

Component-Level Information Packet for HP 3458A Digital Multimeter

DO IT YOURSELF COMPONENT LEVEL REPAIRS

HISTORY OF COMPONENT LEVEL INFORMATION PACKETS (CLIPS)

In the early 1980's, Hewlett-Packard made an order of magnitude improvement in the quality and reliability of HP Digital Multimeters. These improvements resulted from an HP-wide objective of a X10 quality improvement in hardware products. HP DMMs introduced during the 1980s have very low failure rates as a result of the reliability improvements.

This dramatic improvement in failure rates caused HP to change from a component level repair strategy to an assembly level repair strategy on most new products including the HP 3458A. Assembly level repair is more cost effective.

Customers, such as the US Armed Forces, request component level documents enabling them to do their own component level repairs. For this reason, HP provides Component Level Information Packets (CLIPS) on selected products including the HP 3458A. The HP 3458A CLIP contains the following documents: 1) schematics, 2) component locators and 3) parts lists for each printed circuit assembly.

HP 3458A REPAIR STRATEGY

The HP 3458A System DMM repair strategy is assembly replacement for less expensive assemblies and assembly exchange for more expensive assemblies. Assembly exchange requires diagnosis of failure to the assembly level and exchange of the failed assembly for a rebuilt assembly. HP does not support HP Repair Centers or HP customers in doing HP 3458A component level repairs.

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**HEWLETT
PACKARD**

HP3458A COMPONENT LEVEL INFORMATION PACKAGE

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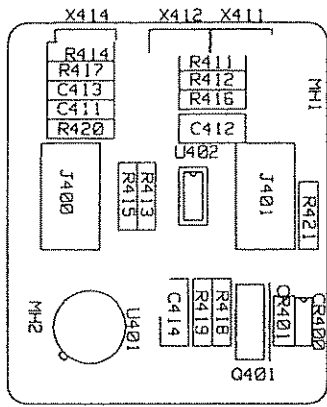


HP 3458A

A9 ASSEMBLY (03458-66509) REPLACEMENT PARTS

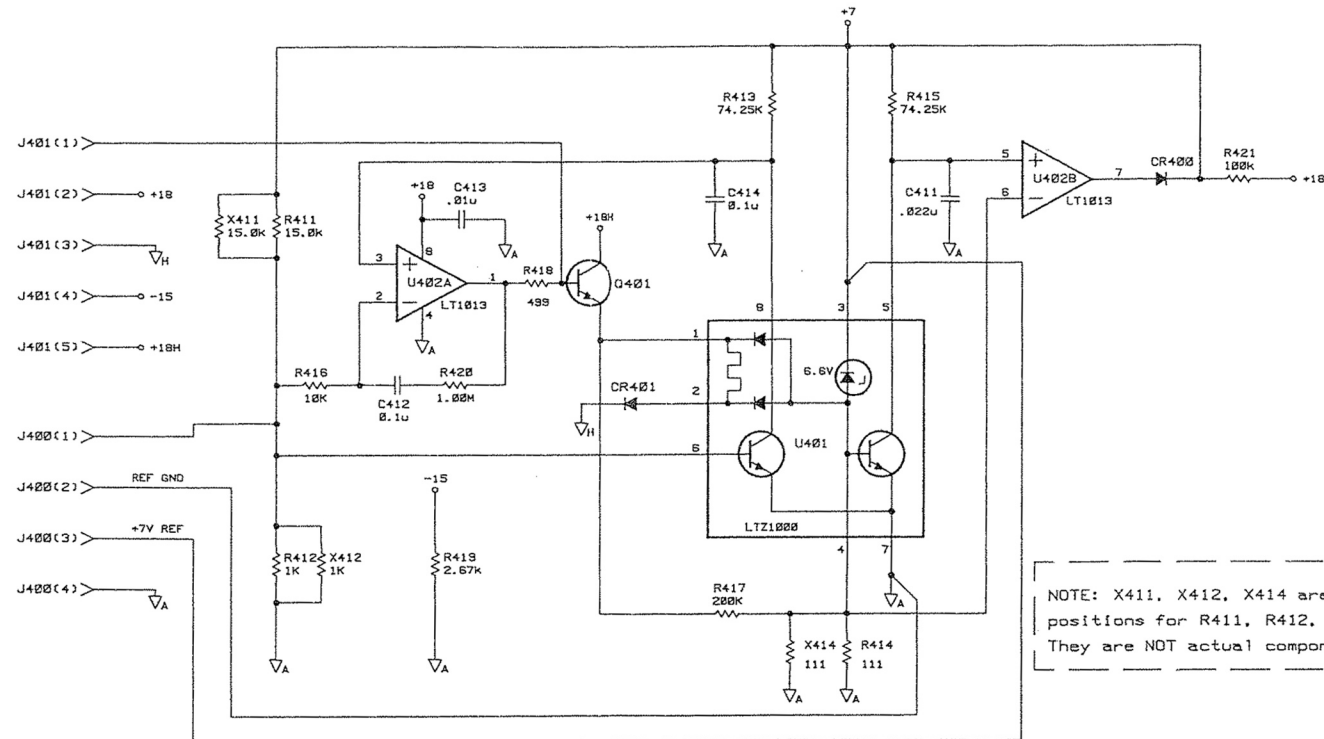
| Reference Designation | HP Part Number | C D | Qty | Part Description | Mfr. Code | Mfr. Part Number |
|-------------------------------|----------------|-----|-----|--|-----------|-------------------|
| A9 | 03458-66509 | 6 | 1 | PC ASSEMBLY-DC REFERENCE | 28480 | 03458-66509 |
| A9C411 | 0160-4833 | 5 | 1 | CAPACITOR-FXD .022UF +-10% 100VDC CER | 04222 | SA201C223KAAH |
| A9C412 | 0160-4835 | 7 | 1 | CAPACITOR-FXD .1UF +-10% 50VDC CER | 04222 | SA115C104KAAH |
| A9C413 | 0160-3847 | 9 | 1 | CAPACITOR-FXD .01UF +100-0% 50VDC CER | 04222 | SA105C103PAAH |
| A9C414 | 0160-4835 | 7 | 1 | CAPACITOR-FXD .1UF +-10% 50VDC CER | 04222 | SA115C104KAAH |
| A9CR400 | 1901-0040 | 1 | 1 | DIODE-SWITCHING 30V 50MA 2NS DO-35 | 28480 | 1901-0040 |
| A9CR401 | 1901-0743 | 1 | 1 | DIODE-PWR RECT 1N4004 400V 1A DO-41 | 01295 | 1N4004 |
| A9CVR1 | 03458-44102 | 9 | 1 | COVER-DIODE | 28480 | 03458-44102 |
| A9J400-J401 | 1251-6041 | 5 | 2 | CONNECTOR-POST TYPE .100-PIN-SPCG 5-CONT | 27264 | 22-17-2052 |
| A9Q401 | 1854-0585 | 8 | 1 | TRANSISTOR NPN SI PD=12.5W FT=50MHZ | 04713 | MJE182 |
| A9R411 | 0698-7133 | 3 | 1 | RESISTOR 15K .05% .225W MF TC=0+-1.3 | 28480 | 0698-7133 |
| A9R412 | 0698-8066 | 3 | 1 | RESISTOR 1K .01% .15W MF TC=0+-1.3 | 28480 | 0698-8066 |
| A9R413 | 0699-0311 | 7 | 2 | RESISTOR 74.25K .1% .1W TF TC=0+-10 | 28480 | 0699-0311 |
| A9R414 | 0699-2452 | 6 | 1 | RESISTOR 111 .1% .3W MF TC=0+-1.3 | 28480 | 0699-2452 |
| A9R415 | 0699-0311 | 7 | 1 | RESISTOR 74.25K .1% .1W TF TC=0+-10 | 28480 | 0699-0311 |
| A9R416 | 0757-0442 | 9 | 1 | RESISTOR 10K 1% .125W TF TC=0+-100 | 24546 | CT4-1/8-T0-1002-F |
| A9R417 | 0757-0472 | 5 | 1 | RESISTOR 200K 1% .125W TF TC=0+-100 | 24546 | CT4-1/8-T0-2003-F |
| A9R418 | 0698-4123 | 5 | 1 | RESISTOR 499 1% .125W TF TC=0+-100 | 24546 | CT4-1/8-T0-499R-F |
| A9R419 | 0698-3492 | 9 | 1 | RESISTOR 2.67K 1% .125W TF TC=0+-100 | 24546 | CT4-1/8-T0-2671-F |
| A9R420 | 0698-8827 | 4 | 1 | RESISTOR 1M 1% .125W TF TC=0+-100 | 28480 | 0698-8827 |
| A9R421 | 0757-0465 | 6 | 1 | RESISTOR 100K 1% .125W TF TC=0+-100 | 24546 | CT4-1/8-T0-1003-F |
| A9U401 | 1826-1860 | 9 | 1 | VOLTAGE REFERENCE-FIXED 7V TO-99-PKG | 28480 | 1826-1860 |
| A9U402 | 1826-1409 | 9 | 1 | IC OP AMP LOW-NOISE DUAL 8-DIP-P PKG | 28480 | 1826-1409 |
| PC ASSEMBLY MOUNTING HARDWARE | | | | | | |
| | 0515-1440 | 1 | 2 | SCREW-MACHINE M3 X0.5 20MM-LG TORX T10 | 28480 | 0515-1410 |

| Mfr. Code | Manufacturer's Name | Manufacturer's Address | | | Zip Code |
|--------------|-------------------------------------|---------------------------|----|----|-------------|
| 01295 | TEXAS INSTRUMENTS INC | DALLAS | TX | US | 75265 |
| 04222 | AVX CORP | GREAT NECK | NY | US | 11021 |
| 04713 | MOTOROLA INC | ROSELLE | IL | US | 60195 |
| 24546 | CORNING GLASS WORKS | CORNING | NY | US | 14830 |
| 27264 | MOLEX INC | LISLE | IL | US | 60532 |
| 28480 | HEWLETT PACKARD COMPANY - CORPORATE | PALO ALTO | CA | US | 94304 |



03458-26509 11-3-87 REV A HPEGS V2.11

| SYM | REVISIONS | APPROVED | DATE |
|-----|-----------|----------|------|
| A | AS ISSUED | | |
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| | | | |



NOTE: X411, X412, X414 are alternate positions for R411, R412, and R414. They are NOT actual components.

| ITEM | QTY | A5809 PART/MATERIAL-DESCRIPTION | MAT'L-PART NO. | MAT'L-DWG. NO. | MAT'L-SPEC. |
|------------------|-----|------------------------------------|-----------------------|----------------|-------------|
| DRAWN BY | | 2-NOV-87 DATE | +7V REFERENCE | | |
| ENGINEER/CHECKER | | | | | |
| RELEASE TO PROD. | | | TITLE | | |
| SUPERSEDES DWG. | | | | | |
| SCALE | | | SHEET 1 OF 1 | | |
| | | | B - 03458 - 66509 - 1 | | |

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PART NUMBER 03458-66509