ERICKHILL ETI-01

ERICKHILL ETI-01 Thermal Camera User Manual

Model: ETI-01

1. Introduction

Thank you for choosing the ERICKHILL ETI-01 Thermal Camera. This device is designed for professional thermography, offering a 240x240 IR resolution and a wide temperature measurement range. It is suitable for various applications, including home inspections, HVAC diagnostics, electrical fault detection, and automotive analysis. This manual provides essential information for the safe and effective use of your thermal camera.

2. Product Overview and Components

The ERICKHILL ETI-01 thermal camera is a portable, handheld device featuring a clear display and intuitive controls. It comes with essential accessories to get you started.

2.1 Package Contents

- ERICKHILL ETI-01 Thermal Camera
- USB Type-C Charging Cable
- Storage Bag
- User Manual

2.2 Device Features

- **High Resolution Imaging:** 240x240 IR resolution for clear thermal images.
- **Wide Temperature Range:** Measures from -20°C to +550°C.
- **Automatic Hot/Cold Spot Detection:** Identifies extreme temperature points automatically.
- **Multiple Color Palettes:** 8 selectable color modes for diverse visualization.
- **Long Battery Life:** Up to 8 hours of continuous operation.
- **Data Storage:** Internal memory for up to 30,000 radiometric images.
- **USB-C Charging:** Convenient and fast charging.

Figure 1: ERICKHILL ETI-01 Thermal Camera, showing the device, USB-C charging cable, and protective carrying case.

3. Setup

3.1 Charging the Device

Before initial use, fully charge the thermal camera. The device is equipped with a 2500mAh rechargeable battery, providing extended operational time.

1. Locate the USB Type-C port on the device.
2. Connect the provided USB Type-C cable to the camera and a compatible USB power adapter (not included).
3. The charging indicator on the screen will show the charging status. A full charge typically provides up to 8 hours of use.

Figure 2: The thermal camera displaying battery charge status and highlighting the Type-C charging port for its 2500mAh battery.

3.2 Powering On/Off

- **To Power On:** Press and hold the power button (usually marked with a universal power symbol) until the screen illuminates.
- **To Power Off:** Press and hold the power button again until the device shuts down.

4. Operation

4.1 Basic Temperature Measurement

The ETI-01 provides precise temperature readings and visual thermal imaging.

1. Point the camera lens towards the object or area you wish to measure.
2. The screen will display a real-time thermal image, with temperature readings for the center, highest, and lowest temperature points within the view.
3. For precise targeting, activate the laser pointer by pressing the trigger.

Figure 3: The thermal camera screen showing real-time anomaly detection, indicating hot, cold, and center temperature spots.

4.2 Adjusting Settings

The device offers various settings to optimize your thermal imaging experience.

- **Emissivity:** Adjust the emissivity setting based on the material being measured for accurate temperature readings. Refer to the emissivity table in the appendix (if available) or common material emissivity values.
- **Color Palettes:** Select from 8 different thermal palettes to visualize temperature differences. Options include Iron Red, Rainbow, White Hot, Black Hot, and more.
- **Temperature Units:** Switch between Celsius (°C) and Fahrenheit (°F).

Figure 4: A visual representation of 15 different thermal palettes available on the ERICKHILL ETI-01 for versatile temperature

visualization.

4.3 Saving Images

The ETI-01 can store up to 30,000 radiometric images for later analysis.

1. Once you have a desired thermal image on the screen, press the designated capture button (often the trigger or a specific button on the control panel).
2. The image will be saved to the internal memory.
3. Connect the camera to a computer via the USB-C cable to transfer and view saved images.

Figure 5: The thermal camera in use, demonstrating precise temperature measurement with an accuracy of ±0.1°C and a range of -4°F to 1022°F (equivalent to -20°C to 550°C).

5. Maintenance

5.1 Cleaning the Device

Regular cleaning ensures optimal performance and longevity of your thermal camera.

- Use a soft, dry cloth to wipe the exterior of the camera.
- For the lens, use a lens cleaning cloth and a specialized lens cleaning solution. Do not use abrasive materials or harsh chemicals.
- Ensure the device is powered off before cleaning.

5.2 Storage

When not in use, store the camera in its provided storage bag in a cool, dry place, away from direct sunlight and extreme temperatures.

6. Troubleshooting

This section addresses common issues you might encounter with your ERICKHILL ETI-01 thermal camera.

Problem	Possible Cause	Solution
Device does not power on	Low battery; device malfunction	Charge the device fully. If the issue persists, contact customer support.
Inaccurate temperature readings	Incorrect emissivity setting; lens obstruction; measurement distance too far	Adjust emissivity for the target material. Clean the lens. Ensure measurement is within optimal range.
Screen frozen or unresponsive	Software glitch	Perform a soft reset by holding the power button for 10-15 seconds. If unresponsive, allow the battery to drain completely and then recharge.
Cannot transfer images to computer	Faulty USB cable; driver issue; incorrect connection mode	Try a different USB-C cable. Ensure the camera is in data transfer mode (if applicable). Check computer drivers.

7. Specifications

Key technical specifications for the ERICKHILL ETI-01 Thermal Camera.

Feature	Specification
Model Name	ETI-01
IR Resolution	240x240 pixels
Temperature Measurement Range	-20°C to +550°C (-4°F to 1022°F)
Accuracy	+/-2°C or +/-2% of reading

Feature	Specification
Refresh Rate	25Hz
Battery Type	1 Lithium-ion (included)
Battery Capacity	2500mAh
Battery Life	Up to 8 hours
Storage	4G eMMC (for 30,000 radiometric images)
Connectivity	USB Type-C
Product Dimensions (L x W x H)	22.9 x 9.7 x 7.3 cm
Weight	540 grams
Material	Plastic

8. Warranty and Support

ERICKHILL is committed to providing high-quality products and customer service.

8.1 Manufacturer's Warranty

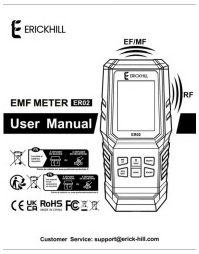
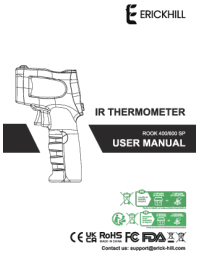
This product comes with a **3-year manufacturer's warranty**. Please retain your proof of purchase for warranty claims.

8.2 Customer Support

For technical assistance, calibration services, or any inquiries regarding your ERICKHILL ETI-01 Thermal Camera, please contact our customer support team. We offer 24/7 support and free firmware updates.

- **Firmware Updates:** Free updates are available to ensure your device operates with the latest features and improvements.
- **Calibration Service:** Available upon request to maintain measurement accuracy.
- **Compatibility:** Fully compatible with Windows, macOS, and Android operating systems for data transfer and analysis.

Related Documents - ETI-01

	[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.
	[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 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 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.
	[ETI Thermalite® Thermometer Operating Instructions & Guide] Comprehensive operating instructions for the ETI Thermalite® digital thermometer, covering setup, usage, battery replacement, error messages, and warranty information. Includes safety warnings and cleaning guidelines.
	[Microscan QX Hawk Industrial Imager User's Manual] Comprehensive user's manual for the Microscan QX Hawk Industrial Imager, detailing its advanced features, hardware integration, ESP software setup, and operational parameters for industrial barcode scanning.