITOR-FXD 8200PF +1X 100VDC MICA   | 72136    | DM15F822F0100AV1CR |
| A12C9                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C10                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C11                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C12                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C13                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C14                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C15                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C16                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C17                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C18                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C19                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C20                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C21                | 0140-0196      | 3   |     | CAPACITOR-FXD 150PF +5% 300VDC MICA    | 72136    | DM15F151J0300AV1CR |
| A12C22                | 0121-0142      | 3   |     | CAPACITOR-V TRMR-MICA 16-150PF 175V    | 72136    | Y1417-5 REV. B     |
| A12C23                | 0160-0376      | 3   |     | CAPACITOR-FXD 68PF +5% 500VDC MICA     | 28480    | 0160-0376          |
| A12C24                | 0121-0131      | 6   |     | CAPACITOR-V TRMR-AIR 1.2-4.2PF 350V    | 74970    | 189-0501-005       |
| A12C25                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C26                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C27                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C28                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C29                | 0160-0127      | 2   |     | CAPACITOR-FXD .1UF +20% 25VDC CER      | 28480    | 0160-0127          |
| A12C30                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C31                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C32                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C33                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C34                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C36                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C37                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C38                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C39                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C41                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C42                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C43                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C44                | 0140-0196      | 5   |     | CAPACITOR-FXD 200PF +5% 300VDC MICA    | 72136    | DM15F201J0300AV1CR |
| A12C46                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C47                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C48                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C49                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C50                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C51                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C52                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C53                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C54                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C55                | 0160-2253      | 9   |     | CAPACITOR-FXD 6.8PF +-.25PF 500VDC CER | 28480    | 0160-2253          |
| A12C56                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C57                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C58                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C59                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C60                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C61                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C62                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C63                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C64                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C65                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C66                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C67                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C68                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C69                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C70                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C71                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C72                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C73                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C74                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C75                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C76                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C77                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C78                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C79                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C80                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C81                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C82                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER  | 26654    | 2130Y5V100R104Z    |
| A12C83*               | 0160-2247      | 1   |     | CAPACITOR-FXD 3.9PF +-.25PF 500VDC CER | 28480    | 0160-2247          |
| A12C83*               | 0160-2250      | 6   |     | CAPACITOR-FXD 5.1PF +-.25PF 500VDC CER | 28480    | 0160-2250          |

See Section VI for ordering information

\*Indicates factory selected value

Table 7-2. Δ2 Replaceable Parts, IF Filter Circuits (Cont'd).

| Reference Designation | HP Part Number | C D | Qty | Description                                  | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|----------------------------------------------|----------|------------------|
| A12CR4                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER        | 26654    | 2130Y5V100R104Z  |
| A12CR1                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35                 | 28480    | 1901-0376        |
| A12CR2                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35                 | 28480    | 1901-0376        |
| A12CR3                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35                 | 28480    | 1901-0376        |
| A12CR4                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35                 | 28480    | 1901-0376        |
| A12CR5                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35                 | 28480    | 1901-0376        |
| A12CR6                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35                 | 28480    | 1901-0376        |
| A12CR7                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35                 | 28480    | 1901-0376        |
| A12CR8                | 1902-3149      | 9   |     | DIODE-GEN PRP 9.09V 5% DO-7 PD=.4W TC=+.057X | 28480    | 1902-3149        |
| A12CR9                | 1901-0518      | 8   |     | DIODE-SCHOTTKY                               | 28480    | 1901-0518        |
| A12CR10               | 1901-0518      | 8   |     | DIODE-SCHOTTKY                               | 28480    | 1901-0518        |
| A12CR11               | 1901-0050      | 3   | 0   | DIODE-SWITCHING RAV 200MA 2NS DO-35          | 28480    | 1901-0050        |
| A12CR12               | 1901-0050      | 3   | 0   | DIODE-SWITCHING RAV 200MA 2NS DO-35          | 28480    | 1901-0050        |
| A12CR13               | 1901-0050      | 3   | 0   | DIODE-SWITCHING RAV 200MA 2NS DO-35          | 28480    | 1901-0050        |
| A12CR14               | 1901-0050      | 3   | 0   | DIODE-SWITCHING RAV 200MA 2NS DO-35          | 28480    | 1901-0050        |
| A12HU2                | 1205-0011      | 0   | 4   | HEAT SINK TO-5/TO-39-CS                      | 28480    | 1205-0011        |
| A12HU7                | 1205-0011      | 0   | 0   | HEAT SINK TO-5/TO-39-CS                      | 28480    | 1205-0011        |
| A12HUA                | 1205-0011      | 0   | 0   | HEAT SINK TO-5/TO-39-CS                      | 28480    | 1205-0011        |
| A12HUB                | 1205-0011      | 0   | 0   | HEAT SINK TO-5/TO-39-CS                      | 28480    | 1205-0011        |
| A12J1                 | 1251-4822      | 6   |     | CONNECTOR 3-PIN M POST TYPE                  | 28480    | 1251-4822        |
|                       | 125A-0141      | 8   |     |                                              | 28480    | 125A-0141        |
| A12J2                 | 1251-4822      | 6   | 10  | CONNECTOR 3-PIN M POST TYPE                  | 28480    | 1251-4822        |
|                       | 1258-0141      | 8   |     |                                              | 28480    | 1258-0141        |
| A12L1                 | 9100-0541      | 7   | 6   | COIL-MLD 250UH 10% Q#3 .25DX,5LG-NOM         | 28480    | 9100-0541        |
| A12L2                 | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q#3 .25DX,5LG-NOM         | 28480    | 9100-0541        |
| A12L3                 | 9100-0541      | 7   |     | COIL-MLD 250UH 10% Q#3 .25DX,5LG-NOM         | 28480    | 9100-0541        |
| A12L4                 | 9140-0287      | 2   |     | COIL-VAR 920UH-1.08MH Q#300 PC-MTG           | 28480    | 9140-0287        |
| A12L5                 | 9140-0289      | 4   |     | COIL-VAR 230UH-270UH Q#200 PC-MTG            | 28480    | 9140-0289        |
| A12L6                 | 9100-0543      | 9   |     | COIL-VAR 900UH-1.1MH Q#112 PC-MTG            | 28480    | 9100-0543        |
| A12Q1                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ         | 28480    | 1854-0071        |
| A12Q2                 | 1853-0010      | 2   |     | TRANSISTOR PNP SI TO-18 PD=300MW             | 28480    | 1853-0010        |
| A12Q3                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ         | 28480    | 1854-0071        |
| A12Q4                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ         | 28480    | 1854-0071        |
| A12Q5                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ         | 28480    | 1854-0071        |
| A12Q6                 | 1854-0071      | 7   |     | TRANSISTOR NPN SI PD=300MW FT=200MHZ         | 28480    | 1854-0071        |
| A12R1                 | 0699-0164      | 8   | 2   | RESISTOR 738.5 1% .125W F TC=0+25            | 28480    | 0699-0164        |
| A12R2                 | 0699-0163      | 2   | 2   | RESISTOR 466 1% .125W F TC=0+25              | 28480    | 0699-0163        |
| A12R3                 | 0698-4499      | 6   | 2   | RESISTOR 294 1% .125W F TC=0+25              | 28480    | 0698-4499        |
| A12R4                 | 0699-0162      | 6   | 2   | RESISTOR 502.7 1% .125W F TC=0+25            | 28480    | 0699-0162        |
| A12R5                 | 0757-0421      | 4   | 1   | RESISTOR 825 1% .125W F TC=0+100             | 24546    | C4-1/8-T0-825R-F |
| A12R7                 | 0757-0426      | 9   |     | RESISTOR 1.3K 1% .125W F TC=0+100            | 24546    | C4-1/8-T0-1301-F |
| A12R8                 | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500          | 01121    | CR1015           |
| A12R9                 | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500          | 01121    | CR1015           |
| A12R10                | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800          | 01121    | CR2035           |
| A12R11                | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800          | 01121    | CR2035           |
| A12R12                | 0698-3518      | 0   |     | RESISTOR 7.32K 1% .125W F TC=0+100           | 24546    | C4-1/8-T0-7321-F |
| A12R13                | 0757-0279      | 0   |     | RESISTOR 3.16K 1% .125W F TC=0+100           | 24546    | C4-1/8-T0-3161-F |
| A12R14                | 0698-4451      | 2   |     | RESISTOR 340 1% .125W F TC=0+100             | 24546    | C4-1/8-T0-340R-F |
| A12R15                | 2100-2497      | 9   |     | RESISTOR-TMR 2K 10% C TOP-ADJ 1-TRN          | 73138    | R2PR2K           |
| A12R16                | 0757-0293      | 6   |     | RESISTOR 2K 1% .125W F TC=0+100              | 24546    | C4-1/8-T0-2001-F |
| A12R17                | 0683-3325      | 6   |     | RESISTOR 3.3K 5% .25W FC TC=400/+700         | 01121    | CR3325           |
| A12R18                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500          | 01121    | CR1015           |
| A12R19                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500          | 01121    | CR1015           |
| A12R20                | 0698-4393      | 1   | 1   | RESISTOR 73.2 1% .125W F TC=0+100            | 24546    | C4-1/8-T0-73R2-F |
| A12R21                | 0698-3439      | 4   | 1   | RESISTOR 178 1% .125W F TC=0+100             | 24546    | C4-1/8-T0-178R-F |
| A12R24                | 0757-0402      | 9   |     | RESISTOR 10K 1% .125W F TC=0+100             | 24546    | C4-1/8-T0-1002-F |
| A12R25                | 0757-0281      | 4   | 1   | RESISTOR 2.74K 1% .125W F TC=0+100           | 24546    | C4-1/8-T0-2741-F |
| A12R26                | 0698-3150      | 6   | 1   | RESISTOR 2.37K 1% .125W F TC=0+100           | 24546    | C4-1/8-T0-2371-F |
| A12R27                | 0757-0428      | 1   |     | RESISTOR 1.62K 1% .125W F TC=0+100           | 24546    | C4-1/8-T0-1621-F |
| A12R28                | 0683-1335      | 4   | 1   | RESISTOR 13K 5% .25W FC TC=400/+800          | 01121    | CR1335           |
| A12R29                | 0683-4325      | 8   | 2   | RESISTOR 4.3K 5% .25W FC TC=400/+700         | 01121    | CR4325           |
| A12R30                | 0683-2425      | 5   | 3   | RESISTOR 2.4K 5% .25W FC TC=400/+700         | 01121    | CR2425           |
| A12R31                | 0683-2425      | 5   | 3   | RESISTOR 2.4K 5% .25W FC TC=400/+700         | 01121    | CR2425           |
| A12R32                | 0683-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800          | 01121    | CR2035           |
| A12R33                | 0683-4325      | 8   |     | RESISTOR 4.3K 5% .25W FC TC=400/+700         | 01121    | CR4325           |
| A12R34                | 0683-1225      | 1   |     | RESISTOR 1.2K 5% .25W FC TC=400/+700         | 01121    | CR1225           |
| A12R35                | 0683-3025      | 3   |     | RESISTOR 3K 5% .25W FC TC=400/+700           | 01121    | CR3025           |
| A12R36                | 0683-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500          | 01121    | CR1015           |
| A12R37                | 0683-1235      | 3   |     | RESISTOR 12K 5% .25W FC TC=400/+800          | 01121    | CR1235           |
| A12R38*               | 0698-4451      | 5   |     | RESISTOR 86.6K 1% .125W F TC=0+100           | 24546    | C4-1/8-T0-8662-F |
| A12R38*               | 0757-0464      | 5   |     | RESISTOR 90.9K 1% .125W F TC=0+100           | 24546    | C4-1/8-T0-9092-F |
| A12R38*               | 0757-0978      | 6   |     | RESISTOR 95.3K 1% .125W F TC=0+100           | 24546    | C4-1/8-T0-9532-F |

See Section VI for ordering information  
 \*Indicates factory selected value



Table 7-2. Δ2 Replaceable Parts, IF Filter Circuits (Cont'd).

| Reference Designation | HP Part Number | C D | Qty | Description                            | Mfr Code | Mfr Part Number  |
|-----------------------|----------------|-----|-----|----------------------------------------|----------|------------------|
| A12R39*               | 0698-3161      | 9   |     | RESISTOR 38.3K 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-3832-F |
| A12R39*               | 0698-0492      | 1   |     | RESISTOR 32.4K 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-3242-F |
| A12R39*               | 0698-4493      | 7   |     | RESISTOR 34K 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-3402-F |
| A12R39*               | 0757-0455      | 4   |     | RESISTOR 36.5K 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-3652-F |
| A12R40*               | 0698-4470      | 5   |     | RESISTOR 6.98K 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-6981-F |
| A12R40*               | 0757-0460      | 7   |     | RESISTOR 7.5K 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-7501-F |
| A12R40*               | 0757-0491      | 8   |     | RESISTOR 8.25K 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-8251-F |
| A12R41*               | 0698-4432      | 9   |     | RESISTOR 2.1K 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-2101-F |
| A12R41*               | 0698-4433      | 0   |     | RESISTOR 2.26K 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-2261-F |
| A12R41*               | 0757-0293      | 6   |     | RESISTOR 2K 1% .125W F TC=0/+100       | 24546    | C4-1/8-T0-2001-F |
| A12R41*               | 0757-0431      | 6   |     | RESISTOR 2.43K 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-2431-F |
| A12R42*               | 0698-0082      | 7   | 1   | RESISTOR 464 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-4640-F |
| A12R42*               | 0698-3178      | 8   |     | RESISTOR 487 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-487R-F |
| A12R42*               | 0698-3447      | 4   |     | RESISTOR 422 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-422R-F |
| A12R42*               | 0698-3488      | 3   |     | RESISTOR 402 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-402R-F |
| A12R42*               | 0698-4453      | 4   |     | RESISTOR 402 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-402R-F |
| A12R43                | 0693-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700     | 01121    | CB2025           |
| A12R44                | 0693-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700     | 01121    | CB2025           |
| A12R45                | 0693-3625      | 1   | 3   | RESISTOR 3.6K 5% .25W FC TC=400/+700   | 01121    | CB3625           |
| A12R46                | 0693-0225      | 1   |     | RESISTOR 6.2K 5% .25W FC TC=400/+700   | 01121    | CB6225           |
| A12R47                | 0693-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800   | 01121    | CB1045           |
| A12R48                | 0693-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800   | 01121    | CB1045           |
| A12R49                | 0693-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800   | 01121    | CB1045           |
| A12R50                | 0693-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800   | 01121    | CB1045           |
| A12R51                | 0693-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015           |
| A12R52*               | 0698-3262      | 1   |     | RESISTOR 40.2 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-4022-F |
| A12R52*               | 0698-4387      | 3   |     | RESISTOR 60.4 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-6044-F |
| A12R52*               | 0757-0277      | 2   |     | RESISTOR 49.9 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-4992-F |
| A12R52*               | 0757-0346      | 8   |     | RESISTOR 10 1% .125W F TC=0/+100       | 24546    | C4-1/8-T0-10R-F  |
| A12R52*               | 0757-0384      | 8   |     | RESISTOR 20 1% .125W F TC=0/+100       | 19701    | MF4C1/8-T0-20R-F |
| A12R52*               | 0757-0388      | 2   |     | RESISTOR 30.1 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-301R-F |
| A12R53                | 0693-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800    | 01121    | CB2035           |
| A12R54                | 0693-0705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500     | 01121    | CB4705           |
| A12R55                | 0693-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700    | 01121    | CB1035           |
| A12R56                | 0693-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015           |
| A12R57                | 0693-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015           |
| A12R58                | 0693-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015           |
| A12R59                | 0698-3492      | 9   | 1   | RESISTOR 2.67K 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-2671-F |
| A12R60                | 0693-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800   | 01121    | CB1045           |
| A12R61                | 0693-5125      | 8   |     | RESISTOR 5.1K 5% .25W FC TC=400/+700   | 01121    | CB5125           |
| A12R62                | 0693-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015           |
| A12R63                | 0693-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015           |
| A12R64                | 0698-4446      | 5   | 3   | RESISTOR 267 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-267R-F |
| A12R65                | 2100-3349      | 2   | 3   | RESISTOR-TRMP 100 10% C SIDE-ADJ 1-TRN | 28480    | 2100-3349        |
| A12R66                | 0698-4427      | 2   | 3   | RESISTOR 1.65K 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-1651-F |
| A12R67                | 0693-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800    | 01121    | CB2035           |
| A12R68                | 0693-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015           |
| A12R69                | 0693-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015           |
| A12R70                | 0698-4446      | 5   |     | RESISTOR 267 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-267R-F |
| A12R71                | 2100-3349      | 2   |     | RESISTOR-TRMP 100 10% C SIDE-ADJ 1-TRN | 28480    | 2100-3349        |
| A12R72                | 0698-4427      | 2   |     | RESISTOR 1.65K 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-1651-F |
| A12R73                | 0693-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800    | 01121    | CB2035           |
| A12R74                | 0693-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015           |
| A12R75                | 0693-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015           |
| A12R76                | 0698-4446      | 5   |     | RESISTOR 267 1% .125W F TC=0/+100      | 24546    | C4-1/8-T0-267R-F |
| A12R77                | 2100-3349      | 2   |     | RESISTOR-TRMP 100 10% C SIDE-ADJ 1-TRN | 28480    | 2100-3349        |
| A12R78                | 0698-4427      | 2   |     | RESISTOR 1.65K 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-1651-F |
| A12R79                | 0693-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800    | 01121    | CB2035           |
| A12R80                | 0693-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015           |
| A12R81                | 0693-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015           |
| A12R82                | 0693-2035      | 3   |     | RESISTOR 20K 5% .25W FC TC=400/+800    | 01121    | CB2035           |
| A12R83                | 0693-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700     | 01121    | CB2025           |
| A12R84                | 0693-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025           |
| A12R85                | 0698-4480      | 1   | 1   | RESISTOR 19.1K 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-1912-F |
| A12R86                | 0693-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025           |
| A12R87                | 0693-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025           |
| A12R88                | 0693-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025           |
| A12R89                | 0693-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025           |
| A12R90                | 0693-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025           |
| A12R91                | 0693-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025           |
| A12R92                | 0693-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025           |
| A12R93                | 0693-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025           |
| A12R94                | 0693-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025           |
| A12R95                | 0693-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600     | 01121    | CB1025           |
| A12R96                | 0693-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015           |
| A12R97                | 0693-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500    | 01121    | CB1015           |

See Section VI for ordering information  
\*Indicates factory selected value

Table 7-2.  $\Delta 2$  Replaceable Parts, IF Filter Circuits (Cont'd).

| Reference Designation | HP Part Number | C D | Qty | Description                              | Mfr Code | Mfr Part Number   |
|-----------------------|----------------|-----|-----|------------------------------------------|----------|-------------------|
| A12R99                | 06A3-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800     | 01121    | CB1045            |
| A12R99                | 06A3-5125      | 8   |     | RESISTOR 5.1K 5% .25W FC TC=400/+700     | 01121    | CB5125            |
| A12P100               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A12R101               | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025            |
| A12R102               | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025            |
| A12R103               | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025            |
| A12R104               | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025            |
| A12R105               | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025            |
| A12R106               | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600       | 01121    | CB1025            |
| A12R107               | 0757-0415      | 6   | 1   | RESISTOR 475 1% .125W F TC=0/+100        | 24546    | C4-1/A-T0-475R-F  |
| A12R108               | 06A3-1035      | 1   |     | RESISTOR 100 5% .25W FC TC=400/+700      | 01121    | CB1035            |
| A12R109               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A12R110               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A12R111               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A12R112               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A12R113               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A12R114               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A12R115               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A12R116               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A12R117               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A12R118               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A12R119               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A12R120               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A12R121               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A12R122               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500      | 01121    | CB1015            |
| A12RT1                | 0837-0086      | 7   |     | THERMISTOR DISC 200-OHM TC=-0.4%/C-DEG   | 28480    | 0837-0086         |
| A12RT2                | 0837-0086      | 7   |     | THERMISTOR DISC 200-OHM TC=-0.4%/C-DEG   | 28480    | 0837-0086         |
| A12RT3                | 0837-0086      | 7   |     | THERMISTOR DISC 200-OHM TC=-0.4%/C-DEG   | 28480    | 0837-0086         |
| A12T1                 | 9100-3262      | 5   |     | TRANSFORMER TRANSFORMER; TOROIDAL PULSE  | 28480    | 9100-3262         |
| A12U1                 | 1826-0510      | 0   | 1   | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332N          |
| A12U2                 | 1826-0089      | 0   | 8   | IC OP AMP WR TR-99                       | 29A32    | 1322              |
| A12U3                 | 1826-0510      | 0   | 8   | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332N          |
| A12U4                 | 1826-0510      | 0   | 0   | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332N          |
| A12U5                 | 1826-0510      | 0   | 0   | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332N          |
| A12U6                 | 1826-0510      | 0   | 3   | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332N          |
| A12U7                 | 1826-0109      | 3   | 3   | IC OP AMP WR TR-99                       | 34371    | HA2-2625-B0593    |
| A12U8                 | 1826-0109      | 3   | 3   | IC OP AMP WR TR-99                       | 34371    | HA2-2625-B0593    |
| A12U9                 | 1826-0109      | 3   | 3   | IC OP AMP WR TR-99                       | 34371    | HA2-2625-B0593    |
| A12U10                | 1826-0510      | 0   | 0   | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332N          |
| A12U11                | 1826-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P             | 27014    | LF13332N          |
| A12U12                | 1820-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | 8N74LS174N        |
| A12U13                | 1820-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | 8N74LS174N        |
| A12U14                | 1820-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | 8N74LS174N        |
| A12U15                | 1820-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | 8N74LS174N        |
| A12U16                | 1820-1195      | 7   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM    | 01295    | 8N74LS175N        |
| A12U17                | 1820-1216      | 3   |     | IC DCDR TTL LS 3-TO-A-LINE 3-IMP         | 01295    | 8N74LS138N        |
| A12Y1                 |                |     |     | NOT ASSIGNED                             |          |                   |
| A12Y2                 |                |     |     | NOT ASSIGNED                             |          |                   |
| A12Y3                 |                |     |     | PART OF MATCHED SET (SEE ALL PARTS LIST) |          |                   |
|                       |                |     |     | A12 MISCELLANEOUS PARTS                  |          |                   |
|                       | 1480-0116      | 8   |     | PIN-GRV .062-IN-DIA .25-IN-LG STL        | 28480    | 1480-0116         |
|                       | 0403-0211      | 1   |     | EXTR-PC RD BRN POLYC .062-80-THKNS       | 28480    | 0403-0211         |
|                       | 0403-0212      | 2   | 1   | EXTR-PC RD RED POLYC .062-80-THKNS       | 28480    | 0403-0212         |
|                       | 0360-1653      | 5   |     | CONNECTOR-SGL CONT PIN .045-IN-BSC-SZ 50 | 28480    | 0360-1653         |
|                       | 6960-0080      | 8   | 1   | PLUG-HOLE FL-HD FOR .185-D-HOLE TFE      | 28480    | 6960-0080         |
|                       | 1400-0249      | 0   |     | CABLE TIE .062-.625-DIA .091-WD NYL      | 28480    | 1400-0249         |
| A13                   | 03585-66513    | 6   | 1   | FILTER BOARD NO. 2                       | 28480    | 03585-66513       |
| A13C1                 | 0180-1974      | 1   |     | CAPACITOR-FXD 100F+-10% 35VDC TA         | 26654    | 150D106X9035R2    |
| A13C2                 | 0180-1974      | 1   |     | CAPACITOR-FXD 100F+-10% 35VDC TA         | 26654    | 150D106X9035R2    |
| A13C3                 | 0180-0229      | 7   |     | CAPACITOR-FXD 330F+-10% 10VDC TA         | 26654    | 150D336X9010R2    |
| A13C4                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z   |
| A13C5                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z   |
| A13C6                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z   |
| A13C7                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z   |
| A13C8                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z   |
| A13C9                 | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z   |
| A13C10                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z   |
| A13C11                | 0180-0184      | 9   |     | CAPACITOR-FXD 8200PF +-1% 100VDC MICA    | 72136    | D420F822F0100V1CP |
| A13C12                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z   |
| A13C13                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z   |
| A13C14                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z   |
| A13C15                | 0180-0184      | 9   |     | CAPACITOR-FXD 8200PF +-1% 100VDC MICA    | 72136    | D420F822F0100V1CP |
| A13C16                | 0160-3622      | 8   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER    | 26654    | 2130Y5V100R104Z   |

See Section VI for ordering information  
 \*Indicates factory selected value

Table 7-2.  $\Delta 2$  Replaceable Parts, IF Filter Circuits (Cont'd).

| Reference Designation | HP Part Number | C D | Qty | Description                             | Mfr Code | Mfr Part Number    |
|-----------------------|----------------|-----|-----|-----------------------------------------|----------|--------------------|
| A13C17                | 0160-3622      | A   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C18                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C19                | 0160-3622      | A   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C20                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C21                | 0160-3622      | A   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C22                | 0160-3622      | A   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C23                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C24                | 0160-3622      | A   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C25                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C26                | 0160-3622      | A   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C27                | 0140-0196      | 3   |     | CAPACITOR-FXD 150PF +-5% 300VDC MICA    | 72136    | DM15F151J0300AVICR |
| A13C28                | 0121-0142      | 9   |     | CAPACITOR-V TRMR-MICA 16-150PF 175V     | 72136    | T51417-5 REV. B    |
| A13C29                | 0160-0376      | 3   |     | CAPACITOR-FXD 68PF +-5% 500VDC MICA     | 28480    | 0160-0376          |
| A13C30                | 0121-0131      | 6   |     | CAPACITOR-V TRMR-A1R 1,2-4,2PF 350V     | 74970    | 189-0501-005       |
| A13C31                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C32                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C33                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C34                | 0160-3622      | A   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C35                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C36                | 0160-3622      | A   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C37                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C38                | 0140-0196      | 3   |     | CAPACITOR-FXD 150PF +-5% 300VDC MICA    | 72136    | DM15F151J0300AVICR |
| A13C39                | 0121-0142      | 9   |     | CAPACITOR-V TRMR-MICA 16-150PF 175V     | 72136    | T51417-5 REV. B    |
| A13C40                | 0160-0376      | 3   |     | CAPACITOR-FXD 68PF +-5% 500VDC MICA     | 28480    | 0160-0376          |
| A13C41                | 0121-0131      | 6   |     | CAPACITOR-V TRMR-A1R 1,2-4,2PF 350V     | 74970    | 189-0501-005       |
| A13C42                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C43                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C44                | 0160-3622      | A   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C45                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C46                | 0160-3622      | A   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C47                | 0160-3622      | A   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C48                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C49                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C50                | 0160-3622      | A   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C51                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C52                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C53                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C54                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C55                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C56                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C57                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C58                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C59                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C60                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C61                | 0160-3622      | A   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C62                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C63                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C64                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C65                | 0160-3622      | B   |     | CAPACITOR-FXD .1UF +80-20% 100VDC CER   | 26654    | 2130Y5V100R104Z    |
| A13C66*               | 0160-2247      | 1   |     | CAPACITOR-FXD 3,9PF +-25PF 500VDC CER   | 28480    | 0160-2247          |
| A13C66*               | 0160-2250      | 6   |     | CAPACITOR-FXD 5,1PF +-25PF 500VDC CER   | 28480    | 0160-2250          |
| A13C67*               | 0160-2247      | 1   |     | CAPACITOR-FXD 3,9PF +-25PF 500VDC CER   | 28480    | 0160-2247          |
| A13C67*               | 0160-2250      | 6   |     | CAPACITOR-FXD 5,1PF +-25PF 500VDC CER   | 28480    | 0160-2250          |
| A13CR1                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35            | 28480    | 1901-0376          |
| A13CR2                | 1901-0376      | B   |     | DIODE-GEN PRP 35V 50MA DO-35            | 28480    | 1901-0376          |
| A13CR3                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35            | 28480    | 1901-0376          |
| A13CR4                | 1901-0376      | B   |     | DIODE-GEN PRP 35V 50MA DO-35            | 28480    | 1901-0376          |
| A13CR5                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35            | 28480    | 1901-0376          |
| A13CR6                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35            | 28480    | 1901-0376          |
| A13CR7                | 1901-0376      | B   |     | DIODE-GEN PRP 35V 50MA DO-35            | 28480    | 1901-0376          |
| A13CR8                | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35            | 28480    | 1901-0376          |
| A13CR9                | 1901-0376      | B   |     | DIODE-GEN PRP 35V 50MA DO-35            | 28480    | 1901-0376          |
| A13CR10               | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35            | 28480    | 1901-0376          |
| A13CR11               | 1902-3149      | 9   |     | DIODE-ZNR 9,09V 5% DO-7 POW.4W TC+.057% | 28480    | 1902-3149          |
| A13CR12               | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35            | 28480    | 1901-0376          |
| A13CR13               | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35            | 28480    | 1901-0376          |
| A13CR14               | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35            | 28480    | 1901-0376          |
| A13CR15               | 1901-0376      | 6   |     | DIODE-GEN PRP 35V 50MA DO-35            | 28480    | 1901-0376          |
| A13CR16               | 1901-0518      | 8   |     | DIODE-SCHOTTKY                          | 28480    | 1901-0518          |
| A13CR17               | 1901-0518      | B   |     | DIODE-SCHOTTKY                          | 28480    | 1901-0518          |
| A13J1                 | 1251-4822      | B   |     | CONNECTOR 3-PIN M POST TYPE             | 28480    | 1251-4822          |
|                       | 1258-0141      | R   |     |                                         | 28480    | 1258-0141          |
| A13J2                 | 1251-4822      | B   |     | CONNECTOR 3-PIN M POST TYPE             | 28480    | 1251-4822          |
|                       | 1258-0141      | R   |     |                                         | 28480    | 1258-0141          |
| A13J3                 | 1251-4822      | B   |     | CONNECTOR 3-PIN M POST TYPE             | 28480    | 1251-4822          |
|                       | 1258-0141      | R   |     |                                         | 28480    | 1258-0141          |

See Section VI for ordering information  
 \*Indicates factory selected value

Table 7-2. Δ2 Replaceable Parts, IF Filter Circuits (Cont'd).

| Reference Designation | HP Part Number         | C | D | Qty | Description                           | Mfr Code       | Mfr Part Number        |
|-----------------------|------------------------|---|---|-----|---------------------------------------|----------------|------------------------|
| A13J4                 | 1251-4A22<br>1258-0141 | 6 |   |     | CONNECTOR 3-PIN M POST TYPE           | 28480<br>28480 | 1251-4A22<br>1258-0141 |
| A13L1                 | 9100-0541              | 7 |   |     | COIL-MLD 250UH 10X Q#3 .25DX,5LG-NOM  | 28480          | 9100-0541              |
| A13L2                 | 9100-0541              | 7 |   |     | COIL-MLD 250UH 10X Q#3 .25DX,5LG-NOM  | 28480          | 9100-0541              |
| A13L3                 | 9100-0541              | 7 |   |     | COIL-MLD 250UH 10X Q#3 .25DX,5LG-NOM  | 28480          | 9100-0541              |
| A13L4                 | 9140-0289              | 4 |   |     | COIL-VAR 23UH=27UH Q#200 PC-MTG       | 28480          | 9140-0289              |
| A13L5                 | 9140-0289              | 4 |   |     | COIL-VAR 23UH=27UH Q#200 PC-MTG       | 28480          | 9140-0289              |
| A13L6                 | 9140-0287              | 2 |   |     | COIL-VAR 920UH=1.08MH Q#300 PC-MTG    | 28480          | 9140-0287              |
| A13L7                 | 9140-0287              | 2 |   |     | COIL-VAR 920UH=1.08MH Q#300 PC-MTG    | 28480          | 9140-0287              |
| A13Q1                 | 1854-0071              | 7 |   |     | TRANSISTOR NPN SI PD#300MA FT#200MHZ  | 28480          | 1854-0071              |
| A13Q2                 | 1854-0071              | 7 |   |     | TRANSISTOR NPN SI PD#300MA FT#200MHZ  | 28480          | 1854-0071              |
| A13Q3                 | 1854-0071              | 7 |   |     | TRANSISTOR NPN SI PD#300MA FT#200MHZ  | 28480          | 1854-0071              |
| A13Q4                 | 1854-0071              | 7 |   |     | TRANSISTOR NPN SI PD#300MA FT#200MHZ  | 28480          | 1854-0071              |
| A13Q5                 | 1853-0010              | 2 |   |     | TRANSISTOR PNP SI TO-18 PD#360MA      | 28480          | 1853-0010              |
| A13Q6                 | 1854-0071              | 7 |   |     | TRANSISTOR NPN SI PD#300MA FT#200MHZ  | 28480          | 1854-0071              |
| A13Q7                 | 1854-0071              | 7 |   |     | TRANSISTOR NPN SI PD#300MA FT#200MHZ  | 28480          | 1854-0071              |
| A13Q8                 | 1854-0071              | 7 |   |     | TRANSISTOR NPN SI PD#300MA FT#200MHZ  | 28480          | 1854-0071              |
| A13Q9                 | 1854-0071              | 7 |   |     | TRANSISTOR NPN SI PD#300MA FT#200MHZ  | 28480          | 1854-0071              |
| A13Q10                | 1855-0081              | 1 | 1 |     | TRANSISTOR J-FET N-CHAN D-MODE SI     | 01295          | 2N5245                 |
| A13R1                 | 06A3-1025              | 9 |   |     | RESISTOR 1K 5% .25W FC TC#-400/+600   | 01121          | CR1025                 |
| A13R2                 | 06A3-1025              | 9 |   |     | RESISTOR 1K 5% .25W FC TC#-400/+600   | 01121          | CR1025                 |
| A13R3                 | 06A3-1025              | 9 |   |     | RESISTOR 1K 5% .25W FC TC#-400/+600   | 01121          | CR1025                 |
| A13R4                 | 06A3-1025              | 9 |   |     | RESISTOR 1K 5% .25W FC TC#-400/+600   | 01121          | CR1025                 |
| A13R5                 | 06A3-5625              | 3 | 1 |     | RESISTOR 5.6K 5% .25W FC TC#-400/+700 | 01121          | CR5625                 |
| A13R6                 | 0699-0164              | 8 |   |     | RESISTOR 738.5 1% .125W F TC#0+-25    | 28480          | 0699-0164              |
| A13R7                 | 0699-0163              | 7 |   |     | RESISTOR 466.1K 1% .125W F TC#0+-25   | 28480          | 0699-0163              |
| A13R8                 | 0698-0499              | 6 |   |     | RESISTOR 294 1% .125W F TC#0+-25      | 28480          | 0698-0499              |
| A13R9                 | 0699-0162              | 6 |   |     | RESISTOR 502.7 1% .125W F TC#0+-25    | 28480          | 0699-0162              |
| A13R10                | 06A3-1025              | 9 |   |     | RESISTOR 1K 5% .25W FC TC#-400/+600   | 01121          | CR1025                 |
| A13R11                | 06A3-4705              | 8 |   |     | RESISTOR 47 5% .25W FC TC#-400/+500   | 01121          | CR4705                 |
| A13R12                | 06A3-1015              | 7 |   |     | RESISTOR 100 5% .25W FC TC#-400/+500  | 01121          | CR1015                 |
| A13R13                | 0757-0339              | 4 |   |     | RESISTOR 6.81K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-6811-F       |
| A13R14                | 06A3-1015              | 7 |   |     | RESISTOR 100 5% .25W FC TC#-400/+500  | 01121          | CR1015                 |
| A13R15                | 06A3-2035              | 3 |   |     | RESISTOR 20K 5% .25W FC TC#-400/+600  | 01121          | CR2035                 |
| A13R16                | 06A3-2035              | 3 |   |     | RESISTOR 20K 5% .25W FC TC#-400/+600  | 01121          | CR2035                 |
| A13R17                | 0698-351A              | 0 |   |     | RESISTOR 7.32K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-7321-F       |
| A13R18                | 0757-0279              | 0 |   |     | RESISTOR 3.16K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-3161-F       |
| A13R19                | 0698-4451              | 2 |   |     | RESISTOR 340 1% .125W F TC#0+-100     | 24546          | C4-1/8-T0-340R-F       |
| A13R20                | 2100-2497              | 9 |   |     | RESISTOR-TRMR 2K 10% C TOP=ADJ 1-TRN  | 73138          | 82PR2K                 |
| A13R21                | 0757-0283              | 6 |   |     | RESISTOR 2K 1% .125W F TC#0+-100      | 24546          | C4-1/8-T0-2001-F       |
| A13R22                | 06A3-3325              | 6 |   |     | RESISTOR 3.3K 5% .25W FC TC#-400/+700 | 01121          | CR3325                 |
| A13R23                | 06A3-1015              | 7 |   |     | RESISTOR 100 5% .25W FC TC#-400/+500  | 01121          | CR1015                 |
| A13R24                | 06A3-1015              | 7 |   |     | RESISTOR 100 5% .25W FC TC#-400/+500  | 01121          | CR1015                 |
| A13R25                | 0698-351A              | 0 |   |     | RESISTOR 7.32K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-7321-F       |
| A13R26                | 0698-3096              | 3 |   |     | RESISTOR 3.57K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-357R-F       |
| A13R27                | 0757-0416              | 6 |   |     | RESISTOR 511 1% .125W F TC#0+-100     | 24546          | C4-1/8-T0-511R-F       |
| A13R28                | 2100-2497              | 9 |   |     | RESISTOR-TRMR 2K 10% C TOP=ADJ 1-TRN  | 73138          | 82PR2K                 |
| A13R29                | 0757-0283              | 6 |   |     | RESISTOR 2K 1% .125W F TC#0+-100      | 24546          | C4-1/8-T0-2001-F       |
| A13R30                | 06A3-3325              | 6 |   |     | RESISTOR 3.3K 5% .25W FC TC#-400/+700 | 01121          | CR3325                 |
| A13R31                | 06A3-1015              | 7 |   |     | RESISTOR 100 5% .25W FC TC#-400/+500  | 01121          | CR1015                 |
| A13R32                | 0698-355A              | 8 | 1 |     | RESISTOR 4.02K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-4021-F       |
| A13R33                | 0698-3540              | 8 | 1 |     | RESISTOR 15.4K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-1542-F       |
| A13R34                | 0698-4436              | 3 | 1 |     | RESISTOR 2.4K 1% .125W F TC#0+-100    | 24546          | C4-1/8-T0-2401-F       |
| A13R35                | 06A3-3935              | 4 | 1 |     | RESISTOR 39K 5% .25W FC TC#-400/+600  | 01121          | CR3935                 |
| A13R36                | 06A3-1345              | 5 | 1 |     | RESISTOR 130K 5% .25W FC TC#-800/+900 | 01121          | CR1345                 |
| A13R37                | 06A3-2235              | 6 | 1 |     | RESISTOR 22K 5% .25W FC TC#-400/+600  | 01121          | CR2235                 |
| A13R38                | 06A3-2035              | 3 |   |     | RESISTOR 20K 5% .25W FC TC#-400/+600  | 01121          | CR2035                 |
| A13R39                | 06A3-7525              | 6 |   |     | RESISTOR 7.5K 5% .25W FC TC#-400/+700 | 01121          | CR7525                 |
| A13R40                | 06A3-2035              | 3 |   |     | RESISTOR 20K 5% .25W FC TC#-400/+600  | 01121          | CR2035                 |
| A13R41                | 06A3-3025              | 3 |   |     | RESISTOR 3K 5% .25W FC TC#-400/+700   | 01121          | CR3025                 |
| A13R42                | 06A3-1015              | 7 |   |     | RESISTOR 100 5% .25W FC TC#-400/+500  | 01121          | CR1015                 |
| A13R43                | 06A3-1235              | 3 |   |     | RESISTOR 12K 5% .25W FC TC#-400/+600  | 01121          | CR1235                 |
| A13R44*               | 0698-4511              | 5 |   |     | RESISTOR 86.6K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-8662-F       |
| A13R44*               | 0757-0464              | 5 |   |     | RESISTOR 90.9K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-9092-F       |
| A13R44*               | 0757-0978              | 6 |   |     | RESISTOR 95.3K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-9532-F       |
| A13R45*               | 0698-3161              | 9 |   |     | RESISTOR 38.3K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-3832-F       |
| A13R45*               | 0698-4492              | 1 |   |     | RESISTOR 32.4K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-3242-F       |
| A13R45*               | 0698-4493              | 2 |   |     | RESISTOR 34K 1% .125W F TC#0+-100     | 24546          | C4-1/8-T0-3402-F       |
| A13R45*               | 0757-0455              | 4 |   |     | RESISTOR 36.5K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-3652-F       |
| A13R46*               | 0698-4470              | 5 |   |     | RESISTOR 6.98K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-6981-F       |
| A13R46*               | 0757-0440              | 7 |   |     | RESISTOR 7.5K 1% .125W F TC#0+-100    | 24546          | C4-1/8-T0-7501-F       |
| A13R46*               | 0757-0441              | 8 |   |     | RESISTOR 8.25K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-8251-F       |
| A13R47*               | 0698-4432              | 9 |   |     | RESISTOR 2.1K 1% .125W F TC#0+-100    | 24546          | C4-1/8-T0-2101-F       |
| A13R47*               | 0698-4433              | 0 |   |     | RESISTOR 2.26K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-2261-F       |
| A13R47*               | 0757-0283              | 6 |   |     | RESISTOR 2K 1% .125W F TC#0+-100      | 24546          | C4-1/8-T0-2001-F       |
| A13R47*               | 0757-0431              | 6 |   |     | RESISTOR 2.43K 1% .125W F TC#0+-100   | 24546          | C4-1/8-T0-2431-F       |
| A13R48*               | 0698-3447              | 4 |   |     | RESISTOR 422 1% .125W F TC#0+-100     | 24546          | C4-1/8-T0-422R-F       |
| A13R48*               | 0698-398R              | 3 |   |     | RESISTOR 442 1% .125W F TC#0+-100     | 24546          | C4-1/8-T0-442R-F       |
| A13R48*               | 0698-4453              | 4 |   |     | RESISTOR 402 1% .125W F TC#0+-100     | 24546          | C4-1/8-T0-402R-F       |

See Section VI for ordering information  
 \*Indicates factory selected value

Table 7-2. Δ2 Replaceable Parts, IF Filter Circuits (Cont'd).

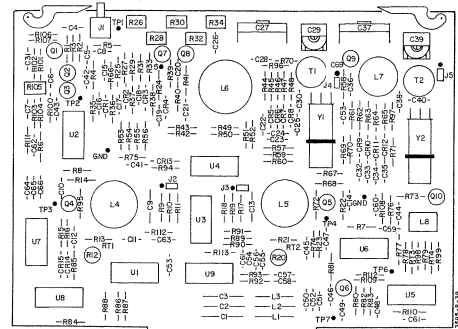
| Reference Designation | HP Part Number | C D | Qty | Description                          | Mfr Code | Mfr Part Number   |
|-----------------------|----------------|-----|-----|--------------------------------------|----------|-------------------|
| A13R49                | 06A3-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700   | 01121    | CB2025            |
| A13R50                | 06A3-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700   | 01121    | CB2025            |
| A13R51                | 06A3-3625      | 9   |     | RESISTOR 3.6K 5% .25W FC TC=400/+700 | 01121    | CB3625            |
| A13R52                | 06A3-6225      | 1   |     | RESISTOR 6.2K 5% .25W FC TC=400/+700 | 01121    | CB6225            |
| A13R53                | 06A3-2025      | 5   |     | RESISTOR 2.4K 5% .25W FC TC=400/+700 | 01121    | CB2425            |
| A13R54                | 06A3-5125      | 8   |     | RESISTOR 5.1K 5% .25W FC TC=400/+700 | 01121    | CB5125            |
| A13R55                | 06A3-1015      | 1   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015            |
| A13R56                | 06A3-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700  | 01121    | CB1035            |
| A13R57                | 0698-4511      | 5   |     | RESISTOR 86.6K 1% .125W F TC=0/+100  | 24546    | C4-1/8-T0-8662-F  |
| A13R57*               | 0757-0464      | 5   |     | RESISTOR 90.9K 1% .125W F TC=0/+100  | 24546    | C4-1/8-T0-9092-F  |
| A13R57*               | 0757-0978      | 6   |     | RESISTOR 95.3K 1% .125W F TC=0/+100  | 24546    | C4-1/8-T0-9532-F  |
| A13R58*               | 0698-3161      | 9   |     | RESISTOR 38.3K 1% .125W F TC=0/+100  | 24546    | C4-1/8-T0-3832-F  |
| A13R58*               | 0698-0492      | 1   |     | RESISTOR 32.4K 1% .125W F TC=0/+100  | 24546    | C4-1/8-T0-3242-F  |
| A13R58*               | 0698-4493      | 2   |     | RESISTOR 34K 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-3402-F  |
| A13R58*               | 0757-0455      | 4   |     | RESISTOR 36.5K 1% .125W F TC=0/+100  | 24546    | C4-1/8-T0-3652-F  |
| A13R59*               | 0698-4470      | 5   |     | RESISTOR 6.98K 1% .125W F TC=0/+100  | 24546    | C4-1/8-T0-6981-F  |
| A13R59*               | 0757-0440      | 7   |     | RESISTOR 7.5K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0-7501-F  |
| A13R59*               | 0757-0441      | 8   |     | RESISTOR 8.25K 1% .125W F TC=0/+100  | 24546    | C4-1/8-T0-8251-F  |
| A13R60*               | 0698-4432      | 9   |     | RESISTOR 2.1K 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0-2101-F  |
| A13R60*               | 0698-4433      | 0   |     | RESISTOR 2.26K 1% .125W F TC=0/+100  | 24546    | C4-1/8-T0-2261-F  |
| A13R60*               | 0757-0283      | 6   |     | RESISTOR 2K 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-2001-F  |
| A13R60*               | 0757-0431      | 1   |     | RESISTOR 2.43K 1% .125W F TC=0/+100  | 24546    | C4-1/8-T0-2431-F  |
| A13R61*               | 0698-3447      | 4   |     | RESISTOR 422 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-422R-F  |
| A13R61*               | 0698-3448      | 3   |     | RESISTOR 442 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-442R-F  |
| A13R61*               | 0698-4433      | 4   |     | RESISTOR 402 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-402R-F  |
| A13R62                | 06A3-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700   | 01121    | CB2025            |
| A13R63                | 06A3-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700   | 01121    | CB2025            |
| A13R64                | 06A3-3625      | 9   |     | RESISTOR 3.6K 5% .25W FC TC=400/+700 | 01121    | CB3625            |
| A13R65                | 06A3-6225      | 1   |     | RESISTOR 6.2K 5% .25W FC TC=400/+700 | 01121    | CB6225            |
| A13R66                | 06A3-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800 | 01121    | CB1045            |
| A13R67                | 06A3-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800 | 01121    | CB1045            |
| A13R68                | 06A3-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800 | 01121    | CB1045            |
| A13R69                | 06A3-1045      | 3   |     | RESISTOR 100K 5% .25W FC TC=400/+800 | 01121    | CB1045            |
| A13R70                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015            |
| A13R71                | 0698-4443      | 2   |     | RESISTOR 4.53K 1% .125W F TC=0/+100  | 24546    | C4-1/8-T0-4531-F  |
| A13R72                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015            |
| A13R73                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015            |
| A13R74                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600   | 01121    | CB1025            |
| A13R75                | 06A3-4745      | 6   |     | RESISTOR 470K 5% .25W FC TC=400/+900 | 01121    | CB4745            |
| A13R76                | 06A3-3025      | 3   |     | RESISTOR 3K 5% .25W FC TC=400/+700   | 01121    | CB3025            |
| A13R77                | 06A3-4715      | 0   |     | RESISTOR 470 5% .25W FC TC=400/+600  | 01121    | CB4715            |
| A13R78                | 0757-0280      | 3   |     | RESISTOR 1K 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-1001-F  |
| A13R79                | 06A3-6A25      | 7   |     | RESISTOR 6.8K 5% .25W FC TC=400/+700 | 01121    | CB6825            |
| A13R80                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015            |
| A13R81                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015            |
| A13R82                | 06A3-2025      | 1   |     | RESISTOR 2K 5% .25W FC TC=400/+700   | 01121    | CB2025            |
| A13R83                | 06A3-1835      | 9   |     | RESISTOR 18K 5% .25W FC TC=400/+800  | 01121    | CB1835            |
| A13R84*               | 0698-3262      | 1   |     | RESISTOR 40.2 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0-4022-F  |
| A13R84*               | 0698-4367      | 3   |     | RESISTOR 66.4 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0-6642-F  |
| A13R84*               | 0757-0277      | 3   |     | RESISTOR 49.9 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0-4992-F  |
| A13R84*               | 0757-0346      | 2   |     | RESISTOR 10 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-10R0-F  |
| A13R84*               | 0757-0384      | 8   |     | RESISTOR 20 1% .125W F TC=0/+100     | 19701    | MF401/8-T0-20R0-F |
| A13R84*               | 0757-0388      | 2   |     | RESISTOR 30.1 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0-30R1-F  |
| A13R85                | 0698-3510      | 2   |     | RESISTOR 453 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-453R-F  |
| A13R86*               | 0698-3262      | 1   |     | RESISTOR 40.2 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0-4022-F  |
| A13R86*               | 0698-4367      | 3   |     | RESISTOR 66.4 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0-6642-F  |
| A13R86*               | 0757-0277      | 3   |     | RESISTOR 49.9 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0-4992-F  |
| A13R86*               | 0757-0346      | 2   |     | RESISTOR 10 1% .125W F TC=0/+100     | 24546    | C4-1/8-T0-10R0-F  |
| A13R86*               | 0757-0384      | 8   |     | RESISTOR 20 1% .125W F TC=0/+100     | 19701    | MF401/8-T0-20R0-F |
| A13R86*               | 0757-0388      | 2   |     | RESISTOR 30.1 1% .125W F TC=0/+100   | 24546    | C4-1/8-T0-30R1-F  |
| A13R87                | 0698-3510      | 2   |     | RESISTOR 453 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-453R-F  |
| A13R88                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600   | 01121    | CB1025            |
| A13R89                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600   | 01121    | CB1025            |
| A13R90                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600   | 01121    | CB1025            |
| A13R91                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600   | 01121    | CB1025            |
| A13R92                | 06A3-1025      | 9   |     | RESISTOR 1K 5% .25W FC TC=400/+600   | 01121    | CB1025            |
| A13R93                | 06A3-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500   | 01121    | CB4705            |
| A13R94                | 06A3-4705      | 8   |     | RESISTOR 47 5% .25W FC TC=400/+500   | 01121    | CB4705            |
| A13R95                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015            |
| A13R96                | 0757-0436      | 1   |     | RESISTOR 4.32K 1% .125W F TC=0/+100  | 24546    | C4-1/8-T0-4321-F  |
| A13R97                | 0698-4464      | 7   |     | RESISTOR 887 1% .125W F TC=0/+100    | 24546    | C4-1/8-T0-887R-F  |
| A13R98                | 06A3-1035      | 1   |     | RESISTOR 10K 5% .25W FC TC=400/+700  | 01121    | CB1035            |
| A13R99                | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015            |
| A13R100               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015            |
| A13R101               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015            |
| A13R102               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015            |
| A13R103               | 06A3-1015      | 7   |     | RESISTOR 100 5% .25W FC TC=400/+500  | 01121    | CB1015            |

See Section VI for ordering information  
 \*Indicates factory selected value

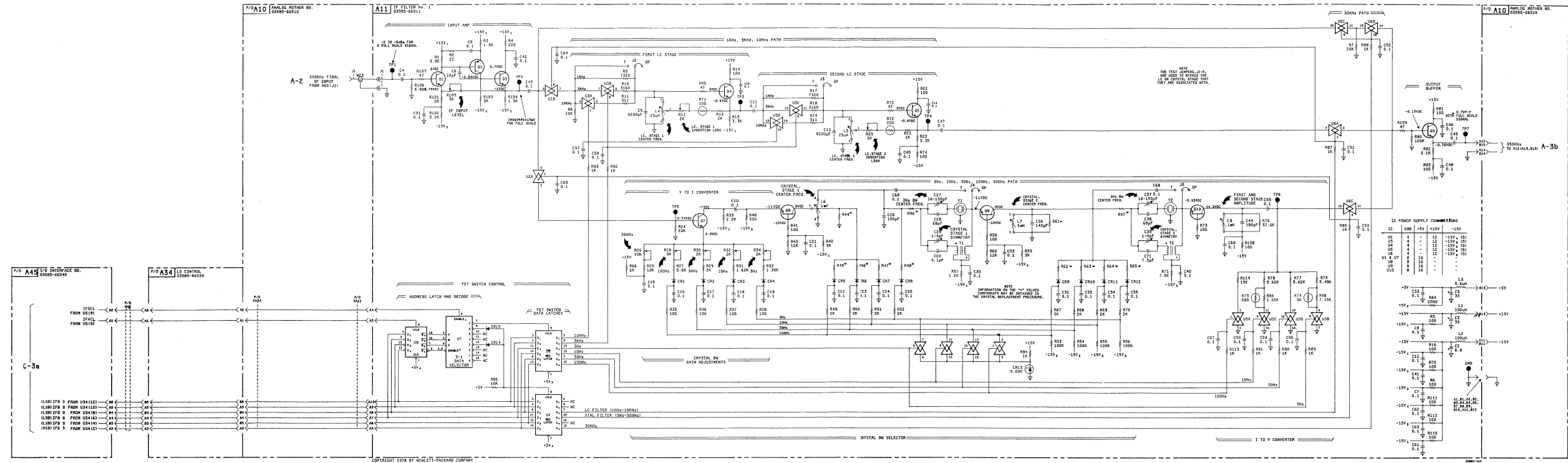
Table 7-2. Δ2 Replaceable Parts, IF Filter Circuits (Cont'd).

| Reference Designation | HP Part Number | C D | Qty | Description                             | Mfr Code | Mfr Part Number |
|-----------------------|----------------|-----|-----|-----------------------------------------|----------|-----------------|
| A13R1                 | 0839-0026      | 9   | 1   | THERMISTOR DISC 10K-OHM TCR=4.4%/C-DEG  | 28480    | 0839-0026       |
| A13R2                 | 0837-0050      | 5   | 1   | THERMISTOR DISC 1K-OHM TCR=4.4%/C-DEG   | 28480    | 0837-0050       |
| A13R3                 | 0837-0086      | 7   |     | THERMISTOR DISC 200-OHM TCR=4.4%/C-DEG  | 28480    | 0837-0086       |
| A13R4                 | 0837-0086      | 7   |     | THERMISTOR DISC 200-OHM TCR=4.4%/C-DEG  | 28480    | 0837-0086       |
| A13T1                 | 9100-3262      | 5   |     | TRANSFORMER TRANSFORMER; TOROIDAL PULSE | 28480    | 9100-3262       |
| A13T2                 | 9100-3262      | 5   |     | TRANSFORMER TRANSFORMER; TOROIDAL PULSE | 28480    | 9100-3262       |
| A13U1                 | 1820-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM   | 01295    | SN74LS174N      |
| A13U2                 | 1820-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM   | 01295    | SN74LS174N      |
| A13U3                 | 1820-1196      | 8   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM   | 01295    | SN74LS174N      |
| A13U4                 | 1820-1216      | 3   |     | IC DDDR TTL LS 1-TO-A-LINE 3-INP        | 01295    | SN74LS13AN      |
| A13U5                 | 1820-1195      | 7   |     | IC FF TTL LS D-TYPE POS-EDGE-TRIG COM   | 01295    | SN74LS175N      |
| A13U6                 | 1826-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P            | 27014    | LF13332N        |
| A13U7                 | 1826-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P            | 27014    | LF13332N        |
| A13U8                 | 1826-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P            | 27014    | LF13332N        |
| A13U9                 | 1826-0510      | 0   |     | IC SWITCH ANLG QUAD 16-DIP-P            | 27014    | LF13332N        |
| A13U10                | 1820-1971      | 7   | 1   | IC SWITCH ANLG QUAD 16-DIP-P            | 17856    | 0G201CJ         |
| A13Y1-                |                |     |     | NOT ASSIGNED                            |          |                 |
| A13Y3                 |                |     |     | PART OF MATCHED SET(SEE ALL PARTS LIST) |          |                 |
| A13Y4                 |                |     |     | PART OF MATCHED SET(SEE ALL PARTS LIST) |          |                 |
| A13Y5                 |                |     |     | A13 MISCELLANEOUS PARTS                 |          |                 |
|                       | 1400-0249      | 0   |     | CABLE TIE .062-.625-DIA .091-WD NYL     | 28480    | 1400-0249       |
|                       | 1480-0116      | 6   |     | PIN-GRV .062-IN-DIA .25-IN-LG STL       | 28480    | 1480-0116       |
|                       | 0403-0211      | 1   |     | EXTR-PC BD BRN POLYC .062-RD-THKNS      | 28480    | 0403-0211       |
|                       | 0403-0213      | 3   | 1   | EXTR-PC ED BRN POLYC .062-RD-THKNS      | 28480    | 0403-0213       |
|                       | 1251-0600      | 0   | 9   | CONNECTOR-SGL CNT PIN 1.14-MW-BSC-SZ SQ | 28480    | 1251-0600       |

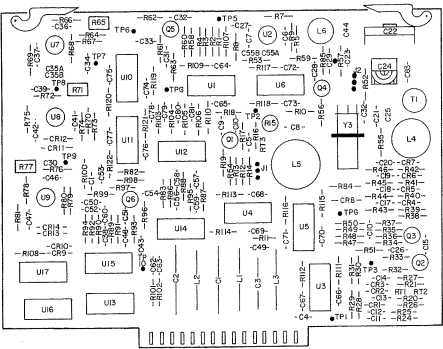
See Section VI for ordering information  
 \*Indicates factory selected value



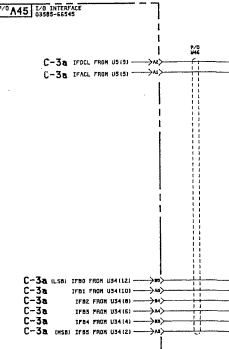
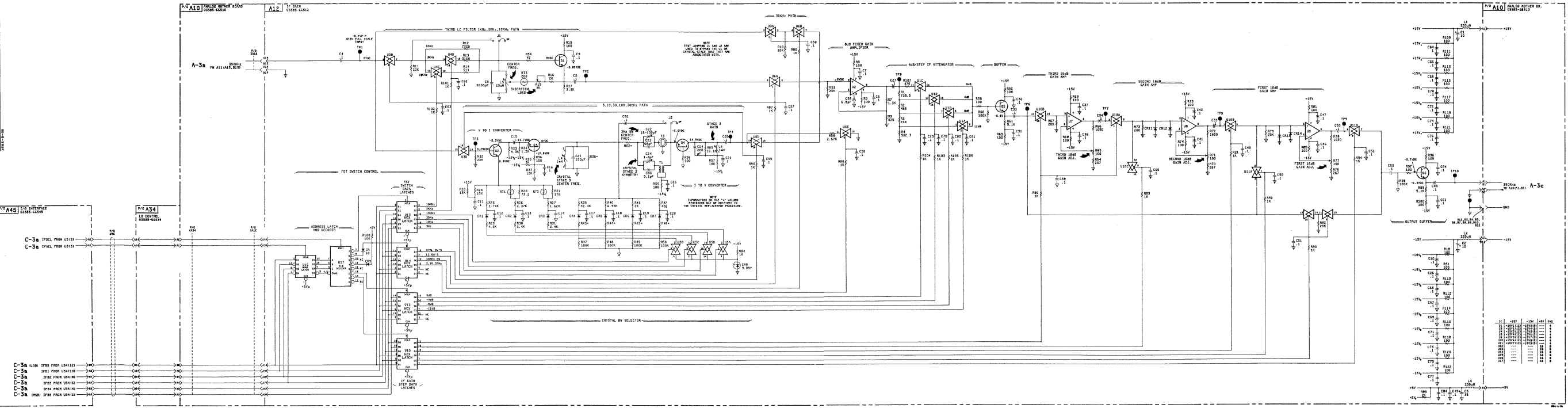
A11



Drawing 7-2a. If Filter No. 1 (66511).  
7-27/7-28



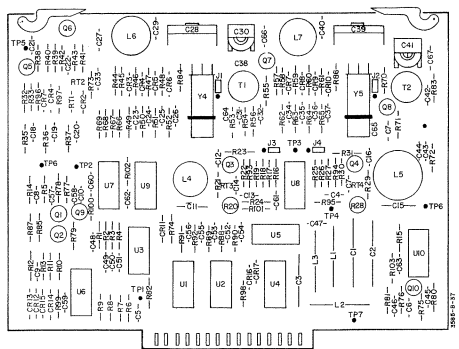
A12



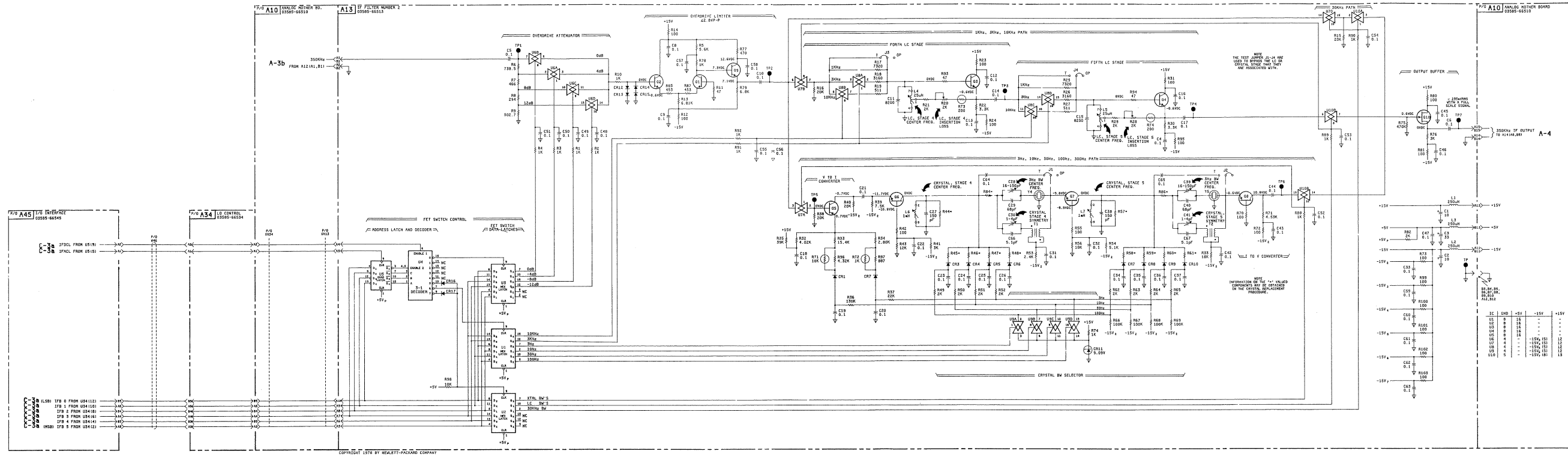
| REF  | VAL  | UNIT | 15V | 0V | -15V |
|------|------|------|-----|----|------|
| R1   | 100K | Ω    |     |    |      |
| R2   | 100K | Ω    |     |    |      |
| R3   | 100K | Ω    |     |    |      |
| R4   | 100K | Ω    |     |    |      |
| R5   | 100K | Ω    |     |    |      |
| R6   | 100K | Ω    |     |    |      |
| R7   | 100K | Ω    |     |    |      |
| R8   | 100K | Ω    |     |    |      |
| R9   | 100K | Ω    |     |    |      |
| R10  | 100K | Ω    |     |    |      |
| R11  | 100K | Ω    |     |    |      |
| R12  | 100K | Ω    |     |    |      |
| R13  | 100K | Ω    |     |    |      |
| R14  | 100K | Ω    |     |    |      |
| R15  | 100K | Ω    |     |    |      |
| R16  | 100K | Ω    |     |    |      |
| R17  | 100K | Ω    |     |    |      |
| R18  | 100K | Ω    |     |    |      |
| R19  | 100K | Ω    |     |    |      |
| R20  | 100K | Ω    |     |    |      |
| R21  | 100K | Ω    |     |    |      |
| R22  | 100K | Ω    |     |    |      |
| R23  | 100K | Ω    |     |    |      |
| R24  | 100K | Ω    |     |    |      |
| R25  | 100K | Ω    |     |    |      |
| R26  | 100K | Ω    |     |    |      |
| R27  | 100K | Ω    |     |    |      |
| R28  | 100K | Ω    |     |    |      |
| R29  | 100K | Ω    |     |    |      |
| R30  | 100K | Ω    |     |    |      |
| R31  | 100K | Ω    |     |    |      |
| R32  | 100K | Ω    |     |    |      |
| R33  | 100K | Ω    |     |    |      |
| R34  | 100K | Ω    |     |    |      |
| R35  | 100K | Ω    |     |    |      |
| R36  | 100K | Ω    |     |    |      |
| R37  | 100K | Ω    |     |    |      |
| R38  | 100K | Ω    |     |    |      |
| R39  | 100K | Ω    |     |    |      |
| R40  | 100K | Ω    |     |    |      |
| R41  | 100K | Ω    |     |    |      |
| R42  | 100K | Ω    |     |    |      |
| R43  | 100K | Ω    |     |    |      |
| R44  | 100K | Ω    |     |    |      |
| R45  | 100K | Ω    |     |    |      |
| R46  | 100K | Ω    |     |    |      |
| R47  | 100K | Ω    |     |    |      |
| R48  | 100K | Ω    |     |    |      |
| R49  | 100K | Ω    |     |    |      |
| R50  | 100K | Ω    |     |    |      |
| R51  | 100K | Ω    |     |    |      |
| R52  | 100K | Ω    |     |    |      |
| R53  | 100K | Ω    |     |    |      |
| R54  | 100K | Ω    |     |    |      |
| R55  | 100K | Ω    |     |    |      |
| R56  | 100K | Ω    |     |    |      |
| R57  | 100K | Ω    |     |    |      |
| R58  | 100K | Ω    |     |    |      |
| R59  | 100K | Ω    |     |    |      |
| R60  | 100K | Ω    |     |    |      |
| R61  | 100K | Ω    |     |    |      |
| R62  | 100K | Ω    |     |    |      |
| R63  | 100K | Ω    |     |    |      |
| R64  | 100K | Ω    |     |    |      |
| R65  | 100K | Ω    |     |    |      |
| R66  | 100K | Ω    |     |    |      |
| R67  | 100K | Ω    |     |    |      |
| R68  | 100K | Ω    |     |    |      |
| R69  | 100K | Ω    |     |    |      |
| R70  | 100K | Ω    |     |    |      |
| R71  | 100K | Ω    |     |    |      |
| R72  | 100K | Ω    |     |    |      |
| R73  | 100K | Ω    |     |    |      |
| R74  | 100K | Ω    |     |    |      |
| R75  | 100K | Ω    |     |    |      |
| R76  | 100K | Ω    |     |    |      |
| R77  | 100K | Ω    |     |    |      |
| R78  | 100K | Ω    |     |    |      |
| R79  | 100K | Ω    |     |    |      |
| R80  | 100K | Ω    |     |    |      |
| R81  | 100K | Ω    |     |    |      |
| R82  | 100K | Ω    |     |    |      |
| R83  | 100K | Ω    |     |    |      |
| R84  | 100K | Ω    |     |    |      |
| R85  | 100K | Ω    |     |    |      |
| R86  | 100K | Ω    |     |    |      |
| R87  | 100K | Ω    |     |    |      |
| R88  | 100K | Ω    |     |    |      |
| R89  | 100K | Ω    |     |    |      |
| R90  | 100K | Ω    |     |    |      |
| R91  | 100K | Ω    |     |    |      |
| R92  | 100K | Ω    |     |    |      |
| R93  | 100K | Ω    |     |    |      |
| R94  | 100K | Ω    |     |    |      |
| R95  | 100K | Ω    |     |    |      |
| R96  | 100K | Ω    |     |    |      |
| R97  | 100K | Ω    |     |    |      |
| R98  | 100K | Ω    |     |    |      |
| R99  | 100K | Ω    |     |    |      |
| R100 | 100K | Ω    |     |    |      |

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A13



## CATHODE-RAY TUBE FAILURE REPORT

(This form must accompany all warranty claims and MFR/HEART credit claims.)

Date\_\_\_\_\_

Submitted By (Name)\_\_\_\_\_

Name of Company\_\_\_\_\_

Address\_\_\_\_\_

1. Hewlett-Packard Instrument Model No.\_\_\_\_\_

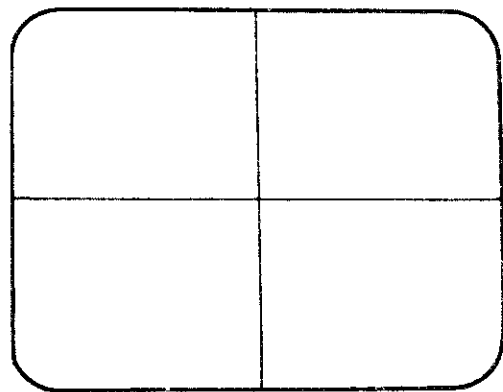
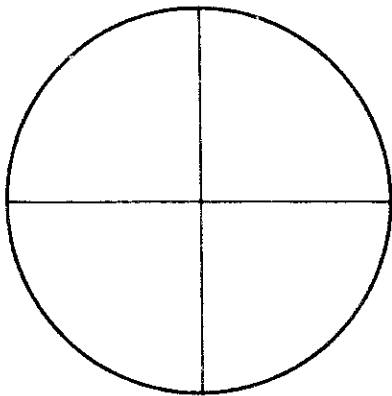
2. Hewlett-Packard Instrument Serial No.\_\_\_\_\_

3. Defective CRT Serial No.\_\_\_\_\_ Part No.\_\_\_\_\_

4. Replacement (New) CRT Serial No.\_\_\_\_\_

5. Please describe the failure and, if possible, show the trouble on the appropriate CRT face below.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



6. Is a warranty claim being made?\_\_\_\_\_

7. Hewlett-Packard Sales/Service Office\_\_\_\_\_

8. MFR, HEART or Customer Service Order Number\_\_\_\_\_



