FLIR 435-0008-03

FLIR ONE Pro Thermal Imaging Camera for iOS (USB-C) User Manual

Model: 435-0008-03

1. Introduction

The FLIR ONE Pro is a thermal imaging camera designed to connect directly to iOS smartphones equipped with a USB-C port, specifically iPhone 15 and newer models. This device enables users to visualize heat signatures, detect temperature differences, and identify potential issues in various environments. It integrates advanced thermal technology with the convenience of a smartphone interface.

Figure 1: FLIR ONE Pro Thermal Imaging Camera. This image displays the compact, black thermal camera with its USB-C connector.

Key features include:

- **Super Resolution:** VividIR technology enhances image clarity to 480x360 from a native 160x120 infrared resolution.
- **MSX Technology:** Merges thermal and visual images in real-time to provide enhanced detail.
- **Wide Temperature Range:** Capable of measuring temperatures up to 400°C (752°F).
- **Durability:** Designed to withstand drops from 1.5 meters and offers jobsite toughness.

2. Setup

2.1 Package Contents

The FLIR ONE Pro package typically includes:

- FLIR ONE Pro Thermal Camera
- USB-C Charging Cable
- Protective Carrying Case
- Quick Start Guide

2.2 Charging the Device

Before initial use, fully charge the FLIR ONE Pro using the provided USB-C cable. The device has its own internal battery and does not draw power from your smartphone for operation. A full charge typically provides 45 minutes to 1 hour of continuous use.

2.3 Installing the FLIR ONE App

Download and install the official FLIR ONE App from the Apple App Store on your compatible iOS smartphone (iPhone 15 or newer with USB-C).

2.4 Connecting to Your Smartphone

1. Ensure the FLIR ONE Pro is charged.
2. Press the power button on the bottom of the FLIR ONE Pro. The LED indicator will illuminate. Wait for the LED to change from orange to blinking green, indicating it is ready.
3. Open the FLIR ONE App on your iPhone.
4. Carefully plug the FLIR ONE Pro's USB-C connector into your iPhone's USB-C port.
5. If your iPhone has a protective case, adjust the length of the USB-C connector using the blue knob on the FLIR ONE Pro to ensure a secure connection. The connector can extend up to 4 mm.

Figure 2: FLIR ONE Pro connected to an iPhone. This image illustrates the thermal camera attached to a smartphone, displaying a thermal image on the phone's screen, along with specifications like temperature range and thermal resolution.

Figure 3: Detailed view of FLIR ONE Pro features. This image highlights the adjustable USB-C connector and the visual and thermal camera lenses, emphasizing its rugged design and drop resistance.

3. Operating Instructions

3.1 Basic Operation

Once connected and the app is open, the FLIR ONE Pro will display a live thermal feed on your iPhone screen. You can switch between video, photo, and time-lapse modes within the app. The app interface allows for various adjustments and settings.

Figure 4: FLIR ONE App interface. This image shows the FLIR ONE App running on a smartphone, displaying settings for units, date, format, temperature range, and emissivity.

3.2 Understanding Thermal Images (MSX Technology)

The FLIR ONE Pro utilizes MSX (Multi-Spectral Dynamic Imaging) technology. This feature overlays key details from the visible light camera onto the thermal image, enhancing clarity and making it easier to identify objects and structures within the thermal scene. This results in sharper, more detailed thermal images.

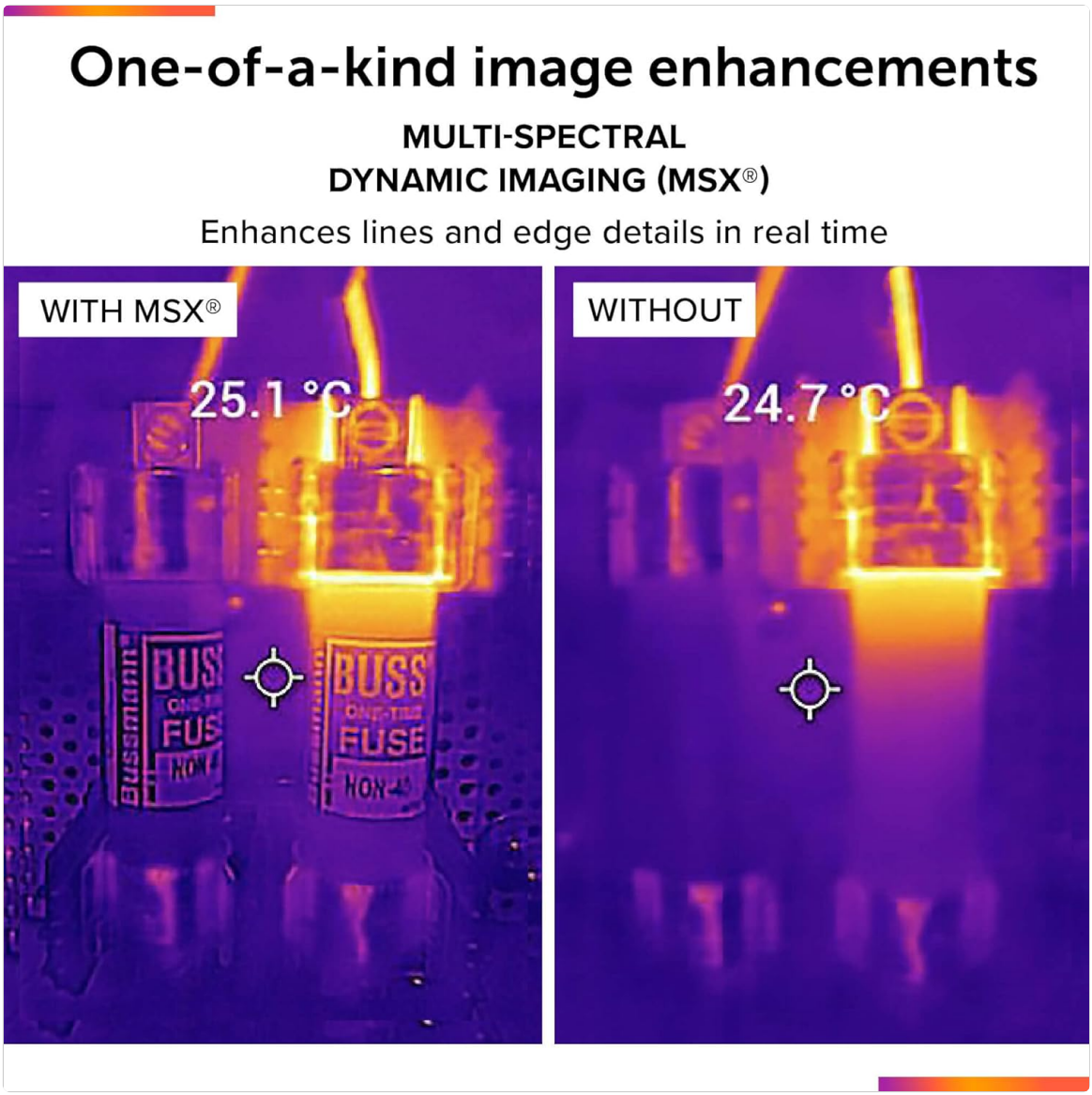


Figure 5: MSX Technology comparison. This image presents two thermal views side-by-side, one with MSX enhancement showing clearer details and temperature readings, and one without, demonstrating the benefit of MSX.

3.3 Temperature Measurement Accuracy

The device measures temperature with an accuracy of ±3°C or ±5%, whichever is greater, under specific conditions: when the unit's ambient temperature is between 15°C and 35°C, and the scene temperature is between 5°C and 120°C.

3.4 Using Thermal Inspection Guides

The FLIR ONE App includes step-by-step inspection guides. These guides assist in addressing common faults and performing accurate home inspections, such as identifying air leaks, moisture buildup, and insulation issues.

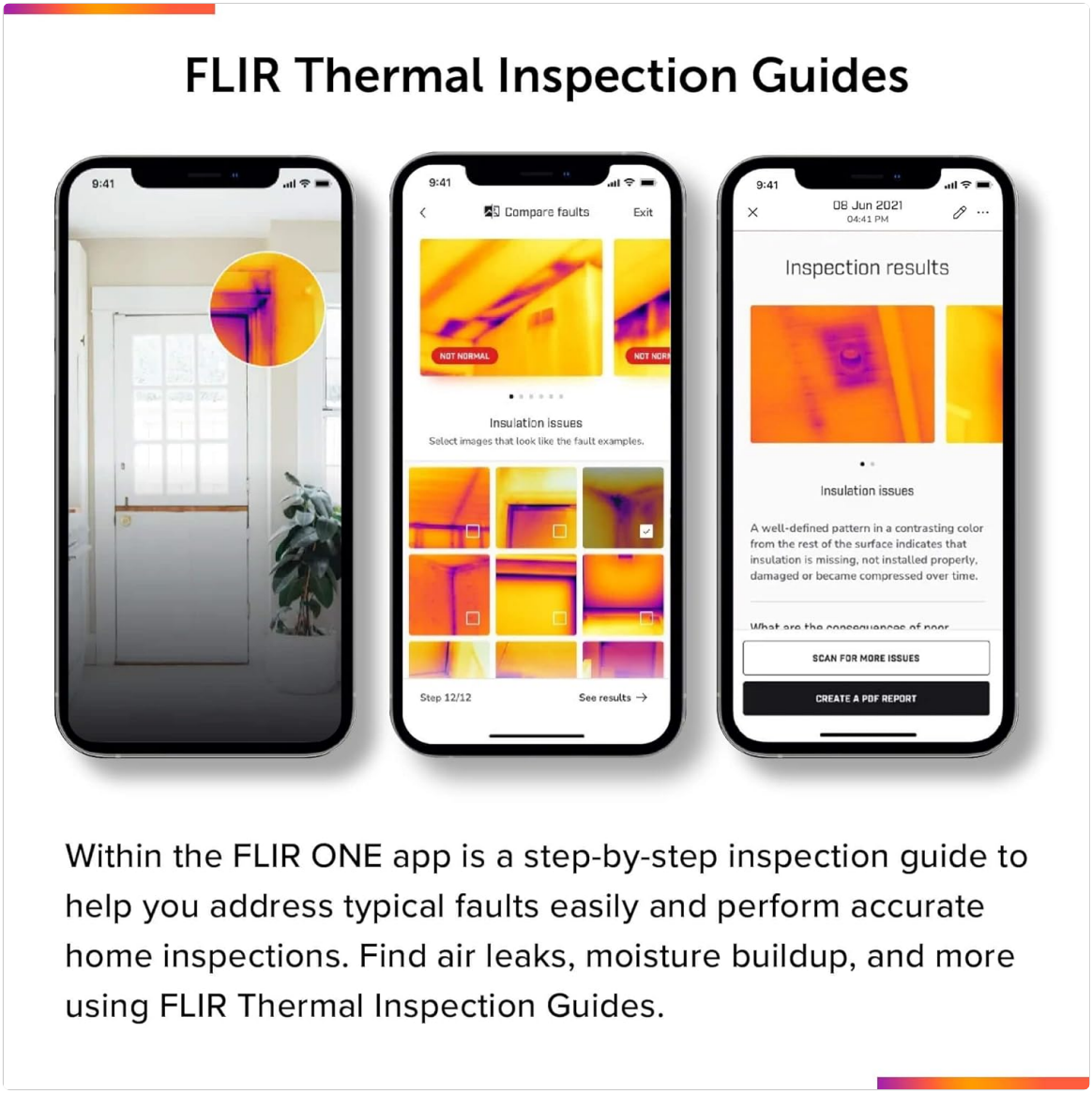


Figure 6: FLIR Thermal Inspection Guides. This image shows a sequence of smartphone screens demonstrating the in-app inspection guides, from initial thermal scan to fault comparison and inspection results.

3.5 Saving and Analyzing Images

Captured thermal images are saved as standard .JPG files on your iPhone. These files also contain embedded thermal data for every pixel. For advanced analysis, these images can be transferred to a computer and processed using the free FLIR Tools application, available from the FLIR website. This allows for further adjustments to color schemes, temperature scaling, and detailed spot temperature readings within user-defined regions.

Figure 7: FLIR Ignite cloud storage. This image illustrates the FLIR Ignite cloud storage and reporting software interface on both a smartphone and a laptop, showing how images can be uploaded, organized, and shared.

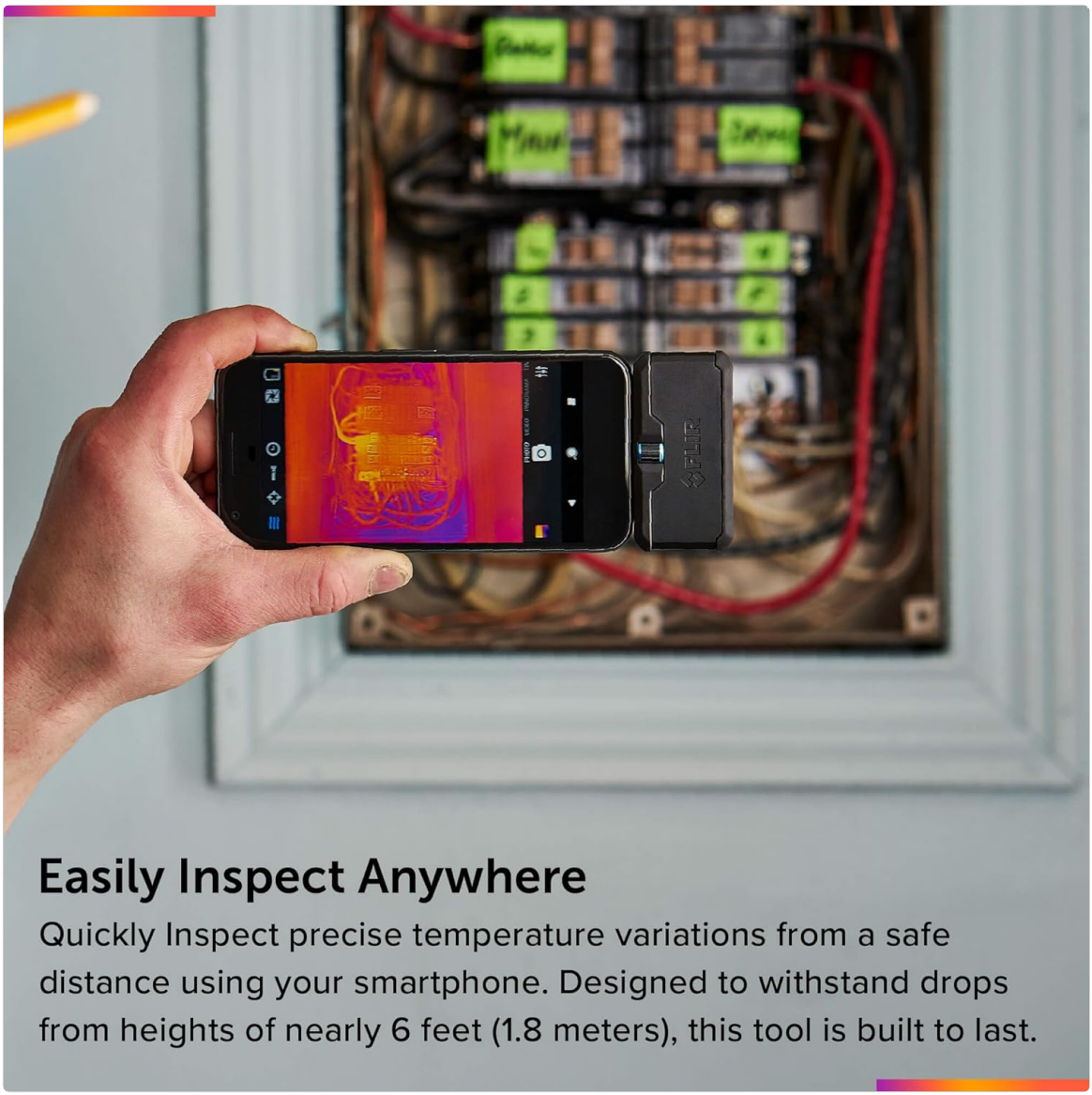


Figure 8: Inspecting an electrical panel. This image shows a user holding a smartphone with the FLIR ONE Pro attached, pointing it at an electrical panel to perform a thermal inspection.

4. Maintenance

4.1 Cleaning

To clean the FLIR ONE Pro, gently wipe the exterior with a soft, damp cloth. Ensure the lenses are free of dust and debris for optimal image quality. Do not use abrasive cleaners or solvents.

4.2 Durability

The FLIR ONE Pro is built for jobsite conditions, rated to withstand drops from 1.5 meters (5.9 feet). Its rugged enclosure provides protection against water and dust, contributing to its longevity in various working environments.

5. Troubleshooting

5.1 Common Issues and Solutions

- **Device not connecting:** Ensure the FLIR ONE Pro is fully charged and powered on. Verify the USB-C connector is securely seated in your iPhone's port. Adjust the connector length if using a phone case.
- **App not launching or freezing:** Close and restart the FLIR ONE App. Ensure your iPhone's operating system is up to date. If the issue persists, try reinstalling the app.
- **Poor image quality:** Clean the thermal and visual lenses. Ensure proper focus and distance from the target. Check app settings for MSX and VividIR to ensure they are enabled.
- **Short battery life:** Ensure the device is fully charged before use. Battery life is approximately 45-60 minutes of continuous operation.

5.2 Further Assistance

If you encounter issues not resolved by the above steps, refer to the FLIR ONE App's help section or visit the official FLIR support website for detailed troubleshooting guides and contact information.

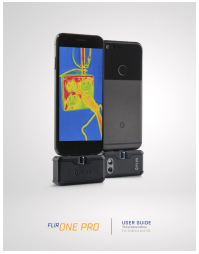
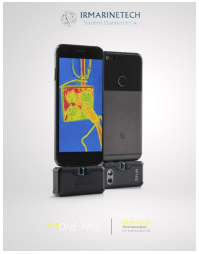
6. Specifications

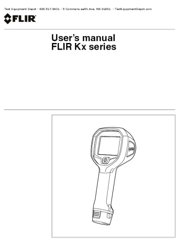
Feature	Specification
Model Number	435-0008-03
Thermal Resolution	160 x 120 (19,200 pixels)
Super Resolution (VividIR)	480 x 360
Visual Resolution	1440 x 1080 HD
Object Temperature Range	-20°C to 400°C (-4°F to 752°F)
Accuracy	±3°C or ±5% (within 15°C-35°C ambient, 5°C-120°C scene)
Battery Life	Approx. 45-60 minutes continuous use
Connectivity	USB-C (for iPhone 15 and newer)
Product Dimensions	2.6 x 1.3 x 0.6 inches (68 x 34 x 14 mm)
Item Weight	1.29 ounces
Drop Rating	1.5 meters (5.9 feet)

7. Warranty and Support

For warranty information and technical support, please refer to the documentation included with your product or visit the official FLIR Systems website. FLIR Systems is the manufacturer of this device. Online resources and support can typically be found at theFLIR Store on Amazon or the main FLIR website.

Related Documents - 435-0008-03

	FLIR ONE Pro User Guide: Thermal Imaging for Smartphones Comprehensive user guide for the FLIR ONE Pro thermal imaging camera for Android and iOS devices. Learn about charging, app features, taking photos and videos, and advanced functions like MSX and spot meters.
	FLIR E60 Accessory Kit: Comprehensive List of Thermal Camera Accessories Detailed list of accessories for the FLIR E60 thermal imaging camera, including cases, cables, power supplies, chargers, batteries, memory cards, and documentation from Advanced Test Equipment Corp.
	FLIR ONE PRO LT Quick Start Guide for Android and iOS A quick start guide for the FLIR ONE PRO LT thermal camera, detailing setup, app usage, and key features for Android and iOS devices.
	FLIR iXX-Series App-Enabled Thermal Camera with LTE Datasheet Detailed specifications and features for the FLIR iXX-Series App-Enabled Thermal Camera with LTE, including IR resolution, sensitivity, FOV, applications, and physical data.
	FLIR ONE Pro User Guide: Thermal Imaging Camera for Smartphones Comprehensive user guide for the FLIR ONE Pro, a thermal imaging camera attachment for Android and iOS devices. Learn about charging, app features, image capture, color palettes, IR scale, gain mode, MSX technology, and more.

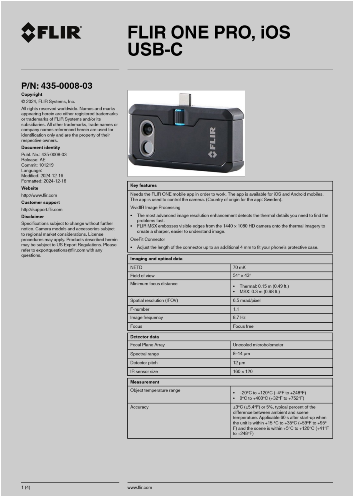


User's manual
FLIR Kx series

[FLIR Kx Series User's Manual](#)

Explore the FLIR Kx series thermal imaging cameras with this official user manual. Get detailed insights into operation, safety protocols, technical specifications, and maintenance for the FLIR Kx and K2 models. Ideal for professionals in demanding environments, especially firefighting.

Documents - FLIR – 435-0008-03



FLIR ONE PRO, iOS
USB-C
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[pdf] Specifications Accessories

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