Modification Recommended Service Note

Supersedes:
NONE

34461A 6 ½ Digit Multimeter

Serial Numbers: MY53220037 – MY57210852

The Problem – Units may exhibit an accelerated DCV drift rate which exceeds the 90-days or 1-year product specification within 2 weeks of usage.

Parts Required:

P/N	Description	Qty.
NONE		

ADMINISTRATIVE INFORMATION

ACTION CATEGORY:	X ON SPECIFIED FAILURE [[]] AGREEABLE TIME	STANDARDS LABOR: 0.5 Hours			
LOCATION CATEGORY:	X CUSTOMER INSTALLABLE [[]] ON-SITE (active On-site contract required) X SERVICE CENTER [[]] CHANNEL PARTNERS	SERVICE: INVENTORY:	[[]] RETURN [[]] SCRAP [[]] SEE TEXT	USED PARTS:	X RETURN [[]] SCRAP [[]] SEE TEXT
AVAILABILITY: PRODUCT'S SUPPORT LIFE		NO CHARGE AVAILABLE UNTIL: 31-June-2019			
	[[]] Calibration Required X Calibration NOT Required	PRODUCT LINE: GM AUTHOR: WY			

ADDITIONAL INFORMATION:

Situation:

34461A DMMs from the listed serial number range may exhibit an accelerated DCV drift rate which exceeds the 90-days or 1-year product specification within 2 weeks of usage.

Solution/Action:

34461A DMMs whose DCV drift exceeds the limits as mentioned in this service note must be replaced.

Verification steps:

The following instructions apply to customers who are 'self-maintainers' and have the equipment necessary to perform the procedure. Customers who do not have the required equipment should return the instrument to a Keysight Service Center for testing. The service center should also be provided with the date the instrument was placed into service.

Equipment Required:

A metrology grade 10 VDC source (Fluke 5720, Fluke 5700, Fluke 732, or equivalent).

Verification Procedure:

1. Determine the date the DMM was placed into service.

The limits against which the DCV drift is measured are relative to when the 34461A DMM was placed into service.

Date of Test: _____ (today's date)
Start of Use: _____

Note – if the 34461A has been re-calibrated within its first year of operation, use the date of the last calibration as the 'Start of Use' date.

2. Select the test limits.

Date of Test – Start of Use: ≤ 3 months	90 Day Specification ± (% of reading + % of range) 0.0020 + 0.0005		
	Lower Limit	Measured	Upper Limit
	9.99975 V		10.00025 V

Date of Test – Start of Use: > 3 months, < 12 months	1 Year Specification ± (% of reading + % of range) 0.0035 + 0.0005		
	Lower Limit	Measured	Upper Limit
	9.9996 V		10.0004 V

3. Turn on the 34461A and allow the instrument to warm up for 1 hour.

4. Set the 34461A function to DCV, the range to 10 VDC, the aperture to 10 NPLC, and Auto Zero On.

5. Connect a Fluke 5720, Fluke 5700, Fluke 732, or equivalent to the HI and LO Input of the 34461A and set the source to output 10 VDC.

6. Set the 34461A to make a Single measurement:

   Acquire → Trigger Settings →Trg Src → Single

7. Once the source output has settled, press Single on the 34461A.

8. Record the reading and compare it to the test limits based on the period between the date of test and the start of use.

9. If the measured voltage is within the test limits the unit can be returned to service.

10. If the measured voltage exceeds the test limits, the instrument must be replaced. Contact your Keysight Sales and Service Office and mention the 34461A has failed the drift test per Service Note 34461A-06 and must be replaced. Provide the serial number of the instrument and indicate which options (LAN, GPB, SEC) are installed. An instrument with the GPIB option will have the connector on the back of the instrument. The LAN and security options (if installed) will be listed in the 'About' window by pressing:

    Shift → Help → About

    Note that the defective instrument will be exchanged with a new instrument and new serial number. The serial number of the defective instrument will not be transferred.

Revision History:

Date	Service Note Revision	Author	Reason for Change
4 June 2018	01	WanYee	As Published