ERICKHILL RT-100

ERICKHILL RT-100 EMF Meter User Manual

Rechargeable Digital Electromagnetic Field Radiation Detector

1. Introduction

Thank you for choosing the ERICKHILL RT-100 EMF Meter. This device is designed to detect and measure electromagnetic field (EMF) radiation, helping you identify potential sources of electromagnetic pollution in your environment. This manual provides essential information for the safe and effective use of your meter.

Figure 1: ERICKHILL RT-100 EMF Meter

2. Product Overview

2.1 Components

- **Front Sensing Area:** The area where electromagnetic radiation is detected.
- **LCD Digital Display:** Shows measurement values, units, and status indicators.
- **HOLD Button:** Freezes the current reading on the display.
- **AVG/VPP Button:** Switches between average and peak value readings.
- **UNIT Button:** Changes the measurement unit (mG/uT for magnetic field, V/m for electric field).
- **Power Button:** Turns the device on/off and controls the buzzer.
- **Type-C Charging Port:** For recharging the internal Lithium Polymer battery.

2.2 Display Indicators

Figure 2: Display Indicators and Features

- **AVG:** Average reading mode.
- **VPP:** Peak value reading mode.
- **E-field:** Electric field measurement (V/m).
- **H-field:** Magnetic field measurement (mG or µT).
- **Warning Indicator:** Screen turns red and indicator flashes when thresholds are exceeded.
- **Battery Indicator:** Shows remaining battery life.
- **Sound Alarm Icon:** Indicates if the buzzer is active.
- **'H' Icon:** Indicates data hold is active.

3. Setup

3.1 Charging the Device

The ERICKHILL RT-100 EMF Meter comes with a built-in rechargeable Lithium Polymer battery. Use the provided Type-C charging cable to charge the device. Connect the Type-C end to the meter's charging port and the USB-A end to a compatible USB power adapter (not included).

Figure 3: Type-C Charging

3.2 Power On/Off

To power on the device, press and hold the Power button until the display illuminates. To power off, press and hold the Power button again.

4. Operating Instructions

4.1 Basic Measurement

Once powered on, the meter will immediately begin measuring electric (E-field) and magnetic (H-field) radiation. The values will be displayed on the LCD screen. For accurate readings, slowly approach the electromagnetic radiation source with the front sensing area of the meter. The effective and optimal measurement range is 0-30 cm.

4.2 Unit Switching

Press the **UNIT** button to switch between different measurement units:

- For Magnetic Field: mG (milligauss) or µT (microtesla).
- For Electric Field: V/m (volts per meter).

4.3 Average/Peak Value Reading

Press the **AVG/VPP** button to toggle between average (AVG) and peak value (VPP) readings. The AVG mode displays the average radiation level, while VPP mode shows the maximum (peak) value detected during the measurement period.

4.4 Data Hold

To freeze the current readings on the display, press the**HOLD** button. An 'H' icon will appear on the screen. Press the **HOLD** button again to exit data hold mode and resume real-time measurements. Ensure data hold is off when taking new measurements.

4.5 Sound-Light Alarm

The meter features a sound and light alarm. When the detected radiation level exceeds the preset safety thresholds (0.4 µT (4mG) for magnetic field or 40 V/m for electric field), the screen will turn red, the warning indicator will flash, and a buzzer will sound. To silence the buzzer, press and hold the Power button briefly. The visual alarm (red screen, flashing indicator) will remain active.

4.6 Backlight

The large LCD display is backlit for clear viewing in various lighting conditions.

4.7 Auto Power Off

The device will automatically power off after 5 minutes of inactivity to conserve battery life.

5. Applications

The ERICKHILL RT-100 EMF Meter can be used to test electromagnetic radiation from a variety of sources:

- **Home Appliances:** TVs, computers, printers, microwave ovens, refrigerators, air conditioners.
- **Electronic Devices:** Cell phones, laptops, power strips.
- **Infrastructure:** Cell towers, low-frequency home appliances.
- **Other:** Ghost hunting equipment.

Figure 4: Testing near Cell Towers

Figure 5: Testing near Computers

Figure 6: Electric Field Testing

Figure 7: Magnetic Field Testing

5.1 Demonstration Videos

Video 1: Demonstrates EMF meter usage for phone charging, router, microwave, and ghost hunting scenarios. (Source: KENMIC)

Video 2: Shows EMF meter detecting radiation from power sockets, gateways, and refrigerators. (Source: Soonkoda CA)

Video 3: Unboxing, charging, and demonstration of EMF meter modes and measurements near TV, light bulb, and microwave. (Source: DURFICST-CA)

Video 4: Overview of EMF meter features including EF, MF, RF, Temperature, Curve Mode, and testing various appliances. (Source: FINRSI Technology)

Video 5: Demonstrates the EMF meter's alarm function and testing of various household items like phones, fans, sockets, and Wi-Fi routers. (Source: KOEKA)

6. Maintenance

- Keep the device clean and dry. Use a soft, damp cloth to wipe the exterior. Do not use abrasive cleaners or solvents.
- Avoid exposing the meter to extreme temperatures, humidity, or direct sunlight.
- Store the device in a safe place when not in use to prevent damage.
- Regularly charge the battery to maintain its performance.

7. Troubleshooting

7.1 Inaccurate Readings

- Ensure the front sensing area is slowly approaching the source within the 0-30 cm optimal range.
- Check if the **HOLD** function is active ('H' icon displayed). If so, deactivate it to get real-time readings.
- Verify that the correct units (mG/µT or V/m) are selected for the field you are measuring.

7.2 No Display/Device Not Turning On

- Ensure the battery is charged. Connect the device to a power source using the Type-C cable.
- Press and hold the Power button for a few seconds to ensure it's not just a short press.

7.3 Alarm Sounds Continuously

- Move away from the detected radiation source until the readings drop below the alarm thresholds.
- To temporarily silence the buzzer, briefly press and hold the Power button.

8. Specifications

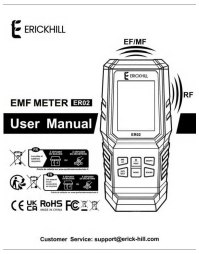
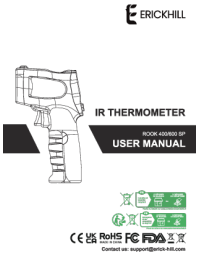
Feature	Description
Model Number	RT-100
Measurement Range (Magnetic Field)	0.01-99.99 µT / 0.1-999.9 mG
Measurement Range (Electric Field)	1-1999 V/m
Alarm Threshold (Magnetic Field)	0.4 µT (4 mG)
Alarm Threshold (Electric Field)	40 V/m
Power Source	1 Lithium Polymer battery (included), rechargeable via Type-C

Auto Power Off	After 5 minutes of inactivity
Product Dimensions	10 x 7 x 4 cm
Product Weight	260 g

9. Warranty and Support

ERICKHILL is committed to providing professional and high-quality meters. We offer lifetime technical support for the RT-100 EMF Meter. If you have any questions or require assistance, please do not hesitate to contact our professional after-sales team. They will solve your problem in a timely manner.

Related Documents - RT-100

	Erickhill RT-100S EMF Meter User Manual User manual for the Erickhill RT-100S EMF Meter, detailing its features, operation, technical specifications, and applications for measuring electric, magnetic, and RF fields.
	ERICKHILL ER02 EMF Meter User Manual Explore the capabilities of the ERICKHILL ER02 EMF Meter with this comprehensive user manual. Learn about its 3-in-1 functionality for measuring electric, magnetic, and radio frequency fields, including operation, specifications, and safety guidelines.
	ERICKHILL ROOK 400/600 SP IR Thermometer User Manual User manual for the ERICKHILL ROOK 400 SP and ROOK 600 SP infrared thermometers. Provides instructions on operation, features, safety, and technical specifications.

[Danfoss Thermostat Type RT: Technical Data Sheet and Product Overview]

Comprehensive data sheet for Danfoss Thermostat Type RT, detailing features, technical specifications, types, applications, functions, and ordering information for industrial and marine use. Includes diagrams and selection guides.