Keysight 34970A/34972A Internal DMM Assembly (Option 001)

Installation Instructions

Installation instructions for 34970-80010 Retrofit Kit

1. Disconnect the power cord.

2. Remove the outer cover from the 34970A/34972A.
   To remove the instrument's cover, follow the procedures shown in Chapter 6 of the 34970A/34972A Service Guide.

3. Connect the internal DMM ribbon cable to the main circuit board.
   Connect the loose end of the gray ribbon cable to connector J202 on the main circuit board. Press down firmly on the ribbon cable connector and secure the cable in place with the locking clips.
4 Install the internal DMM circuit board into the chassis.
Position the internal DMM circuit board inside the instrument chassis by tilting it at an angle as shown below. Be sure to position the circuit board over the tabs in the chassis as shown. Then, lower the assembly into the chassis until it is parallel with the 34970A/34972A circuit board.

5 Lock the internal DMM circuit board in place.
Slide the internal DMM circuit board to the left (toward the rear of the instrument) until it locks in place. You will hear a click when it is properly locked in place.

Make sure that shield is locked in place behind this tab.
6 Twist the internal DMM input cable.

Twist the internal DMM input cable (labeled P101) at least one full turn before plugging it into the backplane connector. If you do not twist the cable as shown, specifications will be compromised.

7 Insert the DMM input cable into the backplane connector.

Insert the internal DMM input cable into the backplane connector as shown. Press firmly to ensure a good electrical connection.

8 Enable the internal DMM.

After installing the internal DMM assembly, you must enable it for operation. From the front-panel, select the **DMM ENABLED** choice from the **Utility** menu. From the remote interface, use the **INST:DMM** command.
9 Modify the Labeling on the Rear Panel.
If you originally ordered the instrument without the internal DMM, a solid black circle should be visible above the rear-panel "Opt. 001" label. After installing the internal DMM retrofit kit, be sure to draw an “X” through the black circle using a permanent marker as shown below.

10 Replace the outer cover on the 34970A/34972A.
To replace the cover, follow the procedures shown in chapter 6 of the 34970A/34972A Service Guide.

Calibration Information
The internal DMM was calibrated before it was shipped from the factory (a calibration certificate is included). However, after installing the internal DMM, you will want to make sure that you run the Zero Adjustment procedure as outlined in chapter 4 in the 34970A/34972A Service Guide. The internal DMM is guaranteed to meet the instrument’s 1-year accuracy specifications.