

TOOLTOP TT-ET692B

TOOLTOP ET692B Thermal Imaging Imager User Manual

Model: TT-ET692B | Brand: TOOLTOP

1. PRODUCT OVERVIEW

The TOOLTOP ET692B is a professional handheld infrared and visible light thermal imager designed for various applications, including floor heating inspection, power circuit repair, and general thermal analysis. It features a highly sensitive infrared sensor and a high refresh rate for quick and accurate thermal imaging.

- **Sturdy and Durable:** Built with high-level protections and industrial-level quality for reliable performance.
- **Highly Sensitive Infrared Sensor:** Equipped with a 160x120 IR sensor and a 25Hz frame rate for rapid image refreshing.
- **Large Display Screen:** Features a 2.8-inch large TFT full viewing angle screen with 640x480 visible light resolution.
- **Real-time Measurement:** Offers a wide measurement range from -20°C to +550°C (-40°F to +1022°F).
- **Multiple Imaging Modes:** Includes five imaging modes: rainbow, iron oxide red, cold color, black & white, and white & black.



160x120
Thermal Imager

Visible + Infrared

25Hz Frame Rate

PC Analysis



Figure 1.1: The TOOLTOP ET692B Thermal Imager highlighting its key features such as 160x120 thermal resolution, combined visible and infrared imaging, 25Hz frame rate, and PC analysis compatibility.

2. PACKAGE CONTENTS

Upon opening the package, please verify that all items listed below are present and in good condition.

- ET692B Thermal Imager Unit
- Instruction Manual
- USB Cable



Figure 2.1: The complete package contents of the ET692B Thermal Imager, showing the device, its instruction manual, and the included USB charging cable.

3. DEVICE APPEARANCE AND COMPONENTS

Familiarize yourself with the various parts of the ET692B thermal imager to ensure proper operation.

Appearance Introduction



Figure 3.1: Labeled diagram of the ET692B, indicating the location of the Micro USB port, display screen, infrared imaging sensor, visible light camera, keypad, LED lighting lamp, image capture key, handheld grip, and battery compartment.

- **Micro USB:** For charging and data transfer. Please open the cap when in use.
- **Display Screen:** 2.8-inch TFT full viewing angle screen for displaying thermal and visible light images.
- **Infrared Imaging Sensor:** Captures thermal radiation.
- **Visible Light Camera:** Captures standard visual images.
- **Keypad:** Navigation and selection buttons (Menu, Select/Enter, Up, Down, Left, Right).
- **LED Lighting Lamp:** Provides illumination in dark environments.
- **Image Capture Key:** Button to take thermal images.
- **Handheld:** Ergonomic grip for comfortable use.
- **Battery:** Internal rechargeable battery.

4. SETUP AND INITIAL USE

4.1 Charging the Device

Before first use, ensure the device is fully charged. Connect the supplied USB cable to the Micro USB port on the device and the other end to a standard USB power adapter (not included) or a computer USB port. The charging indicator will show the charging status.

4.2 Powering On/Off

To power on the ET692B, press and hold the power button for approximately 5 seconds until the display screen illuminates. To power off, press and hold the power button again until the device shuts down.



Figure 4.1: Illustration demonstrating how to power on the ET692B thermal imager by long-pressing the power button for 5 seconds.

5. OPERATING INSTRUCTIONS

5.1 Basic Operation

Once powered on, the device will display the thermal image in real-time. Point the thermal imager at the object or area

you wish to inspect. The screen will show temperature readings and a thermal representation of the scene.

5.2 Changing Imaging Modes

The ET692B supports five different imaging modes to suit various inspection needs:

- **Rainbow:** A common palette for general thermal imaging, showing a wide range of colors.
- **Iron Oxide Red:** Often used for high-contrast thermal images, highlighting hot spots.
- **Cold Color:** Emphasizes cooler temperatures with distinct color variations.
- **Black & White:** Displays thermal images in grayscale, with hotter areas appearing brighter.
- **White & Black:** Inverted grayscale, with hotter areas appearing darker.

To switch between these modes, navigate through the menu using the keypad and select the desired palette.

5.3 Capturing Images

To capture a thermal image, press the dedicated Image Capture Key. The image will be saved to the device's internal memory. You can later transfer these images to a computer for analysis.

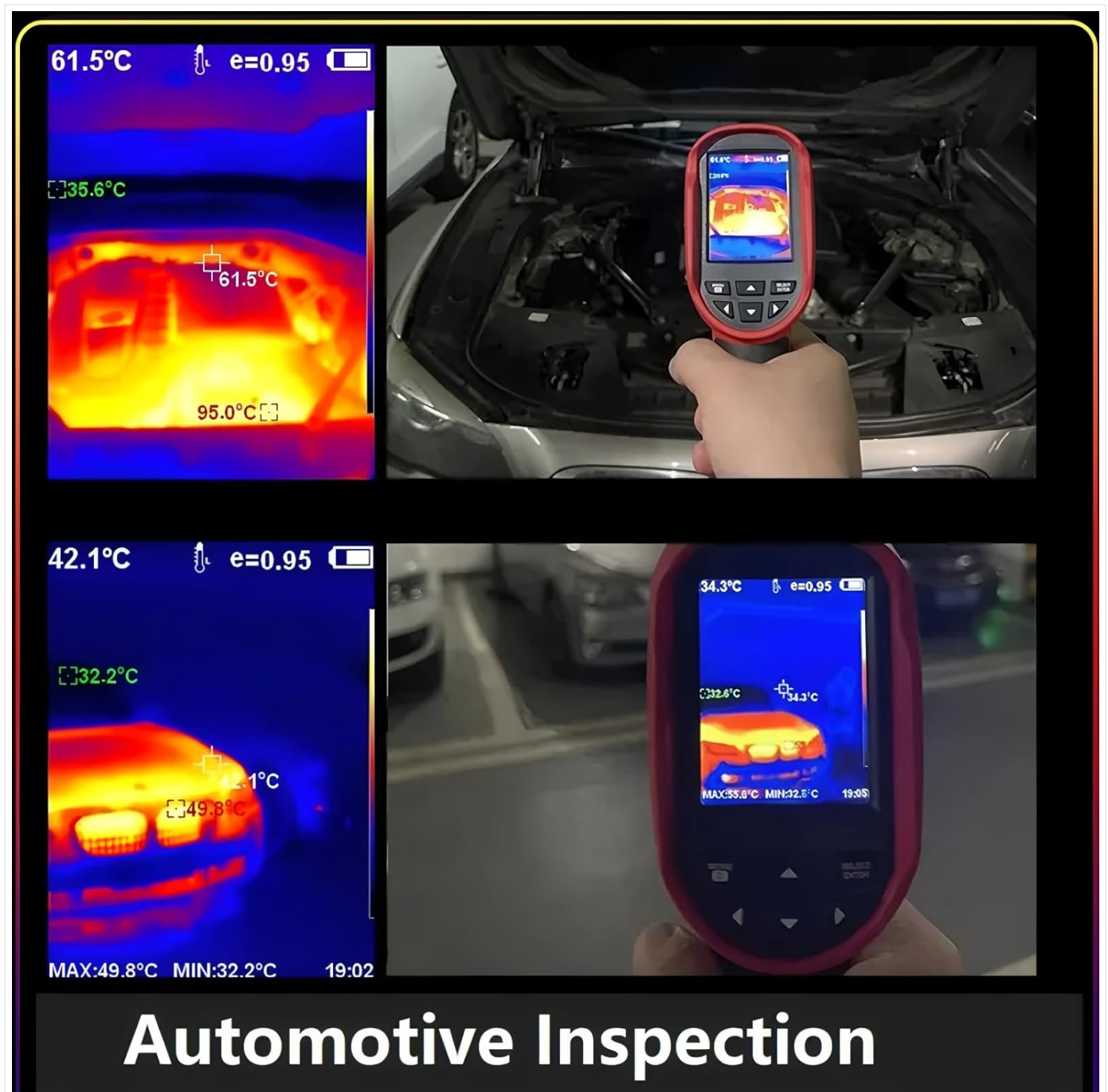


Figure 5.1: Examples of thermal images captured by the ET692B, demonstrating its utility in automotive inspection to identify heat signatures.

5.4 PC Software Analysis

The ET692B supports connection to a PC for further analysis of captured thermal images. Connect the device to your computer using the supplied USB cable. Follow the instructions in the included software manual (if applicable) to install and use the PC analysis software. This allows for detailed examination, reporting, and storage of thermal data.



Figure 5.2: The ET692B connected to a laptop, illustrating the PC software analysis capability for detailed examination of thermal data.

6. MAINTENANCE AND CARE

Proper maintenance ensures the longevity and accuracy of your ET692B thermal imager.

- **Cleaning:** Use a soft, dry cloth to clean the device's exterior. For the lens and screen, use a specialized lens cleaning cloth and solution. Avoid abrasive materials or harsh chemicals.
- **Storage:** Store the device in a cool, dry place away from direct sunlight and extreme temperatures. When not in use

for extended periods, ensure the battery is partially charged (around 50%) to preserve battery health.

- **Battery Care:** Avoid fully discharging the battery frequently. Recharge the device regularly, even if not in constant use.
- **Protection:** While the device is sturdy, avoid dropping it or subjecting it to severe impacts. Keep the Micro USB port covered when not in use to prevent dust and moisture ingress.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your ET692B thermal imager. If you experience problems not covered here, please contact customer support.

Problem	Possible Cause	Solution
Device does not power on.	Low battery; Power button not pressed long enough.	Charge the device for at least 2 hours. Press and hold the power button for 5 seconds.
Image is blurry or unclear.	Lens is dirty; Object is too close/far; Environmental factors.	Clean the lens with a soft cloth. Ensure proper distance to the object. Avoid extreme humidity or fog.
Device not recognized by PC.	USB cable issue; Driver not installed; Incorrect port.	Try a different USB cable or port. Ensure PC software drivers are installed correctly. Restart both devices.
Temperature readings seem inaccurate.	Incorrect emissivity setting; Environmental interference.	Adjust the emissivity setting in the device menu to match the material being measured. Ensure no strong heat sources are interfering.

8. TECHNICAL SPECIFICATIONS

Feature	Specification
Model Number	TT-ET692B
Infrared Sensor Resolution	160 x 120 pixels
Frame Rate	25 Hz
Temperature Measurement Range	-20°C to +550°C (-40°F to +1022°F)
Display Screen	2.8-inch TFT, 640 x 480 visible light resolution
Imaging Modes	Rainbow, Iron Oxide Red, Cold Color, Black & White, White & Black
Connectivity	Micro USB
Item Weight	1 Kilogram (2.2 Pounds)
Package Dimensions	7.87 x 5.91 x 3.94 inches
Manufacturer	TOOLTOP
Certifications	CE, RoHS

9. WARRANTY AND SUPPORT

The TOOLTOP ET692B Thermal Imager comes with a manufacturer's warranty. Please refer to the warranty card included in your package for specific terms and conditions. For technical support, troubleshooting assistance, or warranty claims, please contact TOOLTOP customer service through the contact information provided on the product packaging or the official TOOLTOP website.

EU Spare Part Availability Duration: 1 Year

