3458A-01C

S E R V I C E N O T E

Supersedes: 3458A-01B

3458A Multimeter

Serial Numbers: 0000A00000 / 2823A00700 (Approximate Range)

A/D Linearity Improvement

To Be Performed By: Agilent-Qualified Personnel or Qualified Customer

Parts Required:

P/N	Description	
0160-0128	2.2 micro-farad capacitor	2
or 03458-69503	Rebuilt Inguard Logic & A/D Converter PCA	1

Situation:

The circuitry on the 03458A A3 assembly has been modified to improve linearity at very low levels of input signal. The modifications require replacement of two through-hole capacitors on the A3 assembly or replacement of the A3 assembly with an assembly that has been modified.

Note: Only A3 assemblies with an ERC < 2845 require this modification. The ERC (Engineering Revision Code) is printed on a small label attached to the PCA.

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
MODIFICATION RECOMMENDED			
ACTION CATEGORY:	[[]] IMMEDIATELY [[]] ON SPECIFIED FAILURE X AGREEABLE TIME	STANDARDS: LABOR: 1.0 Hours	
LOCATION CATEGORY:	[[]] CUSTOMER INSTALLABLE [[]] ON-SITE X SERVICE CENTER	SERVICE [[]] RETURN USED [[]] RETURN INVENTORY: [[]] SCRAP PARTS: [[]] SCRAP [[]] SEE TEXT	
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	AGILENT RESPONSIBLE UNTIL: February 1991	
AUTHOR: DLL	PRODUCT LINE: 09E		
ADDITIONAL INFORMATION:			

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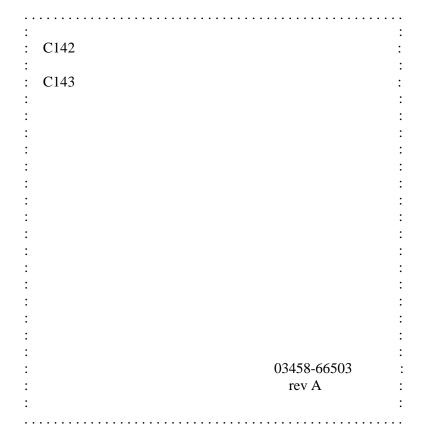
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Solution/Action:

Inspect all 3458A Multimeters with serial numbers < 2823A00700. If the A3 assembly (03458-66503, 03458-66513, or 03458-69503) has an ERC < 2845, then check to see if C142 and C143 have been updated to the 2.2 micro-farad capacitors (these parts are square parts with the leads coming out the bottom). The part is clearly labeled with 2.2 uf. If a 3458A needs updating then either do the steps listed as 1) or 2):

- 1) Replace C142 and C143 with Agilent Part Number 0160-0128. Then warm-up the 3458A for 3-hours, and perform ACAL ALL.
- 2) Replace the A3 PCA with a rebuilt PCA (03458-69503). Refer to the 3458A Miultimeter Assembly-Level Repair Manual for the removal/installation instructions. Following the up-grade, warm-up the 3458A for a minimum of 3-hours. Following the warm-up perform the following adjustments:
- --Front and Rear Terminal Offset Adjustments
- -- DC Gain Adjustments
- --Resistance and DC Current Adjustments

Note: It is recommended that this upgrade be done at a scheduled calibration event.



Component Locator Diagram for A3 Assembly (ERC < 2845)