

MODIFICATION RECOMMENDED –
CORRECTS MANUFACTURING OR DESIGN DEFECTS

3458A-13A

S E R V I C E N O T E

Supersedes:
3458A-13

3458A Multimeter

Serial Numbers: 2823A09247 / 2823A14911

GPIB Communication Failures Using the 3458A

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

Parts Required:

P/N	Description	Qty.
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7175-0057	Solid Tinned 22 AWG Copper Wire	1
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or

Any Solid Tinned AWG Copper Wire (approximately 6 cm in length)

Situation:

The following recommended “Solution/Action” only applies to 3458A Revision B A5 assemblies (the PC Assembly Revision Letter is visible on the A5 assembly) and to A5 assemblies that have not been previously modified and are within the listed serial number range. The ground connection to the GPIB connector for 3458A Multimeters may develop an open or intermittent connection to ground. A poor ground connection to the shell of this connector causes GPIB communication failures.

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
MODIFICATION RECOMMENDED			
ACTION CATEGORY:	<input type="checkbox"/> IMMEDIATELY <input checked="" type="checkbox"/> ON SPECIFIED FAILURE <input type="checkbox"/> AGREEABLE TIME	STANDARDS:	LABOR: 1.0 Hours
LOCATION CATEGORY:	<input checked="" type="checkbox"/> CUSTOMER INSTALLABLE <input checked="" type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> SERVICE CENTER	SERVICE INVENTORY:	<input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	USED PARTS:	<input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AUTHOR: DLL	PRODUCT LINE: 09E	AGILENT RESPONSIBLE UNTIL: July 1999	
ADDITIONAL INFORMATION:			

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Solution/Action:

Solder a jumper wire between the spring clips and the exposed ground plane of the pc assembly.

Note: The spring clips are on each end of the A5J900 connector and go through the pc board to attach the connector case to the pc board.

The conductive trace that runs just behind the GPIB connector is a ground trace and connects to the larger areas of ground plane where the solder attachment is to be made.

To determine if the 3458A has a poor ground connection to the GPIB connector follow the steps outlined below:

- 1) Use the "Power" switch to turn "on" the 3458A (observe that the SRQ light is "off" after the initial "power on test" is completed).
- 2) Select "MENU FULL" using the front panel access to the menu (key sequence: "shift" it's the blue key, "Menu", "up arrow", "Enter").
- 3) Now use the following key sequence: "shift", "S", "up arrow", "up arrow". The main display area now shows the following: "RQS".
- 4) Enable the 3458A to issue an SRQ command (note: this key sequence issues an SRQ command and also sets the 3458A to issue an SRQ command each time the units powers on). Follow the command sequence from step 3 with the following key sequence: "8", "Enter".
- 5) If the "SRQ" light is now "off" the A5 assembly needs to have the jumpers installed.
- 6) If the "SRQ" light is now "on" the A5 assembly in the 3458A currently has a good ground connection.

NOTE: Successful completion of step 6 means that the connection is good now. However, this may mean that the unit has already been modified, it is not a Revision B assembly, or it may mean that the connection could become intermittent at a later date. The only way to be certain is to physically inspect the A5 assembly.

- 7) The following key sequence will set the 3458A so that the "SRQ" command is not issued each time the unit powers on: "shift", "Menu", "up arrow", "Enter", "shift", "S", "up arrow", "up arrow", "0" zero key, "Enter".
- 8) Cycle power on the 3458A. Verify that the "SRQ" light does not come on after the initial "power on test" is completed