

OhmMETRICS EFM250 Static Field Meter

The Transforming Technologies EFM250 is a convenient electrostatic field meter used to locate and measure static voltages on surfaces. Its compact design and four button operation makes it easy to operate. The EFM250 measures static voltages within $\pm 20\text{kV}$ (20,000V) at a distance of 1". It utilizes a non-contact technology, with a double LED guide to ensure accurate detection distance from the charged object. Results are displayed numerically on an easy to read LCD screen.

The EFM250 field meter is an ideal meter for process evaluation, static audits, and is best used in electronics, plastics, chemicals, printing, optoelectronics and other industries. The EFM250 meets periodic test requirements per Compliance Verification ESD TR53.



Features

- Designed for Measuring Static Voltages on Surfaces for ESD Compliance.
- Measuring Range: + 0 ~ 20 kV
- Easy To Operate: Four Button Controls
- Large LCD Results Display
- Ergonomic Design
- Battery Operated: Two AAAs

NOTE: Please read the manual prior to using the EFM250.

Parts Included

- 1 – EFM250 Field Meter
- 1 – Manual
- 1 – Certification of Calibration

Button Functions

1. **POWER:** Turns meter on. Type: A short press turns on display. Long press to turn off
2. **ZERO:** Zeros out the measurement. Do not zero out when the meter is exposed to static. This will change the accuracy of the measurement. Type: Long press
3. **WD:** Turns on/off the LED guide. Type: Short press.
4. **BL:** Turns on/off the back light of the screen. Type: Short press.
5. **HOLD:** Freeze/unfreeze the current measurement screen. This allows the results to be read easier. Type: Short press to hold data on screen. Short press again to resume real time display.

Instructions

1. Install two AAA batteries into the compartment on the back of the meter
2. Press and hold power button until the meter turns on. Wait 5 seconds before taking your first measurement.
3. Check the three segment battery indicator in the top, right screen. If the meter's power is low, replace the battery. Low power may effect the measurement function.
4. Measuring static:
 - a. The meter should be 25 mm (.98inch) away from and parallel to the surface to be measured.
 - b. The WD button turns on the LED guide.
 - c. Press the HOLD button to keep the measured data on the display after a test is taken. Press the HOLD button again to resume detection mode.

Notes:

1. Wait 5 seconds after powering on before taking first measurement
2. Do not zero out the meter in presence of static. This may effect the accuracy.
3. Make sure the static sensor is clean. Do not insert anything into the sensor. This can cause damage.
4. Do not measure static charges over 2000volts. This can damage the meter. Note: It typically takes a charge of greater than 2,000 volts for a person to feel the "zap". If you can sense the charge, do not measure it.
5. The meter is sensitive to drops and collisions. This can cause malfunctions.
6. Do not disassemble the meter. If there is an problem, contact Transforming Technologies.

Maintenance.

1. The meter should be clean and free of dirt. Clean of meter with a soft cloth. IPA diluted with water can be used for tougher stains
2. The EFM250 is factory calibrated. It is recommended to verify calibration once per year. Contact Transforming Technologies for more information.
3. The meter has a One Year Warranty for manufactures defects.

Troubleshooting:

Problem	Possible Cause	Solution
LCD does not light up	Battery is too low	Replace battery
Abnormal value or error during measurement	Too close to high voltage equipment, ionizers or other strong electromagnetic equipment	Remove/turn off equipment that is the source of the interference
	Detection distance setting error	Reposition meter within 25mm of surface
The meter has an odor	Component burning	Stop testing. Contact Transforming Technologies for evaluation
If there are problems that are not listed, contact Transforming Technologies for evaluation		

Specifications:

Detection Range	0.01KV - + 20.00KV
Accuracy	± 10%
Detection Distance	25mm ± 1.0mm
Input Voltage	DC3V (2 AAA Batteries)
Working Current	<100mA
Auto Power Off	180 seconds
Working Temperature	-18C ~ 50C
Working Humidity	0-85% RH
Dimensions	141 x 71x38mm LxWxH
Weight	146g

