

34461A-05

# Modification Recommended Service Note

Supersedes:  
NONE

## 34461A Digital Multimeter, 6½ Digit

Serial Numbers: MY50000000-MY57210900

**The Problem** – Keysight 34460A/34461A/34465A/34470A Digital Multimeter with firmware version below “FW 2.17” may experience ACV out of specification.

### Parts Required:

NONE

#### ADMINISTRATIVE INFORMATION

ACTION	X ON SPECIFIED FAILURE	STANDARDS			
CATEGORY:	<input type="checkbox"/> AGREEABLE TIME	LABOR:	1 Hour		
LOCATION	<input type="checkbox"/> CUSTOMER INSTALLABLE	SERVICE:	X RETURN	USED	<input type="checkbox"/> RETURN
CATEGORY:	<input type="checkbox"/> ON-SITE (active On-site contract required)	INVENTORY:	<input type="checkbox"/> SCRAP	PARTS:	<input type="checkbox"/> SCRAP
	X SERVICE CENTER		<input type="checkbox"/> SEE TEXT		<input type="checkbox"/> SEE TEXT
	<input type="checkbox"/> CHANNEL PARTNERS				
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	NO CHARGE AVAILABLE UNTIL:	17 April 2019		
	X Calibration Required	PRODUCT LINE:	GM		
	<input type="checkbox"/> Calibration NOT Required	AUTHOR:	WY		

#### ADDITIONAL INFORMATION:

**Situation:**

User may experience ACV out of specification when frequent function changing from other measurement functions to ACV. This happens mostly during automated process causing the component U507 to heat up and ACV measurement to drift out of specification. This has been resolved in Firmware 2.17 and above.

**Solution/Action:**

For units out of specification, contact your nearest local Keysight Service Center to send unit for repair. (Remark : Please ensure all the units currently in use are loaded with FW 2.17 and above)

At Keysight service center:

1. Perform standard verification using STE9000.
2. If unit fails at ACV test points, set DMM function to ACV and manual range 1V.
3. Provide 1V @ 1kHz input into the DMM. If DMM measured values are hovering around 40% of full scale then disassemble the unit and perform the following verification steps:
  - i. After power on, measure the body temperature of U507 and check if it rises to more than 100C within 20seconds. This indicates a defective U507.
  - ii. Visual inspect if the soldering at U507 turns yellowish. This also indicates a defective U507.
4. Replace the component U507 (1826-3738).
5. Perform self-test, full calibration (adjustments and verification). Ensure all tests pass with no errors.
6. Provide 1V @1kHz input into the DMM again, then measure ACV value should be close to 1V.

**Revision History:**

Date	Service Note Revision	Author	Reason for Change
17 Apr 2018	05	WanYee	As Published