

# Calibration Unit for Testers Installation, Operation and Maintenance



Made in the  
United States of America



Figure 1. Desco [07010](#) Calibration Unit

## Description

The Desco [07010](#) 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 [07010](#) 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 Desco Calibration Unit is calibrated to NIST traceable standards.

The Desco [07010](#) Calibration Unit is to be used with the following items:

Item	Description
<a href="#">19240</a>	Wrist Strap Tester
<a href="#">19280</a>	Combo Tester
<a href="#">19282</a>	Combo Tester with Stand and Foot Plate
<a href="#">19283</a>	Combo Tester with Stainless Steel Foot Plate
<a href="#">19350</a>	Wrist Strap Touch Tester, 120VAC
<a href="#">19351</a>	Wrist Strap Touch Tester, 220VAC

NOTE: The [07010](#) Calibration Unit also calibrates the following discontinued items:

19250, 19252, 19253

## Packaging

- 1 Calibration Unit
- 2 Test Leads with Banana Plug Terminals
- 1 Certificate of Calibration

## Operation

### WRIST STRAP TESTER

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 located on the [19240](#) Wrist Strap Tester.

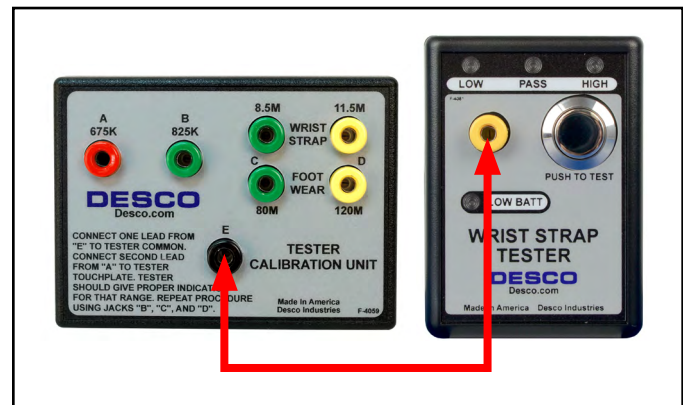


Figure 2. Connecting the test lead from banana jack “E” on the Calibration Unit to the banana jack on the Wrist Strap Tester

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 the test switch on the Wrist Strap Tester and press down to activate the test. The banana plug must touch both the pushbutton and the metal ring around it. The banana plug or test switch must not make contact with your skin.
3. Observe the response from the Wrist Strap 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	Tester LED	Buzzer
A	675K	FAIL LOW	ON
B	825K	PASS	OFF
C	8.5M	PASS	OFF
D	11.5M	FAIL HIGH	ON



Figure 3. Verifying the calibration of the Wrist Strap Tester

### COMBO WRIST STRAP / FOOTWEAR TESTER 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.

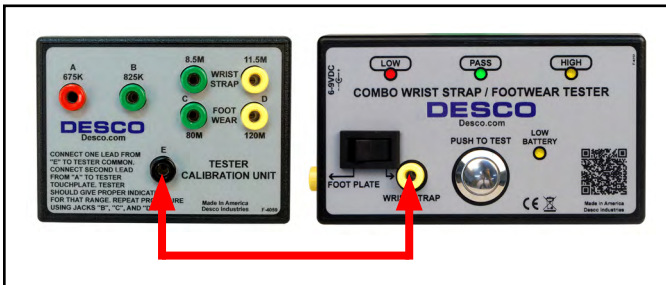


Figure 4. Connecting the test lead from banana jack “E” on the Calibration Unit to the WRIST STRAP banana jack on the Combo Tester

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 the test switch on the Combo Tester and press down to activate the test. The banana plug must touch both the pushbutton and the metal ring around it. The banana plug or test switch must not make contact 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	Tester LED	Buzzer
A	675K	FAIL LOW	ON
B	825K	PASS	OFF
C	8.5M	PASS	OFF
D	11.5M	FAIL HIGH	ON

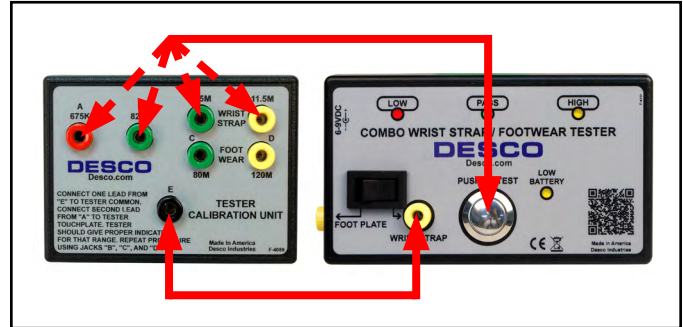


Figure 5. Verifying the calibration of the wrist strap circuit in the Combo Tester

### 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 6. 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 the test switch on the Combo Tester and press down to activate the test. The banana plug must touch both the pushbutton and the metal ring around it. The banana plug or test switch must not make contact 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	Tester LED	Buzzer
A	675K	FAIL LOW	ON
B	825K	PASS	OFF
C	80M	PASS	OFF
D	120M	FAIL HIGH	ON

Test Point	Resistance Value	TEST GOOD LED	Buzzer
A	675K	OFF	OFF
B	825K	ON	ON
C	8.5M	ON	ON
D	11.5M	OFF	OFF

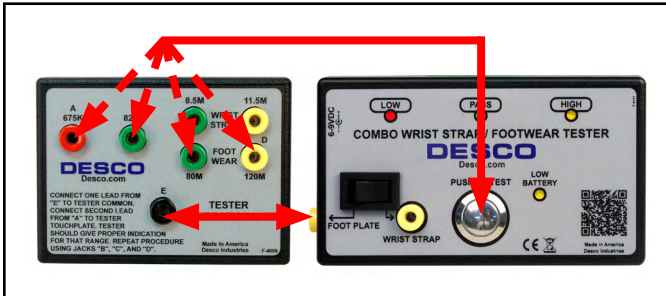


Figure 7. Verifying the calibration of the footwear circuit in the Combo Tester

### WRIST STRAP TOUCH TESTER

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 one of the yellow banana jacks located on the Wrist Strap Touch Tester. Power the Wrist Strap Touch Tester.

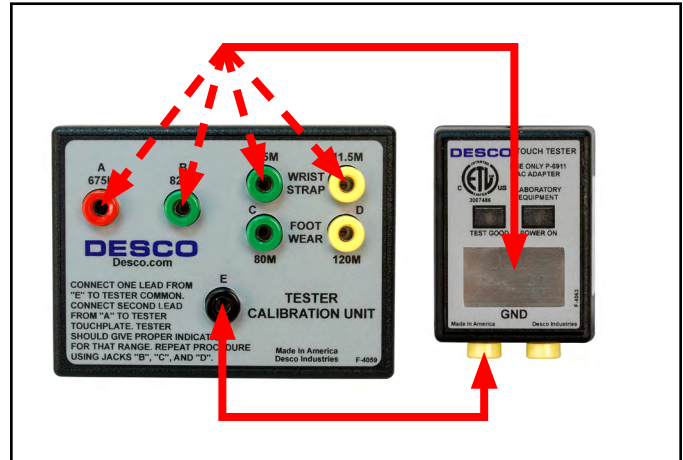


Figure 9. Verifying the calibration of the Wrist Strap Touch Tester

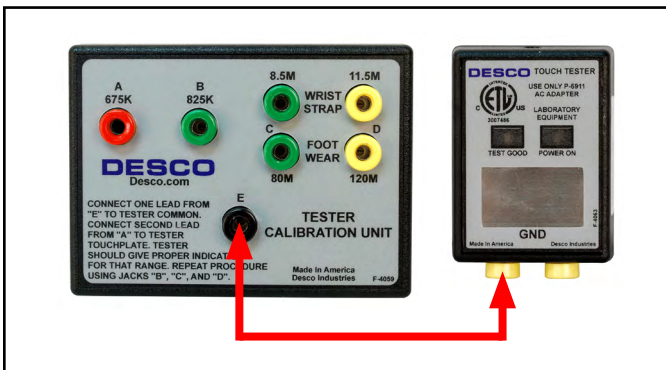


Figure 8. Connecting the test lead from banana jack “E” on the Calibration Unit to one of the banana jacks on the Wrist Strap Touch Tester

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 plate on the Wrist Strap Touch Tester to activate the test. Be sure not to touch the banana plug or test plate with your skin.
3. Observe the behavior of the Wrist Strap Touch Tester. The buzzer should not sound, and the TEST GOOD LED should not illuminate.
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:

### Specifications

Accuracy	±5%
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 Desco Warranty - [Desco.com/Limited-Warranty.aspx](http://Desco.com/Limited-Warranty.aspx)



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