



6000 Series 6-in-1 Multi-Function Electrical Safety Tester

Quick Start Guide

SAFETY CHECKLIST

- KEEP unqualified/unauthorized personnel away from the test area
- ARRANGE test stations in a safe and orderly manner
- NEVER touch products or connections during a test
- STOP the test first in the event of a problem
- NEVER perform a Ground Bond test on energized circuitry or equipment
- BE SURE to always connect the return test lead first
- HANDLE test clips by insulation only, never touch clips directly



WARNING: THIS GUIDE WAS CREATED FOR OPERATORS HAVING SOME FAMILIARITY WITH ELECTRICAL SAFETY TESTING. AN ELECTRICAL SAFETY TESTER PRODUCES VOLTAGES AND CURRENTS THAT CAN CAUSE HARMFUL OR FATAL ELECTRIC SHOCK. TO PREVENT ACCIDENTAL INJURY OR DEATH, THESE SAFETY PROCEDURES MUST BE STRICTLY OBSERVED WHEN HANDLING AND USING A TEST INSTRUMENT.

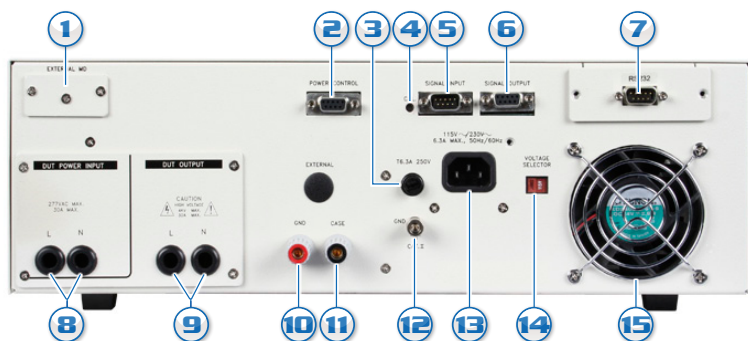
For Model: 6330

Front Panel Controls



(6330 Front Panel)

- 1 **RESET BUTTON:** Red momentary contact switch used to reset the instrument in case of a failure. Also serves as an abort signal to stop any test in progress.
- 2 **TEST BUTTON:** Starts a test.
- 3 **LCD DISPLAY:** 20 x 2 character display.
- 4 **LOCK INDICATOR:** This LED indicates that the lock feature has been enabled.
- 5 **BUS INTERFACE INDICATOR:** This LED indicates that the bus interface has been enabled.
- 6 **FAULT CONDITION INDICATORS:** These LED's indicate that the Neutral, Reverse, and Ground line conditions have been activated during a Line Leakage test.
- 7 **CURRENT OUTPUT TERMINAL:** Used to attach the current test lead or test fixture to the instrument. Provides the high current output from the instrument.
- 8 **POWER SWITCH:** Rocker-style switch with international ON (|) and OFF (0) markings.
- 9 **SET KEY:** Use this key to cycle through the setup menus.
- 10 **UP-DOWN ARROW KEYS:** Use these keys to cycle through test parameter setup.
- 11 **EXIT KEY:** Use this key to exit any menu or to clear an unwanted entry in a parameter field.
- 12 **HIGH VOLTAGE OUTPUT TERMINAL:** Provides the high voltage used during a Hipot test. Connector used to attach the high voltage test lead, adapter box high voltage lead or test fixture high voltage lead to the instrument.
- 13 **HIGH VOLTAGE INDICATOR:** This indicator flashes to warn the operator that high voltage is present at the high voltage output terminal.
- 14 **RETURN TERMINAL:** Provides the return current path. Connector used to attach the return test lead, adapter box return lead or test fixture return lead to the instrument.



(6330 Back Panel)

- 1 EXTERNAL MEASURING DEVICE:** Provides an access port for a custom measuring device. The port may be activated during Line Leakage testing from the instrument's menu system. The operator must supply the appropriate measuring device as none is provided.
- 2 POWER CONTROL:** N/A
- 3 FUSE RECEPTACLE:** To change the fuse, unplug the power (mains) cord and turn the fuse receptacle counterclockwise. The fuse compartment will be exposed. Please replace the fuse with one of the proper rating.
- 4 CALIBRATION BUTTON:** To put the instrument into the calibration mode push this button and turn on the power switch simultaneously.
- 5 SIGNAL INPUT:** 9-pin D-type subminiature male connector for remote control of TEST, RESET, AND INTERLOCK functions as well as remote memory tests recall.
- 6 SIGNAL OUTPUT:** 9-pin D-type subminiature female connector for monitoring PASS, FAIL, and PROCESSING output relay signals.
- 7 BUS INTERFACE:** Optional connector for interconnection to RS-232 bus interface.
- 8 DUT POWER INPUT:** Provides the line and neutral connections for an input power source to be used during Functional Run and Line Leakage testing. Only a U.S. style single phase unbalanced power source may be used.
- 9 DUT POWER OUTPUT:** Provides the line and neutral connections from the 6330 to the DUT during Functional Run and Line Leakage testing. Provides the high voltage connections to the DUT during ACW, DCW and IR testing if the DUT OUTPUT and DUT-HV parameters are turned ON.
- 10 GROUND CONNECTION:** Connector used to attach the adapter box ground lead to the instrument.
- 11 CASE CONNECTION:** Provides the return connection during ACW, DCW or IR testing. This terminal is wired in parallel with the return terminal during a Ground Bond test and may be used in place of the front panel connection. During a Line Leakage test this connection provides a connection to one side of the measuring device (MD).
- 12 CHASSIS GROUND (EARTH) TERMINAL:** This safety terminal should be connected to a good earth ground before operation.
- 13 INPUT POWER RECEPTACLE:** Standard IEC 320 connector for connection to a standard NEMA style line power (mains) cord.
- 14 VOLTAGE SELECT SWITCH:** Sets the line voltage configuration of the instrument. In the left position it is set for 115 volt operation, in the right position it is set for 230 volt operation.
- 15 THERMAL FAN:** Used to cool the instrument.

Setting Up The Instrument



WARNING: LOCATE A SUITABLE TESTING AREA WITH A THREE-PRONG, GROUNDED OUTLET. BE SURE THAT THE THREE PRONG OUTLET HAS BEEN TESTED FOR PROPER WIRING. MAKE SURE YOU READ THE SAFETY CHECKLIST OF THIS GUIDE BEFORE USING THE INSTRUMENT.

1. Adjust the line voltage select switch on the rear panel of the instrument to the appropriate input voltage rating, either 115 VAC or 230 VAC.



2. Connect the female end of the standard NEMA style line power (mains) cord into the input power receptacle on the rear panel of the instrument and plug the male end of the cord into a grounded power source.



3. Connect the Interlock Disable key to the Remote Input connector on the back panel of the instrument. This is required in order to run a test.



4. Turn the instrument switch ON.



Upon power up, you will see the Slaughter company name, model number, and the current software version briefly appear on the display. After this, you will see the default test parameters.

Editing System Parameters

Configure the instrument system parameters to your preferences. The instrument system parameters are global and will affect all tests that are performed regardless of memory location and memory step.

1. Press EXIT from the Perform Test screen to edit the system parameters.
2. Press the SET key to toggle through the parameters and use the up or down arrow keys to edit the parameters.

Default system parameters shown below:

PLC Remote	Single Step	Fail Stop	Lock	Memory Lock	Alarm	DUT-HV Set
OFF	OFF	OFF	OFF	OFF	5	ON

Selecting A Memory Location

If you wish to change the default test settings, you will need to begin by choosing a memory location first.

There are 20 memory locations each of which contains 10 steps. The steps can be connected sequentially to form a multi-step test routine. Only one electrical safety test type can be selected for each step. In order to connect a step, the "Connect" parameter needs to be turned ON.

1. Press the SET key from the Perform Test screen to select a memory location. Use the up or down arrow keys to select memory locations 1 – 20.
2. Press the SET key again to select the step. Use the up or down arrow keys to cycle through steps 1-10.
3. Press the EXIT key to store changes and return to the Perform Test screen.

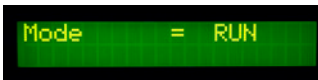
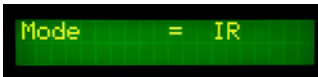
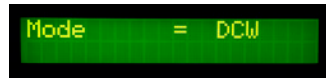


Memory Location Memory Step Number

Editing Test Parameters

Now that the memory location has been set up, you may now configure your test routine.

1. Press the SET key from the Perform Test screen to confirm the memory location.
2. Press the SET key again to confirm the memory step number. You should start by modifying step 1.
3. Press the SET key a third time until one of the following test types appear:



4. Use the up and down arrow keys to toggle the test type between ACW, DCW, IR, GND, RUN, and LLT.
5. Press the EXIT key to save the setting and return to the Perform Test screen OR press the SET key to toggle between the parameters for the selected test type.
6. Use the up or down arrow keys to edit each test parameter.
7. When you are finished editing the test parameters press the EXIT key to save your settings and return to the Perform Test screen.

Default test type parameters are shown on next page.

Editing Test Parameters

Default test type parameters are shown below.

AC Hipot Mode

- Voltage: 1.24 kV
- HI-Limit: 10.00 mA
- Lo-Limit: 0.00 mA
- Ramp: 0.1 s
- Dwell: 1.0 s
- Frequency: 60 Hz
- DUT Output: On
- Connect: Off

DC Hipot Mode

- Voltage: 1.50 kV
- HI-Limit: 5.00 mA
- Lo-Limit: 0.00 mA
- Ramp: 0.1 s
- Dwell: 1.0 s
- DUT Output: On
- Connect: Off

Insulation Resistance

- Voltage: 500 V
- HI-Limit: 0 M Ω
- Lo-Limit: 1 M Ω
- Delay: 1.0 s
- DUT Output: On
- Connect: Off

Ground Bond Test

- Current: 30 Amps
- HI-Limit: 100 m Ω
- Lo-Limit: 0 m Ω
- Dwell: 1.0 s
- Offset: 0 m Ω
- Frequency: 60 Hz
- Connect: Off

Functional Run

- Volt-Hi: 125.0 V
- Volt-Lo: 0.0 V
- Amp-Hi: 10.0 A
- Amp-Lo: 0.0 A
- Power-Hi: 1000 W
- Power-Lo: 0 W
- PF-Hi: 1.000
- PF-Lo: 0.000
- Leakage-Hi: 10.00 mA
- Leakage-Lo: 0.00 mA
- Delay: 0.2 s
- Dwell: 1.0 s
- Connect: Off

Line Leakage Mode

- Volt-Hi: 125.0 V
- Volt-Lo: 0.0 V
- Leakage-Hi: 6000 μ A
- Leakage-Lo: 0.00 μ A
- Line: 7
- MD: MD A
- Probe: G-L
- Delay: 1.0 s
- Connect: OFF

There are a total of 8 different Line conditions that may be configured. They are displayed in the following table:

Line	1	2	3	4	5	6	7	8
Neutral	OPEN	OPEN	OPEN	OPEN	CLOSE	CLOSE	CLOSE	CLOSE
Reverse	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Ground	OPEN	OPEN	CLOSE	CLOSE	OPEN	OPEN	CLOSE	CLOSE

Adapter Box Connections

The adapter box may be used for products that are terminated in either a two prong or three prong line cord. It is easy to use the adapter box for all six test functions.

See back page for diagram.

1. Remove the cover plate on the rear panel of the 6330 to access the DUT Output Connections. These connections provide power to the DUT during a Line Leakage or Functional Run test.
2. Connect the adapter box (P/N 99-10467-01) to the DUT Output L (line), N (neutral) terminals, and the ground terminal.
3. Attach the black case lead (P/N 99-10457-01) to the case terminal and connect the ground return clip to the dead metal on the chassis of the DUT.
4. Plug the line cord from the DUT into the adapter box receptacle (P/N 99-10467-01).

The adapter box will now provide power to the DUT during Functional Run and Line Leakage testing.

DUT Power Input Connections

Remove the cover plate on the rear panel of the 6330 to access the DUT Power Input Connections. These terminals provide the connections from an external power source to the 6330. *See back page for diagram.*

5. Use the black 10 AWG cables (P/N 99-10469-01 & 99-10470-01) to connect to an unbalanced, single-phase power source for applications not exceeding 30 amps.

Note: The 220 - 240 volt U.S. style line power cord is NOT suitable to connect to the DUT inputs. This style of power distribution is a balanced type with two HOT or LINE conductors.

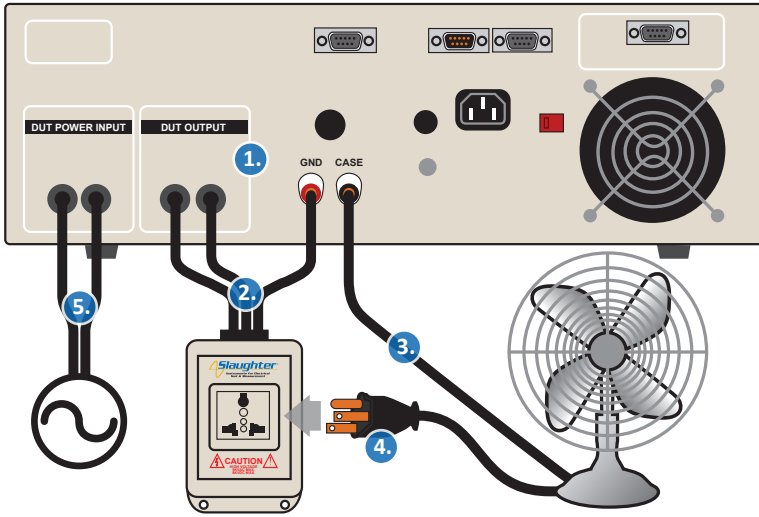


WARNING: BE SURE THAT THE HOT LEAD OF THE POWER SOURCE IS CONNECTED TO PIN 1, (LINE) TERMINAL OF THE DUT POWER INPUT TERMINAL BLOCK AND THE RETURN OR LOW VOLTAGE LEAD IS CONNECTED TO PIN 2, N (NEUTRAL) TERMINAL OF THE DUT POWER INPUT TERMINAL BLOCK. DO NOT CONNECT A LINE CONDUCTOR TO THE N OR NEUTRAL TERMINAL OF THE DUT POWER INPUT. THIS CONDITION CAN BE VERY DANGEROUS TO THE OPERATOR.

If voltage is applied to pin 2, N (neutral) terminal of the DUT Power Input and you attempt to execute a Run test or Line Leakage test, a warning will appear on the screen that says *Neutral-V*.

If this message appears, the voltage problem will need to be corrected before the instrument allows you to execute Functional Run or Line Leakage tests.

Test Connections



CAUTION: THE ADAPTER BOX (P/N 99-10467-01) MAY BE USED TO PERFORM HIPOT, GROUND BOND, INSULATION RESISTANCE, FUNCTIONAL RUN, AND LINE LEAKAGE TESTS. THE ADAPTER BOX IS RATED FOR A MAXIMUM OF 20 AMPS OF INPUT CURRENT. IF CURRENT LEVELS GREATER THAN 20 AMPS ARE NEEDED FOR EITHER THE FUNCTIONAL RUN TEST OR THE LINE LEAKAGE TEST, THE STAND ALONE TEST LEADS MUST BE USED.

Test Results

View test results by pressing the up and down arrow keys from the Perform Test screen.



(PASS/FAIL Indication Screen)

PASS: If the DUT passes the test, you will hear a short audible beep and the display will indicate the test results.

FAIL: If a failure occurs, you will hear a long audible alarm and the red flashing indicator will light up. To stop the alarm press the red RESET button.



Scan the QR code to get further support or visit www.hipot.com/6330_support