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Model SCTEST2 Combo Wrist Strap and Footwear Tester w/ Foot Plate



Features

- To test operator's path-to-ground to determine the personal grounding device is functioning correctly
- Separate test circuits for wrist straps and foot grounders by means of a rocker switch, allowing the operator to quickly test all personal grounding devices
- A green light indicates that the wrist strap or footwear is passing
- Red and yellow lights plus an audible alarm indicate when the wrist strap or footwear is failing; if failure occurs, the tester will also display if the grounding device's resistance is too low or too high
- The Combo Tester may also be used to test smocks or garments that feature a grounding mechanism for operators using a coiled cord connection
- Combo tester includes a stainless steel foot plate to test foot grounders
- Footplate has a molded insulative backplate with beveled edges, isolating the operator from the flooring to ensure accurate testing
- Each Combo Tester is calibrated with accepted procedures and standards traceable to the National Institute of Standards and Technology (NIST) and includes a NIST certificate

Specifications

Combo Tester	
Power Supply	9V alkaline battery
Operating Temperature	41°F to 104°F (5°C to 40°C)
Environmental Requirements	<ul style="list-style-type: none"> • Indoor use only at altitudes less than 6500 ft. (2 km) • Maximum relative humidity of 80% up to +85°F (+30°C) decreasing linearly to 50% @ +104°F (+40°C) • Maximum relative humidity of 50% at 1 GΩ setting
Dimensions	3.3" x 5.6" x 1.5" (84 mm x 142 mm x 38 mm)
Weight	0.5 lbs (0.2 kg)
Wrist Strap Test Limit	750 kΩ to 10 MΩ
Footwear Test Limit	750 kΩ to 100 MΩ
Test Accuracy	±20%
Test Switch Voltage	4 VDC @ open circuit

All dimensions are in inches. Tolerances (except noted): .xx = ±.02" (.51 mm), .xxx = ±.005" (.127 mm). All specifications are to the latest revisions. Specifications are subject to change without notice. Registered trademarks are the property of their respective companies.

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Stainless Steel Foot Plate	
Dimensions	20" x 20" x 0.5" (508 mm x 508 mm x 13 mm)
Weight	5.5 lbs (2.5 kg)

Includes	1 Combo Tester
	1 Foot Plate Cord, 5"
	1 9V Battery
	1 Stainless Steel Foot Plate
	1 Foot Plate Cord, 72"
	1 Certificate of Calibration

Features and Components

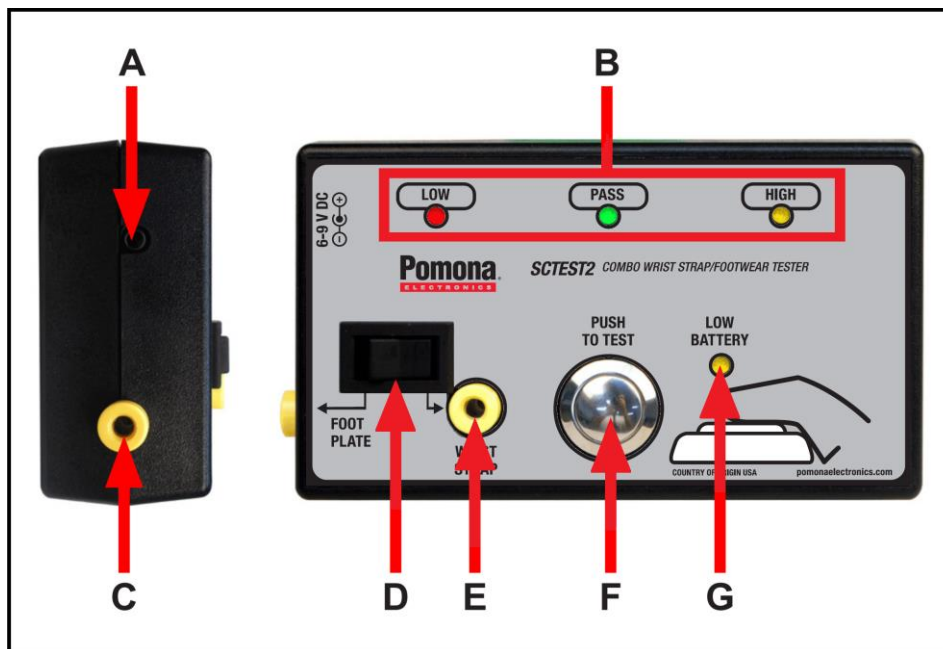


Figure 1. Combo Tester features and components

- A. 6-9VDC Power Jack:** Input for an AC adapter (sold separately) to power the Combo Tester in permanent installation locations. **Use only the Desco 98256 and 98257 power adapters with the Combo Tester. Using any other power adapter may damage the unit and void the warranty.*
- B. Test Results LEDs:** Displays the test results.
- C. Foot Plate Jack:** Connect the banana plug terminal of the foot plate cord here and the other end to the stainless steel foot plate.
- D. Rocker Switch:** Toggle to the left when performing a footwear test. Toggle to the right when performing a wrist strap test.
- E. Single-Wire Wrist Strap Jack:** Insert your single-wire wrist cord here to test your wrist strap.
- F. Test Switch:** Push down and hold your finger here to perform a test.
- G. Low Battery LED:** Illuminates when the battery power is low and needs to be replaced.

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Installation

The Combo Tester is portable when powered by a 9V alkaline battery. Use the three keyhole slots located on the back of the Combo Tester to mount it to a wall or stand.

1. Install the 9V alkaline battery into the Combo Tester.
2. Select a location to mount the Combo Tester.
3. Install three #6 or #8 screws into a wall or other vertical surface as shown in the figure below. Make sure that the screw heads do not project out more than 1/4" from mounting surface.

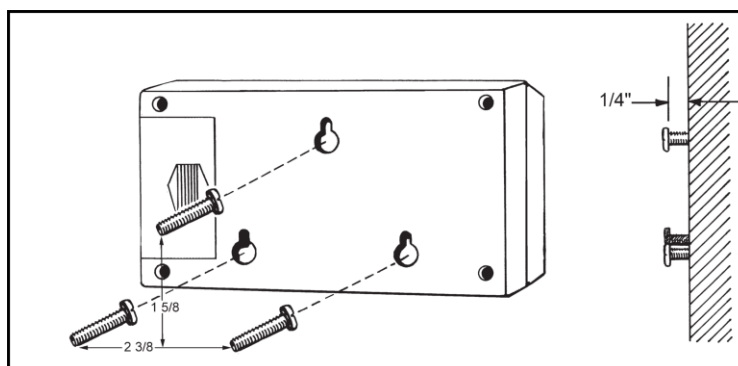


Figure 2. Combo Tester keyhole slots

4. Mount the Combo Tester onto the screws, and pull it down to secure it into place.
5. Set the Stainless Steel Foot Plate below the tester.
6. Insert the 72" long foot plate cord's banana plug into the Combo Tester's foot plate jack.

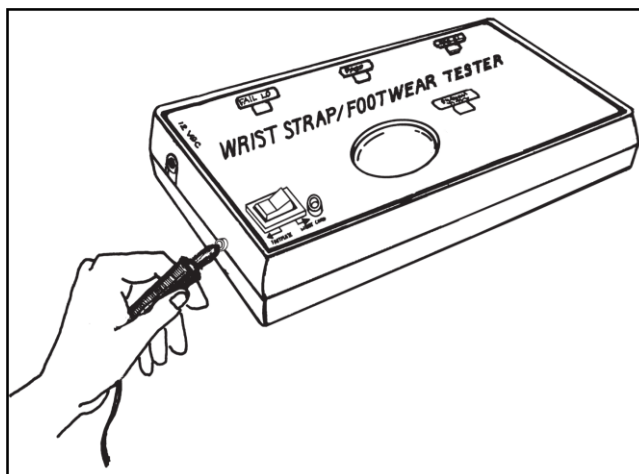


Figure 3. Inserting the foot plate cord's banana jack into the Combo Tester

7. Snap the opposite end of the foot plate cord onto the Stainless Steel Foot Plate.

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Operation

WRIST STRAP TEST

1. While wearing a wrist strap, plug the wrist cord into the wrist strap jack located on the face of the Combo Tester.
2. Toggle the rocker switch to the right toward WRIST STRAP.
3. Push down and hold the test switch until the test results are displayed. Ensure that your finger also makes contact with the metal ring around the pushbutton when performing a test. See Figure 4.

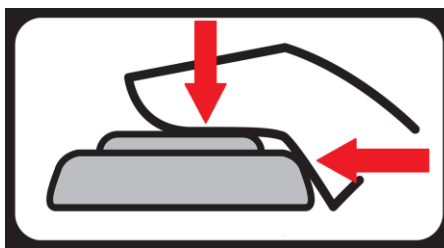


Figure 4. Bridging the pushbutton and its surrounding metal ring when performing a test

4. A "PASS" test result is indicated by illumination of the green LED. A "FAIL LOW" test result is indicated by illumination of the red LED. A "FAIL HIGH" test result is indicated by illumination of the yellow LED.
If your ESD test fails, check your wrist strap and ensure that it is being worn correctly and/or needs to be replaced.

NOTE 1: The Combo Tester may briefly display "FAIL HIGH" once the test button is released at the conclusion of a test. Residual voltage in the circuits' capacitors causes the test to continue for a split second after the button is released.

NOTE 2: Failures may be caused by dry skin or minimal sweat layer. For wrist straps, try using an approved dissipative hand lotion to your wrist prior to use.

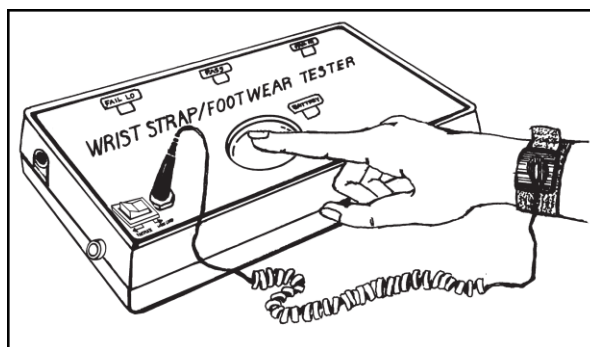


Figure 5. Performing a wrist strap test

FOOTWEAR TEST

1. Toggle the rocker switch to the left toward FOOT PLATE.
2. While wearing ESD footwear, place one foot on the foot plate, and lift the second foot off the floor. Make sure there is no wrist cord plugged into the WRIST STRAP jack.
3. Push down and hold the test switch until the test results are displayed. Ensure that your finger also makes contact with the metal ring around the pushbutton when performing a test. See Figure 4.

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If your ESD test fails, check your footwear and ensure that it is being worn correctly and/or needs to be replaced.

NOTE 1: The Combo Tester may briefly display "FAIL HIGH" once the test button is released at the conclusion of a test. Residual voltage in the circuit's capacitors causes the test to continue for a split second after the button is released.

NOTE 2: Failures may be caused by dry skin or minimal sweat layer. Footwear test results can be improved by taking a short walk to build a sweat layer for better conductivity.

5. Repeat steps 2-4 for the second foot.

Maintenance

The Combo Tester requires little maintenance. There are no user serviceable parts. If your meter requires service beyond cleaning the test switch or foot plate, please contact the factory.

Use a minimum of 80% isopropyl alcohol to clean the test switch. Other cleaners are susceptible to leaving residue.

BATTERY REPLACEMENT

The low battery indicator flashes briefly every time the unit is used. Replace the battery once the indicator becomes constant during testing. Open the compartment located on the back of the tester to replace the battery. The tester uses one 9V alkaline battery.

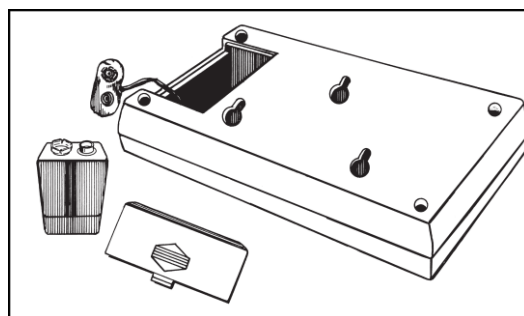


Figure 6. Replacing the battery

Calibration

The Combo Tester is calibrated to NIST traceable standards. There are no user adjustments necessary. We recommend that calibration be performed annually. There are convenient options available that will allow the user to perform NIST traceable calibration on single-wire personnel testers. For recommendations and more information on calibrating the Combo Tester, please contact our Pomona Technical Support team.

Ordering Information

Model: SCTEST2
COMBO TESTER, WRIST STRAP/FOOTWEAR, W/FOOTPLATE

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