## INFORMATION ONLY

# E5270B-04 ERVICE NOTE

Supersedes: NONE

## E5270B 8-Slot Precision Measurement Mainframe

Serial Numbers: ALL

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[Note 1: Not all instruments in this range are affected. Only the E5270B that has ASU or Atto-Sense and switch Unit (E5288A) are affected. Refer to page 2 of this Service Note for more details.]

Interlock operation speed is improved when using ASU

Parts Required: NONE

### ADMINISTRATIVE INFORMATION

| SERVICE NOTE CLASSIFICATION: |                  |  |  |
|------------------------------|------------------|--|--|
| INFORMATION ONLY             |                  |  |  |
| []] Calibration Required     | PRODUCT LINE: 1H |  |  |
| X Calibration NOT Required   | AUTHOR: HT       |  |  |
| ADDITIONAL INFORMATION:      |                  |  |  |

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#### Situation:

When all the below listed conditions are met, the interlock function that limits the voltage up to  $\pm$  42 volts may take up to 25 seconds after the interlock circuit is opened, for example; by opening the fixture lid.

Conditions:

- 1. Any SMU module is forcing high voltages over ±42 volts.
- 2. The SMU that ASU is connected to is used for the current measurement.
- 3. Auto Range mode is used.
- 4. The measurement is made with 1pA range.

NOTE: When the interlock circuit is opened, the HV-LED (High-Voltage LED) indicator on E5270B front panel is lit.

#### **Solution/Action:**

Updating the firmware to B.01.13 can fix this, which enables the interlock circuit to work quicker to be at the same level as other functions of E5270B.

<u>Step 1: Determine whether or not the instrument is affected by this issue.</u> (Note: This can be done by the customer without contacting Keysight.)

(a) Check if your E5270B has ASU (Atto-Sense and switch Unit). If your instrument does not have the ASU, then this Service Note does not apply.

NOTE: ASU should have been purchased as below option.

E5288A-ATO Atto Sense and Switch Unit (ASU)

E5270BU-088 Addition of E5288A Atto sense and switch unit (HRSMU is required.)

#### (b) Check the firmware revision of the instrument as follows.

- Press the Menu key.
- Move the cursor to CONFIG, then press the Enter key.
- Move the cursor to REVISION, then press the Enter key. The firmware revision is displayed.
- Press the Exit key three times to close the menu.

If the revision displayed is B.01.13 or later, then this Service Note does not apply. If the revision displayed is B.01.10 or earlier, proceed to the next step.

Step 2: Updating the firmware to B.01.13

(Note: This can be done, without contacting Keysight.)

(a) Visit the below software download website

http://www.keysight.com/main/software.jspx?ckey=223372&lc=eng&cc=US&nid=-34005.0.00&id=223372

(b) Download B.01.13 or later software by clicking the 'Download' button in the website.

If the above does not work, you can also visit the site as follows.

- 1. Go to www.keysight.com/find/e5270b
- 2. Find and click "Technical Support",
- 3. Click "Drivers, firmware & Software" tab,
- 4. Click "Firmware Update for E5260A/E5270B Series"
- 5. Click the "Download" button for the version B.01.13 or later.

(c) Install and update the firmware following the instruction that is included in the download file.

#### **Revision History:**

| Service note<br>Revision | Date         | Author | Reason For Change |
|--------------------------|--------------|--------|-------------------|
| 01                       | Feb 11, 2015 | HT     | Initial Release   |
|                          |              |        |                   |