# 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
1 Certificate of Calibration

## 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.
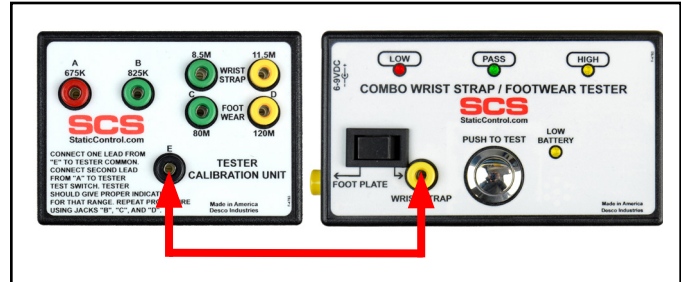


*Figure 2. Connecting the test lead from banana jack "E" on the Calibration Unit to the WRIST STRAP banana jack on the Combo Tester*

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:

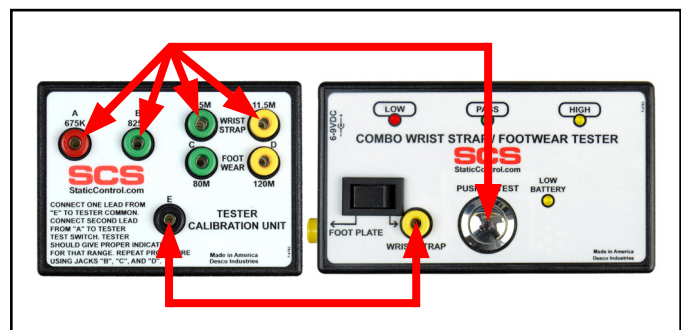| Test Point | Resistance Value | Test Output |
|------------|------------------|-------------|
| A | 675K | FAIL LOW |
| B | 825K | PASS |
| C | 8.5M | PASS |
| D | 11.5M | FAIL HIGH |



*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.
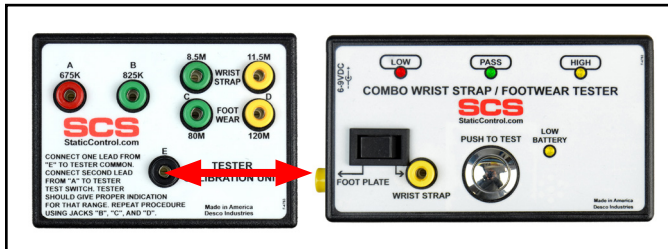


*Figure 4. Connecting the test lead from banana jack "E" on the Calibration Unit to the FOOT PLATE banana jack on the Combo Tester*

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 |
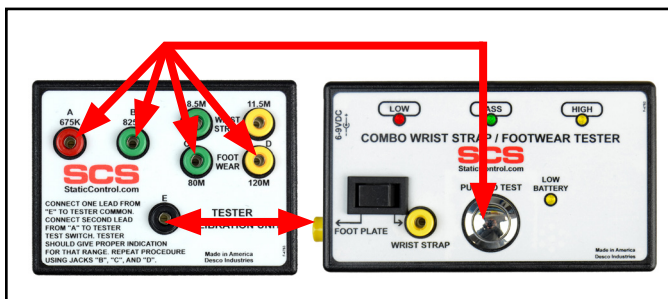


*Figure 5. Verifying the calibration of the footwear circuit in the Combo Tester*

## Specifications

| | |
|---|---|
| Dimensions | 3.2" L x 4.4" W x 0.9" H (81 mm x 112 mm x 23 mm) |
| Weight | 4 oz (0.1 kg) |
| Accuracy | ±5% |
| 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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