

MODIFICATION RECOMMENDED

34401A-15B

S E R V I C E N O T E

Supersedes:
34401A-15A

34401A - Multimeter

Serial Numbers: MY47029713-MY47039343
SG47001093-SG47001437

10 megohm and 100 megohm ranges drift out of specification

Parts Required:

P/N	Description	Qty.
0699-3404	Resistor 400K-Ohms (A1R201)	1

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
MODIFICATION RECOMMENDED			
ACTION CATEGORY:	<input type="checkbox"/> ON SPECIFIED FAILURE <input checked="" type="checkbox"/> AGREEABLE TIME	STANDARDS	LABOR: 1.0 Hours
LOCATION CATEGORY:	<input checked="" type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> SERVICE CENTER <input type="checkbox"/> CHANNEL PARTNER	SERVICE INVENTORY: <input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input checked="" type="checkbox"/> SEE TEXT	USED PARTS: <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	NO CHARGE AVAILABLE UNTIL: August 1, 2014	
AUTHOR:	TC	PRODUCT LINE: SP	
ADDITIONAL INFORMATION: If this is a Unit Exchange Repair this service note DOES NOT apply. All exchange stock has been updated. Service Center should scrap red resistors, keep blue resistors. Refer also to service note 34401A-16A as many of the same serial numbers are affected.			

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Situation:

The above listed Ohm's current source reference resistor in the 34401A Multimeter may exhibit sufficient change in value with time to cause the 10 megohm and/or the 100 megohm resistance ranges to be out of specifications at the first "scheduled calibration event" (either 90 days or 1 year).

Solution/Action:Units for Repair

When a unit exchange repair is performed, service notes 34401A-15B & 34401A-16A do NOT apply. In stock exchange units have been modified to include the changes. China, Europe and the US will perform component level repairs and the implementation of the service notes.

Calibration Units or service note implementation only service locations:

- Americas – Roseville 24BR, Brazil K185 and Montreal 2012
- Asia – All hubs except Australia and India
- Europe – Boeblingen 8370
- Japan – Hachioji 8912

Replace A1R201 if appropriate based on the performance of the 10 Megohm and/or the 100 Megohm Ranges (Ohms Function). Refer to the table below for test limits.

34401A Value of Test -----Test Limits*-----**Range Resistor 90 Day Specifications 1 Year Specifications**

10 M-Ohms 10 M-Ohms ± 2.1 K-Ohms ± 4.1 K-Ohms

100 M-Ohms 100 M-Ohms ± 810 K-Ohms ± 810 K-Ohms

*Specifications are for 4-Wire Ohms Function, Autozero "on", Operating Temperature between 18 and 28 degrees Centigrade.

Customers World-Wide: Customers with technical ability to replace this resistor may replace the resistor themselves. (Note: A1R201 is a through-hole resistor located between A1U101 and A1U150 on the 34401A main PC assembly.) This approach will provide the minimum instrument downtime and inconvenience.

Alternative for US and Canadian Customers: Customers may ship their 34401A to an Agilent Service Center where the resistor will be replaced and the 10 Megohm and 100 Megohm ranges adjusted and operation verified. A "return authorization" is arranged by calling the following toll free number:

1-(800) 403-0801

Note: The following information will be requested:

Instrument model number and serial number

A "ship-to" address (for sending the product)

An e-mail address and phone numbers for any needed communications

Agilent Repair/Calibration Centers: If a 34401A is being serviced or calibrated at an Agilent Repair/Calibration Center and exhibits this drift, repair the instrument by replacing A1R201. Adjust the 10 MOhm range and verify operation of the 10 MOhm and 100 MOhm ranges.

Alternative for all Other Customers: Customers may ship their 34401A to their Agilent Repair Center. At the repair center the resistor will be replaced and the 10 Megohm and 100 Megohm ranges

adjusted and operation verified. Customers arrange for this option by calling their Agilent Service Provider and arrange for a “return authorization”:

Note: The following information will be requested:

Instrument model number and serial number

A “ship-to” address (for sending the product)

An e-mail address and phone numbers for any needed communications

Installation Instructions:

Turn off the 34401A and remove power. Refer to the Service Guide for the following instructions.

Remove the handle (MP5) from the unit by turning it to the top and pulling the sides out (away) from the product. Remove the rear bezel (MP1) and bumper (MP12) by unscrewing the two screws using a T-15 screwdriver. Remove the screw from the instrument cover (CVR1) and slide off the cover. Remove the screw holding the shields in place (SHD1 and SHD2) and remove the shields.

Locate and remove A1R201. Replace A1R201 and solder into position. Trim leads. Reassemble the 34401A and connect power. Power on the 34401A and allow it to warm up for 4 hours. Perform the Gain Adjustment Procedure found in Chapter 4 of the 34401A Service Manual for the 10 MOhm Range. Perform the Gain Verification Test for the 10 MOhm and 100 MOhm ranges.



