



TRANSFORMING TECHNOLOGIES
OUTSTANDING ALTERNATIVES IN STATIC CONTROL

Ohm Metrics™

**Combination Wrist Strap & Footwear Tester
Model PDT700**



Instruction Manual

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Description

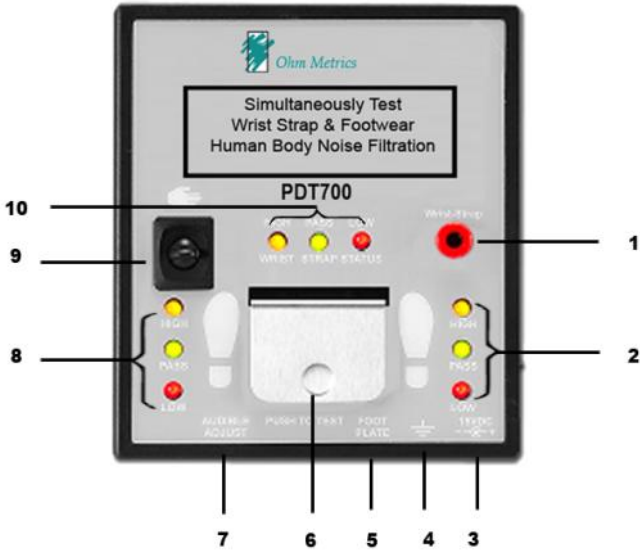
Ohm Metrics Combo Wrist Strap and Footwear Tester: Model PDT700

The PDT 700 is an easy, accurate, and time saving *One-Touch* digital wrist strap and footwear tester. Simultaneously and independently test both feet and a wrist strap while filtering out human body noise. The proactive “Near-Fail” indicator alerts the user that the ESD grounding device under test is operational but nearing failure levels. This tester fully supports the “Compliance Verification Plan” requirements as stated in the ANSI ESD S20.20.

Features include:

- Proactive “Near-Fail” LED indicator to prevent sudden failure of grounding device after test.
- Only one touch is needed to complete the testing of both wrist and foot grounding devices.
- Tests both wrist strap and footwear simultaneously or independently.
- 100% independently test the left-foot and the right-foot.
- Test limits meet USA and European standards; preset with broad test range 100K Ω ~1G Ω .

Front Control Panel



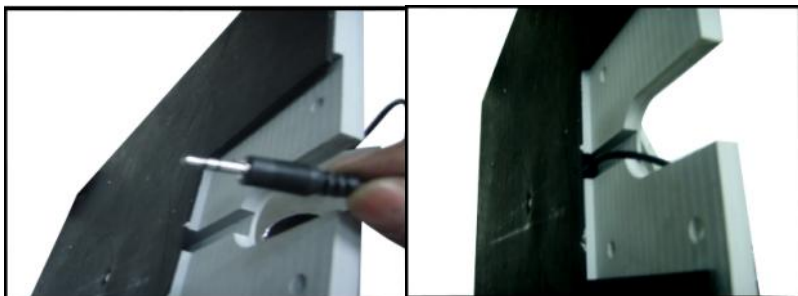
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|------------------------------|-----------------------------|
| 1. Wrist strap Plug-jack | 7. Adjustable Audio Alarm |
| 2. Right Foot LED Indicators | 8. Left Foot LED Indicators |
| 3. Power Input | 9. Toggle Switch |
| 4. Grounding Jack | 10. Wrist-Strap LED |
| 5. Foot-Plate Wire Jack | Indicators |
| 6. Test Button | |

Assembly

The PDT700 has two options for installation: Free-standing installation with a pedestal or wall mounting.

Free Standing Installation

1. Remove all items from carton and confirm you have received all items contained in the "Parts Included List" on page 8.
2. Remove plastic from the metal sensors of the footplate.
3. Thread Cord A through the pedestal with the straight plug emerging from the bottom.
4. Unscrew and remove the metal plate on the front of the footplate and set the screws aside.
5. Connect the straight plug to underside of footplate. See Image:



6. Slide the metal plate removed in Step 3 into the slot on the underside of the footplate.
7. Fasten the stand to the footplate with the four shorter screws that were removed earlier.
8. Thread CORD A's right angle plug through the smaller hole on the mounting plate and secure the plate to the top of pedestal with the included screws.



Installation Cont.

9. Attach the four spacer posts to the to the metal plate with a rubber washer between the post and plate.
10. Place the tester's plastic mounting board on the four posts with the rubber washers between the post and the plastic board and secure with screws.
11. Locate the AC power cord and Cord B and thread (the ends that fit the jacks on the bottom of the tester) though the large hole in metal plate and the hole in the backing board.
12. Connect the three cords to the tester.
13. Connect the banana plug of the Cord B to ground.
14. Plug in the power cord.



Note: In free standing installation, it is recommended to have the unit against a wall for stability.

Wall Mount

The PDT700 can be mounted on to any flat, stationary surface. Frequently, the unit is mounted on a table or wall

1. Secure monitor to a solid wall with screws via the four holes in the corners of the mounting board.

Installation Cont.

2. Connect the footplate and monitor together with the footplate cord like Steps 3, 4, and 5 in Free Standing Installation. Place footplate directly under monitor
3. Connect the Power, Ground and Footplate cords to their proper jacks.
4. Connect the banana plug of Cord B to ground.
5. Plug in the power cord.

Change Limits

The high and low limits of both wrist strap and footwear can be changed by the DIP Switch located at the bottom of the tester.

1. Put all DIP switches to the UP position (0 means Open). Power off tester followed by a power on.
 2. Set the desirable high limit and low limit of wrist-strap and footwear. Then do a power off followed by a power on again.
- To change the low limit resistance for **both** wrist-strap and footwear: Turn on DIP switch S1 to change the low limit resistance of both wrist-strap and footwear from 1M to 750K ohm.
 - "Test Wrist **OR** Foot" mode: Turn on DIP switch S2 to enable the "Test wrist OR foot" mode. Under this mode, the final result will be a PASS if **either** wrist or feet passed the test. Please note that if any test on wrist or feet is **LOW**, the final

test result will become a FAIL since the LOW test result implies a potential hazard to human body.

- DIP switch S3 controls the high resistance limit of wrist-strap testing as following:

S3	High Limit Resistance
OFF	10M
ON	35M (Default)

- DIP switch S4 controls the low resistance limit of footwear testing as following:

S4	Low Limit Resistance
OFF	100K
ON	1M (Default)

- DIP switch S5 and S6 control the high resistance limit of footwear testing as following:

S5	S6	High Limit Resistance
OFF	OFF	10M
OFF	ON	35M
ON	OFF	100M(Default)
ON	ON	1G

Testing

After the PDT700 is powered on, a short beep will sound and all the corresponding LED's turn on. Now the tester is ready to be used.

Use the Toggle switch on the left-upper side of the tester to select the test you desire:

UP: Tests Wrist Strap Only
Down: Tests Footwear Only
Middle: Tests Both Footwear and Wrist Strap

Wrist Strap Only Testing

1. While wearing a wrist strap, insert the banana plug end of cord in the jack labeled "WRIST STRAP"
2. Toggle switch up for "WRIST STRAP".
3. Press and hold the test button.
4. A **short audible beep** and a **green LED labeled "PASS"** lights up indicating that the wrist strap and cord are functioning properly.
5. If the **red LED** and a **long beep** activate than the wrist strap failed **"LOW"**.
6. If the **yellow and green LED lights**, along with two short beep sounds, than the wrist band **"FAILED HIGH"**.

Footwear Testing

The PDT700's dual footwear sensors allows for simultaneous testing of each foot independently. The left foot's status is indicated with the LED lights on the left side and the right foot is indicated on the right side of the monitor.

1. Turn the toggle switch located down to test "FOOTWEAR"

NOTE: No cord should be plugged into "WRIST Strap" jack.

2. Place feet onto silver sensors of platform.
3. Press the test button and hold for 2-3 seconds
4. The **green LED** labeled "**PASS**" indicates that the grounding device is functioning properly.
5. The **red LED** labeled "**LOW**" **the device is nearing failing levels and should be repaired or replaced.**
6. The **yellow LED** labeled "**HIGH**" indicates the device has failed and is not longer grounding the operator. Replace the device immediately. This indication is accompanied by audible alarm sound.

Product Specifications

ESD Footwear Test:	100% Left/Right Foot Independent Test-ing
ESD Wrist-Strap Test:	Traditional Single Wrist-Strap
Test Modes:	WS only / FW only / Both WS and FW
High/Low Test Limits :	Factory default: Wrist $1\text{M}\Omega \sim 35\text{M}\Omega$ / Foot $1\text{M}\Omega \sim 100\text{M}\Omega$. Accept customer pre-set at factory; range is $100\text{K}\Omega \sim 1\text{G}\Omega$.
Test Push Button:	Ergonomic Metal Plate for Reliable/Durable Operation.
System Built-in Relay:	Dry Contact Control, 1A 30VDC
Special Reminder:	Indicate "Near-Fail" Test Result
Input Voltage:	100-240/VAC, 50/60Hz, 1A
Operation Temperature:	$0^{\circ}\text{C} \sim 40^{\circ}\text{C}$, for Indoor Use Only
System Dimension:	140x125x33 mm (L x W x H)
Dual Independent Footplate Dimension:	480x403x25 mm (L x W x H)

Parts Included List

1. PDT700 tester.
2. Foot plate.
3. Pedestal.
4. AC adapter
5. 2 connection cords.
6. Posts and Screws



Cord A



Cord B

Service and Warranty

Transforming Technologies, LLC provides a limited warranty for the Model PDT700. All new products are guaranteed to be free from defects in material and workmanship for a period of one (1) year from the date of shipment. Liability is limited to servicing (after evaluating, repairing or replacing) any product returned to Transforming Technologies. The company does not warrant damage due to misuse, neglect, alteration or accident. In no event shall Transforming Technologies be liable for collateral or consequential damages. To receive service under warranty, please contact Transforming Technologies Technical Support.

About Transforming Technologies

Since 1998, Transforming Technologies has helped electronic manufacturing facilities to protect their products and processes from the many serious problems associated with static electricity.

Transforming Technologies offers a wide range of unique and outstanding products to detect, protect, eliminate and monitor electrostatic charges. Our products are integral components of an effective static control program.



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