

MODIFICATION RECOMMENDED

34401A-18

S E R V I C E N O T E

Supersedes:
None

34401A – 6.5 Digit Multimeter

Serial Numbers:

MY47058840 to MY47070810
MY53000100 to MY53003900
SG47001693 to SG47002240
SG53000101 to SG53000374

AC Volts accuracy may drift out of specification before first calibration

Parts Required:

P/N	Description	Qty.
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None

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:		
MODIFICATION RECOMMENDED		
ACTION X ON SPECIFIED FAILURE CATEGORY: <input type="checkbox"/> AGREEABLE TIME	STANDARDS LABOR: 0.5 Hours	
LOCATION X CUSTOMER INSTALLABLE CATEGORY: <input type="checkbox"/> ON-SITE (active On-site contract required) X SERVICE CENTER <input type="checkbox"/> CHANNEL PARTNER	SERVICE <input type="checkbox"/> RETURN INVENTORY: <input type="checkbox"/> SCRAP X SEE TEXT	USED <input type="checkbox"/> RETURN PARTS: <input type="checkbox"/> SCRAP X SEE TEXT
AVAILABILITY: PRODUCT'S SUPPORT LIFE	NO CHARGE AVAILABLE UNTIL: May 31 st 2015	
X Calibration Required <input type="checkbox"/> Calibration NOT Required	PRODUCT LINE: GM AUTHOR: TMC	
ADDITIONAL INFORMATION: Calibration only. This service note is only valid and applies for the 1 st calibration performed on this unit.		

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PRINTED IN U.S.A.

June 2, 2014

Rev. 22



Situation:

AC Voltage may drift due to insufficient part stabilization. This may cause the AC voltage to drift out of its 1 year specification before the first calibration.

Units that have been powered on and adjusted as specified in the Solution/Action section for Self-Maintainers will subsequently meet the 1 year specification.

Solution/Action:

Units that exceed the 1 year specification should be sent to the service center. The service center will, at their discretion, either exchange the unit or replace the components causing the drift. This can result in receiving a unit with a different serial number.

To determine whether the unit exceeds the 1 year specification, please perform the following quick performance verification test points ACV Gain Verification Test as specified in the [Service Guide](#). The Service Guide can be found at: www.agilent.com/find/34401A > Document Library > Manuals

Input Frequency	34401A Range	Error From Nominal (1 yr specification)
50 kHz, 100 mV	100 mV	170 uV
50 kHz, 1 V	1 V	1.7 mV

For Self-Maintainers:

Units that have been powered on, burned in and adjusted as described below will meet specification:

- Power on the 34401A
- Warm up and measure at least 300 Vrms for a minimum of 10 hours
- Perform the ACV Gain Verification Test as specified in the [Service Guide](#). The Service Guide can be found at: www.agilent.com/find/34401A > Document Library > Manuals

If the error from nominal is within 160% of the published one year performance specifications, then perform a full adjustment (Zero Adjustment and Gain Adjustment) as specified in the [Service Guide](#). The 10 hour warmup measuring 300Vrms allows the parts to stabilize and after the full adjustment the unit will meet published specifications.

If the verification results exceed this limit, please send your unit to Agilent. For convenience, the 160% limits are shown below:

Front Input	Input Frequency	34401A Range	Error From Nominal (1 yr specification)	Send to Agilent if Value Exceeds 160%
10 mV	1 kHz	100 mV	46 uV	74 uV
100 mV	1 kHz	100 mV	100 uV	160 uV
100 mV	50 kHz		170 uV	272 uV
1 V	1 kHz	1 V	900 uV	1.44 mV
1 V	50 kHz		1.7 mV	2.72 mV
10 V	1 kHz	10 V	9 mV	14.4 mV
10 V	50 kHz		17 mV	27.2 mV
10 V	10 Hz		9 mV	14.4 mV
100 V	1 kHz	100 V	90 mV	144 mV
100 V	50 kHz		170 mV	272 mV
750 V	1 kHz	750 V	675 mV	1.08 V
750 V	50 kHz		1.275 V	2.04 V
(See note in Service Guide)				

Service Inventory Action:

All service inventory has already been updated. There are no scrap parts.

Revision History:

Revision Number	Date	Author	Reason For Change
1.0	05-27-2014	TMC	As published