

34450A-05-S

Safety Service Note

Implemented During
Normal Course of
Providing Support

Supersedes:
NONE

34450A - 5 ½ Digit Multimeter

Serial Numbers: MY52420001 / MY55350000

POSSIBLE "SHOCK" HAZARD

WARNING

HAZARD CLASS "2"

34450A 5 ½ Digit Multimeter with firmware version 00.60-00.66 and below displays incorrect reading when powered with 60Hz AC line under DCV Measurement in Slow measurement mode when measuring signals above 120V DC.

Parts Required:

P/N	Description	Qty.
NONE		

ADMINISTRATIVE INFORMATION

ACTION	<input checked="" type="checkbox"/> ON SPECIFIED FAILURE	STANDARDS		
CATEGORY:	<input type="checkbox"/> AGREEABLE TIME	LABOR:	0.5 Hours	
LOCATION	<input checked="" type="checkbox"/> CUSTOMER INSTALLABLE	SERVICE:	<input type="checkbox"/> RETURN	
CATEGORY:	<input type="checkbox"/> ON-SITE (active On-site contract required)	USED	<input type="checkbox"/> RETURN	
	<input type="checkbox"/> SERVICE CENTER	INVENTORY:	<input type="checkbox"/> SCRAP	
	<input type="checkbox"/> CHANNEL PARTNERS	<input checked="" type="checkbox"/> SEE TEXT	PARTS:	<input type="checkbox"/> SCRAP
			<input checked="" type="checkbox"/> SEE TEXT	
AVAILABILITY:	ALWAYS	NO CHARGE AVAILABLE UNTIL:	EOS	
	<input type="checkbox"/> Calibration Required	PRODUCT LINE:	WC	
	<input checked="" type="checkbox"/> Calibration NOT Required	AUTHOR:	SJ	

ADDITIONAL INFORMATION: All units needs to be upgraded to FW version "00.61-00.71" and above

Situation:

Hazard Description: 34450A 5 ½ Digit Multimeter with firmware version 00.60-00.66 and below displays incorrect reading when powered with 60Hz AC line for DCV Measurement in Slow measurement mode, when measuring signals above 120V DC. Under these conditions, when the 34450A is set to perform Auto Range DC Voltage measurements, it will display an incorrect reading. In Manual Range DC Voltage measurement, it will also display an incorrect reading for input voltages shown in the table below. Consequently, the reading on the display may mislead users to believe that the voltage present on a device/circuitry under test is non-hazardous when it is possible that this poses a risk of electrical shock.

The table below defines the specific 34450A 5 ½ Digit Multimeter settings that displays the incorrect voltage value.

Condition: When 34450A is powered with 60Hz AC line:

Measurement mode	Range setting	Input Voltage	Incorrect Display value
DC Voltage, Slow Mode	Auto Range	>120V DC	~mV (instead of actual input voltage)
DC Voltage, Slow Mode	Manual Range (100mV)	>120V DC	~mV (instead of O.L.)

This situation only impacts the DC Voltage ranges and settings described above, and does not impact any other measurement performed by the 34450A 5 ½ Digit Multimeter.

Solution/Action:

Install the 34450A firmware to revision "00.61-00.71" or above through the steps below:

1. Download the latest firmware utility from Keysight website and perform firmware installation by following the instructions from the 34450A firmware update webpage:
[34450A firmware update revision webpage.](#)
2. Verify the firmware has been successfully installed by accessing page 2 of the 34450A utility menu, and check the "FW VERSION" from the display; it must show "00.61-00.71" or above.

Revision History:

Date	Service Note Revision	Author	Reason for Change
25 August 2015	01	SJ	As Published