HEWLETT PACKARD

BENCH BRIEFS

SERVICE INFORMATION FROM HEWLETT-PACKARD

1st Quarter 1992

FAX Information Retrieval Support Technology

Call HP FIRST is one of the new themes coming from Hewlett-Packard. HP FAX Information Retrieval Support Technology (HP FIRST) is the fast, easy way to get hardcopy support information — straight from a FAX.

New, exciting benefits are offered to customers and dealers through HP FIRST, including:

- 24-hour access, 7 days a week
- Immediate access to current information
- Hard copy for future reference
- An additional avenue for support information
- Worldwide access.

Currently, HP FIRST provides 24-hour access to support materials for test and measurement instruments, PCs and peripherals, and HP 9000, 3000, and 1000 systems. Support materials available include application notes, data sheets, material safety data sheets (MSDS), service notes, price lists, lists of supporting software/hardware, upgrade forms, and directions on how to obtain drivers and utilities. New information is added and updated monthly.

The test and measurement section of HP FIRST has grown to include data sheets for the new products of 1992. At this time HP FIRST provides in excess of 80 data sheets for test and measurement customers and dealers. HP FIRST is expected to offer even more support information to our customers in the near future. We are growing and changing every month. To receive the latest information on what HP FIRST has to offer, call and select the test and measurement index. This

(continued on page 5)

Policy Changes to the Parts Identification Department at Hewlett-Packard

Randy Wagner/Hewlett-Packard

HP has introduced several major changes within its parts identification sector. These changes, effective 1 April 1992, are detailed below.

HP Service Parts Identification (SPI)

To more accurately reflect areas of responsibility, the name "Parts Identification" has been changed to "Service Parts Identification" (SPI).

Emphasis On Technical Inquiries Regarding HP Service Parts

The primary focus of SPI is the handling of technical inquiries involving the identification, verification and description of HP service parts required to maintain and repair HP hardware products.

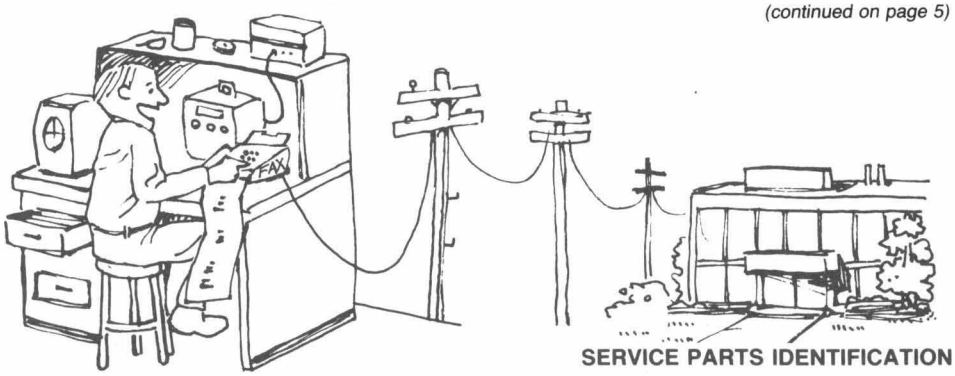
New Department Hours

Department hours are 6:00 a.m. to 5:00 p.m. Pacific Standard Time, Monday through Friday (excluding HP holidays). The department is closed each Friday between 2:00 p.m. and 3:30 p.m. Pacific Standard Time.

Supports All HP Customers

SPI will support HP trade customers (self-maintainers, value-added busi-

(continued on page 5)



SERVICE PARTS IDENTIFICATION

Pub. No. 5952-3461

Logistics Data Book – 1992

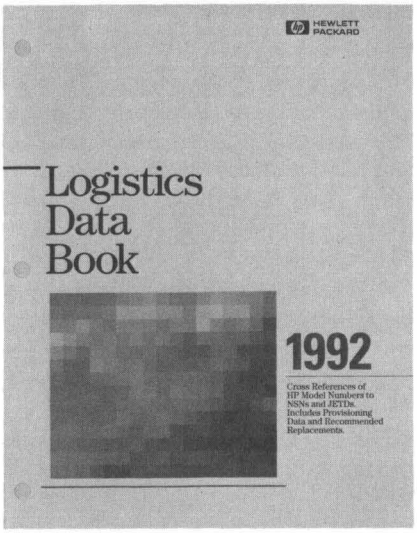
John Cloutier/Hewlett-Packard

Need access to National Stock Numbers (NSNs) for HP products and parts for HP products? NSNs for HP products are listed in HP's annual *Logistics Data Book*, which also cross references HP product numbers to Joint Electronic Type Designators (JETDs) and to provisioning contract numbers. In addition, the book recommends replacements for discontinued products.

NSNs for product parts are available on microfiche that can be requested with postage-paid cards included in the *Logistics Data Book*.

To obtain a free copy of the 1992 *Logistics Data Book*, contact your nearest HP office, or:

John Cloutier
Hewlett-Packard Co.
N. American Field Operations
Federal Support Services
19320 Pruneridge Ave., MS 49BR
Cupertino, CA 95014
(408) 865-6815 □



Test and Verification Programs, Maintenance Kits, and Firmware Upgrades

PERFORMANCE TEST DATA PAGE

Report Number :
Model Number :
Serial Number:
Test Date : 07 Jan 1992

SOURCE FREQUENCY ACCURACY, continued

TEST COND.	MINIMUM	MEASURED	MAXIMUM
100 kHz	99700	100017 Hz	100300

MEASUREMENT FREQUENCY ACCURACY PASSED

TEST CONDITIONS	MINIMUM	MEASURED	MAXIMUM
AC LEVEL			
5 mV, 20 Hz	19.99	19.99 Hz	20.01
99.9 kHz	99895	99899 Hz	99905
150 kHz	149980	150000 Hz	150020
DISTORTION			
50 mV, 20 Hz	19.99	19.99 Hz	20.01
99.9 kHz	99895	99899 Hz	99905

AUDIO FILTERS PASSED

TEST CONDITIONS	MINIMUM	MEASURED	MAXIMUM
30 kHz LOW-PASS	28000	29250 Hz	32000
80 kHz LOW-PASS	76000	80600 Hz	84000

OUTPUT IMPEDANCE PASSED

TEST CONDITIONS	MINIMUM	MEASURED	MAXIMUM
600 Ohm Output	49.90	50.19 Ω	50.40

Many Hewlett-Packard instruments and instrument-based systems use ready-made programs that will test, verify and exercise the instrument or system in a variety of ways, all of which are designed to provide the user with a high confidence level that the instrument/system is performing the way it should.

Some of the programs are HP-IB based and test the interface capability of the instrument through a particular controller. There are also programs used for troubleshooting the instrument and programs that are almost complete application tools. Some programs are not stored on a disk or tape but are stored in the instrument's internal firmware. These programs are usually activated by following instructions in the service manual. Other programs may be printed in the operating and service manual and need to be manually entered into the controller line-by-line. In some instances, the software is part of a maintenance kit and cannot be purchased separately.

You can obtain a copy of this list of programs (10 pages) through Hewlett-Packard's new HP FIRST system (HP FAX Information Retrieval Support Technology). This system provides 24-hour access to support materials for test and measurement instruments, PCs and peripherals, and HP 9000, 3000, and 1000 systems.

How To Order the Test and Verification List

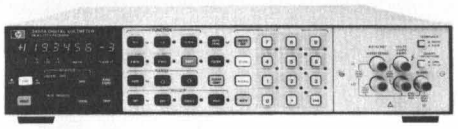
1. Dial (208) 344-4809 from your FAX machine keypad. You must have a Group 3 touch tone FAX machine.
2. When HP FIRST prompts you, select section 4 for test and measurement products.
3. Once you have entered the test and measurement section, press 3 for password customers.
4. HP FIRST will then prompt you to enter the password. Enter 76683.
5. HP FIRST will then prompt you to enter the four-digit ID number of the document you want to receive. Enter 5178.
6. When HP FIRST prompts you, press the [START/COPY] or [RECEIVE] button on your FAX machine, and if appropriate, hang up the handset.
7. You will then receive the complete test and verification program list of 10 pages.

If you do not have a Group 3 FAX machine, you can write the editor at the address on the back page of this issue. □

Safety-Related Service Notes

Service notes from Hewlett-Packard relating to personal safety and possible equipment damage are of vital importance to our customers. To make you more aware of these important notes, they are printed on paper with a red border, and the service note number has an "-S" suffix. In order to make you immediately aware of any potential safety problems, we are highlighting safety-related service notes here with a brief description of each problem. Also, in order to draw your attention to safety-related service notes in the service note index, each safety-related service note is highlighted with a contrasting color.

HP 3456A Digital Voltmeter



Serial Numbers Affected

2943A21800 / 2943A22118

These voltmeters have an ac power switch inside the unit that does not have adequate protection over the solder-eye terminals. The modification consists of placing heat-shrink tubing over the exposed terminals to protect service personnel from exposed high voltage potentials when servicing the voltmeter.

Order Safety Service Note 3456A-24A-S for more information.

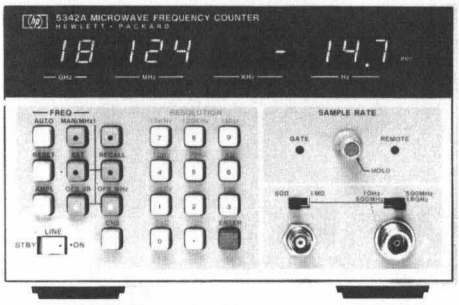
HP 4980A/81A/82A Network Advisors

Serial Numbers Affected

0000A00000 / 3121A00223

Some instruments in the above serial number range have inadequate grounding of the rear panel to the mainframe chassis. This problem is resolved by adding grounding wire harness, HP P/N J2176-61602. Order Safety Service Notes 4980A-02-S, 4981A-02-S and 4982A-02-A for more information.

HP 5342A/43A Microwave Frequency Counters



Serial Numbers Affected

5342A 0000A00000 / 2636A10914
5343A 0000A00000 / 2636A02416

The framework of the counters within the serial number ranges above does not ensure that the front and rear castings will remain in parallelism. If this condition exists, lifting the counter with the top handle could pull the top panel off the instrument allowing it to fall.

HP is providing a new support strut, top cover, and metric screws to fix the problem. For more information order Safety Service Notes 5342A-58A-S and 5343A-31A-S.

8971B Noise Figure Test Set

Serial Numbers Affected

0000A00000 / 2716A00630

The 1.25A fuse does not blow when the transformer secondary is shorted in the 220/240V operation mode. The 2.0A fuse used in the 100/120V operation mode operates properly.

Replace the 1.25A fuse with a 1.0A fuse (HP P/N2110-0001) and attach new fuse label (HP P/N 08971-80013) over the present fuse label on the rear panel.

For more information order Safety Service Note 8971B-01A-S.

HP 87421A Microwave System Amplifier

Serial Numbers Affected

3116A00101 / 3116A00150

The power supply module is secured to the plastic case of the power supply by metal rivets. In some cases these rivets may fracture the plastic housing causing the power supply to come loose. This may expose a potential shock hazard.

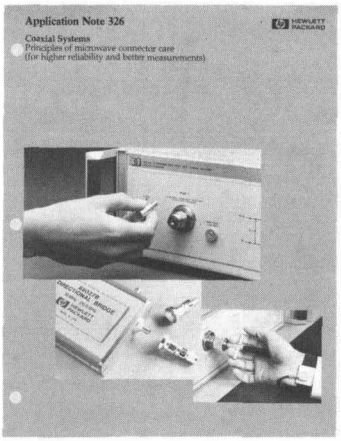
Return your amplifier to the nearest HP Customer Service Center and a new power supply will be installed free of charge. For more information order Safety Service Note 87421A-01-S. □

Principles of Microwave Connector Care

Recent advances in measurement capabilities have made connectors and connection techniques more important than ever. Damage to the connectors on calibration and verification devices, test ports, cables, and other devices represents an increasing burden in downtime and expense.

The suggestions in Application Note 326 will help you get the best performance from all coaxial microwave connectors: to know what to look for when cleaning and inspecting them in order to preserve their precision and extend their life; and to make the best possible microwave connections, improving the accuracy and repeatability of all your measurements, saving both time and money.

Application Note 326 is available free of charge through your nearest Hewlett-Packard Sales/Service office. □



Important Notice about Service Notes

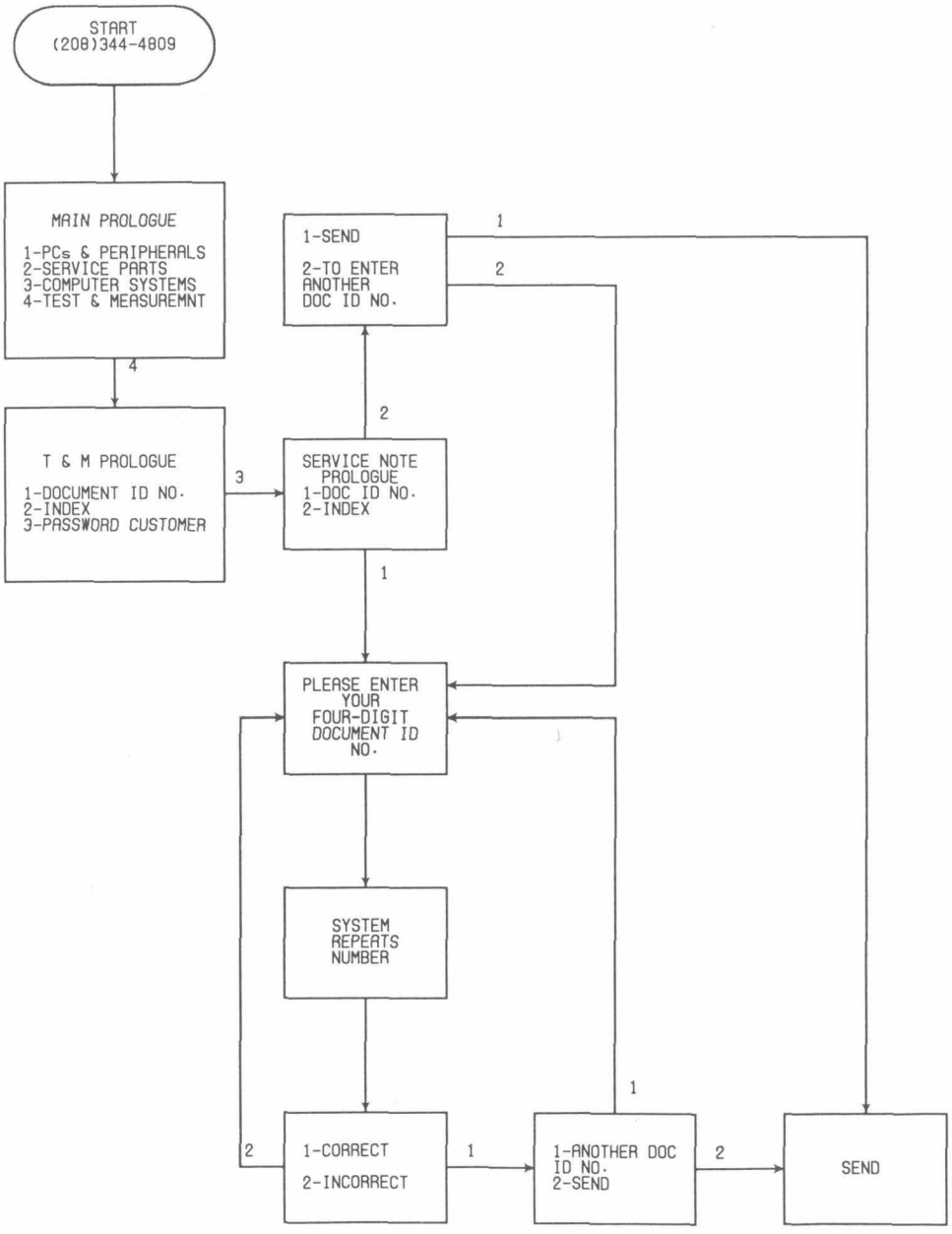
Service notes contain product-specific service information for Hewlett-Packard's electronic products. Subjects include product improvements, modifications, and procedures for troubleshooting, maintenance, and repair. Service notes are published as appropriate throughout the life of a product. All new notes are announced in *Bench Briefs*.

Note that Hewlett-Packard has restructured the procedure for handling and distributing instrument-related service notes.

FAX Retrieval

HP FIRST (FAX Information Retrieval Support Technology) is a new and exciting way to order service notes from Hewlett-Packard. It is fast and efficient. You immediately receive only the notes you want and do not have to wait several weeks on the mail. And we are expanding the database of service notes in two directions; all new service notes are placed in the system the first of each month, and we are going back in history to include older service notes. In the future you will have access to a library of instrument-related service notes going back through 1989.

If you want to order a service note, refer to the list of notes in the index, find the service note number belonging to the product you are interested in and note the package number. Look for an asterisk (*) next to the package number. This means that the



service note is located on the HP FIRST system. If there is no asterisk, you can still order the service notes through *Bench Briefs*.

1. Use the accompanying flowchart to access HP FIRST and get into the service note section.
2. Request the index of service notes, which will provide the service note ID numbers. This index will be accurate for the month in which you request it. In other words, information is loaded on the system the evening of the last day of each month and the index is updated. Therefore, the index will be current from the first of the month to the last of the month.
3. Go through the list and write down the ID numbers of all the notes you want.
4. Call HP FIRST back and follow the flowchart procedure to order multiple service notes.

Bench Briefs

If you do not have a Group 3 FAX machine, you can still order service notes through *Bench Briefs*. Refer to the list of service notes in the index, find the service note number belonging to the product you are interested in, and note the package number. Use the form on the last page of *Bench Briefs* to order the number that appears in the "service note package" column. You will receive a package of service notes that includes the one you ordered.

Microfiche

Service notes are still available on microfiche. The part numbers are:

Library	5951-6511
Update Service	5951-6517

Contact your local HP sales/service office to order these microfiche numbers.

Please note that the procedure for ordering microfiche service notes is changing. Look for more information in future issues of *Bench Briefs*. □

(FAX Information, continued from page 1)

index also gives you additional information about HP FIRST and how to use it.

How does it work? Follow the accompanying directions and HP FIRST will produce crisp text and graphics from its computer storage to send to your Group 3 FAX machine.

Note: A Group 3 FAX machine has both a hand receiver and touch-tone capability.

1. Lift your hand receiver and dial (208) 344-4809 from the FAX keypad.
2. Select the test and measurement section by pressing 4, or select the section for which you would like to receive support.
3. If you pressed 4 you will now hear the test and measurement prologue. After the prologue you can key in the identification number of the document (assuming you already have the index), or press 2 to obtain an index of the available documents, their ID numbers, and the number of pages of each document. This index will be accurate for the month in which you request it. In other words, information is loaded on the system the evening of the last day of each month and the index is updated. Therefore, the index will be current from the first of the month to the last of the month.
4. When HP FIRST prompts you, press the [START/COPY] or [RECEIVE] button (usually green) on your FAX machine, and if appropriate, hang up the handset. □

1(800) 333-1917

(Parts Identification, continued from page 1)

ness partners, third-party support providers, and government prime contractors), as well as HP personnel.

Two Facsimile (FAX) Services Available

SPI now provides service parts information via two facsimile services: HP FIRST (FAX Information Retrieval Support Technology) and SPIFAX (Service Parts Identification FAX).

HP FIRST

HP FIRST is a FAX-on-demand service, using computer-prompted response technology and a separate telephone number available 24 hours a day, 7 days a week. A variety of documents including data sheets, application notes, service notes, price lists, and driver information are readily available.

A current, comprehensive listing of all available service parts for specific HP products is also available on HP FIRST. Each list provides a breakdown by part type category, expanded descriptions to help identify the part(s) quickly and easily, and current full list prices.

You can also request parts price lists for specific product families and recommended parts stocking lists from HP FIRST to assist you in your buying decisions.

You may obtain these documents for the cost of the telephone call by dialing HP FIRST at (208) 344-4809 from a Group 3 facsimile machine. (A Group 3 facsimile machine has hand receiver as well as touch-tone capability.) On-line instructions guide you through the process.

SPIFAX

SPIFAX is a direct FAX line into the service parts identification department on-line support center. This service may be faster than a phone call. For example, you may have several inquiries about parts for different products or inquiries about recommended support kits. These calls usually require a lot of time on the initial phone call, then a return call back to you with the answers to your questions. With SPIFAX you can combine all your inquiries onto paper and then send the paper to (916) 785-7157, 24 hours a day, 7 days a week. The majority of FAX inquiries will be answered in less than two working days. Note that to ensure a timely response, customers should use the SPIFAX form (document ID 1000) available from HP FIRST.

For more information about SPI and its parts identification services, please send us a FAX as described above, or give us a call at (916) 783-0804. □

1991/92 Bench Briefs' Instrument Service Note Index

SN Type	SN No.	Abstract	Service Note Package
MA	437B-07	Preferred replacement for battery holders A3MP12/A3BT1	*040
IO	3235A-14	Instructions on correctly labeling line voltage switches	*040
IO	3235A/E-11	Change in the harmonic & spurs test specifications	038
IO	3235A/E-12	New SMB connectors to improve VSWR performance	*041
IO	3235A/E-13	New SMB connectors to improve VSWR performance	*041
MR	3235A/E-15	Procedure replaces weak links on mass quick interconnect mechanism	*044
IO	3245A-02	Change in the harmonic & spurs test specifications	038
IO	3245A-02	Instructions on correctly labeling line voltage switches	*040
IO	3245A-03	Instructions on correctly labeling line voltage switches	*042
MR	3325B-01	Modification to replace high and low line fuses	*048
MR	3326A-06	Required fuse change for 220/240 Volt operation	*041
IO	3421A-16	Information corrects service manual error	038
IO	3455A-28	Recommended part for capacitor HP P/N 0160-3945	*042
SA	3456A-24-S	Modification covers exposed high voltage on power switch	038
SA	3456A-24A-S	Modification eliminates exposed high voltage points	*042
MR	3457A-12A	Modification to fix hardware error "Error 512"	036
MR	3457A-13	Modification prevents hardware error "512"	038
IO	3457A-14	Instructions on correctly labeling line voltage switches	*040
MR	3458A-07	Mod. eliminates errors "Multislope Rundown Conversion" & failed "NMR 1 Test"	038
IO	3458A-08	Instructions on correctly labeling line voltage switches	*040
MA	3458A-09	Fixes, changes, & enhancements to outguard firmware (Rev. 7)	*047
MA	3458A-11	Rec performance enhancement eliminates ac noise on twisted shielded pair cables	*048
IO	3497A-32	Instructions on correctly labeling line voltage switches	*040
IO	3577A-04B	Recommended replacement EPROMs for old style masked ROMs	*044
MA	3582A-16	Modification to A13 Rev. D board for use in older 3582As	*044
MA	3588A-03A	Firmware upgrade kit improves performance	*046
MR	3588A-04A	Modification improves relay reliability	*040
MR	3588A-05A	Recommended modifications improve disk drive/front panel alignment	*040
MR	3588A-05	Recommended modifications improve disk drive/front panel alignment	038
IO	3764A-26	Wrongly marked connectors may cause signals to be crossed	036
MR	3764A-27	Modification corrects firmware defect on Options 006 & 007	*040
MR	3784A-01A	Modification eliminates spurious errors at high clock frequencies (50 MHz	*040
IO	3784A-02	Notification of which power supply assembly works with which option instrument	036
MA	3787B-12	Instructions on retrofitting Opt 003 (voice channel output)	*048
MA	3789B-02A	Retrofitting Options 002 (2nd measu) and 003 (2nd measu & DS3 jitter meas)	*048
IO	3789B-09A	How to retrofit Option 200 (BNC connectors)	*048
IO	3789B-15	Fitting a replacement processor board in units before serial prefix 2937U	037
IO	3852A-05	Instructions on correctly labeling line voltage switches	*040
MA	3852A-08	Firmware enhancement 4.21	*042
MA	3852X-08A	3852 firmware enhancement 4.21	*045
MR	4062C-05	Recommended replacement of incorrect AC line breaker	*040
MR	4062UX-05	Recommended replacement of incorrect AC line breaker	*040
IO	4084A/B-01	Preferred replacement for the cooling fan assembly	*040
IO	4086A-01	Preferred replacement for the cooling fan assembly	*040
IO	4140B-16	Preferred replacement for the cooling fan assembly	*040
MR	4142B-10	Recommended replacement of F5 & F6 fuses on the A1 power supply	*040
IO	4145A-14	Instructions on repairing flexible disk drive	*043
MR	4145B-06	New fan eliminates excess noise	*040
IO	4145B-07	Preferred replacement CRT display	*040
MR	4194A-10B	Mod. corrects blinking overload lamp for test channel input	*046
MR	4195A-12	Mod. corrects "no signal for spans less than 2.4 MHz"	*046
IO	4274A-30	Recommended power transformer replacement	038
IO	4274A-31	Suggested repair method for A9 MPU board	*044
IO	4274A-32	Suggested repair method for A9 MPU board with special frequency ROM (A9U11)	*044
IO	4275A-26	Recommended replacement power transformer	038

SN Type	SN No.	Abstract	Service Note Package
IO	4275A-27	Suggested repair method for A9 MPU board	*044
IO	4275A-28	Suggested repair method for A9 MPU board with special frequency ROM (A9U11)	*044
IO	4278A-07	Replacing the EEPROM requires initialization	*046
IO	4280A-09	Preferred replacement for the cooling fan assembly	*040
MR	4284A-11	Mod. to prevent the HP 42841A Bias Current Source A4 board's fuses from blowing	039
MR	4285A-08	Rec. ROM changes correct "UNBAL" message during parallel Q measurement	035
MR	4285A-09	Mod. to prevent the HP 42841A Bias Current Source A4 board's fuses from blowing	039
IO	4329A-09	Alternate test voltage accuracy test method	037
IO	4332A-02	New repair method for a defective IC amplifier	*041
IO	4332A-03	New repair method for a defective IC amplifier	*041
MR	4934A-11A	Recommended modification prevents hold circuit failure	038
IO	4935A-15A	New clamshell case halves for older instruments	038
MR	4935A-16	Modification to correct signal measurement when using receiver hold circuit	037
IO	4935A-17	Suggested replacements of volume control assembly for older instruments	039
IO	4936A-15	Correction to specification & performance tests in oper & calib manual	*048
IO	4937A-05	Suggested replacement volume control assembly for older instruments	039
IO	4951C-12A	Keyboard cable application	037
MR	4951C-14	Modification to eliminate erroneous ABORT frames; SCC retrofit kit 04951-62726	037
IO	4952A-09A	Recommended A4 Option memory DRAMs	*048
MA	4952A-12B	Available firmware upgrade from Rev. 1.0 to Rev. A.02.02	*041
MA	4952A-13A	Available firmware upgrade from Rev. A.02.00/A.02.01 to Rev. A.02.02	*041
MA	4952A-17	Real time clock allows captured data in buffer to be time stamped	037
MR	4954A-08	New firmware revision 2.1 corrects several known problems	037
MA	4957A-01A	High-speed option retrofitting	*044
MA	4957A-01	Available modification allows hi-speed option retrofitting	038
MR	4957A-02	Recommended replacement power supply zener diode (CR10) improves reliability	038
IO	4957A-03	Redesigned CRT for the 4957A	039
MR	4957A-04	New ROM fixes DLC Data Bus Contention problem/A1UT4	039
MR	4957A-05A	Modification to prevent enlargement or shrinkage of display	*041
MR	4957A-05	Modification to prevent enlargement or shrinkage of display	*040
IO	4957A-06	New cooling fans are available	*041
MR	4957A-07	Modification to misloaded diodes corrects "no display"	*042
MR	4957A-08	Firmware Revision A.00.01 Anomalies	*043
MA	4957A-09	Katakana option retrofitting	*044
MA	4957PC-01	New ROM allows Hi-Speed option retrofitting	039
MR	4957PC-02	New ROMs fix auto-configuration anomaly	*043
MR	4957PC-03	Modification to stop monitoring and/or simulating	*044
SA	4980A-02-S	Modification brings instrument up to HP standards for grounding	*048
MR	4980A-03	Modification eliminates bad sectors on hard disk drive	*048
MR	4980A-04	Modification prevents trace shorting on the LCD board	*048
MR	4980A-05	Modification resolves "service request timeout on port xxx" error	*048
MR	4980A-06	Modification to resolve "hardware/software watchdog timeout errors"	*048
SA	4981A-02-S	Modification brings instrument up to HP standards for grounding	*048
MR	4981A-03	Modification eliminates bad sectors on hard disk drive	*048
MR	4981A-04	Modification prevents trace shorting on the LCD board	*048
MR	4981A-05	Modification resolves "service request timeout on port xxx" error	*048
MR	4981A-06	Modification to resolve "hardware/software watchdog timeout errors"	*048
SA	4982A-02-S	Modification brings instrument up to HP standards for grounding	*048
MR	4982A-03	Modification eliminates bad sectors on hard disk drive	*048
MR	4982A-04	Modification prevents trace shorting on the LCD board	*048
MR	4982A-05	Modification resolves "service request timeout on port xxx" error	*048
MR	4982A-06	Modification to resolve "hardware/software watchdog timeout errors"	*048
IO	4991A-11	Complete description of firmware applications	037
MR	4991A-12	Modification improves reliability of P1 & P2 power supply connections	038
MR	4991A-13	Mod. to fix "Node Movement, or Node Hopping," & network performance problem	*045
MR	4992A-02	Mod. to fix "Node Movement, or Node Hopping," & network performance problem	*045
MR	5314A-05A	Modification to fix "dead zone" problem	036
IO	5315A-05	Add safety warning to Opt. 004 oven contained oscillator adjustments	*044
MR	5335A-26B	Power supply replacement kit replaces relay K1	*046
IO	5340A-22D	Preamp retrofit kit is available for the 5340A	037

SN Type	SN No.	Abstract	Service Note Package
IO	5340A-24	Performance test and adjustment procedure modification for Opt. 006 uwave limiter	037
SA	5342A-58A-S	New support strut & top cover make counter safe to carry with the carrying handle	035
IO	5342A-59	Procedure for troubleshooting 350 MHz miscount problems	035
IO	5343A-30A	Procedure for troubleshooting 350 MHz miscount problems	035
SA	5343A-31A-S	New support strut & top cover make counter safe to carry with the carrying handle	035
MA	5347A-08	HP-IB retrofit kit (P/N 05348-67002) is available	038
MA	5348A-08	HP-IB retrofit kit (P/N 05348-67002) is available	038
IO	5361B-01	Use High/Low Meas. band for Op. 040 Units when following perf. test proced.	*046
MR	5382A-04	Instructions on replacing 1820-0633 (A1U4) and 1820-0634 (A1U14)	036
MR	5383A-06	Instructions on replacing 1820-0633 (A1U4) and 1820-0634 (A1U14)	036
IO	5501B-01	Non-adjustable power supply now used for laser heads	035
MR	5508A-03	Modification to correct circuit board 05508-60002 trace interference problem	037
IO	5517A/B/C-01	Non-adjustable power supply now used for laser heads	035
IO	5518A-01	Non-adjustable power supply now used for laser heads	035
MR	6010A-06	Modification using RTV to prevent W8 ribbon cable disconnect	*048
MR	6011A-07	Modification using RTV to prevent W8 ribbon cable disconnect	*048
MR	6012B-05	Modification using RTV to prevent W8 ribbon cable disconnect	*048
MR	6015A-02	Modification using RTV to prevent W8 ribbon cable disconnect	*048
MR	6030A-13	Modification using RTV to prevent W8 ribbon cable disconnect	*048
MR	6031A-15	Modification using RTV to prevent W8 ribbon cable disconnect	*048
MR	6032A-14	Modification using RTV to prevent W8 ribbon cable disconnect	*048
MR	6035A-03	Modification using RTV to prevent W8 ribbon cable disconnect	*048
MR	8130A-01	Solution to eliminate crosstalk to the output signal	039
MR	8131A-01	Solution to eliminate crosstalk to the output signal	039
IO	8131A-02	Recommended test/adjustment after replacement of the output board	039
IO	8180A-07	Modifications to be made when replacing P/N 5180-2420 by 5180-2470	*045
IO	8180B-02	Modifications to be made when replacing P/N 5180-2420 by 5180-2470	*045
IO	8181A-05	Modifications to be made when replacing P/N 5180-2420 by 5180-2470	*045
IO	8181B-01	Modifications to be made when replacing P/N 5180-2420 by 5180-2470	*045
IO	8182A-03	Modifications to be made when replacing P/N 5180-2420 by 5180-2470	*045
IO	8182B-02	Modifications to be made when replacing P/N 5180-2420 by 5180-2470	*045
IO	8447D/E/F-08	Preferred replacements for microcircuit preamp & pwr. amp.	*040
MR	8447F-07	Mod. eliminates 20 kHz-40 kHz residuals appearing at output of 9 kHz-50 MHz amp	038
MA	8560A-01D	Firmware upgrade kit improves performance	*046
MR	8560A-03A	Recommended electrolytic capacitor changes on cal oscillator assemblies	036
IO	8560A-06	Recommended replacement CRT	036
IO	8560A-11	Modifying instruments for use with preselected external mixers	036
MR	8560A-16	Modification to prevent negative peak detector latchup	037
MA	8560A-17	Modifications for use with 85644A/45A power sweep capability	*043
MR	8560A-18	Modification to eliminate unwanted sidebands (oscillations)	*040
IO	8560A-19	Frequency offsets and making YTO endpoints adjustment	*042
IO	8560A-20	CRT second anode discharge procedure	*042
MR	8561A-13A	Recommended electrolytic capacitor changes on cal oscillator assemblies	036
IO	8561A-24	Recommended replacement CRT	036
MR	8561A-28	Recommended modification to improve frequency counter accuracy	036
MR	8561A-29	Modification to prevent negative peak detector latchup	037
MA	8561A-30	Modifications for use with 85644A/45A power sweep capability	*043
IO	8561A-32	CRT second anode discharge procedure	*042
MA	8561B-01D	Firmware upgrade kit improves performance	*046
MR	8561B-03A	Recommended electrolytic capacitor changes on cal oscillator assemblies	036
IO	8561B-11	Modifying instruments for use with preselected external mixers	036
IO	8561B-14	Recommended replacement CRT	036
MR	8561B-18	Modification to prevent negative peak detector latchup	037
MA	8561B-19	Modifications for use with 85644A/45A power sweep capability	*043
MR	8561B-20	Modification to eliminate unwanted sidebands (oscillations)	*040
IO	8561B-21	Frequency offsets and making YTO endpoints adjustment	*042
IO	8561B-22	CRT second anode discharge procedure	*042
MA	8562A-02H	Available firmware upgrade kits	*043
MR	8562A-46A	Recommended electrolytic capacitor changes on cal oscillator assemblies	036
IO	8562A-56	Recommended replacement CRT	036

SN Type	SN No.	Abstract	Service Note Package
MR	8562A-59	Recommended modification to improve frequency counter accuracy	036
MR	8562A-60	Modification to prevent negative peak detector latchup	037
MA	8562A-61	Modifications for use with 85644A/45A power sweep capability	*043
MR	8562A-63	Modification to eliminate unwanted sidebands (oscillations)	*040
IO	8562A-64	CRT second anode discharge procedure	*042
MA	8562B-01H	Available firmware upgrade kits	*043
MR	8562B-43A	Recommended electrolytic capacitor changes on cal oscillator assemblies	036
IO	8562B-54	Recommended replacement CRT	036
MR	8562B-57	Recommended modification to improve frequency counter accuracy	036
MR	8562B-58	Modification to prevent negative peak detector latchup	037
MA	8562B-59	Modifications for use with 85644A/45A power sweep capability	*043
MR	8562B-61	Modification to eliminate unwanted sidebands (oscillations)	*040
IO	8562B-62	CRT second anode discharge procedure	*042
MA	8563A-02B	Firmware upgrade kit improves performance	*046
IO	8563A-10	Recommended replacement CRT	036
MR	8563A-12	Modification to prevent negative peak detector latchup	037
MA	8563A-13	Modifications for use with 85644A/45A power sweep capability	*043
IO	8563A-14	Standard 8563A specified to 26.5 GHz	*042
MR	8563A-15	Modification to eliminate unwanted sidebands (oscillations)	*040
IO	8563A-16	Frequency offsets and making YTO endpoints adjustment	*042
IO	8563A-17	CRT second anode discharge procedure	*042
MA	8566A-20C	HP 8566AB Retrofit Kit upgrades performance of "A" version to "B" version	*046
IO	8566A-42	New adjustment procedures for replacement A4A1 Video Processor	*046
IO	8566B-37	New adjustment procedures for replacement A4A1 Video Processor	*046
IO	8567A-12	Preferred replacement for the cooling fan assembly	*040
IO	8567A-17	New adjustment procedures for replacement A4A1 Video Processor	*046
MA	8568A-44C	HP 8566AB Retrofit Kit upgrades performance of "A" version to "B" version	*046
IO	8568A-57	Preferred replacement for the cooling fan assembly	*040
IO	8568A-59	New adjustment procedures for replacement A4A1 Video Processor	*046
IO	8568B-25	Preferred replacement for the cooling fan assembly	*040
IO	8568B-31	New adjustment procedures for replacement A4A1 Video Processor	*046
IO	8594A-02	Instructions on entering flatness correction data	*046
IO	8595A-02	Instructions on entering flatness correction data	*046
MR	8671B-08	Modification improves power supply reliability and eliminates blown fuses	*040
MR	8672A-25	Modification improves power supply reliability and eliminates blown fuses	*040
MR	8673B-13B	Modification improves power supply reliability and eliminates blown fuses	*040
MR	8673C-14B	Modification improves power supply reliability and eliminates blown fuses	*040
MR	8673D-15B	Modification improves power supply reliability and eliminates blown fuses	*040
MR	8673E-07A	Modification improves power supply reliability and eliminates blown fuses	*040
MR	8673G-04	Modification improves power supply reliability and eliminates blown fuses	*040
MR	8673H-05	Modification improves power supply reliability and eliminates blown fuses	*040
MR	8719C-01	Modification to correct reversed bias tee connectors	*048
MR	8720C-01	Modification to correct reversed bias tee connectors	*048
MR	8722A-01	Modification to correct reversed bias tee connectors	*048
IO	8751A-05A	Procedure on making additional adjustments for A9/A10/A11 receivers	037
IO	8751A-05	Procedure on making additional adjustments for A9/A10/A11 receivers	035
MR	8751A-06A	Modification corrects power-on test failure	*042
MR	8751A-06B	Modification to fix the A4 (Rev. E or below) power-on test failure	*044
MR	8751A-06	Modification to prevent the A4 power-on test failure	037
IO	8751A-07	Modification to extend the A7 board using P/N 08751-66594	037
IO	8751A-08	Replacement procedure for A1/A2 digital boards	037
IO	8751A-09A	Relationship between the firmware version and ROM set	*042
IO	8751A-09B	Tables showing relationship between the firmware version and ROM set	*046
IO	8751A-09	Information on the relationship between firmware version and ROM sets	037
MR	8751A-10	Modification to prevent test failure after adjustment	037
MR	8751A-11	Modification allows control of solid-state version HP 85046A/Bs	038
MR	8751A-12	Modification to fix the intermittent lock up/PRESET operation	*046
MR	8751A-13	Mod. prevents unit from "hanging up" when it initializes floppy disk	*046
MR	8752A-01A	Firmware revision 1.03 corrects previous problems with revision 1.02	036
IO	8753C-03	Recommended replacement source amplifier kit	*044

SN Type	SN No.	Abstract	Service Note Package
MR	8770A-24A	Modification of the line voltage operating range	*042
MR	8902A-12A	Recommended replacement firmware improves performance	035
MR	8902A-13	F/W upgrade corrects TRFL Cal Factor anomaly	035
MR	8904A-04	Replacing audio transformer corrects inverted waveform	*044
MR	8920A-01	Required new A9 power supply for selected serial numbers	*040
MR	8920A-02	Early instruments require firmware upgrade	*046
SA	8971B-01A-S	Recommend changing fuse from 1.25 amp to 1.0 amp for 220/240 volt operation	035
IO	8971B-03A	Preferred replacement for the A2 microprocessor assembly	038
IO	8971C-01A	Preferred replacement for the A2 microprocessor assembly	038
IO	8980A-03A	Manual corrections clarify delay problems in operator check 3-40	038
MR	8981A-02A	Faulty power splitter in some instruments may cause severe quadrature error	038
IO	8981A-03A	Manual corrections clarify delay problems in operator check 3-40	038
MR	E1222M-07	New multi-fuses increase reliability	038
MR	E1222M-08	Modification to prevent power supplies from switching off	*043
MR	E1300A-01	Mod. to elim. possible RAM mem. loss & maintain batt. stdby. vol. above +4.5V	*045
MR	E1301A-01	Modification increases operating life	*041
MR	E1301A-02	Mod. to elim. possible RAM mem. loss & maintain batt. stdby. vol. above +4.5V	*045
MR	E1326B-01	Modifications to prevent erroneous readings and incorrect delay settings	036
MR	E1326B-02	Modification to prevent losing readings when operating with a V/360 Controller	036
MR	E1332A-01	Modification to prevent losing readings when operating with a V/360 Controller	036
MR	E1332A-02	Modification prevents pulse width/time intv. errors	*041
MR	E1333A-01	Modification to prevent losing readings when operating with a V/360 Controller	036
MR	E1351A-01	Mod. prevents high envir. noise causing random errors & disrupting bus commun.	036
MR	E1352A-01	Mod. prevents high envir. noise causing random errors & disrupting bus commun.	036
MR	E1353A-01	Mod. prevents high envir. noise causing random errors & disrupting bus commun.	036
MR	E1357A-01	Mod. prevents high envir. noise causing random errors & disrupting bus commun.	036
MR	E1358A-01	Mod. prevents high envir. noise causing random errors & disrupting bus commun.	036
IO	E1400B/T-01	Notification of new, enhanced performance power supply	036
MR	E1411B-01	Modifications to prevent erroneous readings and incorrect delay settings	036
MR	E1411B-02	Modification to prevent losing readings when operating with a V/360 Controller	036
MR	E1420A-01	Opt. 010 F/W upgrade corrects known probs. & allows Ch. C (input 3) compatibility	035
MR	E1420A-02	Modification to correct rise/fall time performance test failure	*045
IO	E1650A-01	List of firmware revisions	*043
IO	E1650A-01A	Technique for installing modules into the mainframe	*047
MR	E1652A-01	Modification prevents temporary failure or lockup when using multiple modules	*047
MR	E1671A-01	Recommended firmware upgrade eliminates Error -240 Hardware Error	039
IO	E1671A-02	Recommended configuration to stop clock jitter	*044
MR	E1682A-02	Recommended firmware replacement fixes misalignment in STM1 modes	*041
MR	E1682A-02A	New F/W fixes STM byte rdback being 1 col out-of-alignment for certain pnter vlues	*047
MR	E2420A-01	New pc board for preprocessor clears up floating grounds	*040
MR	E2500A-07A	Modification to line voltage silkscreening to limit operating ranges	035
MR	E2500A-07B	Modification of the line voltage operating range	*042
MR	E2500A-08	Modification to eliminate data-to-clock crosstalk on U15, U16 and U17	035
IO	E2500A-09	Troubleshooting cause of system error 00227: bad detector voltage	*044
MR	E2500B-01	New 44 Megabyte disk drives to replace failed units	038
MR	E2500B-02	Modification of the line voltage operating range	*043
MA	E2500B-03	New board holder prevents pc cards from vibrating loose	*042
IO	E2500B-04	Troubleshooting cause of system error 00227: bad detector voltage	*044
MA	10529A-01	Instructions on replacing the A2 main board assembly	036
IO	11722A-01	New coaxial switch requires new mounting hardware	038
MR	11757A/B-01A	11757A to 11757B upgrade kit	037
IO	11757A/B-02A	Instructions on setting options with the DIP switches on the microprocessor board	037
IO	11757A/B-02B	Instructions on how to set the options	*040
IO	11758A/B-01A	Instructions on how to set the options	*040
IO	11792A-01	New coaxial switch requires new mounting hardware	*040
IO	16117D-01	Information on replacing parts	*042
IO	16278B-01	Described service for the IMA/PC software security key	*040
IO	16500A-10	Recommended exchange part for the power supply assembly	035
IO	16501A-01	Recommended exchange part for the power supply assembly	035
IO	16540A-02	"Memory Failure" troubleshooting procedure	035

SN Type	SN No.	Abstract	Service Note Package
IO	16541A-02	"Memory Failure" troubleshooting procedure	035
IO	18110A-01	Description of difference between production vs. MIL STD calibration	035
IO	18111A-01	Description of difference between production vs. MIL STD calibration	035
MR	18282A-01	Exchange board fixes misloaded capacitors	*044
MR	18283A-01	Exchange board fixes misloaded capacitors	*044
MR	18284A-01	Exchange board fixes misloaded capacitors	*044
MR	18356A-01	Modification to correct hardware incompatiblity with firmware version A.02.00	*042
MA	37212B-02C	Recommended firmware upgrade improves performance	*040
IO	37212B-04A	Preferred replacement of A1U1 & A1U6 & how to restore the country personality	*040
MA	37701A-02	Additional features can be retrofitted to older instruments	*040
MA	37701A-03	Pulse Shape measurement capability (Opt. 001) can be retrofitted	*040
MA	37711A-02	Additional features can be retrofitted to older instruments	*040
MA	37711A-03	Pulse Shape measurement capability (Opt. 001) can be retrofitted	*040
MR	37721A-04	Recommended battery replacement	*041
IO	37721A-05	New 75 ohm signal out/signal in coaxial cables	*041
IO	37721A-06	New printer window is available	*041
MA	37914A-01	Recommended performance enhancement eliminates occasional CRC errors	*048
MR	42841A-03	Mod. to prevent incorrect shut down caused by thermal switch error	039
MR	42841A-04	Mod. to prevent the HP 42841A Bias Current Source A4 board's fuses from blowing	039
IO	44743F-01	Documentation of software bugs in the service kit	*044
IO	44743F-01A	List of known bugs and workarounds in HPTOOLS file	*046
IO	44743F-02	Documentation of software bugs in the service kit	*044
IO	44743F-03	Documentation of software bugs in the service kit	*044
IO	44743F-04	Documentation of software bugs in the service kit	*044
IO	53110A-02	HP 8082A can be used to test 2.5 ns min. pulse width perf. test	*045
MR	53301A-01	Required new oscillator power cable has locking connectors to maintain connection	*040
IO	53310A-02A	Use 8082A if 8130 is NA for the 2.5 ns minimum pulse width perf test	*048
IO	54121A-03	New heatsink required when horiz. bd. assy. is changed	*041
IO	54600A-01	Parameter changes to correct firmware calibration failures	*040
MR	54600A-02	Recommended ROM replacement correct autoscale problems with small signals	*040
IO	54600A-03	Manual revision eliminates erroneous test failure message	*040
MA	54600A-04	Available ROM firmware upgrade to Rev. 2.0	*041
IO	54600A-05	Correction to User and Service Guide HP P/N 54600-90901	*042
IO	54601A-01	Parameter changes to correct firmware calibration failures	*040
MR	54601A-02	Recommended ROM replacement correct autoscale problems with small signals	*040
IO	54601A-03	Manual revision eliminates erroneous test failure message	*040
MA	54601A-04	Available ROM firmware upgrade to Rev. 2.0	*041
IO	54601A-05	Correction to User and Service Guide HP P/N 54600-90901	*042
MR	64145A-01	New ROM firmware fixes incorrect SEB instruction	*041
IO	70004A-03A	Instructions on replacing keypad keys or retainer spring	*043
IO	70700A-01A	Recommended replacement firmware kits	*046
IO	70841A-03	List of current firmware revisions	*048
IO	70842A-03	List of current firmware revisions	*048
IO	70845A-02	List of current firmware revisions	*048
IO	70846A-02	List of current firmware revisions	*048
IO	70900-14F	Hardware vs. firmware compatibility information	038
IO	70900A-14H	Firmware history	*042
IO	70900B-01C	Firmware history	*042
MR	85056A-01	Female gage (measures 2.4 mm female connectors) may have a mating problem	035
MR	85105A-01	Miswired A3 VTO summing amp. board may disable R/T-to-S-parameter switch	035
MR	85106C-01	Modification increases RF source voltage to improve performance	*040
IO	85629A-09	Considerations for performing external mixer amplitude adjustment	*047
IO	85629A-09	Considerations for performing external mixer amplitude adjustment	*048
IO	85629B-07	Considerations for performing external mixer amplitude adjustment	*047
IO	85629B-07	Considerations for performing external mixer amplitude adjustment	*048
SA	87421A-01-S	New AC input power module eliminates potential shock hazard due to faulty rivets	*047

Service Note Types

IO	Information Only	MA	Modification Available
MR	Modification Recommended	SA	Safety
PR	Priority Safety		

Service Note Order Form

If you want to order a service note, refer to the list of service notes in the Bench Briefs Service Note Index and find the service note number belonging to the product you are interested in. If there is an asterisk (*) located next to the package number, that service note is located on the HP FIRST system and can be ordered through your Group 3 FAX machine. Refer to instructions for ordering service notes through HP FIRST at the front of the index.

Otherwise, use the form on this page and order the number that appears in the "service note package" column of the index. You will receive a package of service notes that includes the one you ordered.

Hewlett-Packard
Worldwide Customer Support
Operation
100 Mayfield Ave.
Mtn. View, California 94043
Attn: Bench Briefs

NAME _____

COMPANY NAME _____

ADDRESS _____

CITY _____

STATE/COUNTRY _____ ZIP _____

Service Note Packages

☐ **035**	*☐ **042**
☐ **036**	*☐ **043**
☐ **037**	*☐ **044**
☐ **038**	*☐ **045**
☐ **039**	*☐ **046**
*☐ **040**	*☐ **047**
*☐ **041**	*☐ **048**

Please photocopy this order form if you do not want to cut off the page.

HEWLETT-PACKARD COMPANY
100 Mayfield Avenue
Mountain View, California 94043

BENCH BRIEFS
1ST QUARTER 1992
Volume 32 Number 1

Service information from Hewlett-Packard Company

To obtain a qualification form for a free subscription, send your request to the above address.

Reader comments or technical article contributions are welcomed. Please send them to the Bench Briefs Editor at the above address.

Editor: Jim Bechtold
Hewlett-Packard

Bulk Rate
U.S. Postage
PAID
San Jose, CA
Permit No.
1201

Printed in U.S.A.