Teslong TTM120S

Teslong TTM120S Thermal Imaging Camera and Thermal Monocular User Manual

1. Introduction

This manual provides comprehensive instructions for the Teslong TTM120S Thermal Imaging Camera and the Teslong Thermal Monocular. These devices are designed for a variety of applications, including industrial maintenance, electrical inspections, building diagnostics, HVAC inspections, hunting, law enforcement, and search and rescue operations. Please read this manual thoroughly before operating the devices to ensure proper use and to maximize their performance and longevity.

Image 1.1: The Teslong TTM120S Thermal Imaging Camera (left) and the Teslong Thermal Monocular (right). These devices offer advanced thermal imaging capabilities for various professional and recreational uses.

2. Safety Information

To ensure safe operation and prevent damage to the devices, please observe the following safety precautions:

- Do not expose the devices to extreme temperatures, direct sunlight for prolonged periods, or corrosive environments.
- Avoid dropping or subjecting the devices to severe impact.
- Do not attempt to disassemble or modify the devices. Repairs should only be performed by authorized service personnel.
- Keep the lenses clean and free from dust and debris. Use a soft, lint-free cloth for cleaning.
- Ensure the devices are fully charged before use, especially for critical applications.
- Dispose of batteries according to local regulations.

3. Product Overview

3.1 Teslong TTM120S Thermal Imaging Camera

The TTM120S is a handheld thermal imaging camera featuring a 3.2-inch HD screen and a 120 x 90 IR resolution, enhanced to 240 x 180 using super-resolution technology. It provides clear and smooth images with a 25Hz frame refresh rate, making it suitable for detailed inspections.

Image 3.1: Front and back view of the Teslong TTM120S Thermal Imaging Camera. It features an ergonomic grip, a large display, and intuitive controls for easy operation.

Key Features:

- **Enhanced Thermal Image:** Super-resolution technology upgrades 120 x 90 IR resolution to 240 x 180.
- **High Frame Rate:** 25Hz refresh rate for smooth thermal imaging.
- **Accurate Temperature Measurement:** Range of -4°F to 752°F (-20°C to 400°C) with ±2°C accuracy.
- **Automatic Temperature Tracking:** Displays highest, lowest, and center point temperatures.
- **Temperature Exceedance Alarms:** Alerts for temperatures outside a set range.

- **Athermalized Fixed Focal Lens:** 2.3mm, F1.1 lens for thermal stability and low-light performance.
- **Color Palettes:** 8 color palettes (Iron, White Hot, Black Hot, Rainbow, Hottest, High Contrast, Green Hot, Lava) and 3 Thermal AGC modes (Smooth, Normal, High Contrast) for diverse visualization.

Image 3.2: The TTM120S displaying various thermal images using different color palettes and AGC settings. This allows users to optimize visualization for specific inspection needs.

3.2 Teslong Thermal Monocular

The Teslong Thermal Monocular is designed for clear thermal imaging in outdoor and low-light conditions, featuring a 256x192 thermal vision sensor and a 720x540 LCOS display. It is ideal for applications such as hunting, surveillance, and search and rescue.

Image 3.3: The Teslong Thermal Monocular, a compact and portable device for thermal observation. It features a robust design suitable for outdoor use.

Key Features:

- **High-Resolution Sensor:** 256x192 thermal vision sensor for detailed imaging.
- **Clear Display:** 720x540 LCOS display for sharp viewing.
- **Multifunctional:** Equipped with hotspot marking to quickly identify targets.
- **Diopter Adjustment:** Customizable diopter to match individual vision needs.
- **Display Modes:** 5 color modes including White Hot, Black Hot, Red Hot, Green Hot, and Iron Oxide Hot for versatile scenarios.
- **Digital Zoom:** Up to 4x digital zoom for closer observation.
- **Portability:** Compact design with hand wrist lanyard and carry case, tripod mounting supported.

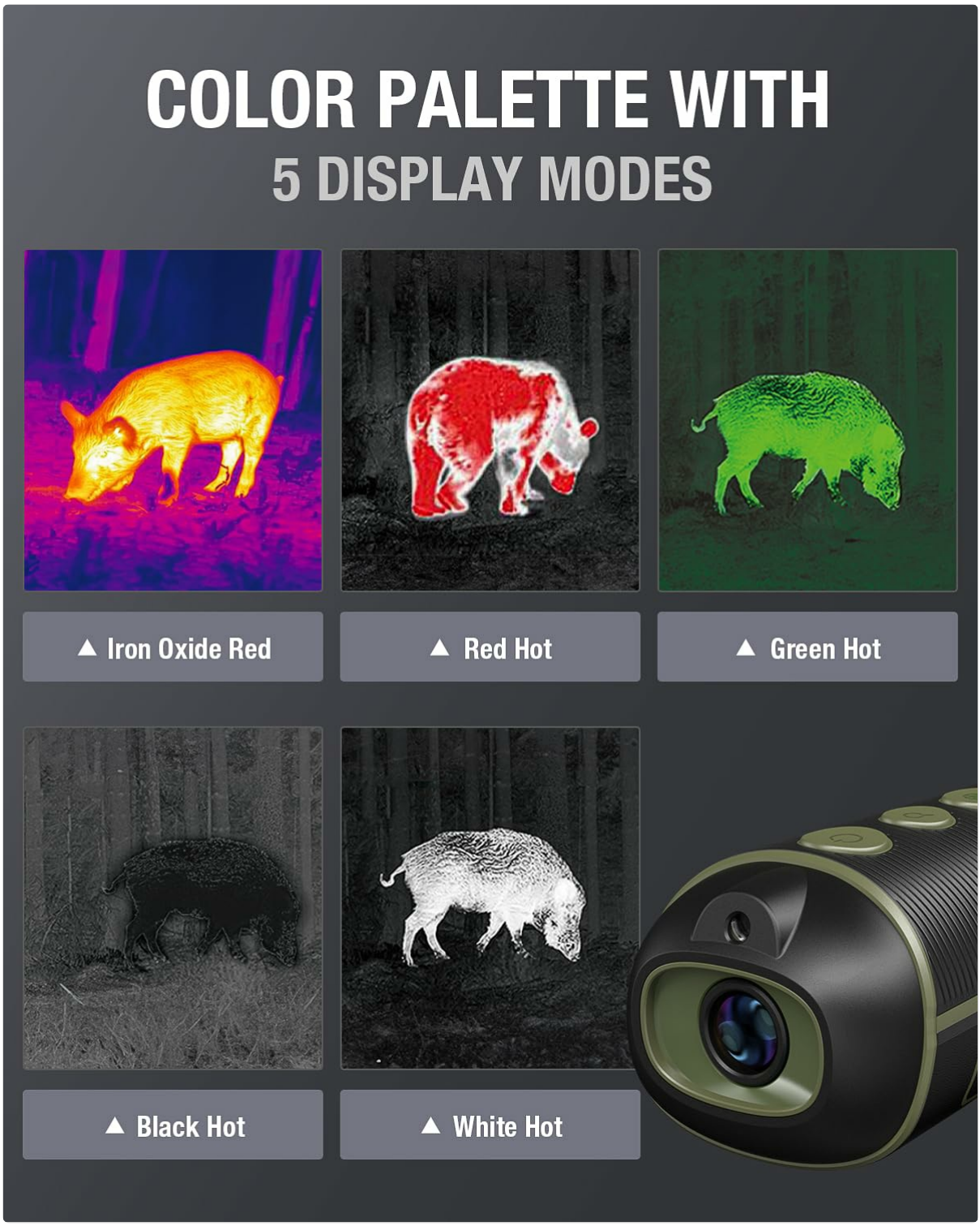


Image 3.4: The thermal monocular showcasing its five distinct display modes. These modes allow users to adapt the thermal view to different environments and target characteristics.

4. Setup

4.1 Initial Charging

Before first use, fully charge both the Teslong TTM120S Thermal Imaging Camera and the Thermal Monocular. Connect the provided USB charging cable to the device's charging port and to a standard USB power adapter (not included) or a computer USB port. The charging indicator will typically show the charging status and turn off or change color when fully charged.

4.2 Powering On/Off

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

4.3 Basic Settings (TTM120S)

Upon first power-on, you may be prompted to set basic parameters such as language, time, and date. Navigate through the menu using the directional buttons and confirm selections with the OK button.

4.4 Diopter Adjustment (Thermal Monocular)

For the Thermal Monocular, adjust the diopter ring near the eyepiece to achieve a clear focus for your vision. This ensures the on-screen display and thermal image are sharp.

5. Operating Instructions

5.1 Teslong TTM120S Thermal Imaging Camera Operation

- **Temperature Measurement:** Point the camera at the target. The screen will automatically display the highest, lowest, and center point temperatures within the field of view.
- **Palette Selection:** Use the menu or dedicated palette button to cycle through the 8 available color palettes (Iron, White Hot, Black Hot, Rainbow, Hottest, High Contrast, Green Hot, Lava) to best visualize temperature differences.
- **Thermal AGC Modes:** Adjust the Automatic Gain Control (AGC) settings (Smooth, Normal, High Contrast) to fine-tune the image contrast based on the thermal scene.
- **Image Capture:** Press the capture button to save a thermal image to the device's internal memory.

5.2 Teslong Thermal Monocular Operation

- **Viewing:** Look through the eyepiece. The thermal image will be displayed on the LCOS screen.
- **Display Mode Selection:** Use the mode button to switch between the 5 display modes (White Hot, Black Hot, Red Hot, Green Hot, Iron Oxide Hot) to suit different observation conditions.
- **Digital Zoom:** Use the zoom buttons to magnify the image up to 4x.
- **Hotspot Marking:** Activate the hotspot marking feature to automatically highlight the hottest point in the field of view, aiding in quick target identification.

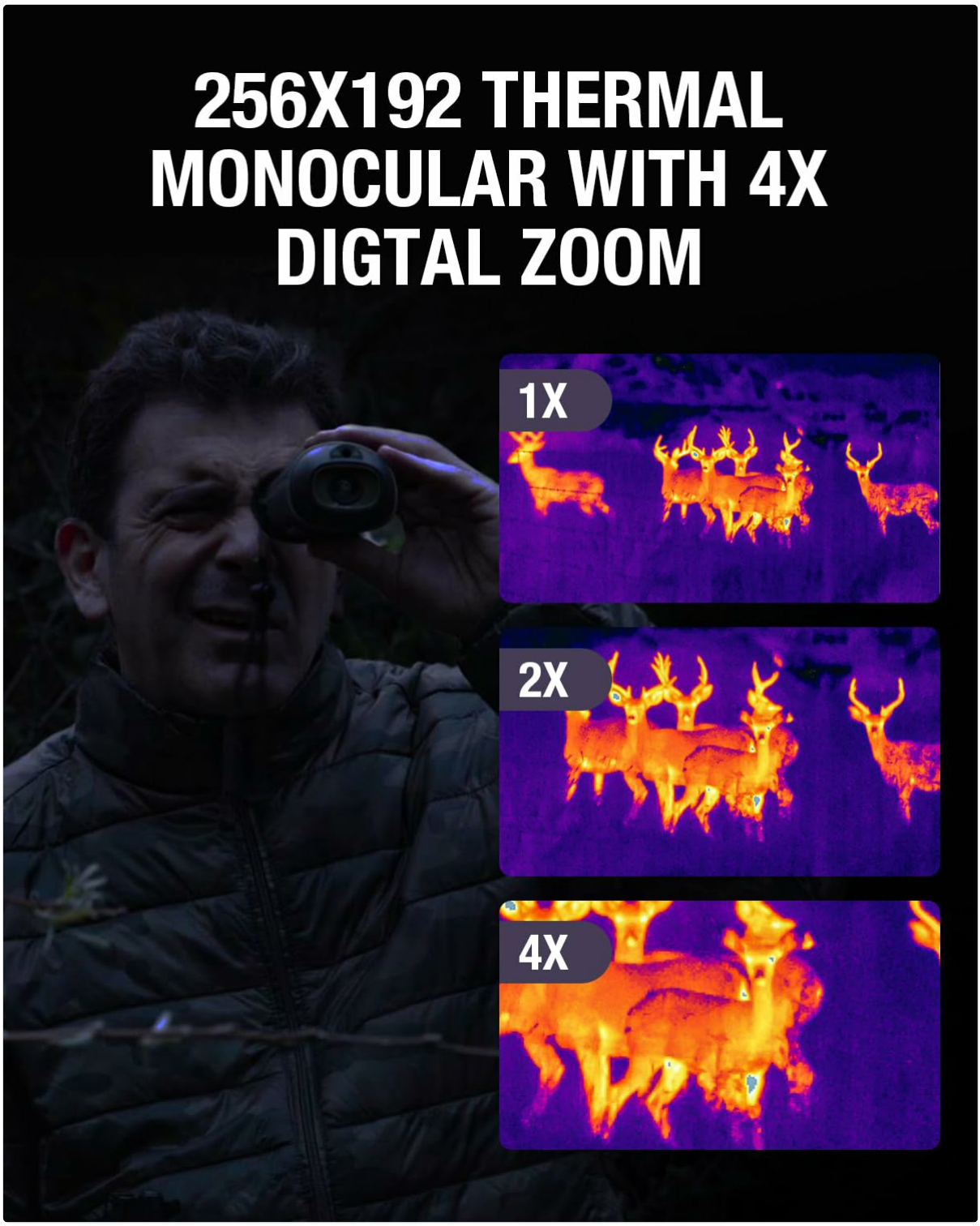


Image 5.1: A user demonstrating the 4x digital zoom capability of the Teslong Thermal Monocular. The images show the progression from 1x to 4x magnification, enhancing distant target visibility.

6. Maintenance

- **Cleaning Lenses:** Use a soft, clean, lint-free cloth specifically designed for optical lenses. Gently wipe the lens surfaces to remove dust or smudges. Do not use abrasive materials or harsh chemicals.
- **Cleaning Body:** Wipe the device body with a soft, damp cloth. Avoid getting moisture into ports or openings.
- **Storage:** Store the devices in a cool, dry place, away from direct sunlight and extreme temperatures. If storing for extended periods, ensure the battery is partially charged (around 50%) to

prolong battery life.

- **Battery Care:** Avoid fully discharging the battery frequently. Recharge as needed.

7. Troubleshooting

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

Problem	Possible Cause	Solution
Device does not power on	Low battery; faulty power button	Charge the device fully. Ensure the power button is pressed correctly.
Image is blurry or out of focus (Monocular)	Diopter not adjusted; lens dirty	Adjust the diopter ring. Clean the lens.
Inaccurate temperature readings (TTM120S)	Incorrect emissivity setting; object too far	Adjust emissivity in settings if applicable. Ensure target is within optimal range.
Screen is blank or frozen	Software glitch; low battery	Perform a soft reset (power off/on). Charge the device.

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

8. Specifications

8.1 Teslong TTM120S Thermal Imaging Camera

- **IR Resolution:** 120 x 90 (enhanced to 240 x 180 with Super-Resolution)
- **Frame Rate:** 25Hz
- **Thermal Sensitivity:** <60mk
- **Temperature Range:** -4°F to 752°F (-20°C to 400°C)
- **Measurement Accuracy:** ±2°C
- **Field of View:** 50° x 38°
- **Display:** 3.2-inch HD screen
- **Lens:** Athermalized Fixed Focal Lens 2.3mm, F1.1
- **Color Palettes:** 8 (Iron, White Hot, Black Hot, Rainbow, Hottest, High Contrast, Green Hot, Lava)
- **Thermal AGC Modes:** 3 (Smooth, Normal, High Contrast)

8.2 Teslong Thermal Monocular

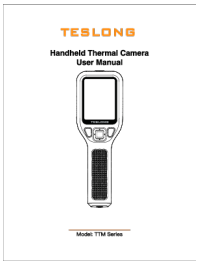
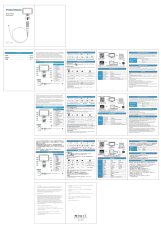
- **Thermal Sensor:** 256x192
- **Display:** 720x540 LCOS
- **Digital Zoom:** 4x

- **Display Modes:** 5 (White Hot, Black Hot, Red Hot, Green Hot, Iron Oxide Hot)
- **Features:** Hotspot marking, Diopter adjustment, Tripod mounting support

9. Warranty and Support

Teslong products are manufactured to high-quality standards. For warranty information, technical support, or service inquiries, please refer to the official Teslong website or contact their customer service department. Keep your purchase receipt as proof of purchase for warranty claims.

Related Documents - TTM120S

	Teslong TTS260 Infrared Thermal Monocular User Manual User manual for the Teslong TTS260 Infrared Thermal Monocular, detailing its specifications, user interface, detection capabilities, package contents, and important usage precautions.
	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 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 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 Pocket Thermal Camera User Manual Comprehensive user manual for the Teslong Pocket Thermal Camera, detailing features, specifications, and operational guidance.
	Shenzhen Teslong TD5002208 Articulating Borescope User Manual and Safety Information Comprehensive user manual and safety guidelines for the Shenzhen Teslong TD5002208 Articulating Borescope, covering FCC compliance, battery safety, and operational notes.

[pdf] User Manual Instructions

Safety ManualTeslong Thermal Imaging Camera 120x90 IR Sensor 25Hz Frame Rate TTM120 FactoryPureTeslong TTM120S SafetyManual 1744129484790cdn shopify s files 1 1163 1976 Teslong 1744129484790 v 1744129485 ManualSafety Infrared 256x192 Andr 1744129484790Teslong TTM260P 1744135280102cdn 1744129485cdn 1744135280102 1744135281 ||| ||| SAFETY WARNINGS Teslong Thermal Cameras WARNING: Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, re and/or serious injury. Save all warnings and instructions for f

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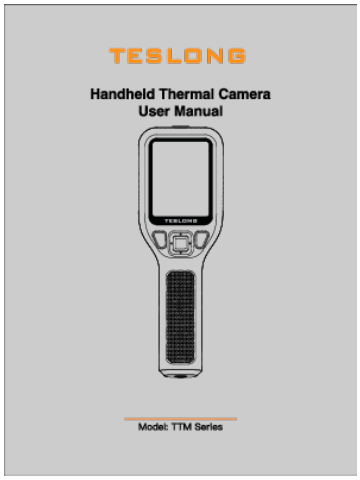

Teslong Handheld Thermal Camera User Manual - TTM Series

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.

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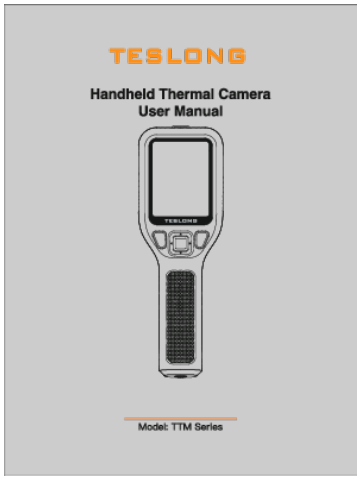

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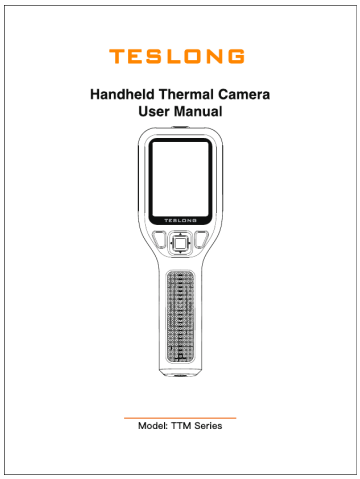

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