

U1253B-07

S E R V I C E N O T E

Supersedes:
NONE

U1253B OLED True RMS Multimeter

Serial Numbers: MY49450001 to MY53449999, SG49450001 to SG53449999

Incorrect DC Voltage values displayed with Filter switched off when measuring mixed (AC+DC) signal source

Parts Required:

| P/N | Description | Qty. |
|------|-------------|------|
| NONE | | |

ADMINISTRATIVE INFORMATION

| | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| SERVICE NOTE CLASSIFICATION: | | |
| MODIFICATION RECOMMENDED | | |
| ACTION <input type="checkbox"/> ON SPECIFIED FAILURE CATEGORY: X AGREEABLE TIME | STANDARDS LABOR: 0.0 Hours | |
| LOCATION X CUSTOMER INSTALLABLE CATEGORY: <input type="checkbox"/> ON-SITE (active On-site contract required) <input type="checkbox"/> 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: 1 December 2014 | |
| <input type="checkbox"/> Calibration Required X Calibration NOT Required | PRODUCT LINE: WC AUTHOR: SJ | |
| ADDITIONAL INFORMATION: Information only | | |

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Situation:

The U1253B Handheld Digital Multimeter may display an incorrect DC voltage reading with the Filter switched OFF and when the signal being measured contains both DC and AC components. The incorrect reading will be stable and lower than the DC component from the mixed signal source.

The unit will display the accurate DC value of the signal being measured when the product's Filter is enabled. The product's Filter can be turned on by changing the product's filter settings.

To maintain safe operation on the multimeter, it is recommended to verify the multimeter's operation by measuring a known voltage before use. Always manually select the highest measurement range when measuring an unknown signal. Users are cautioned to turn on the filter at all times when making DC voltage measurements for mixed signal.

Solution/Action:

The U1253B Handheld Digital Multimeter will display accurate DC value of the mixed signal (that contains both AC and DC components) being measured when the product's Filter is turned ON. This can be done through 2 methods:

- The product's Filter can be turned on by changing the product's filter settings (see point **A** below), or
- Users can download the latest firmware to turn ON the Filter by default (see point **B**)

To enhance user safety, Agilent has updated the **U1253B Handheld Digital Multimeter User's Guide** to include additional WARNING statements to emphasize the need to turn ON Filter at DC Voltage measurement function (see point **C**).

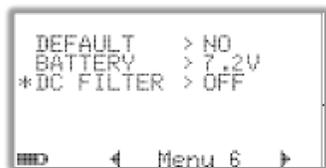
A. Change product's Filter settings:

Please turn on the product's Filter by changing the product's filter settings according to steps 1 to 4 below to measure the correct DC voltage value of a mixed AC+DC signal source:

1. Download and review the revised **U1253B Handheld Digital Multimeter User's Guide**. Discarded the older version.
2. Verify that your multimeter(s) corresponds to the above model and serial numbers.
3. Check the Multimeter firmware version by pressing the NULL button while turning ON the multimeter from OFF position.
4. If the firmware version is 2.25 or below, please follow steps 4.1 to 4.6 to turn ON the Filter function for DC measurement mode.

4.1 Press and hold  for more than 1 second.

4.2 Press  to browse to **Menu 6** and press  to navigate to the **DC FILTER**.



4.3 Press  to edit the value. Press  or  to edit the DC filter from **OFF** to **ON**.



4.4 Press  to save the changes and exit the EDIT mode.

4.5 Press  for more than 1 second to exit Setup Mode.

5. With the introduction of new firmware version 2.26 or above, the Filter function is turned ON by default. Units with S/N starting with MY53450001 are loaded with the firmware version 2.26 and above, and users of these units do not need to follow through steps 4.1 to 4.5 above, which manually turn ON the filter function.

B. Download and install latest Firmware revision:

- Users can turn ON the Filter by default without manually changing the filter at the setup mode if users download the new firmware version 2.26 from Agilent website. The new firmware can be downloaded from www.agilent.com/find/U1253Bfw.

C. Download latest product User's Guide:

To enhance user safety, Agilent has updated the **U1253B Handheld Digital Multimeter User's Guide** to include additional WARNING statements to emphasize the need to turn ON Filter at DC Voltage measurement function.

| User's Guide | U1253B Handheld Digital Multimeter User's Guide |
|----------------------------------------------|-----------------------------------------------------------------------------------------|
| Filter use and setting at measurement | Chapter 2 Making Measurements > Measuring DC Voltage ; and >Measuring AC and DC Signals |
| Filter setting | Chapter 4. Changing The Default Setting > Selecting Setup Mode > Setting the Filter |

For the latest user's guide version, please visit our Web site at:

<http://www.agilent.com/find/hhTechLib>

- **U1253B Handheld Digital Multimeter User's Guide**
(<http://cp.literature.agilent.com/litweb/pdf/U1253-90035.pdf>)
- **U1253B Handheld Digital Multimeter Quick Start Guide**
(<http://cp.literature.agilent.com/litweb/pdf/U1253-90045.pdf>)

Revision History:

| Revision Number | Date | Author | Reason For Change |
|-----------------|------------|--------|-------------------|
| 1.0 | 22-11-2013 | SJ | As published |
| | | | |