

Glove Constant Area & Force Electrode PCF-825



Test Procedure

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PROSTAT® PCF-825 GLOVE CONSTANT AREA & FORCE ELECTRODE

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PCF-825 Glove Constant Area & Force Electrode

I. Overview

Glove and Finger Cot evaluation and qualification testing is conducted under controlled conditions in accordance with ESD Association Standard Practice **ANSI/ESD SP15.1-2005 Standard Practice for In-Use Resistance Testing of Gloves and Finger Cots**. While PROSTAT's PCF-825 CAFÉ Fixture Set is designed for evaluation and qualification testing in accordance with SP15.1-2005, it can also be used for Audit measurements in plant, laundry or in various field configurations. All in-use testing should be performed at environmental conditions similar to those in which the gloves will be used.



The PCF-825 CAFÉ Fixture Set includes:

- PCF-825 CAFÉ Fixture
- PWS-611-PGC No Resistor Ground Cord
- PWS-610B Fabric Adjustable Wrist Band
- ABL-36 Inch Black Test Lead

There are several ways to perform resistance measurements with the CAFÉ Fixture Set:

1. Baseline resistance of operator to verify the system and establish minimum resistance of operator only.
2. Low voltage system resistance test (less than 1.0×10^6 ohms). Test at >1.5 Volts to less than 10 Volts.
3. Low voltage system resistance test (Greater than 1.0×10^6 ohms). Test at 10 Volts.
4. High voltage system resistance test (Greater than 1.0×10^7 ohms). Test at 100 Volts.

The following recommends general procedures for using the PROSTAT PCF-825 fixture in practical Audit applications. For detailed evaluation procedures please refer to ANSI/ESD SP15.1-2005.

II. Test Procedure Baseline Resistance of Operator

A. Equipment

1. PRS-801 Resistance System or PRS-812 Resistance Meter.
2. PWS-610B Wrist Strap with PWS-611-PGC ground cord without the one megohm resistor.
3. PCF-825 CAFÉ Fixture.

B. Procedure

1. Select the hand that will eventually wear the glove and select the finger or thumb to be tested.

2. Attach the wrist strap to the test hand and make sure the cuff makes good contact. Lotion may be used to assure good connection.



3. Attach the CAFÉ fixture to the PRS-801 or PRS-812 via the banana jack using the ABL-36 inch Test Lead. Input the other end of the lead to the meter.



4. Attach the wrist strap cord to the meter.

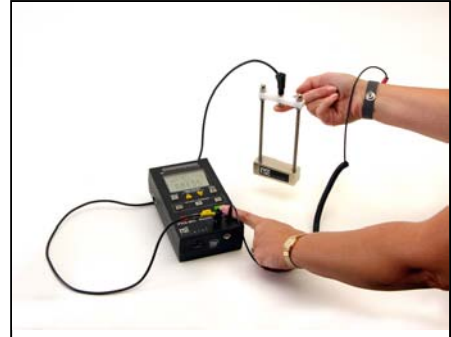


5. Balance the CAFÉ fixture electrode on the fingerprint side of the finger or thumb chosen in step 1 above.

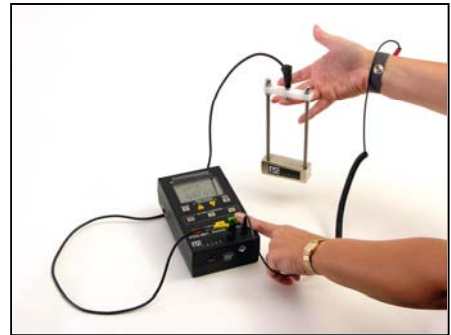


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6. Press the meter test button.
7. Record resistance measurement after 15 seconds of electrification.



8. Repeat Steps 1 through 7 on each finger selected for testing.



9. Clean the electrode with isopropyl alcohol prior to performing additional tests.

**III. Test Procedure – Glove or Finger Cots****A. Equipment**

1. PRS-801 Resistance System or PRS-812 Resistance Meter.
2. PWS-610B Wrist Strap with PWS-611-PGC ground cord without the one megohm resistor.
3. PCF-825 CAFÉ Fixture

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B. Procedure

1. Attach the wrist strap to the test hand that will wear the glove. Make sure the cuff makes a good connection with the skin.



2. Attach the CAFÉ fixture to the meter via the banana jack using the ABL-36 inch Test Lead. Input the other end of the lead to the meter.



3. Attach the wrist strap cord to the meter.

4. Wear the glove in test and wait a minimum of 15 seconds to begin the electrical testing.

5. Balance the CAFÉ fixture electrode on the fingerprint side of the finger or thumb chosen of the hand wearing the glove.

6. Press the meter test button.



7. Record resistance measurement after 15 seconds of electrification. If the resistance measured is less than 1.0×10^6 ohms, record the measurement. Repeat the test for all other digits.

8. If the resistance measured is greater than 1.0×10^6 ohms, test at 10 Volts. If the resistance measured is greater than 1.0×10^7 ohms, test at 100 Volts.

9. Clean the electrode with isopropyl alcohol prior to performing additional tests.



PCF-825 Glove Constant Area & Force Electrode

PCF-825 Glove Constant Area & Force ElectrodePCF-825 CAFÉ Fixture

Size:	3.0 x 6.0 x 1.0 inches
Electrode Material:	303 Stainless Steel
Cross Bar Material:	UHMW
Threaded Rod Material:	Stainless Steel
Bottom Weight Material:	1018 CRS Plated (Nickel or Zinc)
Weight:	1 lb

PWS-610B Fabric Adjustable Wrist Strap

Buckle:	1.0W x 1.0L x 0.25H inches. Gray, Adjustable with positive lock, stainless steel back plate. Standard male 5/32" snap (0.154 inch, 4mm); provides 360° performance. Patented, Easily adjusted buckle incorporating a positive fabric lock to eliminate slip and enhance skin contact. Non-sensitizing stainless steel back plate.
Fabric:	0.85 inches wide. Grey, knit incorporating silver plated filament and elastic nylon. Insulative outer cuff surface, conductive inner cuff surface.
Size/Length:	Nominal 6.5" After stretching to 2x length and relaxing
"M" series cuffs:	Incorporate a 10mm male snap and insulated snap cover installed in the fabric approximately 1.5 inches from the cuff buckle. The 10mm snap is used to mount and ground the PROSTAT PFM-711A Field Meter and CPM-720A Charge Plate Monitor.

PWS-611-PGC No Resistor Grounding Cord

Snap:	4mm female snap
Coil:	Polished polyurethane coil insulation provides excellent coil memory. A swivel type banana jack with six (6) leaves increases coil life and prevents cord tangles.
Size/Length:	7 core tinsel wire has a nominal 2.5mm diameter. Length of 6 feet

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1072 Tower Lane, Bensenville, IL 60106 USA
www.prostatcorp.com