



BENCH BRIEFS

SERVICE INFORMATION FROM HEWLETT-PACKARD

REFERENCE FILE COPY

JANUARY-FEBRUARY 1985

PLEASE DO NOT REMOVE Hewlett-Packard Is Going Metric

25pt

John Minck, HP Stanford Park Div.

At an early point in the USA metrication program, Hewlett-Packard stated its commitment to a full metric position to be consistent with its multinational posture in scientific instrumentation and world trade strategies. HP has taken a phased approach to this metrication and began by directing an early effort to designing new products with full metrics. As those products are introduced to the market, and older products are retired, the line will naturally become more metric.

Most current products will not be redesigned specifically for metric; however, starting in early 1985, HP will begin to ship instruments that use the so-called System II cabinet configuration with metric-threaded fasteners in the frame parts. Brackets and cabinet-joining hardware will attach with metric screws. Internal sheet metal will attach to the frames

with metric screws although the internal structure will remain standard inch-threaded fasteners (in the older instruments).

Instruments with these mixed inch-threaded/metric-threaded configurations should be identified with labels inside each top and bottom cover. There should also be a notification label attached to the rear panel of each such instrument. And as updates become available, the operating and service manual will carry a notification addendum sheet. The frame parts themselves will have either an "M" designator or the word "metric" cast into a visible spot for identification.

Rack mount and front handle kits will be packaged with both metric-threaded and inch-threaded fasteners. And since the possibility exists where an inch-threaded instrument could be joined with a metric-threaded instrument, the lock

link kits HP provides will also contain both metric- and inch-threaded screws.

For the technician servicing HP products, the important thing is to be aware of these coming changes and to be particularly alert to which fasteners are being used in the particular instrument being serviced. In other words, don't throw all your screws into one coffee cup.

HP does not plan to color code the metric hardware since such a plan is not deemed any more necessary than identifying the location of various length of number 8-32 screws.

If you have any questions regarding which type fasteners are being used, call your local HP office with the instrument's serial number. This number will establish the time point where the metric-threaded hardware was started into production.

HP Instrument Training

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Proper knowledge of measurement techniques and instrument capabilities will make you more productive. HP Instrument Training courses are designed to quickly and effectively teach you how to apply advanced measurement technology to your application needs - helping you to obtain maximum success with your instrument application.

Learn More . . .

HP Instrument Training provides you with an in-depth understanding

of advanced measurement technology and techniques. HP Instrument Training can also acquaint you with new applications and operating procedures, which you can use to improve the productivity of your system.

Students will learn more in an HP class than they could reasonably expect to learn by spending the same amount of time teaching themselves. The HP Systems Engineers who teach the courses are experts on the

equipment and are "peaked" in specific application areas.

Learn Faster . . .

HP Instrument Training is an intensive learning experience. Courses are designed to teach you quickly and efficiently how to use your equipment in new and productive ways.

Course material is presented in a logical and businesslike manner so that students can quickly assimilate vital information. No time is wasted

on "salessey" presentations – the student's time is fully devoted to learning.

Learn Better . . .

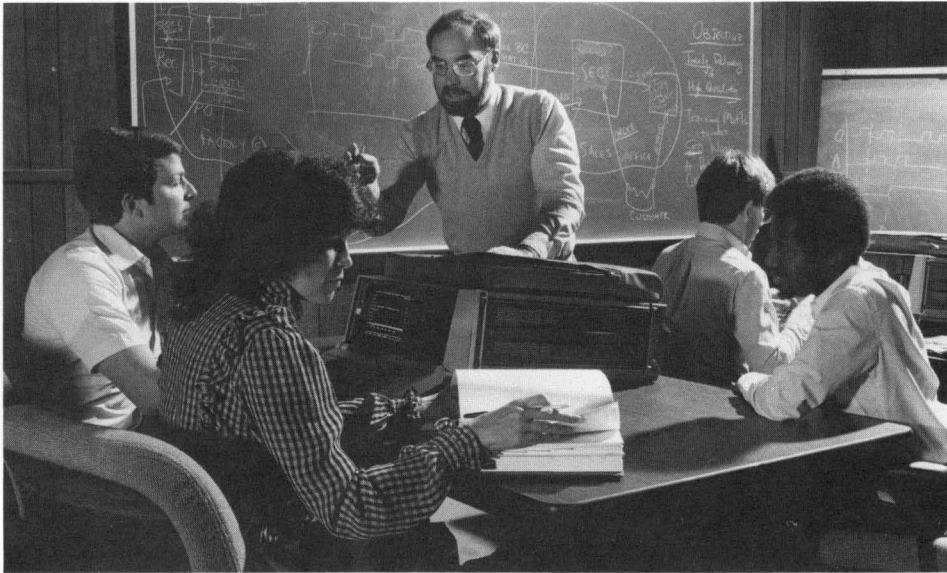
The structured learning environment provided by HP's Instrument Training classes allows for full re-

tention of course materials. Each course introduces key concepts and principles through illustrated study materials and lectures. Students then apply what they have learned through hands-on exercises and labs. In this way principles are immediately reinforced through actual experience.

. . . For Your Success

In today's fast-paced business environment, gaining the most productivity from your people and equipment is essential to your success. HP's Instrument Training courses can help you achieve this success.

For more information, please contact your nearest HP office and ask for HP publication 5953-9608. Everything you need is contained in this catalog.



Learn new applications and operating procedures that you can use to improve the productivity of your system.

- Course Number & Name**
 HP 64100A+24D HP 64000 System Concepts and Measurements
 HP 1630A/D+24D Logic Analysis Measurement Techniques
 HP 1980A/B+24A Waveform Measurement System Training
 HP 3060A, 3061A, 3062A User's Course
 HP 3065C+24D Board Test System User's Course
 HP 4062A+24A Operating and Programming Training
 HP 4955A+24A Protocol Analyzer User Training
 HP 5528A+24A Basic Laser Measurement System Training
 HP 55283A+24A Advanced Laser Measurement System Training
 HP 6942A+24D Multiprogrammer User's Course
 HP 8180A/8182A+24A Operating Techniques
 HP 8180A/8182A+24H Programming Techniques
 HP 8409C+24D Automatic Network Analyzer User's Course
 HP 8510A+24D BASIC Measurements Using the HP 8510 Network Analyzer System
 HP 8560A/8568A+24D Spectrum Analyzer Operation Course
 HP 44854A+24A HP 3060A Enhancement Training
 HP 50011A HP-IB Instrument System Training
 HP 50015A Data Acquisition and Control Fundamentals
 HP 50016E HP-IB Instrument Programming with HP 1000 E/F Series Controllers
 HP 64000 Logic Development System Training Courses
 HP 64817+24D HP 64000 System: HOST Pascal Programming Course
 HP 64810A+24D HP 64000 Pascal on 8080/8085 Microprocessors
 HP 64812A+24D HP 64000 Pascal on Z80 Microprocessors
 HP 64814A+24D HP 64000 Pascal on 8086/8088 Microprocessors
 HP 64815A+24D HP 64000 Pascal on 68000 Microprocessors
 HP 64600S+24F Advanced Timing/Hardware Analysis Training
 HP 64620S+24F Advanced State/Software Analysis Training
 HP 64310A+24A Software Performance Analysis Training
 HP A03-99000A HP 80 Series Instrument Controller
 HP A06-99000A HP 5423/5420 Fourier Analysis User Training
 HP A19-99000A HP 5423A Servo System Measurement and Analysis

HP Instrument Training Courses Offered

1985 CUSTOMER SERVICE TRAINING CALENDAR

JANUARY 1985

Learn Service Skills Through In-Depth Technical Instruction

Hewlett-Packard service training courses are designed to provide in-depth technical instruction for maintenance personnel seeking the skills needed to troubleshoot, repair, and maintain HP instruments and instrument systems. Course concepts are taught through a balance of theory and practical, hands-on exercises.

Ordering Instrument Service Training is easy. Simply contact your local HP Sales Representative and tell him or her which courses you wish to attend. If you require a course on an instrument or instrument system not listed on the calendar below, ask your Sales Representative if a special arrangement can be made.

Content	Dates	Location	Tuition per Student
Logic Systems			
HP 64000 Logic Development System	Feb 25-Mar 1 Jul 15-19	Logic Systems Division Colorado Springs, CO	\$1000
Automatic Test			
HP 3061A/62A Board Test Systems	Jan 21-Feb 1 Apr 29-May 10 Aug 5-16 Oct 21-Nov 1	Manufacturing Test Division Loveland, CO	\$2100

Content	Dates	Location	Tuition per Student
HP 3065H Board Test System	Jan 7-18 Feb 25-Mar 8 Mar 18-29 May 13-24 Jun 17-28 Jul 8-19 Aug 19-30 Oct 7-18	Manufacturing Test Division	\$3400
HP DTS-70 Board Test System	Jan 21-25 Apr 15-19 Jul 29-Aug 2 Oct 21-25	This course is taught by Lexico Enterprises Inc. located in Kirkland, WA	\$1200
RF & Microwave			
HP 435A/436A	Sep 9	Stanford Park Division Palo Alto, CA	\$225
HP 8672A/8673B	Sep 10-13	Stanford Park Division	\$900
Data Acquisition			
HP 2250 Maintenance Training	Feb 4-8 Jun 17-21 Oct 28-Nov 1	Loveland Instrument Division Loveland, CO	\$1400
Waveform Analyzers & Universal Counters			
HP 5180A/5182A Waveform Analyzers	Mar 11-15	Santa Clara Division Santa Clara, CA	\$1225
HP 5334A Universal Counter	Jun 6-7	Santa Clara Division	\$450
HP 5335A Universal Counter	Jun 3-5	Santa Clara Division	\$675

Test and Verification Programs

Many Hewlett-Packard instruments and instrument-based systems use ready-made programs, stored in both tape and disc format, 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.

Most of the programs are HP-IB based and test the interface capability of the instrument through a particular controller. There are programs used for troubleshooting the

instrument and programs that are almost complete application tools. Some programs are not stored on a disc or tape but are printed in the operating and service manual and need to be manually entered into the controller line-by-line.

In some cases the controller is listed as HP Series 200. This means that the software may run on one or more of the following technical workstations; Models 216, 217, 220, 226, 236, and 237 (ordered as 9816, 9817, 9920, 9826, 9836, 9837). This does not im-

ply that the software will run on all of the workstations.

In some instances, the software is part of a maintenance kit and cannot be purchased separately.

Please note that we have made every attempt to make sure this list is complete and accurate. However, since this list was compiled by human hand there will no doubt be human errors. We have done our best. If you have any questions about this list, please contact your local HP office.

HP Model/Description	Tape/Disc P/N	Format	Controller	Documentation
10871A Service Kit	05180-13301		9825A	5180A Manual
11664E Detector	in manual		Ser. 200	11664E Manual
11740A MW Phase Noise Meas. Sys.	03047-10015	5 1/4" disc	9836A	3047A Manual
11740A MW Phase Noise Meas. Sys.	35601-10011	5 1/4" disc	9836A	35601A Manual
1630/31 Logic Analyzer	01630-68705	test kit	Ser. 200	1630A/D/G Man./ 1631A/D Manual
1630/31 Logic Analyzer	01630-90036	5 1/4" disc #1	Ser. 200	1630A/D/G Man./ 1631A/D Manual
1630/31 Logic Analyzer	01630-90037	5 1/4" disc #2	Ser. 200	1630A/D/G Man./ 1631A/D Manual
1630/31 ET 19776	01630-90038	5 1/4" disc	Ser. 200	1630A/D/G Man./ 1631A/D Manual
1630/31 66505 State Board	01630-90039	5 1/4" disc	Ser. 200	1630A/D/G Man./ 1631A/D Manual
1630/31 66509 State Board	01630-90040	5 1/4" disc	Ser. 200	1630A/D/G Man./ 1631A/D Manual
1630/31 66506 Timing Mstr. Board	01630-90041	5 1/4" disc	Ser. 200	1630A/D/G Man./ 1631A/D Manual
1630/31 66510-66524 Tmg.Mstr.Bds.	01630-90042	5 1/4" disc	Ser. 200	1630A/D/G Man./ 1631A/D Manual
1630/31 66508 Timing Slave Board	01630-90043	5 1/4" disc	Ser. 200	1630A/D/G Man./ 1631A/D Manual
2250 Meas. Cont. Processor	25582-13301	tape	9835/9845	25582-90001 Man.
2250 Meas. Cont. Processor	25582-13401	5 1/4" disc	9825/9836	25582-90001 Man.
2250 Meas. Cont. Processor	25595-13301	tape #1	264x	25595-90001 Man.
2250 Meas. Cont. Processor	25595-13302	tape #2	264x	25595-90001 Man.
2250 Meas. Cont. Processor	25595-13303	tape #3	264x	25595-90001 Man.
2250 Meas. Cont. Processor	25595-13305	tape #1	85A/B	25595-90001 Man.
2250 Meas. Cont. Processor	25595-13306	tape #2	85A/B	25595-90001 Man.
2250 Meas. Cont. Processor	25595-13307	tape #3	85A/B	25595-90001 Man.
3042A Network Analyzer	03042-90211	tape	9825A	3042A Manual
3045A Spectrum Analyzer	03045-10001	tape	9825A	3045A Manual
3046A Sel. Lev. Meas. System	03046-10001	tape	85A/B	3046A Manual
3046B Sel. Lev. Meas. System	03046-10002	tape	85A/B	3046B Manual
3047A Spectrum Analyzer w/35601	35601-10001	tape	9845B	35601A Manual
3047A Spectrum Analyzer w/35601	35601-10011	tape	9836A	35601A Manual
3052A Voltmeter System	03052-90011	tape	9825A	3052A Manual
3052A Voltmeter System	03052-10002	tape	9835A	3052A Manual
3052A Voltmeter System	03052-10004	tape	9835B	3052A Manual
3052A Voltmeter System	03052-10006	tape	9845A	3052A Manual
3052A Voltmeter System	03052-10008	tape	9845B	3052A Manual
Note 1: The 3052 system tapes verify the following units: 3455, 3437, 3495, 59309, 9871, and the HP-IB card.				
3054A Data Acq. System	03054-10002	tape	9835A	3054 Manual
3054A Data Acq. System	03054-10005	tape	9845B	3054 Manual
3054A Data Acq. System	03054-10008	tape	9825B/T	3054 Manual
3054A Data Acq. System	03054-10028	tape	9826 HPL	3054 Manual
3054A Data Acq. System	03054-10043	3 1/2" disc #2	Ser. 200	3054 Manual
3054A Data Acq. System	03054-10045	5 " disc #2	Ser. 200	3054 Manual
3054A/DL Data Acq. System	03054-10011	tape	85A/B	3054 Manual
Note 2: The 3054A/DL system tapes verify the following: 3497, 3456, 3437, 3325 HP-IB interface & card ver.				
3054C Data Acq. System				
Option 851/871	all system tapes req'd:			
Option 851/871	03054-10032	tape #1	HP 1000	3054 Manual
Option 851/871	03054-10033	tape #2	HP 1000	3054 Manual
Option 851/871	03054-10034	tape #3	HP 1000	3054 Manual
Option 851/871	03054-10035	tape #4	HP 1000	3054 Manual
Option 851/871	03054-10036	tape #5	HP 1000	3054 Manual

HP Model/Description	Tape/Disc P/N	Format	Controller	Documentation
Option 851/871	03054-10037	tape #6	HP 1000	3054 Manual
Option 851/871	03054-10038	tape #7	HP 1000	3054 Manual
Option 852/872	03054-10039	8" disc	HP 1000	3054 Manual
Option 853/873	03054-10040	5 " disc #1	HP 1000	3054 Manual
Option 853/873	03054-10041	5 " disc #2	HP 1000	3054 Manual
Option 854/874	03054-10031	CS 80 tape	HP 1000	3054 Manual
Option 855/875	03054-10046	3 1/2" disc #1	HP 1000	3054 Manual
Option 855/875	03054-10047	3 1/2" disc #2	HP 1000	3054 Manual
Note 3: The 3054C system tapes verify the following units: 3497, 3456, and card verification.				
3056DL Data Logger	03056-10001	tape	85A/B	3056DL Manual
Note 4: The 3056DL system tape verifies the 3421 and the multiplexer options.	03056-10002	tape (data)	85A/B	3056DL Manual
3253A Analog Stimulus Resp. Unit	03253-10002	tape	9825A/B	3253A Manual
3253A Analog Stimulus Resp. Unit	44587-89400	3 1/2" disc	Ser. 200	3253A Manual
3253A Analog Stimulus Resp. Unit	44587-89410	5 1/4" X disc	Ser. 200	3253A Manual
3253A Analog Stimulus Resp. Unit	44587-89420	5 1/4" I disc	Ser. 200	3253A Manual
3335A Frequency Synthesizer	03335-10001	tape	9825A	3335A Manual
3421A Data Acquis. System	03421-67901	test kit	85A/B	3421A-1C S/N
3421A Data Acquis. System		(incl-10001 tape & cal pcb)		3421A-5 S/N
3421A Data Acquis. System	03421-10001	tape	85A/B	3421A-1C S/N
3437A System DVM	03437-10001	tape	9825A	3052A Manual/ 3437A-8 S/N
3455A System DVM	03455-10001	tape	9830A	3052A Manual
3455A System DVM	03455-10002	tape	9825A	3052A Manual
3456A Digital Voltmeter	03456-10001	tape	9825A/B	3456A Manual
3456A Digital Voltmeter	03456-10002	tape	9835A/45B	3456A Manual
3456A Digital Voltmeter	03456-10003	tape	85A/B	3456A Manual
3468A/B Digital Voltmeter	03468-10001	tape, verif	85A/B	not yet rels'd
3468A/B Digital Voltmeter	03468-10002	tape, cal	85A/B	Supplied w/tape
3478A Digital Multimeter	03478-10001	tape	85A/B	3478A-1 S/N
3478A Digital Multimeter	03478-10002	tape, cal	85A/B	Supplied w/tape
3488A Switch Cont.Unit	03488-10001	tape	85A/B	Supplied w/tape
3495A Scanner	03495-10001	tape	9830A	3495A Manual/ 3495A-9 S/N
3495A Scanner	03495-10002	tape	9825A	3495A Manual/ 3495A-9 S/N
3497A Data Acquis./Cont.Unit	03497-10001	tape	9825A	3497A-12 S/N
3582A Spectrum Analyzer	03582-10001	tape	9825A	3582 Manual
3585A Spectrum Analyzer	03585-10001	tape	9825A	3585 Manual
3585A Selective Level Meter	03046-10001	tape	85A/B	3046A Manual
3586B Selective Level Meter	03046-10002	tape	85A/B	3046B Manual
37201A HP-IB Extender	37201-18100	tape	9825A	37201A Manual
37203A HP-IB Extender	37203-12101	tape	9825A	37203A Manual
3745A/B Sel. Level Meas. Set	03745-18003	tape	9825A	3745A/B-52 S/N
3746A Sel. Level Meas. Set	in manual		85A	3746A Manual
3747A/B Sel. Level Meas. Set	03745-18003	tape	9825A	3747A/B-23 S/N
3755A Switch controller	in manual		9830A	3755A Manual
3771A/B Data Line Analyzer	in manual		9825A	3771A/B Manual
3776A/B PCM Terminal Test Set	03776-10001	tape	85B	3776A/B Manual
3777A Channel Selector	in manual		9815/25/30	3777A Manual
3779A/B Pri. Multiplex Analyzer	in manual		9825A	3779A/B Manual
3779C/D Pri. Multiplex Analyzer	in manual		9825A	3779C/D Manual
3785A/B Jitter Gen. & Rec.	03785 10004	tape	85A	3785A/B Manual

HP Model/Description	Tape/Disc P/N	Format	Controller	Documentation
4062A/B Test System	04062-65101	5 1/4" disc(2)	9836S	not yet rels'd
4085M Switching Matrix	04085-90501	tape	85F	04085-90100 Note
4191A Impedance Analyzer	16342A kit			
4192A LF Impedance Analyzer	04192-90501	tape	9825B	04192-90100
4192A LF Impedance Analyzer	04192-90503	tape	85F	04192-90200
4276A LCZ Meter	04276-90501	tape	85F	04276-90100
4277A LCZ Meter	04277-90501	tape	85F	04277-90100
4280A 1 MHz C Meter	04280-90501	tape	85F	not yet rels'd
436A Power Meter	00436-10047	5 1/4" disc	9836A	436A-9 S/N
436A Power Meter	00436-10006	tape	9830A	436A Manual
436A Power Meter	00436-10007	tape	9825A	436A-2 S/N
5005B Signature Multimeter	59300-10002	tape	85A	5005B Manual
5006A Signature Analyzer	59300-10002	tape	85A	5006A Manual
5150A Thermal Printer	59300-10001	tape	9825A	5050A-4 S/N
5180A Waveform Recorder	05180-13302	tape	9825B	5180A Manual
5182A Waveform Recorder	05180-13302	tape	9825T	5182A Manual
5180/82 Waveform Recorder	Contact HP	disc	Ser. 200	
5312A ASCII Interface 5300B	59300-10001	tape	9825A	5312A-2 S/N
5312A HP-IB Interface Module	59300-10002	tape	85A	5312A-4A S/N
5316A Universal Cntr.	59300-10002	tape	85A	5316A-3A S/N
5328A Universal Cntr. Opt.011, 020,021,030,031,040,041	59300-10001	tape	9825A	5328A-17 S/N
5328A Universal Cntr. Opt.H99	59300-10001	tape	9825A	5328A/H99 Manual
5328A Universal Cntr. Opt.096/H42	59300-10001	tape	9825A	5328A/H42 Manual
5328A Universal Cntr. Opt.011, 020,021,030,031,040,041	59300-10002	tape	85A	5328A-33B S/N
5328A Universal Cntr. military	59300-10002	tape	85A	5328A-34B S/N
5335A Universal Cntr.	59300-10001	tape	9825A	5335A Manual
5335A Universal Cntr.	59300-10002	tape	85A	5335A-7B S/N
5340A Frequency Cntr. Opt.011	59300-10001	tape	9825A	5340A-11 S/N
5341A Frequency Cntr. Opt.011	59300-10001	tape	9825A	5341A Manual
5342A Microwave Cntr. Opt.011	59300-10001	tape	9825A	5342A Manual
5342A Microwave Cntr. Opt.002,011	59300-10002	tape	85A	5342A-32A S/N
5343A Microwave Cntr. Opt.011	59300-10001	tape	9825A	5343A Manual
5343A Microwave Cntr. Opt.004,011	59300-10002	tape	85A	5343A-11A S/N
5344S Microwave Source Synchro.	59300-10002	tape	85A	5344S Manual
5345A Electronic Cntr. Opt.011	59300-10001	tape	9825A	5345A-9A S/N
5345A Electronic Cntr. Opt.012	59300-10001	tape	9825A	5345A-12A S/N
5345A Electronic Cntr. Opt.011	59300-10002	tape	85A	5345A 19A S/N
5345A Electronic Cntr. Opt.012	59300-10002	tape	85A	5345A-20A S/N
5353A Channel C Plug-In	59300-10001	tape	9825A	5353A-1 S/N
5354A 4 GHz Frequency Cntr.	59300-10001	tape	9825A	5354A-6 S/N
5355A Automatic Frequency Cntr	59300-10001	tape	9825A	5355A Manual
5358A Measurement Stor. Plug-in	59300-10001	tape	9825A	5358A Manual
5359A Time Synthesizer	59300-10001	tape	9825A	5359A Manual
5363A Time Interval Probes	59300-10001	tape	9825A	5363A-2 S/N
5363B Time Interval Probes	59300-10001	tape	9825A	5363B Manual
5370A/B Univ. Time Intv. Cntr.	59300-10001	tape	9825A	5370A-1A S/N
5384A Frequency Counter	not rels'd			
5385A Frequency Counter	not rels'd			
5420A/B Digital Signal Analyzer	05420-69002	tape	9825A/B	Supplied w/tape
54200A/D Digitizing Oscilloscope	54200-12001	disc	Ser. 200	54200A/D Manual
5423A Structural Dynamics Ana.	05420-69002	tape	9825A/B	Supplied w/tape
59301A ASCII/Parallel Cntr.	59300-10001	tape	9825A	59301-2 S/N
59303A Digital-to-Analog Cntr.	59300-10001	tape	9825A	59303A-1 S/N
59304A Numeric Display	59300-10001	tape	9825A	59304A-1 S/N
59306A Relay Actuator	59300-10001	tape	9825A	59306A-4 S/N
59307A VHF Switch	59300-10001	tape	9825A	59307A-3 S/N
59308A Timing Generator	59300-10001	tape	9825A	59308A-1 S/N
59309A Digital Clock	59300-10001	tape	9825A	59309A-3 S/N
59313A Analog-to-Digital Cntr.	59300-10001	tape	9825A	59313A Manual
59500A Multiprogmr. Interface	14551-13001	tape	9825A	Supplied w/tape

HP Model/Description	Tape/Disc P/N	Format	Controller	Documentation
6031A Power Supply	5010-1703	disc	Ser. 200	Supplied w/disc
6031A Power Supply	5010-1704	tape	85	Supplied w/tape
6032A Power Supply	5010-1703	disc	Ser. 200	Supplied w/disc
6032A Power Supply	5010-1704	tape	85	Supplied w/tape
6033A Power Supply	5010-1703	disc	Ser. 200	Supplied w/disc
6033A Power Supply	5010-1704	tape	85	Supplied w/tape
6034A Power Supply	06034-10001	tape	85	Supplied w/tape
6034A Power Supply	06034-10002	tape	9825	Supplied w/tape
6034A Power Supply	06034-10003	disc	9826A/36A	Supplied w/disc
6038A Power Supply	5010-1703	disc	Ser. 200	Supplied w/disc
6038A Power Supply	5010-1704	tape	85	Supplied w/tape
6940B Multiprogmr.	14551-13001	tape	9825A	Supplied w/tape
6940B Multiprogmr. Plug-In Cds	14551-13001	tape	9825A	Supplied w/tape
6941B Multiprogmr. Extndr.	14551-13001	tape	9825A	Supplied w/tape
6942A Multiprogrammer	06942-90031	tapes #1,#2,#3	85A	Operating Note
6942A Multiprogrammer	14752-69003	5 1/4" disc	Ser. 200	14752-90001
6942A Multiprogrammer	14752-69004	3 1/2" disc	Ser. 200	14752-90001
6942A Multiprogmr. Plug-In Cds	06942-90031	tapes #1,#2,#3	85A	Operating Note
6942A Multiprogmr. Plug-In Cds	06942-60003	tape #3	85A	Operating Note
6944A Multiprogrammer	14752-69003	5 1/4" disc	Ser. 200	14752-90001
6944A Multiprogrammer	14752-69004	3 1/2" disc	Ser. 200	14752-90001
6944S Multiprogrammer	14752-69003	5 1/4" disc	Ser. 200	14752-90001
6944S Multiprogrammer	14752-69004	3 1/2" disc	Ser. 200	14752-90001
7090A Meas. Graphics System	07090-18030	tape	85A/B	Supplied w/tape
71000 Spectrum Analyzer	not rels'd			
7220 Graphics Plotter (RS-232)	5010-2585/2410	tape	85A	auto st. w/menu
7221 Graphics Plotter (RS-232)	5010-2585/2410	tape	85A	auto st. w/menu
7225 Graphics Plotter w/17601	5010-2585/2410	tape	85A	auto st. w/menu
7225 Graphics Plotter w/17603	5010-2585/2410	tape	85A	auto st. w/menu
7225 Graphics Plotter w/17604	5010-2585/2410	tape	85A	auto st. w/menu
7240A Printer/Plotter (RS-232)	5010-2585/2410	tape	85A	auto st. w/menu
7245A/B Printer/Plotter (RS-232)	5010-2585/2410	tape	85A	auto st. w/menu
7470A Graphic Plotter				
Option 001 (RS-232)	5010-2585/2410	tape	85A	auto st. w/menu
Option 002 (HP-IB)	5010-2585/2410	tape	85A	auto st. w/menu
Option 003 (HP-IL)	5010-2585/2410	tape	85A	auto st. w/menu
7475A Graphic Plotter				
Option 001 (RS-232)	5010-2585/2410	tape	85A	auto st. w/menu
Option 002 (HP-IB)	5010-2585/2410	tape	85A	auto st. w/menu
7550A Graphic Plotter (both)	5010-2585/2410	tape	85A	auto st. w/menu
7580A/B Drafting Plotter (both)	5010-2585/2410	tape	85A	auto st. w/menu
7585A/B Drafting Plotter (both)	5010-2585/2410	tape	85A	auto st. w/menu
7586B Drafting Plotter (both)	5010-2585/2410	tape	85A	auto st. w/menu
8160A Programmable Pulse Gen.	08160-39910	test kit (tape)	9825A	Supplied w/kit
8160A Programmable Pulse Gen.	08160-39911	tape	9825A	8160A Manual
8340A Synthesized Sweeper	08340-10010	5 1/4" disc	Ser. 200	Not yet rels'd
8340A Synthesized Sweeper	08340-90009	5 1/4" disc	Ser. 200	Not yet rels'd
8341A Synthesized Sweeper	08340-90009	5 1/4" disc	Ser. 200	Not yet rels'd
8341A Synthesized Sweeper	08340-90010	3 1/2" disc	Ser. 200	Not yet rels'd
8409B Network Analyzer	11863-10004	tape	9835/45	8409B Manual
8409C Network Analyzer	11863-10006	tape	9845B	8409C Manual
8409D Network Analyzer	11863-10005	5 1/4" disc	9826B	8409C Manual
8501A Storage Normalizer	Contact HP	tape		8501A Manual
85013 BASIC Appl. Pak for 8510				
Option 630	85013-10001	3 1/2" disc		85013A Manual
Option 655	85013-10002	5 1/4" disc		85013A Manual
85050A 7mm Calibration Kit	08510-10007	tape	8510	85050A Manual
85051A 7mm Verification Kit	none	tape	8510	85051A Manual
85052A 3.5mm Calibration Kit	08510-10007	tape	8510	85052A Manual
85053A 3.5mm Verification Kit	none	tape	8510	85053A Manual
85054A Type-N Calibration Kit	08510-10007	tape	8510	85054A Manual
8507A Network Analyzer	85030-10002	tape	9830A	8507A Manual
8507B Network Analyzer	85030-10007	tape	9825A	8507B Manual
8507C Network Analyzer	85030-10013	tape	9845B	8507C Manual
8507D Network Analyzer	85011A Op 630	3 1/2" disc	Ser. 200	8507D Manual
8507D Network Analyzer	85011A Op 655	5 1/4" disc	Ser. 200	8507D Manual

HP Model/Description	Tape/Disc P/N	Format	Controller	Documentation
8510A Network Analyzer System	08510-10001	tape	8510	8510A Manual
8510A Net. Ana. Op 010 w/time dom.	08510-10002	tape	8510	8510A Manual
8510A Net. Ana. Circuit Model Prog.				
BOOT (Pascal 2.0)	85101-10004	5" & 3" discs	9816/26/36	8510A Manual
BOOT (Pascal 3.0)	85101-10006	5" & 3" discs	9816/26/36	8510A Manual
PROG (Pascal 2.0)	85101-10005	5" & 3" discs	9816/26/36	8510A Manual
PROG (Pascal 3.0)	85101-10007	5" & 3" discs	9816/26/36	8510A Manual
8510A Net. Ana. Service	85101-10003	tape	8510	8510A Manual
8510A Net. Ana. Sys. Adjustments	08510-10001	5" & 3" discs	9816/26/36	8510A Manual
8510A Sys. Performance Tests				
8510/8512	08510-80002	5" & 3" discs	9816/17/26/ 9836/37	8510A Manual
8510/8513	08510-80003	5" & 3" discs	9816/17/26/ 9836/36	8510A Manual
8510/8514	08510-80004	5" & 3" discs	9816/17/26/ 9836/37	8510A Manual
8510/8515	08510-80005	5" & 3" discs	9816/17/26/ 9836/37	8510A Manual
8510/8511	08510-80006	5" & 3" discs	9816/17/26/ 9836/37	8510A Manual
8566A Spectrum Analyzer	08566-60002	tape	9825B	08566-90005 Man.
8566B Spectrum Analyzer	08566-60008	5 1/4" disc	9836/16	08566-90041 Man.
8566B Spectrum Analyzer	08566-60008	3 1/2" disc	9836/16	08566-90041 Man.
8568A Spectrum Analyzer	08568-60002	tape	9825B	08568-90028 Man.
8568B Spectrum Analyzer	08568-60008	5 1/4" disc	Ser. 200	08568-90042 Man.
8568B Spectrum Analyzer	08568-60008	3 1/2" disc	Ser. 200	08568-90042 Man.
8620C Sweeper Mainframe	Contact HP	for tape	9825A/B	Supplied w/tape
86210 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86220 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86222 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86230 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86235 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86241 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86242 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86245 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86250 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86260 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86290 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86320 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86330 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86331 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86341 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86342 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86350 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86351 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
86352 Sweeper Plug-in	Contact HP	for tape	9825A/B	Supplied w/tape
8642A/B Synthesized Sig. Gen	not rels'd	tape	85B	8642 Manual
8660A/C Synthesized Sig. Gen.	08660-10001	tape	9825A	8660A-29 S/N
8662A Synthesized Sig. Gen.	08662-60310	tape	9825A	08662-60057 Note
8672A Synthesized Sig. Gen.	11712-10001	tape	9830A	11712-90001 Man.
8672A Synthesized Sig. Gen.	11712-10002	tape	9825A	11712-90001 Man.
8673A/B Synthesized Sig. Gen.	11726-10002	tape	85	Supplied w/tape
8673C/D Synthesized Sig. Gen.	11726-10004	tape	85	Supplied w/tape
8756A Scalar Network Analyzer	08756-10003	5 1/4" disc	Ser. 200	Supplied w/disc
8756A Scalar Network Analyzer	08756-10004	3 1/2" disc	Ser. 200	Supplied w/disc
8970A Noise Figure Meter	08970-10001	tape	85F	08970-90017
9872 Graphics Plotter (HP-IB)	5010-2585/2410	tape	85A	auto st. w/menu

Safety-Related Service Notes *18pt*

Service notes from HP 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 bor-

der, and the service note number has a "-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 on the service note order form at the back of Bench Briefs, each appropriate number is highlighted by being printed in color.

HP 890A/895A DC Power Supplies

Several shock hazards may exist on these two power supplies.

1. A shock hazard exists on the chassis when the earth ground connection is removed or broken.
2. Attempting to remove the pilot lamp while the power cord is still connected could expose the operator to a shock hazard. This is due to the possibility that the pilot light assembly may come loose and out the front of the chassis.
3. A shock hazard may occur between the ac line and the output due to an improperly placed component.

Hewlett-Packard will correct these problems with a modification kit. If you wish to install the kit yourself (approximately 1/2 hour installation time), you may obtain the kit free of charge by contacting your nearest HP service center and referencing Safety Service Notes 890A-1-S or 895A-4-S. If you wish to have HP install the kit, it will be done at no charge.

3060A Board Test System, 3061A/3062A Board Test Systems, 3065A Board Test System

These four HP Board Test Systems may have a potential safety hazard in which more than 42 volts could be supplied to the printed circuit board under test.

If >42 volts is supplied to the pc board under test, safe operation requires that a fixture cover with a safety interlock be installed (refer to Test Fixture Assembly and Service Manual, HP P/N 44538-9000).

Please refer to Safety Service Notes 3060A-58-S, 3061/2A-6-S and 3065A-19-S for more information.

3065-21-S Safety Service Note describes a condition where an improperly installed diode in the DUT Sense Batching Cards can cause a relay malfunction. The relay malfunction will cause some equipment damage and a possible operator hazard if the operator removes the fixture while the 6034L DUT power supplies are outputting a programmed voltage. Please order the Safety Service Note for more information.

HP 3764A Digital Transmission Analyzer

On Analyzers with serial numbers below 2418U00246, the contacts on the ON/OFF switch may weld together. In this condition, the instrument would pose a hazard only to service personnel when the covers are removed. Safety Service Note 3764A-6-S describes the proper steps for switch replacement.

6521A/6522A/6525A High Voltage Power Supplies

These three power supplies may provide a shock hazard to the operator if the earth ground connection is removed or broken.

Hewlett-Packard will correct this problem with a modification kit. If you wish to install the kit yourself (approximately 1/2 hour installation time), you may obtain the kit free of charge by contacting your nearest HP service center and referencing Safety Service Notes 6521A-7-S, 6522A-7-S, or 6525A-7-S. If you wish to have HP install the kit, it will be done at no charge.

supplement to BENCH BRIEFS SERVICE NOTE INDEX

Need Any Service Notes?

They're free!

Here's the latest listing of Service Notes. They recommend modifications to Hewlett-Packard instruments to increase reliability, improve performance, or extend their usefulness.

Use the order form at the rear of Bench Briefs to order, free of charge, individual Service Notes documenting several instruments.

If you would like to purchase large quantities of Service Notes covering a wide range of instruments, or if you desire a complete history of all Service Notes documenting all changes to your instruments, Hewlett-Packard offers a microfiche library for a modest, one time charge. There is also a microfiche subscription service available that automatically updates the library on a quarterly schedule.

The part numbers for the microfiche library and subscription service are:

Library of Service Notes— 5951-6511
Subscription service— 5951-6517

Contact your local HP Sales Office for ordering information.

GENERAL

5083-10. End of support for selected cathode ray tubes.
5083-11. End of support for cathode ray tubes used in 1700A/B, 1701A/B, 1706A/B & 1707A/B instruments, all options — Cathode ray tube part number 5083-2752.

HP 435A/B POWER METER

435A-6. All serials. Modification to improve the adjustment range of the 50 MHz Reference Oscillator assembly.
435B-2. Serials 2442A and below. Modification to improve the adjustment range of the 50 MHz Reference Oscillator assembly.

HP 436A POWER METER

436A-10. Serials 2432A and below. Modification to improve the adjustment range of the 50 MHz Reference Oscillator assembly.
436A-11. Serials 2410A and below. Recommended modifications when changing display board assembly A1A1.

HP 438A POWER METER

438A-1. Serials 2427A and below. Modification to improve the adjustment range of the 50 MHz Reference Oscillator assembly.

HP 890A DC POWER SUPPLY

890A-1-S. All serials. Notification of possible shock hazard.

HP 895A DC POWER SUPPLY

895A-4-S. Serials 2225A002592 and below. Notification of possible shock hazard.

HP 1335A X-Y DISPLAY

1335A-17. Serials 2220A and below. Modification to improve persistence reliability.

HP 1345A DIGITAL DISPLAYS (Option 704 only)

1345A/704-1. Serials 2411A and below. Modification to prevent flashing while cold.
1345A-5. Serials 2411A and below. Modification to improve noise immunity.

HP 1630G LOGIC ANALYZER

1630G-2. Serials 2425A00506 and below. Power supply primary current limit modification.

HP 3060A CIRCUIT TEST SYSTEM

3060A-39C. All serials. Configuration/Confirmation/Diagnostics Software. Supersedes 3060A-39B, 3060A-27B.
3060A-58-S. All serials. Notification of potential safety hazard.
3060A-59. All serials. Correction to 3060A troubleshooting manual volume S1.
3060A-60. All serials. 3253A ASRU modification to improve reliability by reducing the heat dissipation on the A44 board.
3060A-61. Serials 1717A01417 and below. 3453A digital stimulus/response unit replacement fan.
3060A-62. All serials. Revised 3253A ASRU calibration software for the 9825.
3060A-63. All serials. Reducing intermittent and reoccurring instrument failures.

HP 3061A/3062A BOARD TEST SYSTEM

3061/2A-4. Serials 2306A00140/2307A00275 and below. Reasons for intermittent 6034L power supply over-voltage interrupts.
3061A/3062A-5. All serials. Revised 3253A ASRU calibration software for series 200 controllers.
3061/2A-6-S. All serials. Notification of potential safety hazard.
3061A/3062A-7. All serials. Correction to 3060A/3061A/3062A troubleshooting manual volume S1.
3061A/3062A-8. All serials. 5335A frequency counter firmware (ROM) revision 1.1.
3061A/3062A-9. All serials. 3253A ASRU modification to improve reliability by reducing the heat dissipation on the A44 board.
3061A/3062A-10. All serials. Configuration/Confirmation/Diagnostics Software revision 2440.

HP 3065 BOARD TEST SYSTEM

3065-14. All serials. Modification of the pulsar power supply (HP P/N 11351-66510) to conform to the hybrid card specifications.
3065-15. Backplane cable replacement, new HP P/N 11352-61602.
3065-16. Changing scanner boards in systems with backplane cable HP P/N 11352-61602.
3065-17. Modification of the fixture to eliminate interface problems.
3065-18. All serials. Description of Hewlett Packard's Cooperative Support Program for the HP 3065 system.
3065-19-S. All serials. Notification of potential shock hazard in which a voltage level >42V supplied to the pc board under test by the DUT power supply may present an operator safety hazard.
3065A-21-S. Serials 2310A00309 to 2310A00332 potential 11352-66504 DUT sense batching card problem.
3065-22. All serials. Description of time-out failure for utility test 19 when operating on 50 Hz power.

HP 3325A SYNTHESIZER/FUNCTION GENERATOR

3325A-15. Serials 1748A16023-1748A16025; 1748A16030-1748A16039; 1748A16042; 1748A16044 and above. Recommended EPROM to replace masked ROMs.
3325A-16. Serials 1748A16400 and below. 30 MHz crystal change to prevent intermittent oscillator failures.
3325A-17. Serials 1748A16000 and below. New washer improves attenuator board reliability.

HP 3400A RMS VOLTMETER

3400A-15. All serials. Updating older instruments and retrofitting the new impedance converter.

HP 3406A BROADBAND SAMPLING VOLTMETER

3406-8A. Serials 1722A07575 and below. Calibrator assembly recommended parts replacement.

HP 3421A DATA ACQUISITION AND CONTROL UNIT

3421A-1C. All serials. Improved semi-automated performance verification and calibration procedures.
3421A-5. All serials. Thermocouple reference junction calibration using the temperature calibrator board (03421-66505).

HP 3455A DIGITAL VOLTMETER

3455A-17B. All serials. Modifications to reduce AC drift; replacement of A15U3 and A15U4.

HP 3465A/B DIGITAL MULTIMETER

3465A-5C. All serials. Replacement part numbers for batteries.
3465B-2B. All serials. Replacement part numbers for batteries.

HP 3488A SWITCH/CONTROL UNIT

3488A-0. Engineering revision code change record.
3488A-4. 4470A relay multiplexor module - ERC 2338; 44471A general purpose relay module - ERC 2338; 44473A matrix switch module - ERC 2338. Recommended resistor replacement to decrease the power dissipated in the driver transistors.
3488A-5. 44474A digital I/O module - ERC 2338. Recommended replacements for FETs Q901 through Q916.

HP 3561A DYNAMIC SIGNAL ANALYZER

3561A-1. All serials with option 001 bubble memory. New bubble module package.
3561A-2. All serials. Modification to prevent horizontal lines being displayed during marker operation.
3561A-3. Serials 2338A01000 and above. 12 ROMs replace 24 EPROMs on A40 processor assembly.

HP 3702B IF/BB RECEIVER

3702B-0. Service note index.

HP 3703B GROUP DELAY DETECTOR

3703B-0. Service note index.

HP 3705A PHASE DETECTOR

3705A-0. Service note index.

HP 3710A IF/BB TRANSMITTER

3710A-0. Service note index.

HP 3764A DIGITAL TRANSMISSION ANALYZER

3764A-5. Serials 2419U00257 and below. Modification to protect non volatile memory.
3764A-6-S. Serials 2418U00246 and below. Elimination of potential safety hazard.
3764A-7. Serials 2418U00246 and below. Recommended procedure for replacement of the fan.
3764A-8. Serials 2418U00246 and below. Procedure for replacement of the A24 line input assembly.
3764A-9. Serials 2419U00536 and below. Firmware revisions.

HP 3776A/B PCM TERMINAL TEST SET

3776A-10B. Serials 00182 and below. Possible multiple interrupts from the keyboard causing "Error 104" to be displayed.

3776A-13B. All serials. Retrofitting instructions for data measurements option 001.

3776A-15B. Serials 2423U00202 and below. Software modification to correct a bug that prevents the running of the continuous pulse signalling dialling measurement and also causes the analog RX-only gain measurements results to be affected by the idle state holding tone.

3776A-18. Serials 2444U00282 and below. Frequency update instructions for data measurement option 001.

3776A-19. All serials. 3776 test programs data cartridge (HP P/N 03776-10001) modifications.

3776A-20. HP 3776A opt. 001. Serials 2444U00282 and below. Old assembly 03776-60008 compatibility with firmware rev. 2431.

3776B-10B. Serials 00422 and below. Possible multiple interrupts from the keyboard causing "Error 104" to be displayed.

3776B-13B. All serials. Retrofitting instructions for data measurements option 001.

3776B-15B. Serials 2423U00462 and below. Software modification to correct a bug that prevents the running of the continuous pulse signalling dialling measurement and also causes the analog RX-only gain measurements results to be affected by the idle state holding tone.

3776B-18. Serials 2437U00642 and below. Frequency update instructions for data measurement option 001.

3776B-19. All serials. 3776 test programs data cartridge (HP part number 03776-10001) modifications.

3776B-20. HP 3776B Opt. 001. Serials 2437U00642 and below. Old assembly 03776-60008 compatibility with firmware rev. 2431.

HP 3779A/B PRIMARY MULTIPLEX ANALYZER

3779A-23C. All serials. Service accessories for performance tests.

3779A-32A. All serials. HP 3779C/D assemblies that are compatible with HP 3779 A/B assemblies.

3779A-34. All serials. Recommended replacement for the A32 board, CRT drive assembly.

3779B-25C. All serials. Service accessories for performance tests.

3779B-33A. All serials. HP 3779 C/D assemblies that are compatible with HP 3779 A/B assemblies.

3779B-35. All serials. Recommended replacement for the A32 board, CRT drive assembly.

3779B-37. All serials. Retrofit of option H10/H03.

HP 3779C/D PRIMARY MULTIPLEX ANALYZER

3779C-5C. All serials. Service accessories for performance tests.

3779C-16A. Serials 2308U00403 and below. Preferred replacement for assemblies A1, A8, A9, A31, A37.

3779C-18. Serials 2308U00308 to 2308U00319. Notification of incorrect value for the TX OUTPUT TERMINATION RESISTOR R17 on assembly A9.

3779C-19. Serials 2413U00438 and below. A35 assembly - heat protection from R1 mains thermistor.

3779C-20. Serials 2413U00404 to 2413U00438. Preferred replacements for assemblies A1, A8 and A9.

3779D-5C. All serials. Service accessories for performance tests.

3779D-17A. Serials 2308U00333 and below. Preferred replacement for assemblies A1, A8, A9, A31, A37.

3779D-19. Serials 2436U00403 and below. A9, K11 relay failure when measuring return loss on complex impedance wet lines.

3779D-21. Serials 2308U00244 to 2308U00264. Notification of incorrect value for the TX OUTPUT TERMINATION RESISTOR R17 on assembly A9.

3779D-22. Serials 2414U00403 and below. A35 assembly - heat protection from R1 mains thermistor.

3779D-23. Serials 2414U00334 to 2414U00403. Preferred replacements for assemblies A1, A8 and A9.

3779D-24. All serials. Retrofit of option H10/003.

HP 3785A/B JITTER GENERATOR AND RECEIVER

3785A-13. Serials 2404U and below. Recommended processor RAM sockets.

3785B-12. Serials 2402U and below. Recommended processor RAM sockets.

HP 4193A VECTOR IMPEDANCE METER

4193A-2A. All serials. Repair procedure for the probe connector assembly.

HP 4274A MULTI FREQUENCY METER

4274A-25. Serials 2031J00850 and below. Remedy for defective RAM.

HP 4275A MULTI FREQUENCY METER

4275A-22. All serials. Option 004 modification procedure.
4275A-23. Serials 2045J00922 and below. Remedy for defective RAM.

HP 4277A LCZ METER

4277A-6. Serials 2228J01017 and below. CMOS multiplexer IC replacement.

HP 4280A 1 MHz C METER

4280A-7. All serials. Resonant circuit repair information.

HP 4329A HIGH RESISTANCE METER

4329A-7A. Serials 2111J06487 through 2111J06568, and 2111J06570 through 2111J06574, and 2111J06576. Replacement of incorrect transistors.

HP 4935A TRANSMISSION IMPAIRMENT MEASURING SET

4935A-11A. Serials 2248A and higher. Recommended fuse change.

HP 4951A PROTOCOL ANALYZER

4951A-3. Serials 2426A01325 and below. Improved keyboard cable.
4951A-4. All serials. Interface POD caution label.
4951A-5. Serials 2443A and below. Recommended procedure to correct tape board servo error.
4951A-6. Serials 2426A and below. Procedure to rewire the power switch.

HP 5061A CESIUM BEAM FREQUENCY STANDARD

5061A-17. Serials 2136A01919 to 2232A02079. Defective synthesizer crystal replacement.
5061A-18. All serials. Recommended replacement of A10A1 oscillator.

HP 5180A WAVEFORM RECORDER

5180A-10B. Affected serial numbers are listed in the note. Firmware (ROM) revision 1.4 procedures.
5180A-19. Serials 2404A00800 and below. Modification to improve ADC reliability.

HP 5328A/5328AH99/5328B UNIVERSAL COUNTER WITH OPTION 030/031 CHANNEL C

5328A-40. All serials. Modification to prevent instrument oscillation around 710 MHz when replacing 1826-0372 pre-amps.
5328B-1. All serials. Modification to prevent instrument oscillation around 710 MHz when replacing 1826-0372 pre-amps.

HP 5334A UNIVERSAL COUNTER

5334A-3. Serials 2350A and below. Modification to neutralize false peak detection.
5334A-4. Serials 2350A00491 and below. Solution to front panel memory recall problem.

HP 5343A MICROWAVE FREQUENCY COUNTER

5343A-20. All serials below 2424A01674. Modification to prevent high frequency miscount.

HP 5381A 80 MHz FREQUENCY COUNTER

5381A-3. Serials 2310A to 2440A. Stabilization of output in overflow condition.

HP 5382A 225 MHz FREQUENCY COUNTER

5382A-3. Serials 2320A08261 to 2320A08295, and all 2416A serial prefixes below 2416A08435. Recommended replacement of defective 1820-2318 (A1U4) eight decade timebase IC.

HP 5383A 520 MHz FREQUENCY COUNTER

5383A-3. All 2338A serial prefixes and all 2412A serial prefixes below 2412A06456. Recommended replacement of defective 1820-2318 (A1U11) eight decade timebase IC.

HP 6024A POWER SUPPLY

6024A-2. Serials 2332A02990 and below. Ammeter and voltmeter replacement.

HP 6212A DC POWER SUPPLY

6212A-2. All serials. Front panel replacement.

HP 6214A DC POWER SUPPLY

6214A-2. All serials. Front panel replacement.

HP 6216A DC POWER SUPPLY

6216A-2. All serials. Front panel replacement.

HP 6218A DC POWER SUPPLY

6218A-2. All serials. Front panel replacement.

HP 6521A HIGH VOLTAGE POWER SUPPLY

6521A-7-S. Serials 2115A01630 and below. Possible shock hazard.

HP 6522A HIGH VOLTAGE POWER SUPPLY

6522A-7-S. All serials. Possible shock hazard.

HP 6525A HIGH VOLTAGE POWER SUPPLY

6525A-7-S. Serials 2113A02850 and below. Possible shock hazard

HP 7090A MEASUREMENT PLOTTING SYSTEM

7090A-1. Serials 2430A. Firmware revision.

HP 8080A MAINFRAME

8080A-1A-S. All serials. Possible incorrect FL1 line filter wiring.

HP 8082A PULSE GENERATOR

8082A-4. Serials 1822G3805 and below. Recommended replacement of resistors A5 R218/R221.

HP 8160A PROGRAMMABLE PULSE GENERATOR

8160A-10. All serials. Reliability improvement of current sources on the output amplifier boards.
8160A-11. Serials 2047G0605 and below. Recommended replacement of the fuseholder.

HP 8161A PROGRAMMABLE PULSE GENERATOR

8161A-6. Serials 2419G0535 and below. Recommended replacement of the fuseholder.

HP 8565A AND 8569A/B SPECTRUM ANALYZERS

8569B-8. All serials. Front panel control switch board assembly.

HP 8642A/B SYNTHESIZED SIGNAL GENERATOR

8642A-1/8642B-1. Procedure for module removal and installation.
8642A-2/8642B-2. Procedure for module removal and installation.

HP 8662A SYNTHESIZED SIGNAL GENERATOR

8662A-10. Serials 2424A and below. Modification to add insulators to power supply.
8662A-11. Serials 2411A01570 through 2424A01800. Add insulator to eliminate short on 10 MHz reference motherboard.
8662A-12. Serials 2424A and below. Modification to improve low frequency loop performance and eliminate intermittent status errors 03/04.

HP 8663A SYNTHESIZED SIGNAL GENERATOR

8663A-3. Serials 2419A00405 and below. Rework solder mounts to eliminate intermittent operation.
8663A-4. Serials 2405A00301 through 2419A00435. Add insulator to eliminate short on 10 MHz reference motherboard.
8663A-5. Serials 2419A and below. Modification to add insulators to power supply.
8663A-6. Serials 2419A and below. Modification to improve low frequency loop performance and eliminate intermittent status errors 03/04.

HP 8901B MODULATION ANALYZER

8901B-1. Serials 2411A and below. RF power reference calibration error.

HP 8902A MEASURING RECEIVER

8902A-2. Serials 2411A and below. RF power reference calibration error.

HP 9111A GRAPHICS TABLET

9111A-7. Serials 2435 and greater transformer change.

HP 10306B/C 80186/88 INTERFACE MODULE

10306B/C-1. Serials 2421A and below. Modification to prevent multiple resets during power up.
10306B/C-2. Serials 2421A and below. Improper ALE signal generation.

HP 10764B/C FAST PULSE CONVERTER

10764B/C-1. All serials. Recommended replacement capacitors on the fast pulse converter.

HP 16084A 1kΩ RESISTOR

16084A-1. All serials. DC resistance calibration procedure.

HP 62605M-P98 POWER SUPPLY

62605M-P98-1. All serials. Cooling fan modification.

HP 62615M/62615M-OPT 106 POWER SUPPLY

62615M-3. Serials 2416A01604 and below. A-1 control board installation.

HP 64000 LOGIC DEVELOPMENT SYSTEM

64000-0H. Service note index.

HP 64110A DEVELOPMENT STATION

64110A-8. All serials. Change of vendor on floppy disc drive unit.

HP 64292A NSC800 EMULATOR POD BOARD

64292A-1. NSC800 Emulation pod board repair number prefix 2335A and below. Modification to prevent data bus contention following power save mode.

HP 64515C PROGRAMMER MODULE

64515C-1. Unserialized. Inability to correctly program some types of PROMs.

HP 64601B TIMING ANALYZER CONTROL BOARD

64601B-1. 125 MHz time state module calibration procedure.

64621A STATE ANALYSIS SUBSYSTEM

64621A-3. All serials. Performance verification software bug.

HP 64658A 80186/188 INTERFACE MODULE

64658A-2. Serials 2421A and below. Modification to prevent multiple resets during power up.

HP 64941A FLOPPY DISC SYSTEM

64941A-2A. All serials. Change of vendor on floppy disc drive unit.

HP 86632B MODULATOR SECTION PLUG-IN

86632B-2. Serials 2422A and below. Modification to prevent intermittent programming problem.

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