

FOOTWEAR AUDITOR

PFA-860

User Manual



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PROSTAT® PFA-860 FOOTWEAR AUDITOR

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I. Introduction & Description

- A. The PFA-860 Footwear Auditor is designed for resistance measurements of footwear while being worn by personnel. It is designed for use in conjunction with the Prostat PRS-801 or PRS-812 Resistance Meter and accessories.
- B. The PFA-860 can be used to: (1) measure individual body resistance through the body to the test plate; (2) measure resistance through the body and shoes (one or both shoes) to the test plate; and, (3) measure resistance through a shoe to the test plate.

II. Cautions & Warnings

- A. As with any electrical device, use proper electrical precautions to avoid personnel shock.

WARNING
To avoid personnel shock, read the General Operation instructions of resistance meter prior to using the PFA-860 Footwear Auditor Accessory.

III. Components

- A. The PFA-860 Footwear Auditor kit includes three components:

- 1. Hinged Test Plate:

Two stainless steel plates 1/16 inch thick, welded to 1/4 inch stainless steel piano hinge. Functional Size 17 x 11 inches. Folds to 8 x 11 x 0.25 inches for storage in standard Prostat kits. Equipped with 2 snap connections at opposite corners for convenience. Bottom surface laminated with polypropylene insulating material.

- 2. Hand Held Test Wand:

Stainless steel tube assembly 5-1/8 inches long with 7/8 inch outer diameter. Equipped with a banana receptacle for meter lead connection at the opposite end.

- 3. Banana Snap Accessory:

Used to attach meter lead banana connection to either snap mounted on the stainless steel test bed. The snap adapter is equipped with an insulated snap cover and lug type banana receptacle.

- B. Prior to using the Hinged Test Plate, carefully peel away the protective plastic film coating from the top surface of each side of the test plate.

NOTE
The bottom surfaces of the Hinged Test Plate are laminated with insulated white panels to insure flooring surfaces will not interfere with footwear measurements. **DO NOT REMOVE** the white insulated panels.

C. Check the continuity of the test plate using the following procedure:

1. Place the resistance meter on a table top or other stable surface and attach the leads.
2. Set the Main Selector Switch to **CONTINUITY** Setting.
 - a. Attach the Banana Snap Accessory to one snap on the Hinged Test Plate and plug one lead into the banana.
 - b. Attach and alligator clip to the second meter test lead and clip it to the second snap on the Hinged Test Plate.
 - c. Press the meter **TEST** button and read the resistance on the meter's **CONTINUITY** Scale. Snap to snap plate resistance should be approximately 0 Ohms.
3. After Hinged Test Plate Continuity Test is completed, return the Main Selector Switch to the **OFF** position.

IV. Testing Footwear Resistance through Human Test Subject

A. Resistance of Human Test Subject

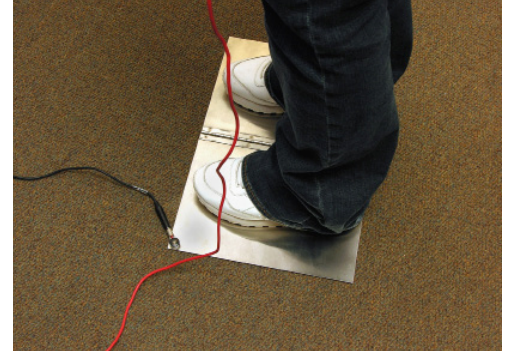
1. Place the resistance meter on a table top or other stable surface and attach the leads as described in the Operations Manual.
2. Set the voltage to 10V Setting.
 - a. Attach the Banana Snap Accessory to one snap on the Hinged Test Plate and plug one lead into the banana lug assembly.
 - b. Plug the second test lead into the banana receptacle on the Hand Held Wand.
 - c. While the Human Test Subject is wearing only stockings (cotton or nylon), the subject stands on the hinged test plate with one foot on each side of the hinge while firmly holding the Hand Wand with one hand.
 - d. Press the **TEST** button on the meter, and read the resistance.
3. After the Human Test Subject resistance is recorded, turn the meter **OFF**.



B. Resistance of Shoes through Test Subject

1. Place the resistance meter on a table top or other stable surface and attach the leads as described in the Operations Manual.
2. Set the voltage to 10V Setting.
 - a. Attach the Banana Snap Accessory to one snap on the Hinged Test Plate and plug one lead into the banana lug assembly.

- b. Plug the second test lead into the banana receptacle on the Hand Held Wand.
- c. While the Human Test Subject is wearing the shoes in question, the subject stands on the hinged test plate with one foot on each side of the hinge while holding the Hand Wand firmly in one hand.
- d. Press **TEST** button on the meter, and read the resistance.
- e. Repeat at 100V if desired or necessary.



3. After the Shoe resistance is recorded, turn the meter OFF.

C. Resistance of One (1) Shoe through Test Subject

1. Place the resistance meter on a table top or other stable surface and attach the leads as described in the Operations Manual.
2. Set the voltage to 10V Setting.
 - a. Attach the Banana Snap Accessory to the right snap on the Hinged Test Plate and plug one lead into the banana lug assembly.
 - b. Plug the second test lead into the banana receptacle on Wand.
 - c. While the Human Test Subject is wearing the shoes in question, the subject stands on the hinged test plate while firmly holding the Hand Wand in one hand.
 - d. With the Test Subject lifting the Left foot from the test plate, Press **TEST** button, read the Right shoe resistance from the display.
 - e. Repeat at 100V if desired or necessary.
3. After the Right Shoe resistance is recorded, repeat the entire procedure with the snap on the Left side of the hinged test plate and raising the Right foot.

After the Left Shoe resistance is recorded, turn the meter **OFF**.

V. Testing Footwear Resistance through Shoe to Test Plate

A. Resistance of Shoe to Hinged Test Plate

1. Place the resistance meter on a table top or other stable surface and attach the leads as described in the Operations Manual.
2. Set the volatge to 10V Setting.
 - a. Attach the Banana Snap Accessory to the right snap on the Hinged Test Plate and plug one lead into the banana.



- b. Place a strip of aluminum foil approximately 1 inch wide by 14 inches long in the test shoe. Make sure that the foil strip runs the full length of the shoe from toe to heel.
 - (1) Have the Test Subject don the shoe
 - (2) Approximately 2 inches of foil should extend from the heel of the shoe.
 - c. Place an alligator clip on the second test lead and attach it to the foil strip protruding from the right shoe.
 - d. While the Human Test Subject is wearing the test shoes, the subject stands on the hinged test plate and firmly holds the Hand Wand in one hand.
 - e. Press **TEST** button on the meter, and read the resistance from the display.
 - f. Repeat at 100V if desired or necessary.
3. After the Right Shoe resistance is recorded, repeat the entire procedure with the snap on the left side of the hinged test plate and the second test lead clipped to the aluminum foil extending from the Left shoe.

After the Left Shoe resistance is recorded, turn the meter **OFF**.

PFA-860 Footwear Auditor Specifications

- Test Plate:** Two stainless steel plates 1/16 inch thick, welded to ¼ inch stainless steel piano hinge. Equipped with 2 snap connections at opposite corners. Bottom surface laminated with polypropylene insulating material.
- Size:** 17" x 11" (43 cm x 28 cm). Folds to 8" x 11" x 0.25" (20.3 cm x 27.9 cm x 0.6 cm)
- Test Wand:** Stainless steel tube assembly equipped with an insulated sealing cap on end and a banana receptacle for meter lead connection at the opposite end.
- Wand Size:** 5 ½ inches long with 7/8 inch outer diameter
- Banana Snap:** Equipped with an insulated snap cover and lug type banana receptacle.

NOTES

NOTES

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