InfiRay P2 Pro

InfiRay P2 Pro Thermal Camera for Android User Manual

Model: P2 Pro | Brand: InfiRay

1. Introduction

The InfiRay P2 Pro is a high-resolution thermal imaging camera designed for use with Android smartphones and tablets. It provides advanced temperature detection capabilities for various applications, from home inspections to electrical system maintenance. This manual provides essential information for setting up, operating, and maintaining your device.

2. Product Overview

2.1 Key Features

- **High Resolution:** 256x192 IR resolution for precise thermal imaging.
- **Fast Frame Rate:** 25Hz image capture frequency for smooth readings.
- **Wide Temperature Range:** Measures from -4°F to 1112°F (-20°C to 600°C) with ±3.6°F accuracy.
- **High Sensitivity:** NETD of ≤50mK for detecting minute temperature changes.
- **Extensive Compatibility:** Designed for Android 9.0 or above phones and tablets.
- **Versatile Measurement Modes:** Point, line, and rectangle selections for temperature data.
- **Customizable Palettes:** 12 temperature color modes to adapt to different environments.

2.2 Package Contents

The InfiRay P2 Pro package includes the thermal camera unit, a 50cm adapter cable, and a card package with documentation. A macro lens may also be included depending on the specific product variant.

Figure 1: InfiRay P2 Pro Thermal Camera with included 50cm adapter cable.

Video 1: Unboxing and initial setup of the InfiRay P2 Pro, demonstrating package contents and device connection.

3. Setup

3.1 App Installation

1. Search for "Thermal P2" on the Google Play Store.
2. Download and install the application on your Android device.

3.2 Connecting the Device

1. Insert the InfiRay P2 Pro thermal camera into the USB-C port of your Android phone or tablet.
2. Ensure that the OTG (On-The-Go) function is enabled in your device's settings. Without OTG, the thermal camera will not function correctly.
3. The app should automatically launch and display the thermal image feed.

Video 2: Detailed instructions on installing the companion app and connecting the InfiRay P2 Pro to an Android

smartphone.

4. Operating Instructions

4.1 App Interface Overview

Upon opening the app, you will see the live thermal image feed. The interface provides several functions for capturing and analyzing thermal data:

- **Image Capture & Video Recording:** Buttons to take photos or record videos of the thermal view.
- **Gallery:** Access saved images and videos.
- **Palette:** Select from 12 different pseudo-color palettes (e.g., White-hot, Black-hot, Rainbow, Iron-red) to visualize temperature differences.
- **Floating Ball Menu:** Access advanced settings and measurement tools.

4.2 Floating Ball Menu Functions

The floating ball menu provides quick access to several key features:

- **Image Flip:** Rotate the image by 90-degree increments.
- **Variable Correction:** Adjust emissivity, ambient temperature, and target distance for accurate readings.
- **Temperature Display:** Toggle the display of center, high, and low temperature points on/off.
- **Measurement Mode:** Switch between High Image Quality, Wide Range, or Automatic Switching based on your needs.
- **Image Settings:** Adjust brightness and contrast of the thermal image.

4.3 Professional Measurement Tools

Enable "Professional Thermometry" in the settings to access advanced measurement tools:

- **Point:** Tap on the screen to display temperature values at up to three arbitrary points.
- **Line:** Draw a line to display highest, lowest, and average temperatures along the line (up to three lines).
- **Frame:** Draw a square area to detect highest, lowest, and average temperatures within that area.
- **Scale (DIY Bar):** Unlock the image to manually adjust the highest and lowest temperature range displayed on the color bar. Objects outside this range will appear gray/black.
- **Delete:** Remove selected measurement points, lines, or frames, or clear all measurements.

4.4 Secondary Analysis

You can perform secondary analysis on saved infrared images in the album. Open an image and apply point, line, or area temperature measurements. You can also modify the palette and generate a report for easy sharing.

Video 3: Demonstration of various app functions, including palette selection, measurement modes, and image settings.

5. Maintenance

To ensure the longevity and optimal performance of your InfiRay P2 Pro Thermal Camera, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the camera lens and body. Avoid abrasive materials or harsh chemicals that could damage the lens coating or device surface.
- **Storage:** Store the camera in its protective case when not in use to prevent scratches and damage. Keep it in a cool, dry place away from direct sunlight and extreme temperatures.
- **Handling:** Handle the camera with care. Avoid dropping it or subjecting it to strong impacts.
- **Software Updates:** Regularly check for app updates to ensure you have the latest features and performance improvements.

6. Troubleshooting

If you encounter issues with your InfiRay P2 Pro, refer to the following common troubleshooting steps:

- **Camera Not Detected:** Ensure OTG is enabled in your Android device settings. Try reconnecting the camera or restarting the app/phone.
- **Blurry Image:** Adjust the brightness and contrast settings within the app. Ensure the lens is clean and free from smudges.
- **Incorrect Temperature Readings:** Verify that the emissivity, ambient temperature, and target distance settings are correctly configured in the Variable Correction menu.
- **App Freezing/Crashing:** Close and restart the app. If the issue persists, clear the app's cache or reinstall it.
- **Burn Protection Warning:** If a

Related Documents - P2 Pro

	InfiRay FINDER Thermal Imaging Monocular Operating Manual This operating manual provides comprehensive instructions for the InfiRay FINDER series thermal imaging monoculars, including models FL25, FL25R, FH25, and FH25R. It covers product specifications, package contents, features, detailed operation, button functions, menu navigation, calibration procedures, photography and video recording, connectivity, maintenance, and troubleshooting.
	InfiRay TUBE Thermal Imaging Scope User Manual: TH35 V2 & TH50 V2 Comprehensive user manual for the InfiRay TUBE TH35 V2 and TH50 V2 thermal imaging scopes. Learn about features, operation, safety guidelines, specifications, and mounting for outdoor hunting and observation.

	InfiRay GEMINI Multi-spectral Thermal Imaging Binocular User Manual V1.0 Comprehensive user manual for the InfiRay GEMINI Multi-spectral Thermal Imaging Binocular, covering safety, specifications, package contents, product overview, main functions, product appearance, button descriptions, power supply, mounting, quick start guide, status bar, image calibration, photography and video recording, digital zoom, fusion settings, DMC settings, quick menu, system menu, media management, location settings, Wi-Fi and time settings, system settings, about information, Wi-Fi function, firmware update, InfiRay Outdoor app, technical inspection, maintenance, legal and regulatory information, and body-worn operation.
	InfiRay EYE III Series Thermal Imaging Monocular User Manual Comprehensive user manual for the InfiRay EYE III series thermal imaging monocular, covering specifications, operation, features, safety, and maintenance for models EL25, EL35, and EH35.
	InfiRay MATE Series Thermal Imaging Attachment User Manual User manual for the InfiRay MATE Series thermal imaging attachment, covering models MAL25, MAL38, and MAH50. Includes safety information, specifications, operation, installation, maintenance, and troubleshooting.
	InfiRay AFFO Series Thermal Imaging Monocular User Manual This user manual provides comprehensive guidance for the InfiRay AFFO series thermal imaging monocular, detailing safety precautions, specifications, operational procedures, features, and troubleshooting for models AP09, AP13, AL19, and AL25.