

Definitions:

Traditional Acquisition Method: The method of acquiring a single reading by calculation of V / I using the measured current value. The V source level is divided by the Current measurement for a displayed reading.

Test Sequence Acquisition Method: There are “9” test sequence built into the Model 6517A. One Application is the Resistance / Resistivity test sequence. Test sequence readings can be acquired by two methods, the Normal and Alternate polarity methods.

The Normal acquisition performs a sequence that the user selects specified parameters such as Bias time, Measure time, Pre discharge time etc.

Alternate polarity acquisition performs a sequence of measurements while alternating the polarity of the V source. This method eliminates offsets from the final reading with a complex math calculation.

V source Auto : The V source level is either 40V or 400V depending on selected resistance range.

V source Manual: The User controls the V source level. Manual mode is factory default. When setting the level, the V source Range may also need configured.

Meter connect: Enabling (ON) provides an internal connection of V source low and ammeter low. This feature eliminates the need for an external connection of the two. The V source high must always be physically connected to the device.

How to's

If performing the Traditional Acquisition method:

1. Connect Ammeter Hi and Low and the V source high (and low if Meter Connect is disabled) to DUT
2. Configure “R”
3. If Manual Ohms, adjust the V source to desired level.
 - NOTE: RIGHT/LEFT arrows move modifying cursor. UP/DOWN gray buttons (adjacent to Operate) adjust level.
 - Configure “Oper” if Range not appropriate
4. Select best fixed current measurement or Resistance range or select Auto range.
5. Turn V source Output on (Oper button toggles on/off)
6. Release zero check

If performing the Test Sequence Acquisition Method:

1. Connect Ammeter Hi and Low and the V source Hi (and Low if Meter Connect is disabled) to DUT
2. Configure “R”
3. Configure “SEQ”
 - V source Auto or Manual not required , nor is setting level of V source, as this is addresses in Configure SEQ
 - Note Modifying V bias level in the Test sequence mode is different than modifying V Source in traditional method. UP/DOWN *ranging* arrows adjust level.
4. Begin Test Sequence
 - Press Seq button follow directions on display (enter button, then trig button)

Example:

Sample: Surface Resistivity of Paper.

Test requirements: 500V bias, no offset voltage, 15 sec measure time,

Electrode: 8009 Test Fixture

- Connect 6517A to the 8009 test fixture with sample installed.
- Configure R for MEASURE TYPE RESITIVITY, SURFACE, MODEL 8009
- Configure Seq for applications R/RESISTIVITY, ALTERNATE POLARITY, enter parameters.

Traditional Acquisition Method
Configure "R"

OHMS CONFIGURATION 6517A MENU

Test Sequence Acquisition Method
Configure "SEQ" and "R"

