Teslong 256 x 192

Teslong Thermal Camera User Manual

Model: 256 x 192

1. Introduction

This manual provides detailed instructions for the operation, maintenance, and troubleshooting of your Teslong Thermal Camera. Please read this manual thoroughly before using the device to ensure proper and safe operation.

What's in the Box:

- Teslong Thermal Camera (256 x 192)
- Storage Bag
- USB Cable
- User Manual
- Wrist Strap

Figure 1.1: Teslong Thermal Camera and its accessories, including the camera unit, USB cable, wrist strap, and storage bag.

2. Safety Information

Always observe the following safety precautions to prevent injury or damage to the device:

- Do not point the camera directly at strong light sources, such as the sun or high-power lasers, as this may damage the sensor.
- Keep the device dry. Do not expose it to rain, moisture, or immerse it in water.
- Avoid dropping the camera or subjecting it to strong impacts.
- Do not attempt to disassemble or modify the device. Repairs should only be performed by authorized personnel.
- Use only the provided USB cable for charging and data transfer.
- Ensure the operating temperature is within the specified range to prevent damage.

3. Product Overview

The Teslong Thermal Camera is a versatile tool equipped with both infrared and visible light lenses, designed

for various inspection and diagnostic tasks. It features a high-resolution IR sensor and a clear LCD screen for detailed thermal imaging.

Key Features:

- **Dual Light Thermal Camera:** Integrates a 1MP visible light lens for clear images with dual-light fusion.
- **High Resolution:** 256x192 IR resolution with a 25 Hz refresh rate for smooth thermal imaging.
- **Accurate Measurements:** Temperature measurement error of ±2% and auto-capturing of center, maximum, and minimum temperatures.
- **PC Software Support:** Free PC software for advanced analysis, 3D imaging, point-line-surface temperature measurement, and report generation.
- **Multiple Image Modes:** Offers Thermal, Visible, Outline Fusion, Overlay Fusion, and Picture-in-Picture (PIP) modes.
- **8 Color Palettes:** Customizable chromatic scales including Iron Red, White Heat, Black Heat, Rainbow, Red Hot, High Contrast, Green Heat, and Lava.
- **Photo/Video Recording:** Built-in 8GB memory stores up to 20,000 thermal images or 22 hours of video.
- **Long-lasting Battery:** 2600mAh rechargeable battery provides up to 6 hours of continuous use.

Figure 3.1: Overview of the Teslong Thermal Camera's key specifications and capabilities, including resolution, refresh rate, and temperature range.

Figure 3.2: The camera's ability to provide accurate positioning and distance measurements for inspections.

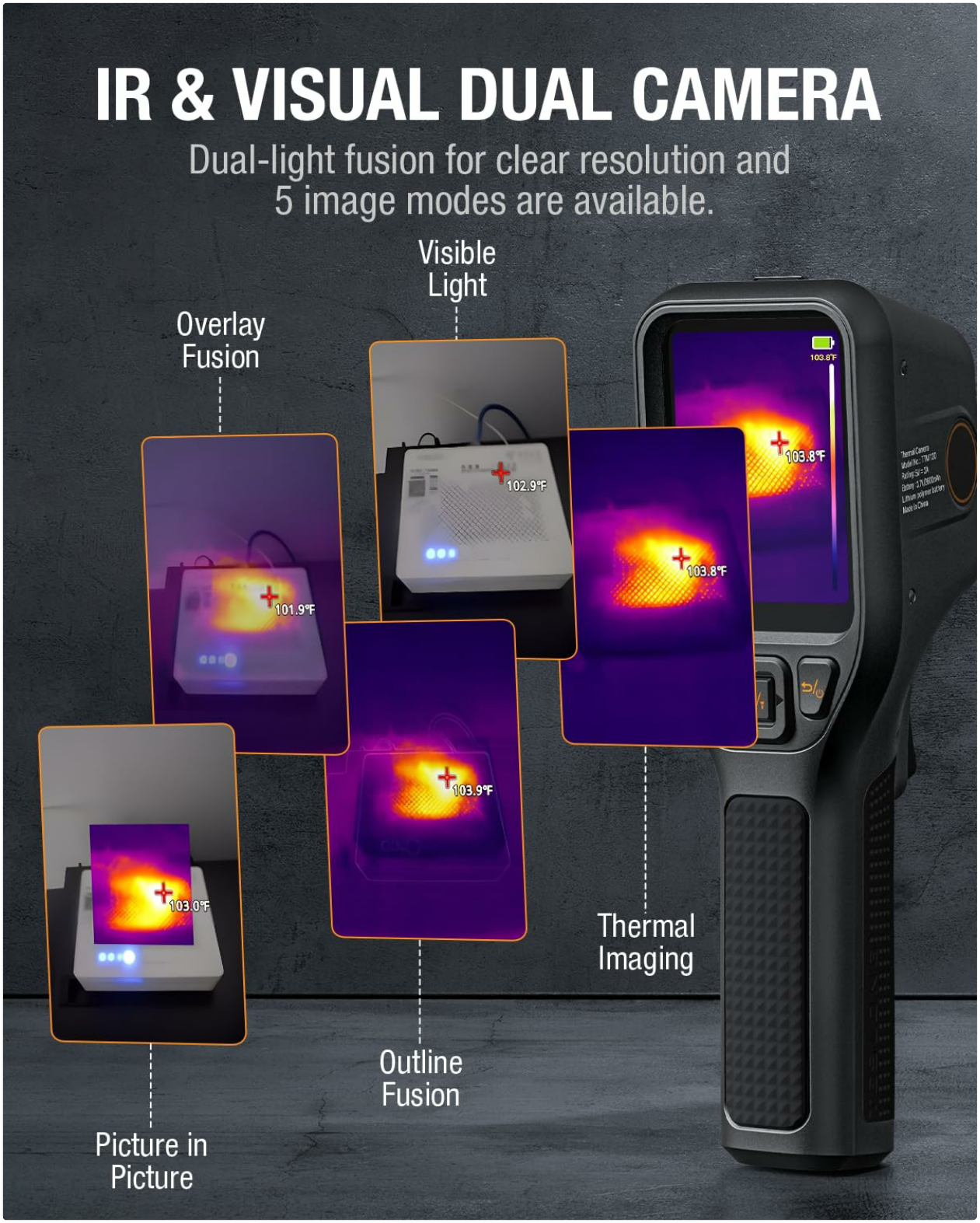

Figure 3.3: Illustration of the dual IR and visual camera capabilities, showing various image fusion modes like Overlay Fusion and Picture-in-Picture.

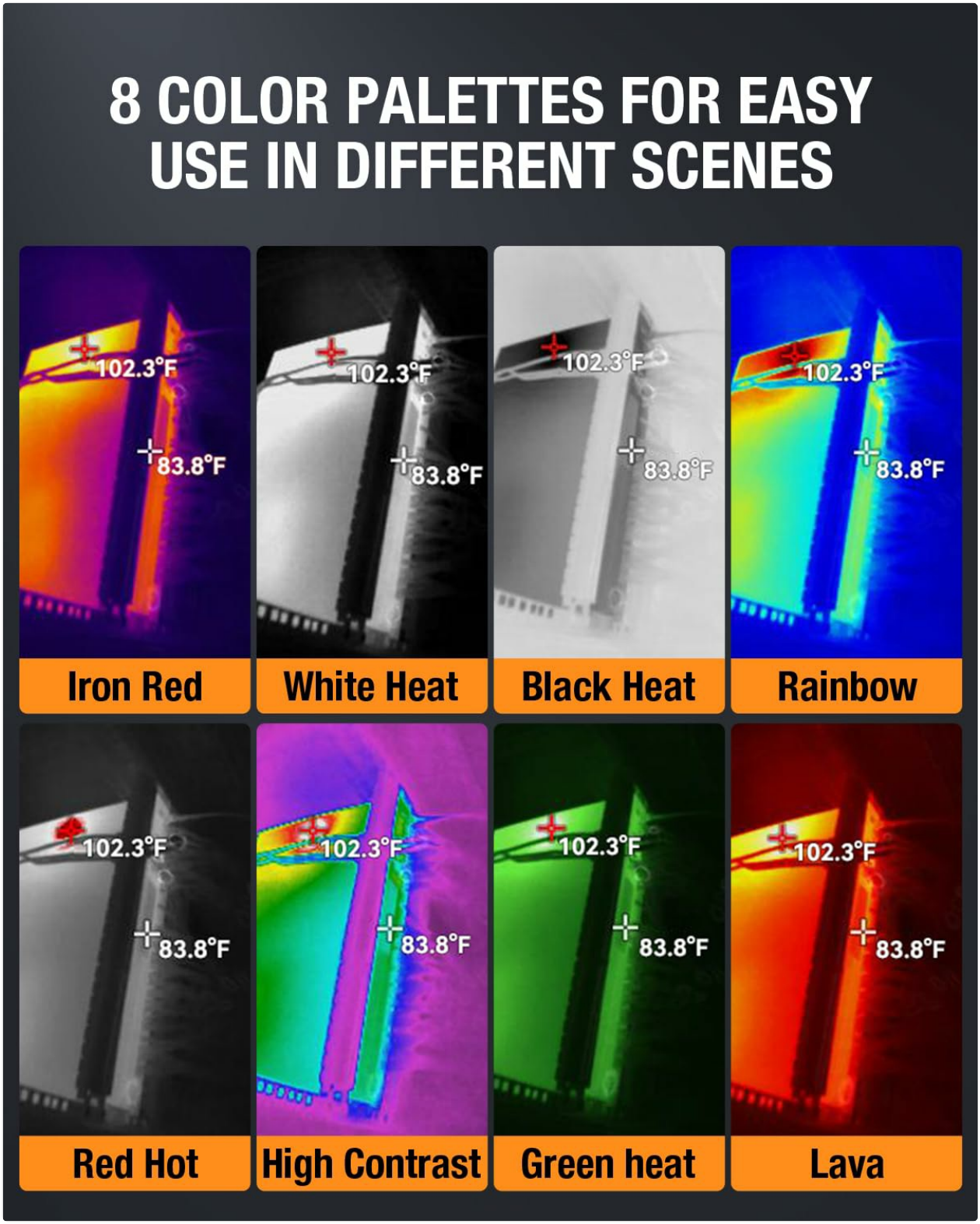

Figure 3.4: A display of the eight available color palettes, such as Iron Red, White Heat, and Rainbow, used to visualize temperature variations.

4. Setup

4.1 Charging the Device

Before first use, fully charge the thermal camera. Connect the provided USB cable to the camera's Type-C port and to a standard USB power adapter (not included) or a computer USB port. The charging indicator will show the charging status.

Figure 4.1: The camera's internal battery and Type-C charging/data port, highlighting its 2600mAh capacity and 6-hour working time.

4.2 Initial Power On and Language Selection

Press and hold the power button to turn on the device. Upon first startup, you may be prompted to select your preferred language. Navigate using the directional buttons and confirm your selection with the OK button.

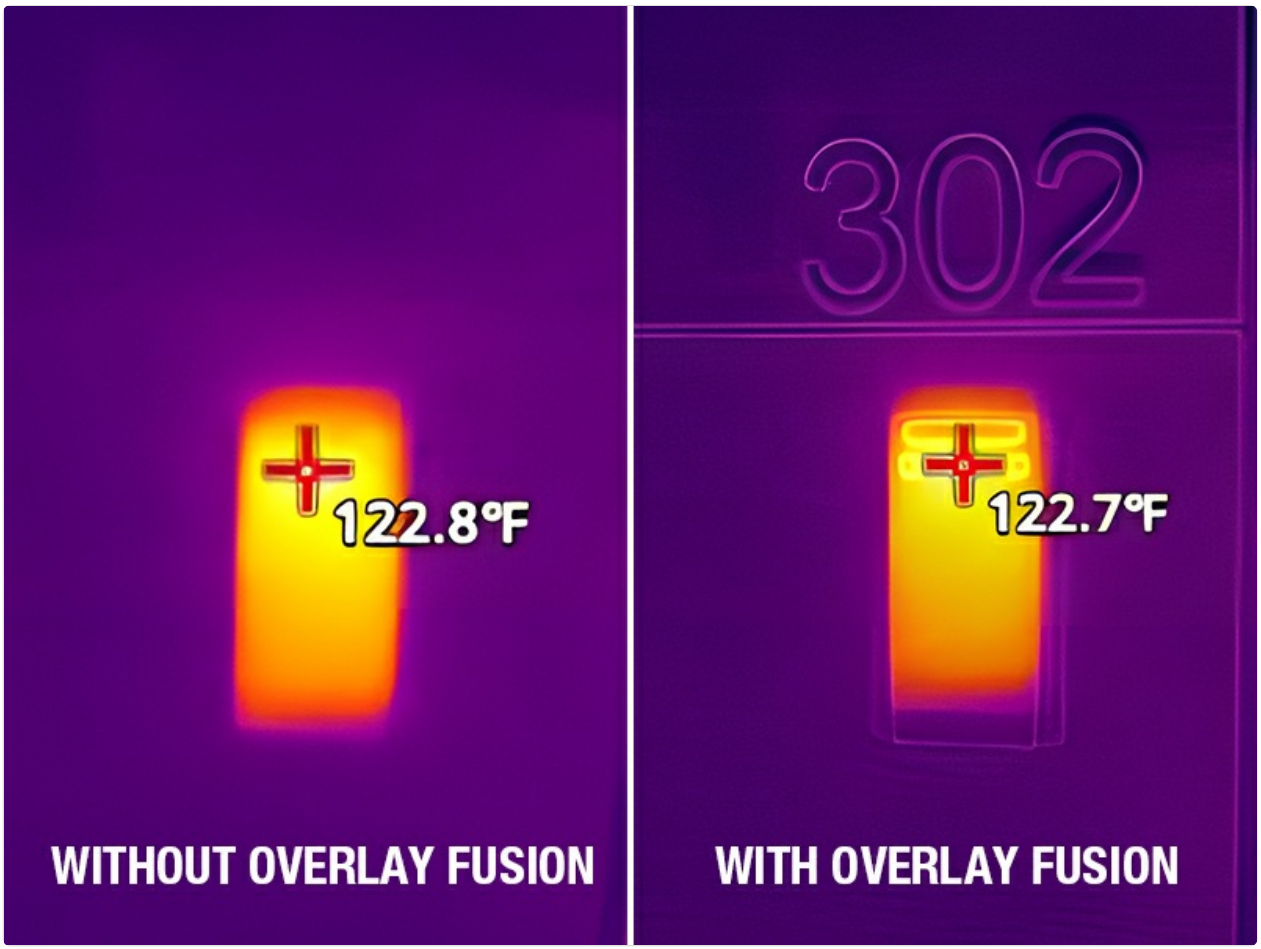

Figure 4.2: The camera's language selection interface, showing support for 10 different languages.

5. Operating the Camera

5.1 Basic Controls

- **Power Button:** Press and hold to turn on/off. Short press for screen on/off or to enter/exit sleep mode.
- **OK/Menu Button:** Confirms selections or enters the main menu.
- **Mode/Back Button:** Switches between image modes or goes back to the previous screen.
- **Directional Buttons:** Navigate through menus and adjust settings.

5.2 Image Modes and Color Palettes

The camera offers various image modes to suit different inspection needs. Use the Mode button to cycle through Thermal, Visible, Outline Fusion, Overlay Fusion, and Picture-in-Picture (PIP) modes. You can also select from 8 color palettes to enhance thermal visualization.

Figure 5.1: A close-up of the camera's screen displaying real-time temperature measurements and hot/cold spots.

5.3 Photo and Video Recording

To capture an image, press the designated photo button. To record video, press the video recording button. The device has 8GB of internal memory, capable of storing approximately 20,000 thermal images or 22 hours of video recordings.

Figure 5.2: The camera's interface for capturing still photos and recording videos, showing different image modes available for capture.

5.4 Temperature Measurement and Analysis

The camera supports precise temperature detection, including center point analysis, temperature tracking, and highlighted rectangular temperature areas. It also features a high-temperature alarm.

Figure 5.3: Visual representation of the camera's precise temperature detection capabilities, indicating a wide measurement range from -4°F to 752°F.

Figure 5.4: The camera's high and low temperature alarm function, alerting users to critical temperature thresholds.

5.5 PC Software Usage

Utilize the free Teslong PC software for in-depth analysis of captured images and videos. The software allows for detection of object temperature changes, 3D imaging, point-line-surface temperature measurement, batch analysis, and professional report generation.

Figure 5.5: The thermal camera connected to a computer, demonstrating the use of the PC software for advanced analysis.

5.6 Operational Videos

Watch these official videos for a visual guide on operating your Teslong Thermal Camera:

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Video 5.1: An instructional video demonstrating the various features and operational steps of the Teslong Thermal Camera.

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Video 5.2: A detailed video showcasing practical applications and advanced functionalities of the thermal imager.

6. Maintenance

6.1 Cleaning the Device

- Use a soft, dry cloth to clean the camera body.
- For the lens and screen, use a lens cleaning cloth and specialized cleaning solution if necessary. Do not use abrasive materials.
- Ensure no dust or debris enters the ports.

6.2 Battery Care

- Charge the battery regularly, even if the device is not in frequent use, to maintain battery health.

- Avoid fully discharging the battery for extended periods.
- Store the device in a cool, dry place when not in use.

6.3 Storage

When storing the camera for long periods, ensure it is fully charged and kept in its protective storage bag in a dry environment away from extreme temperatures.

7. Troubleshooting

If you encounter issues with your Teslong Thermal Camera, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Device does not power on.	Battery is depleted.	Connect the camera to a power source using the USB cable and charge it for at least 30 minutes before attempting to power on.
Battery does not hold charge.	Battery degradation or faulty charging cable/adapter.	Ensure you are using the original USB cable. Try a different USB power adapter. If the issue persists, contact customer support.
Image is blurry or unclear.	Lens or screen is dirty; incorrect focus (if applicable).	Clean the lens and screen with a soft, lint-free cloth. Ensure the object is within the camera's optimal measurement range.
Temperature readings seem inaccurate.	Incorrect emissivity setting; environmental factors.	Adjust the emissivity setting in the camera's menu to match the material being measured. Ensure there are no strong air currents or reflective surfaces interfering with the measurement.
Device freezes or becomes unresponsive.	Software glitch or temporary error.	Perform a soft reset by pressing and holding the power button for 10-15 seconds until the device powers off. Restart the device.

If the problem persists after trying these solutions, please contact Teslong customer support for further assistance.

8. Specifications

Feature	Specification
IR Resolution	256 x 192 pixels
Visible Light Camera	1 Megapixel
Refresh Rate	25 Hz
Temperature Measurement Range	-4°F to 752°F (-20°C to 400°C)

Feature	Specification
Measurement Accuracy	±2% or ±2°C (±3.6°F)
Display Screen	3.2 inch LCD
Internal Memory	8GB (stores approx. 20,000 images / 22 hours video)
Battery Capacity	2600mAh Rechargeable
Working Time	Up to 6 hours continuous use
Charging Port	Type-C USB
Dimensions	10.91 x 6.1 x 3.86 inches
Weight	1.74 Pounds

9. Warranty and Support

9.1 Warranty Information

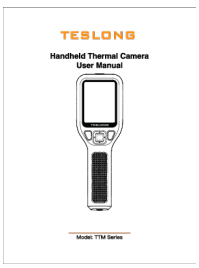
Teslong products are manufactured to high quality standards. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official Teslong website. The warranty typically covers defects in materials and workmanship under normal use.

9.2 Customer Support

For technical assistance, troubleshooting not covered in this manual, or warranty claims, please contact Teslong customer support. You can usually find contact information on the Teslong official website or through the retailer where you purchased the product.

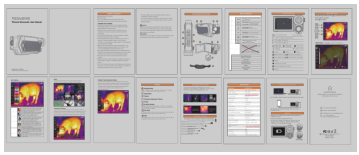
Manufacturer: Teslong

Related Documents

	Teslong Handheld Thermal Camera User Manual - TTM Series Comprehensive user manual for Teslong TTM Series handheld thermal cameras, covering safety instructions, regulatory information, product specifications, operation guides, button functions, interface details, and software instructions for TTM120S and TTM260 models.
	TESLONG TTS300 Thermal Monocular User Manual User manual for the TESLONG TTS300 Thermal Monocular, providing detailed information on safety, components, operation, settings, specifications, and applications for thermal imaging.

	[Teslong Thermal Camera Safety Warnings and Guidelines] Comprehensive safety warnings and operational guidelines for Teslong thermal cameras, covering work area safety, personal safety, electrical safety, battery safety, laser safety, firearm safety, equipment care, service, and disposal.
	[Teslong MS450-NTC Inspection Camera User Manual] This user manual guides users through the operation of the Teslong MS450-NTC inspection camera, a 4.5-inch HD endoscope. It covers product functions, safety, maintenance, battery, language settings, and specifications for effective visual inspection.

Documents - Teslong – 256 x 192



[TESLONG TTS300 Thermal Monocular User Manual]

User manual for the TESLONG TTS300 Thermal Monocular, providing detailed information on safety, components, operation, settings, specifications, and applications for thermal imaging.

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