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
19240	Wrist Strap Tester
19280	Combo Tester
19282	Combo Tester with Stand and Foot Plate
19283	Combo Tester with Stainless Steel Foot Plate
19350	Wrist Strap Touch Tester, 120VAC
19351	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

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.

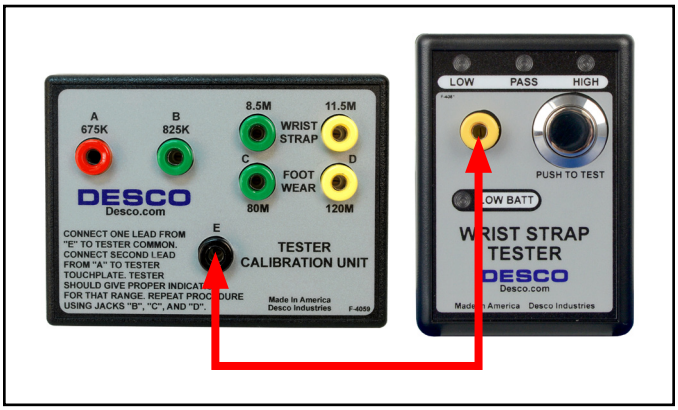

Figure 2. Connecting the test lead from banana jack “E” on the Calibration Unit to the banana jack on the Wrist Strap Tester

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

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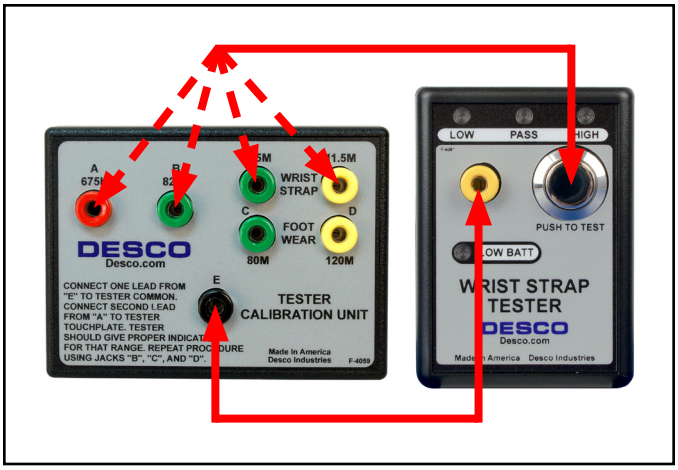

Figure 3. Verifying the calibration of the Wrist Strap Tester

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.

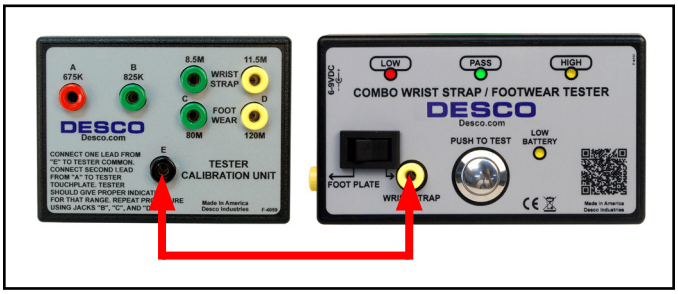

Figure 4. Connecting the test lead from banana jack “E” on the Calibration Unit to the WRIST STRAP banana jack on the Combo Tester

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

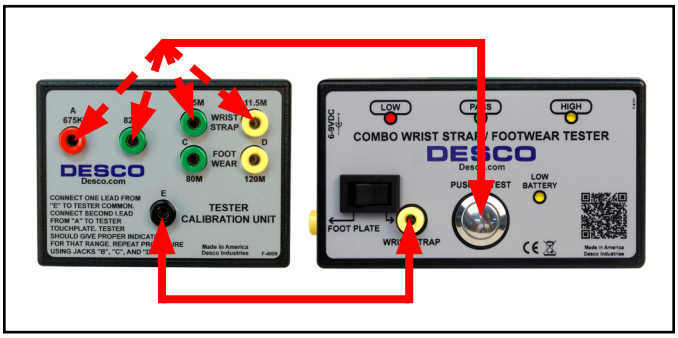

Figure 5. Verifying the calibration of the wrist strap circuit in the Combo Tester

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

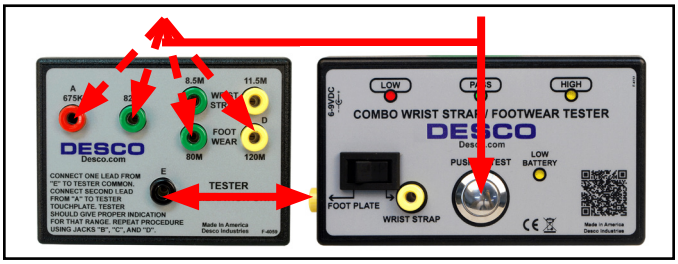

Figure 7. Verifying the calibration of the footwear circuit in the Combo Tester

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.

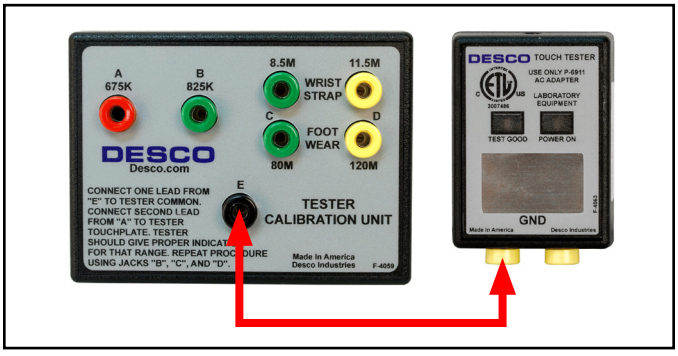

Figure 8. Connecting the test lead from banana jack “E” on the Calibration Unit to one of the banana jacks on the Wrist Strap Touch Tester

2. Connect the second test lead to the red 675K banana jack labeled “A” on the Calibration Unit. Touch and hold 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 TEST GOOD LED will briefly illuminate, and the buzzer will briefly sound. They will then both remain off until the test lead is removed from the test plate.
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:

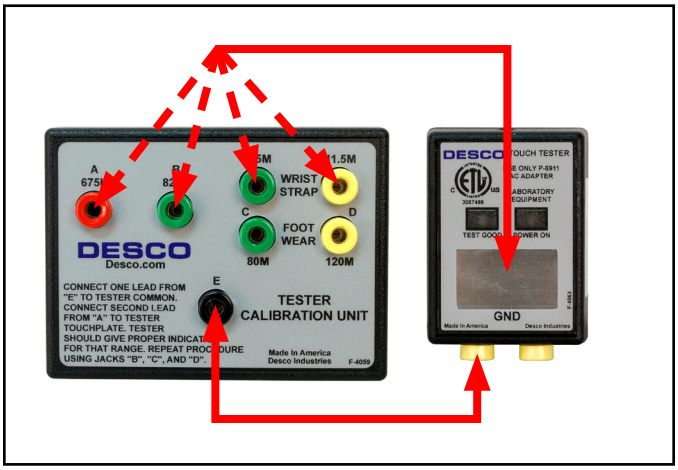

Figure 9. Verifying the calibration of the Wrist Strap Touch Tester

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 Desco Warranty - Desco.com/Limited-Warranty.aspx

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