

SIMCO FMX-004

SIMCO FMX-004 Handheld Electrostatic Field Meter User Manual

Model: FMX-004 | Brand: SIMCO

1. INTRODUCTION

The SIMCO FMX-004 is a compact, handheld electrostatic field meter designed for measuring static electricity. It provides accurate and repeatable measurements of static charges, making it an essential tool for quality control, troubleshooting, and research in various industries. This manual provides comprehensive instructions for the safe and effective use of your FMX-004 meter.

2. SAFETY PRECAUTIONS

- Always operate the device in a dry environment. Avoid exposure to moisture or liquids.
- Do not attempt to open or modify the device. Refer all servicing to qualified personnel.
- Ensure proper grounding when taking measurements, especially in sensitive environments.
- Keep the device away from strong magnetic fields or high-voltage sources that could interfere with readings or damage the unit.
- Use only the specified battery type and ensure correct polarity during installation.

3. PACKAGE CONTENTS

Verify that all items are present and in good condition upon unpacking:

- SIMCO FMX-004 Handheld Electrostatic Field Meter
- Ground Cord with Alligator Clip
- Instruction Manual (this document)



This image displays the SIMCO FMX-004 handheld electrostatic field meter, a black ground cord with an alligator clip, and the white product box with 'SIMCO ION' logo. The meter itself is grey with a clear LCD screen and colored buttons for 'ZERO', 'HOLD', 'MODE', and 'POWER'.

4. PRODUCT FEATURES

- Compact and lightweight design for easy portability.
- Large LCD display for clear readings.
- Measurement range up to 30 kV.
- Equipped with ZERO, HOLD, MODE, and POWER buttons for intuitive operation.
- Includes a ground cord for accurate measurements.

5. SETUP

1. **Battery Installation:** Open the battery compartment on the back of the unit. Insert the required batteries (typically 9V, not included) ensuring correct polarity. Close the compartment securely.
2. **Ground Cord Connection:** Connect the ground cord to the designated port on the side or bottom of the FMX-004 meter. Attach the alligator clip to a reliable ground point in your measurement environment.
3. **Power On:** Press the **POWER** button to turn on the device. The LCD display should illuminate.

6. OPERATING INSTRUCTIONS

6.1. Basic Operation

1. **Zeroing the Meter:** Before each measurement, hold the meter at the desired measurement distance

(e.g., 1 inch or 2.5 cm) from a known grounded surface. Press the **ZERO** button. The display should read '0.00' or close to zero, indicating the meter is calibrated for the ambient conditions.

2. **Taking a Measurement:** Position the meter at the desired distance from the object or surface you wish to measure. The electrostatic field strength will be displayed on the LCD.
3. **Hold Function:** Press the **HOLD** button to freeze the current reading on the display. Press it again to release the hold and resume live readings.
4. **Mode Selection:** The **MODE** button may cycle through different measurement units or display modes if available (refer to specific model features).
5. **Power Off:** Press the **POWER** button again to turn off the device when not in use.

6.2. Understanding the Display

The LCD displays the measured electrostatic field strength in kilovolts (kV). Pay attention to the polarity (+ or -) indicated on the screen, which shows the charge type. Some models may also display battery status or other indicators.

7. MAINTENANCE

- **Cleaning:** Wipe the exterior of the meter with a soft, dry cloth. Do not use abrasive cleaners or solvents. Ensure the sensor area is kept clean and free of dust or debris.
- **Battery Replacement:** Replace batteries promptly when the low battery indicator appears on the display to ensure accurate readings.
- **Storage:** Store the FMX-004 in a cool, dry place, away from direct sunlight and extreme temperatures. If storing for extended periods, remove the batteries to prevent leakage.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Meter does not power on	Dead or incorrectly installed batteries	Replace batteries, ensuring correct polarity.
Inaccurate or fluctuating readings	Improper zeroing; environmental interference; dirty sensor	Re-zero the meter; move away from sources of interference; clean the sensor area.
Display shows 'OL' or 'OVER'	Measurement exceeds range; sensor too close to charged object	Increase distance from the charged object; ensure charge is within 30 kV range.

9. TECHNICAL SPECIFICATIONS

- **Model:** FMX-004
- **Brand:** SIMCO (Manufactured by MZFIR)
- **Measurement Range:** Up to 30 kV
- **Power Source:** Battery Powered (Specific battery type not provided, typically 9V)
- **Display:** Digital LCD
- **Color:** Multicolour (as per product description)

- **Style:** Handheld
- **UPC:** 729043022212

10. WARRANTY AND SUPPORT

Specific warranty information is not provided in the product details. For warranty claims, technical support, or service inquiries, please contact the retailer or manufacturer directly. Retain your proof of purchase for any warranty-related issues.