

S E R V I C E N O T E

SUPERSEDES: 34401A-05

34401A Multimeter

Serial Numbers: 3146A24000 / 3146A33500

Excessive time drift of ohms function calibration

To Be Performed By: Agilent-Qualified Personnel

Parts Required:

Part No.	Description
0699-3404	Resistor 400K (A1R201)
0699-3405	Resistor 40K (A1R202)

Situation:

Some of the current source resistors used to manufacture the 34401A Multimeter exhibit sufficient change in value with time to cause some of the "Ohms Function" ranges to be out of tolerance. There are two reference resistors. Either resistor or both may be changing value with time.

Continued

DATE: October 1994

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 0.5 hrs		
LOCATION CATEGORY:	<input type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> SERVICE CENTER	SERVICE INVENTORY:	<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> SCRAP <input 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	AGILENT RESPONSIBLE UNTIL: October 1996			
AUTHOR: DL	ENTITY: 0940	ADDITIONAL INFORMATION:			

Solution/Action:

Replace R201 or R202 as appropriate based on the performance of the “Ohms Function” (see table below). The resistors need time to stabilize after being soldered in the pc board. Allow a minimum of four hours of “powered on” time before recalibration.

NOTE

R201 and R202 are through-hole resistors located between U101 and U150 on the 34401-66501 (main pc assembly).

34401A Range	Reference Resistor	Test Resistor Value	Error From Nominal•	
			90 Day Specs	1 Year Specs
100 Ohms	R202	100 Ohms	0.012 Ohms	0.014 Ohms
1 K-Ohms	R202	1 K-Ohms	0.09 Ohms	0.11 Ohms
10 K-Ohms	R202	10 K-Ohms	0.9 Ohms	1.1 Ohms
100 K-Ohms	R202	100 K-Ohms	9 Ohms	11 Ohms
1 M-Ohms	R202	1 M-Ohms	90 Ohms	110 Ohms
10 M-Ohms	R201	10 M-Ohms	2.1 K-Ohms	4.1 K-Ohms
100 M-Ohms	R201	100 M-Ohms	810 K-Ohms	810 K-Ohms

* Specifications are for 4-wire Ohms Function, Autozero “on”, Temperature between 18 and 28 degrees Centigrade.