

S E R V I C E N O T E

SUPERSEDES: NONE

34401A - Digital Multimeter

Serial Numbers:US36055240 / US36063931

Failure to meet the 1M and 10M 4-Wire ohm one year specifications

To Be Performed By: Agilent-Qualified Personnel

Parts Required:

Model	P/N	Description	Quantity
34401A	34401-69211	Exchange Unit	1

Situation:

A manufacturer of capacitors used in the 34401A had a quality problem that may cause failures when the unit is exposed to a humid environment. Some of the 34401A units within the serial number range described above may fail the 1M and/or 10M 4-Wire ohm one-year specifications under the following sequence of conditions:

1. Unit stored in a high humidity environment (>60% R.H.) in the off state for several days or weeks.
2. The unit is then turned on and allowed to warm-up for only 1-hour prior to initiating the performance verification tests.

Continued

DATE: January 20, 1999

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 type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> SERVICE CENTER	SERVICE INVENTORY:	<input checked="" type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	USED PARTS:	<input checked="" type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AUTHOR: REM	ENTITY: 0940	AGILENT RESPONSIBLE UNTIL:	November 2002
		ADDITIONAL INFORMATION:	

Note:

Units with the above symptoms will calibrate properly and will meet specifications if the unit is powered on for at least 24 hours prior to calibration/verification or use. Units will continue to meet specifications in all applications where continuous power is applied as long as operating conditions are within the 34401A specified operating range (0-55 C, 80% R.H @ 30 C).

Solution / Action:

If the unit meets the two conditions above and is within the serial number range and fails the test described below then you may replace the unit with an exchange unit (34401-69211).

Test (10M-ohms linearity test)

1. Calibrate the 4-wire 10M-ohm function (perform the adjustments) as described in the service guide.
2. Leave the calibrator connected; change the 10M-ohm standard to 1M-ohm and measure the 1M-ohm resistance with the 34401A set on the 10M-ohm range (auto range off, set range manually).
3. The result you obtain from measuring the 1M-ohm on the 10M-ohm range should be within the 24-hour specifications (1.00025M ohms to 999.75K ohms). Units with the defective capacitors will fail this test on the high side of the specification.