Calibration Unit for Combo Tester Installation, Operation and Maintenance

Made in the
United States of America

Figure 1. SCS 770033 Calibration Unit

Description

The SCS 770033 Calibration Unit is designed to verify whether a tester is operating within specifications. This product can be used as one of the tools to fulfill the ANSI/ESD S20.20 paragraph 6.1.3.2 "Compliance Verification Plan." The 770033 Calibration Unit is a passive device and requires no power source. The Calibration Unit is manufactured with industry accepted test ranges for both wrist straps and foot grounders. The wrist strap pass range is set at 750K - 10M, while the foot ground test range is set at 750K - 100M. The SCS Calibration Unit is calibrated to NIST traceable standards.

The SCS 770033 Calibration Unit is to be used with the following items:

Item	Description
770030	Combo Tester
770031	Combo Tester with Stand and Foot Plate

Packaging

1 Calibration Unit
2 Test Leads with Banana Plug Terminals

Operation

Testing the Wrist Strap Circuit

1. Plug one of the included test leads into the black banana jack labeled "E" on the Calibration Unit. Connect the opposite end of the test lead into the yellow banana jack labeled "WRIST STRAP" on the Combo Wrist Strap / Footwear Tester. Toggle the switch to the "WRIST STRAP" position.
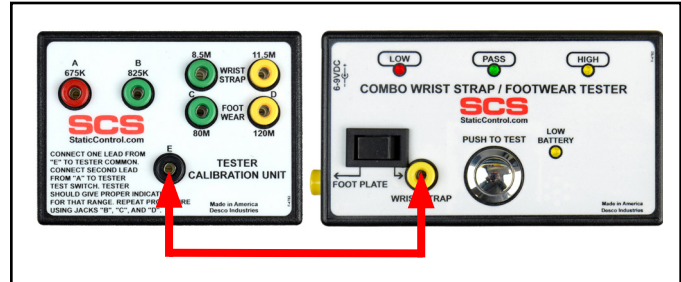

Figure 2. Connecting the test lead from banana jack "E" on the Calibration Unit to the WRIST STRAP banana jack on the Combo Tester

2. Connect the second test lead to the red 675K banana jack labeled "A" on the Calibration Unit. Touch the opposite end of the test lead to test switch on the Combo Tester and press down to activate the test. Be sure not to touch the banana plug or test switch with your skin.

3. Observe the response from the Combo Tester. The alarm should sound, and the LOW LED should illuminate red.

4. Repeat the procedure for test points B (825K), C (8.5M) and D (11.5M). The expected test results can be found in the following table:

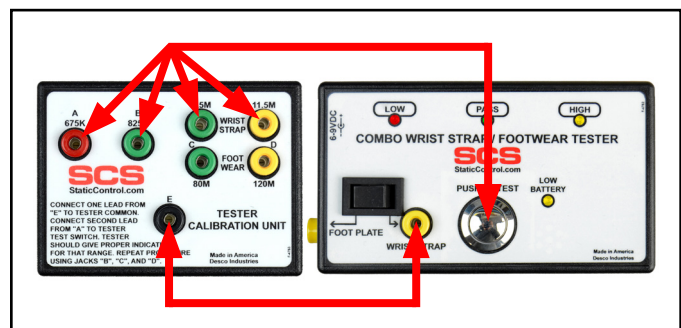| Test Point	Resistance Value	Test Output
A	675K	FAIL LOW
B	825K	PASS
C	8.5M	PASS
D	11.5M	FAIL HIGH

Figure 3. Verifying the calibration of the wrist strap circuit in the Combo Tester

Testing the Footwear Circuit

1. Plug one of the included test leads into the black banana jack labeled "E" on the Calibration Unit. Connect the opposite end of the test lead into the yellow banana jack labeled "FOOT PLATE" on the Combo Wrist Strap / Footwear Tester. Toggle the switch to the "FOOT PLATE" position.
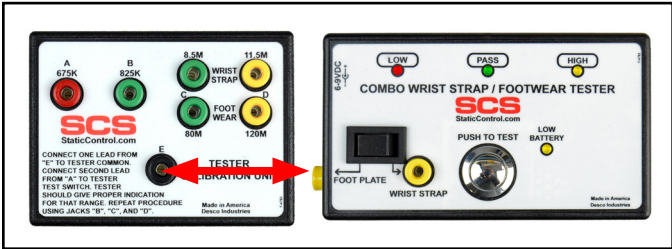

Figure 4. Connecting the test lead from banana jack "E" on the Calibration Unit to the FOOT PLATE banana jack on the Combo Tester

2. Connect the second test lead to the red 675K banana jack labeled "A" on the Calibration Unit. Touch the opposite end of the test lead to test switch on the Combo Tester and press down to activate the test. Be sure not to touch the banana plug or test switch with your skin.

3. Observe the response from the Combo Tester. The alarm should sound, and the LOW LED should illuminate red.

4. Repeat the procedure for test points B (825K), C (80M) and D (120M). The expected test results can be found in the following table:

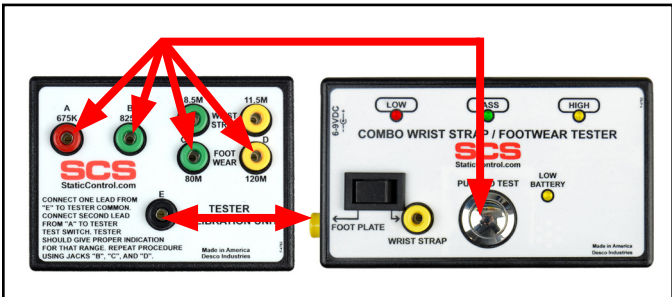| Test Point	Resistance Value	Test Output
A	675K	FAIL LOW
B	825K	PASS
C	80M	PASS
D	120M	FAIL HIGH

Figure 5. Verifying the calibration of the footwear circuit in the Combo Tester

Specifications

Setting	Nominal Resistance	Nominal Resistance Tolerance
A - 675K	675 kΩ	±5%
B - 825K	825 kΩ	±5%
C - 8.5M	8.5 MΩ	±5%
C - 80M	80 MΩ	±5%
D - 11.5M	11.5 MΩ	±5%
D - 120M	120 MΩ	±5%

These resistance values may be verified using a digital ohmmeter. Connect one of the ohmmeter's test leads into the black banana jack labeled "E" on the Calibration Unit. Connect the second test lead into the remaining banana jacks. The measurement of each banana jack should be within ±5% of its labeled value.

Dimensions	3.2" L x 4.4" W x .9" H (8.1 x 11.2 x 2.3 cm)
Weight	4 oz (.1 kg)
Country of Origin	United States of America

Limited Warranty, Warranty Exclusions, Limit of Liability and RMA Request Instructions

See the SCS Warranty - StaticControl.com/Limited-Warranty.aspx

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TB-9073 Page 2 of 2