

440 Series

HI POT, INSULATION RESISTANCE, AND GROUND BOND TESTERS

Models: 446 / 448



SAFETY CHECKLIST

- [S]**urvey the test station. Make sure it is safe & orderly.
- [A]**lways keep unqualified/unauthorized personnel away from the test area.
- [F]**amiliarize yourself with safety protocols in the event of a problem.
- [E]**xercise caution and never touch products or connections during a test.
- [T]**rain operators. Connect the return lead first and never touch clips directly.
- [Y]**ou should always know when a test is being performed.



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.

TESTER SETUP



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



Power-Up Sequence

- 1 Check to be sure the correct input line cord is used.
- 2 Connect the power input plug into its socket on the rear panel of the tester. The SCI 440 Series Testers have an automatic input voltage range selection.
- 3 Connect the male end of the plug to the grounded AC outlet.



WARNING

PLEASE BE SURE THAT THE SAFETY GROUND ON THE POWER LINE CORD IS NOT DEFEATED AND THAT YOU ARE CONNECTING TO A GROUNDED POWER SOURCE. ALSO, CONNECT THE REAR PANEL CHASSIS GROUND FOR ADDITIONAL SAFETY.

- 4 Connect the Interlock Disable key to the Signal Input connector on the back panel of the tester. This is required in order to run a test.
- 5 Turn on the POWER switch located on the lower left hand side of the front panel. Upon turning the tester on, a POWER ON SELF TEST (POST) will automatically be performed. This test will check for the condition of the RAM chips, PCBs and other critical components. In addition, the display will show the following message, with the actual model number and software version number.



- 6 The tester will recall the last memory program that was active and will display the parameters that were programmed into that memory. The tester is now ready for operation.

SETTING TEST MEMORIES

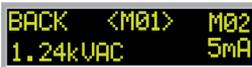
The SCI 440 series testers are equipped with 20 memory programs numbered 1 through 20. Each memory can be connected sequentially to the next consecutive memory. Only one test type can be selected for each memory location. However, all 20 memory locations can be programmed and the parameters will be saved in each memory. The tests loaded in each memory location can be executed one at a time or as a sequence.

PROGRAM A MEMORY

1. 



Home Screen

2. 



Turn the yellow rotary knob to scroll to M01 to edit Memory 1. (M02=Memory 2, etc.)

3. 



When M01 is selected, press the yellow knob to recall Memory 1.

4. 



Press the knob again to edit Memory 1. The first parameter that will be selected is TYPE.

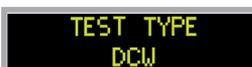
Continue to edit each parameter as needed for Memory 1.

PROGRAM A MEMORY: TYPE AC

1. 



Turn the yellow rotary knob to scroll to desired parameter to edit TYPE.

2. 



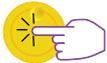
When TYPE is selected, press the rotary knob to edit the Test Type. The options will blink.

3. 



Turn the rotary knob to change the Test Type: ACW, DCW, IR or GB.

4. 



Press the rotary knob to select the Test Type.

5. 



You will be returned to the previous menu.

GO BACK TO MAIN MENU

1. SCTV <PLC> BACK
OFF



Turn the yellow knob to scroll to BACK in order to return to the Main Menu.

2. PLC <BACK> M1
EXIT TO MAIN



When BACK is selected, press the knob. You will be returned to the Main Menu.

3. M01 ACW 0.0s
0.00kVAC 100mΩ



Main Menu.

EDIT TEST PARAMETERS

1. TYPE <VOLT> HI-L
1.24kVAC



Turn the yellow rotary knob to scroll to desired parameter to edit VOLT.

2. VOLTAGE
1.24kVAC



When VOLT is selected, press the rotary knob to edit the Voltage. The first digit of Voltage will blink.

3. VOLTAGE
1.24kVAC



Turn the rotary knob to change the Voltage setting for each digit.

4. VOLTAGE
1.24kVAC



Press the rotary knob to select the setting and move to the next digit.

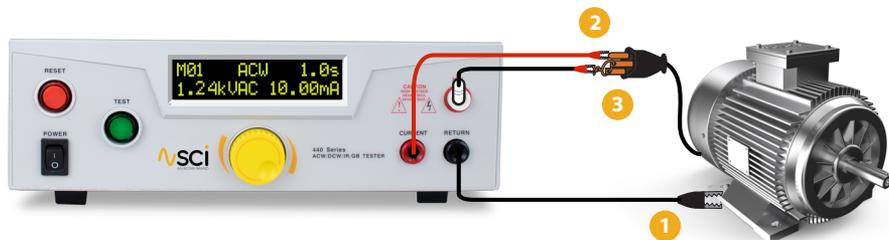
5. TYPE <VOLT> HI-L
1.24kVAC



When done, you will be returned to the previous menu.

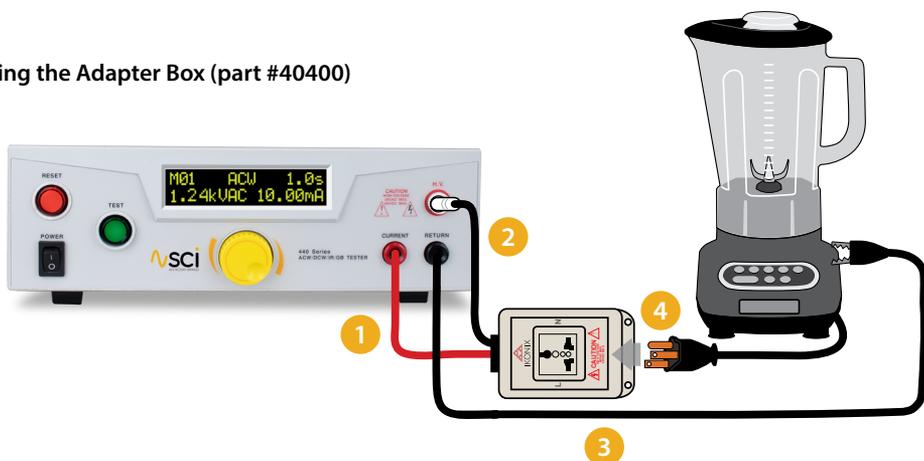
TEST CONNECTION

Using the Test Leads



- 1 Connect the black return lead (99-10865-01) to the front panel return output terminal and connect the other end of the lead to the dead metal on the chassis of the DUT.
- 2 If you are performing a Ground Bond test, connect one end of the high current lead (99-10866-01) to the front panel current output terminal and the other end to the ground pin of the DUT line cord.
- 3 If you are using the high voltage lead (04040A-08, w/ red clip) or probe, connect it to the front panel high voltage terminal and connect the other end of the cable to both the hot and neutral pins of the line cord.

Using the Adapter Box (part #40400)



- 1 Connect the red current lead of the adapter box to the front panel current output terminal.
- 2 Connect the high voltage lead of the adapter box to the front panel H.V output terminal.
- 3 Connect the black return lead (99-10866-01) to the front panel return terminal and connect the other end of the lead to the dead metal on the chassis of the DUT.
- 4 Plug the line cord of the DUT into the adapter box receptacle.

CONDUCT A TEST

- 1 To conduct a test select the desired memory and ensure all test connections are secure.
- 2 Press the green TEST button on the front panel to start testing.
- 3 The test will run for the duration equal to the Ramp, Dwell/Delay settings.



TEST RESULTS

- 1 After the test is performed, the test results will be displayed on the front panel display.
- 2 If the DUT passes the test, you will hear a short audible beep and the green TEST button will illuminate.
- 3 If a failure occurs, you will hear a long audible alarm and the red flashing indicator will light up.
- 4 To stop the alarm press the RESET button.

The image shows a close-up of the digital display screen. The screen displays the text 'M1 Hi-Lmt 0.2s' on the top line and '1.24kVAC>10.47mA' on the bottom line. The text is yellow on a black background.

Pass/Fail Indication screen

If a failure occurs, a failure code will appear on the screen. Consult your product manual to determine the meaning of your failure code.



Electrical Safety Compliance Simplified.™



28105 N. Keith Drive, Lake Forest, IL 60045 USA
+1-847-932-3662 • 800-504-0055 • Fax +1-847-932-3665 • hipot.com • info@hipot.com
© 2022 SCI