

## Service and Warranty

Transforming Technologies, LLC provides a limited warranty for the Model CM2015. 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.

### TRANSFORMING TECHNOLOGIES, LLC



3407 Silica Rd.  
Sylvania, Ohio 43560  
Phone: 419-841-9552  
Fax: 419-841-3241  
E-mail: [info@transforming-technologies.com](mailto:info@transforming-technologies.com)



TRANSFORMING TECHNOLOGIES, LLC  
OUTSTANDING ALTERNATIVES IN STATIC CONTROL

*Ohm Metrics™*

## Tester Calibration Device

Model CAL 1000



## Instruction Manual

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## Product Specifications

Power source:	No power source required
Accuracy:	+/- 3%
Calibration	
Interval:	Once a year
Dimensions:	7" x 3.7"x 1.3"
Weight:	0.41lbs

### **Product Number**

Cal 1000	Calibration Unit
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### **Calibrates**

WST200	Wrist Strap Tester
GTS600	Combo Tester
GTS900	Combo Tester

Calibrates Most Makes and Models of ESD Testers

### **Resistance Range:**

Wrist Strap	LOW 0-68M $\Omega$
	PASS 0.85 M $\Omega$ ,3M,9.1M $\Omega$
	HIGH 11M $\Omega$

Footwear	LOW 0.68MK $\Omega$
	PASS 820K $\Omega$ ,38M,88M $\Omega$
	HIGH 110M $\Omega$

## Footwear Calibration Cont.

2. Place the probe with the conductive rubber base onto the touch plate of the tester, making sure that the probe is placed in the middle of the touch plate for optimal reading.
3. By pushing the probe on the touch plate you'll usually activate the tester. The tester should indicate **RED LED light "LO"**.
4. Repeat this procedure for the other footwear knob settings.

In each case the indication on the instrument should correspond to the knob setting. For example, set the calibration unit to the "PASS" position, repeat steps 1-3 and the footwear tester should indicate a **GREEN LED light "PASS"**.

Be sure to hold the cord at an insulated point, so that the resistance value is not affected by the body.

## Parts Included List

### GTS600k

1. CAL1000 Calibration Unit.
2. Two (2) test lead cords

## Description

### *Ohm Metrics* Tester Calibration Device Model CAL 1000

The CAL 1000 calibration unit is designed to facilitate easy, in-house, NIST traceable calibration of the WST 200, GTS600 and GTS900 wrist strap and footwear testers from Transforming Technologies. The CAL1000 is designed to verify testers calibrated to ANSI/ESD S1.1-1998 and ANSI/ESD STM9.1-2001 so it works with most makes of test equipment.

Features include:

- Passive. No power source required.
- NIST traceable for in-house calibration.
- Wrist strap test range: 750 kilohm - 10 megohm.
- Footwear test range: 750 kilohm - 100 megohm.
- Versatile, works with most tester brands.

*Ohm Metrics* test and measurement products, from Transforming Technologies, are useful, reliable tools for characterizing and identifying the electrical resistance of materials and the performance of personal grounding products.

- All Ohm Metrics products are designed to support ESDA Compliance Verification TR53.
- All Ohm Metrics products can be calibrated.
- All Ohm Metrics test and measurement products are warranted for 1 full year.

## Power Source

### Assembly

The CAL1000 requires little assembly. Locate the colored jacks on the front of unit and simply plug the **RED** test lead into the **RED** jack and the **BLACK** test lead into the **BLACK** jack. You are now ready to begin calibration.



Figure 1: CAL 1000 and test leads

## Testing and Calibration

### Calibrating a Wrist Strap Tester

For calibration of a wrist strap tester, turn the knob to "**680K  $\Omega$  LOW**" setting on the **Upper** part of dial marked "**Wrist strap**".

Calibration test procedures:

1. Make sure that the test leads are connected to the correct color coded jacks and then connect the opposite end of one test leads to **WRIST STRAP** jack of tester.
2. Place the probe with the conductive rubber base onto the touch plate of the tester, making sure that the probe is placed in the middle of the touch plate for optimal reading.

Be sure to hold the cord at an insulated point, so that the resistance value is not affected by the body.

### Calibrating a Wrist Strap Tester Cont.

3. By pushing the probe on the touch plate you'll usually activate the tester.
4. The tester should indicate **RED LED light "LO"**.
5. Repeat this procedure for the other wrist strap knob settings.

In each case the indication on the instrument should correspond to the knob setting. For example, set the calibration unit to the "PASS" position, repeat steps 1-3 and the wrist strap tester should indicate a **GREEN LED light "PASS"**.

If the tester does not meet calibration specifications, you should contact the supplier for adjustment information.

### Calibrating a Footwear Tester

For calibration of a footwear tester, turn the knob to "**680K  $\Omega$  LOW**" setting on the **LOWER** part of dial marked "**Footwear**".

Calibration test procedures:

1. Make sure that the test leads are connected to the correct color coded jacks and then connect the opposite end of one test leads to **Footwear** jack of tester.

Make sure that if the tester is a dual wrist strap/ footwear tester, all adjustments are set to footwear.