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BENCH BRIEFSYOUR PRIVATE LINE TO HEWLETT-PACKARD
===== CUSTOMER SERVICE =====

August-September 1966

Vol. 7 No. 3

**SERVICE NOTES**

Here are the latest Service Notes, all designed to insure top-notch performance from your HP family instruments. Service Note topics typically include items such as modifications, new or special calibration techniques, and special repair procedures. Notes are grouped below by the type of information they present. If you would like to receive a complimentary copy of any note, circle the appropriate number of each under the SERVICE NOTE ORDER FORM.

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THESE SERVICE NOTES PRESENT INFORMATION ON MODIFICATIONS - some in kit form - designed to increase the usefulness of your HP instrument. For your convenience, where the modification is available in kit form, the HP stock number and approximate price (prices may change without notice in BENCH BRIEFS) of the kit is indicated. Before ordering a kit, check with your local HP field office for up-to-date pricing information.

141A-4A HP MODEL 141A OSCILLOSCOPE*(all serial numbers)*

You can equip your 141A for remote erase operation by installing a modification kit available through HP part no. 00141-69901, price \$18.50.

(This Service Note obsoletes an earlier note, 141A-4.)

735A-2 HP MODEL 735A DC TRANSFER STANDARD*(serials 547-60330 and below)*

Here is a modification that will prevent the oven in the HP Model 735A DC Transfer Standard from being jarred out of its socket during shipment or rough handling.

3440A-10A HP MODEL 3440A DIGITAL VOLTMETER*(all serial numbers)*

This Service Note describes how you may convert your 3440A from 1-2-2-4 ("1" state positive) BCD Recorder output to 1-2-4-8 ("1" state positive) BCD Recorder output.

(This Service Note obsoletes Note 3440A-10 described in the April-May 1965 issue of Bench Briefs.)

651A-7 HP MODEL 651A TEST OSCILLATOR*(all serial numbers)*

The modification described in this Service Note converts your HP Model 651A Test Oscillator for an output monitor calibrated in dbm/600 ohms. This procedure converts the standard Model 651A Test Oscillator to a 651A Test Oscillator Option 01.

508A, B, C, D-1 HP MODEL 508A, B, C, D TACHOMETER GENERATOR

Here is another Illustrated Parts Identification Listing complete with the usual exploded view drawings. All the individual parts are clearly detailed and keyed to HP part numbers.

THESE SERVICE NOTES PRESENT INFORMATION ON CALIBRATION TECHNIQUES.

Included is the title of each note and the instrument serial number grouping to which the note applies.

3440A-12 HP MODEL 3440A DIGITAL VOLTMETER*(all serial numbers)*

Here is a revised operating procedure for you to use which will insure optimum performance from your 3440A.

THESE SERVICE NOTES PRESENT INFORMATION TO HELP YOU SERVICE YOUR INSTRUMENT.

Included is the title of each note and the instrument serial number grouping to which the note applies.

5232A/3332A-2 HP MODEL 5232A/5532A ELECTRONIC COUNTERS*(serials prefixed 804- and below)*

Modification to A2 Trigger Assembly.

5212A/5512A-2 HP MODEL 5212A/5512A ELECTRONIC COUNTERS*(serials prefixed 608- and below)*

Recommended replacement transistor for A8Q1 in Oscillator Assembly 5212A-65F.

5085A-1 HP MODEL 5085A STANDBY POWER SUPPLY*(serials 618-00110 and below)*

Recommended replacement for CR7.

1420A-2 HP MODEL 1420A TIME BASE
(serials 441-01325 and below)
Modification for operation with DC stabilized vertical plug-ins.

1421A-2 HP MODEL 1421A TIME BASE
(serials prefixed 545- and below)
Modification for operation with DC stabilized vertical plug-ins.

5060A-2 HP MODEL 5060A CESIUM BEAM FREQUENCY STANDARD (serial -00200 and below)
Recommended replacement transistor for A16Q2 in Power Supply Regulator Assembly 05060-6026.

400E/EL-3A HP MODEL 400E/EL AC VOLTMETER
(serials 538-01350 and below)
Recommended replacement for A2Q3 and A2R16.

3442A-1A HP MODEL 3442A AUTOMATIC RANGE SELECTOR (serials below 440-01141)
3443A-1A HP MODEL 3443A HIGH GAIN/AUTO RANGE UNIT (serials below 444-00526)
Preferred replacement part for reed relays A1K1 in the 3442A and A2K8 in the 3443A.

130C-6 HP MODEL 130C OSCILLOSCOPE
(serials 630-05115 and below)
Improved series regulators available for Q421, Q441, and Q461.

P-1901-0350-A OSCILLOSCOPE SAMPLING DIODES
This Service Note gives instructions for replacing the Gallium Arsenide Diodes with hot carrier diodes, HP part no. 1901-0350, used in your Hewlett-Packard Oscilloscopes.



PROFESSOR WATTS SAYS

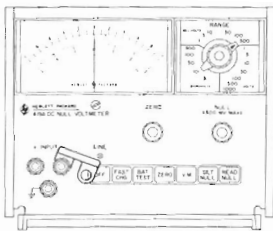
An idea worth repeating -----.

By request, here's an excellent service hint repeated from an earlier edition of Bench Briefs.

Here is an idea for keeping your HP Model 419A turned off during shipment so that its batteries will not run down.

The OFF pushbutton can easily become disengaged during shipment if one of the other buttons accidentally strikes the carton or pushes against the packing material. There is also a possibility that the button may "pop out" if the carton is dropped too hard.

Connect a binding post strap (such as HP part no. 5000-0635 or 5000-0634) to the minus INPUT binding post and position it as shown in the figure below. This will hold the OFF button in until your 419A arrives at its destination.



RECORDER CARE IN A BOOKLET

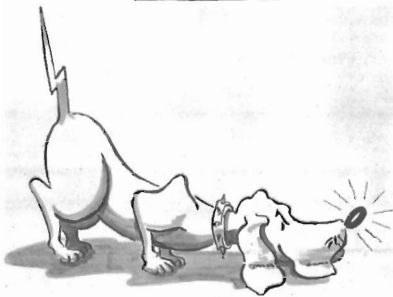
Have you seen the new maintenance brochure from Hewlett-Packard Moseley Division?? You have if you've recently received a new recorder from Moseley--they're now packaged with the instrument.

Called "Care of Your Moseley Recorder," the nineteen page booklet covers important service techniques relative to:

- Balance Potentiometers
- Writing Systems
- Paper Hold-Down System
- Lubrication

Also included is a maintenance parts list, a preventive maintenance schedule, and a listing of Hewlett-Packard Sales and Service Offices for the United States and Canada.

The brochure is valuable for Moseley Recorders, new and old; if you have not received a booklet and would like a free copy, circle RECORDER BOOKLET under the SERVICE NOTE ORDER FORM.

MISSING INSTRUMENTS

Five instruments have lost their owners this month.

Missing from Philco Tech/Rep Project aboard U. S. S. Mayfield, Alameda, California.

HP Model 140A Oscilloscope. Serial No. unknown, Philco Tag No. A-212995.

HP Model 1402A Dual Trace Amplifier. Serial No. 535-01018.

HP Model 1421A Time Base/Delay Generator. Serial No. 545-06619.

Please notify: Dan Wildman, Philco Tech/Rep Division, 1069 East Meadow Circle, Palo Alto, California. Phone 326-4350, Ext. 4839.

Missing since August 11 from The Lincoln Telephone and Telegraph Company, Lincoln, Nebraska.

HP Model 5245L Electronic Counter. Serial No. 544-08116.

HP Model 5281A Video Amplifier. Serial No 311-00830

Please notify: M. C. Walker, General Plant Superintendent, The Lincoln Telephone and Telegraph Company, Lincoln, Nebraska. Phone 402 433-4321.

If you have any clues to the missing equipment, please contact the organizations listed above or your local HP Sales Office or us at Western Service Center.

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 Cut Along Dotted Line

SERVICE NOTE ORDER FORM.... Here is a list of the latest Service Notes to help insure a maximum usage from your HP family instruments. To obtain a copy, simply circle the Service Note number you wish. Cut along dotted line, enclose this portion of Bench Briefs in an envelope, and send it to your nearest HP Field Office or to us at HP Customer Service. In Western Europe, send order to: Hewlett-Packard S. A., 54 Route des Acacias, Geneva, Switzerland.

Do you have a friend who would enjoy receiving Bench Briefs? If so, please give us his name and address.

Name _____ Address _____

<u>HP</u>	<u>HP</u>	<u>HP</u>
130C-6	3442A-1A/3143A-1A	5232A/5532A-2
141A-4A	400E/EL-3A	651A-7
1420A-2	5060A-2	735A-2
1421A-2	508A, B, C, D-1	P-1901-0350-A
3440A-10A	5085A-1	<u>MOSELEY</u>
3440A-12	5212A/5512A-2	Recorder Booklet

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