



Smartphone Acoustic Camera

User Manual

About this manual

This manual is used as a guide and the photos, graphics, icons and illustrations provided in the manual are for explanation and illustration purposes only and may differ from the specific product, please refer to the actual product. This manual may be updated by FOTRIC without notice due to product version upgrade or other needs.

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In the event of a conflict between the above and applicable law, the provisions of the law shall prevail.

Preface

Symbols

 Warning	 Caution	 Note
potential death or serious injury inducing hazards.	potential danger of injury or property damage.	provides additional information to emphasize the main text.

Safety information

The purpose of this section is to ensure that the user uses the product properly to avoid danger or property damage.

Before using this product, please read this instruction manual carefully and keep it in a safe place for future reference.



Warning:

- Never disassemble or modify the acoustic camera battery. The battery is equipped with safety and protective devices which, if tampered with, may cause the battery to overheat and may also cause an explosion or burn. If the battery is leaking and the leak gets into your eyes, do not rub it, wash it with water and get immediate medical attention.
- If the unit is not working properly, contact your dealer or our company and do not disassemble or modify the unit in any way (unauthorized modifications or repairs cause problems at your own risk).



Caution:

- Protect the acoustic sensor array from stains, dust and liquids, otherwise it will affect the performance of the acoustic camera or even cause permanent damage.
- Avoid using the product in humid, dusty, extremely hot or cold environments, please refer to the product's parameter table for specific temperature and humidity requirements.
- For long-term storage of the battery, make sure it is fully charged every 3 months to ensure the battery quality. Otherwise, damage may occur.

- Use only power adapters provided by certified manufacturers. Refer to the product specification table for specific power adapter requirements.
- When storing the acoustic camera, it is strongly recommended to use the original box and to keep it in a cool, dry, ventilated environment free from strong electromagnetic fields.
- When shipping the acoustic camera, it is strongly recommended that it be shipped protected in its factory packaging.

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1. Overview

1. Introduction

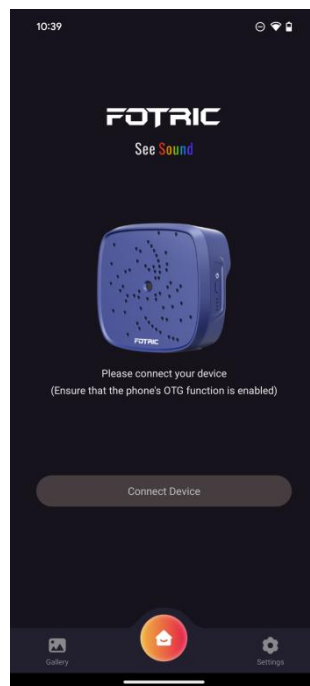
Upon installing the FOTRIC Genie App, users can check the digital images, acoustic images in real time by connecting the phone to the smartphone acoustic imager through USB, capture, record videos and view saved files.

2. Operation Environment

Mainstream mobile phones with Android version 12 or above.

3. Interfaces

FOTRIC Genie App main interface is listed below. Interfaces include: gallery management, device connection, system settings, etc.



4. Quick Start

Environment Preparation: Download the FOTRIC Genie APP from Google Play. Ensure the smartphone acoustic camera hardware is available and the phone's OTG function is enabled.

Step 1: Connect the smartphone and the acoustic camera hardware using a USB Type-C cable.

Step 2: On the main interface, tap “Connect Device” to enter the live view.

Step 3: Capture a single frame or record an MP4 video.

Step 4: View the saved images or videos in the gallery.。

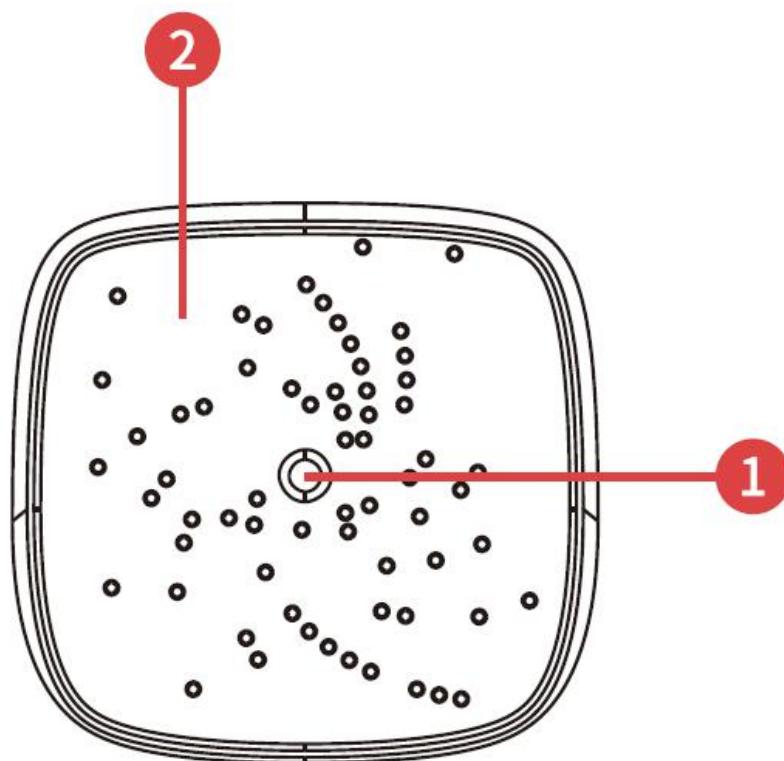
5. About

This document is the user manual for operating the Mobile App FOTRIC Genie.

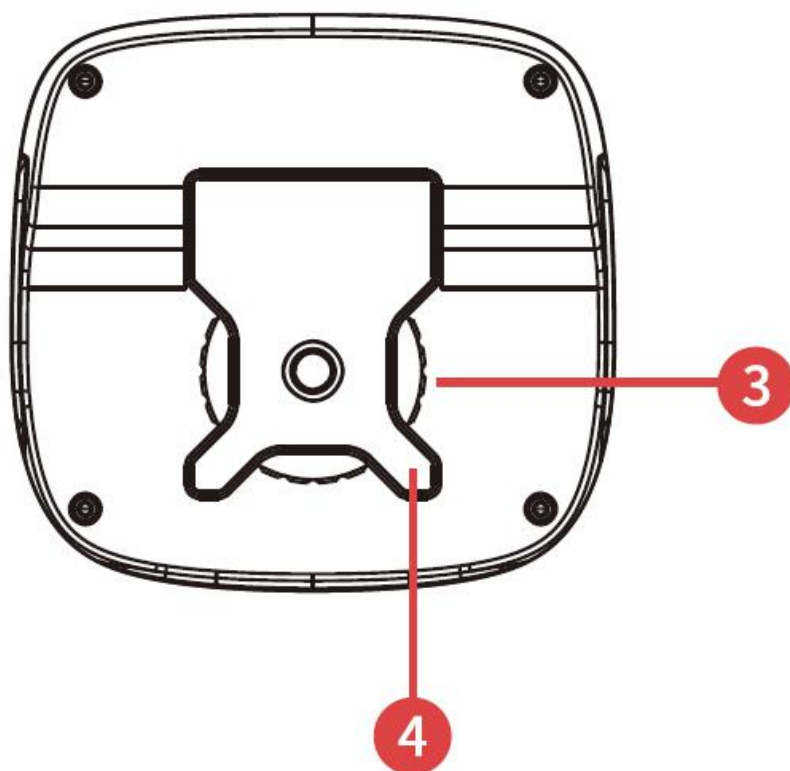
2. Hardware Introduction

1. Appearance

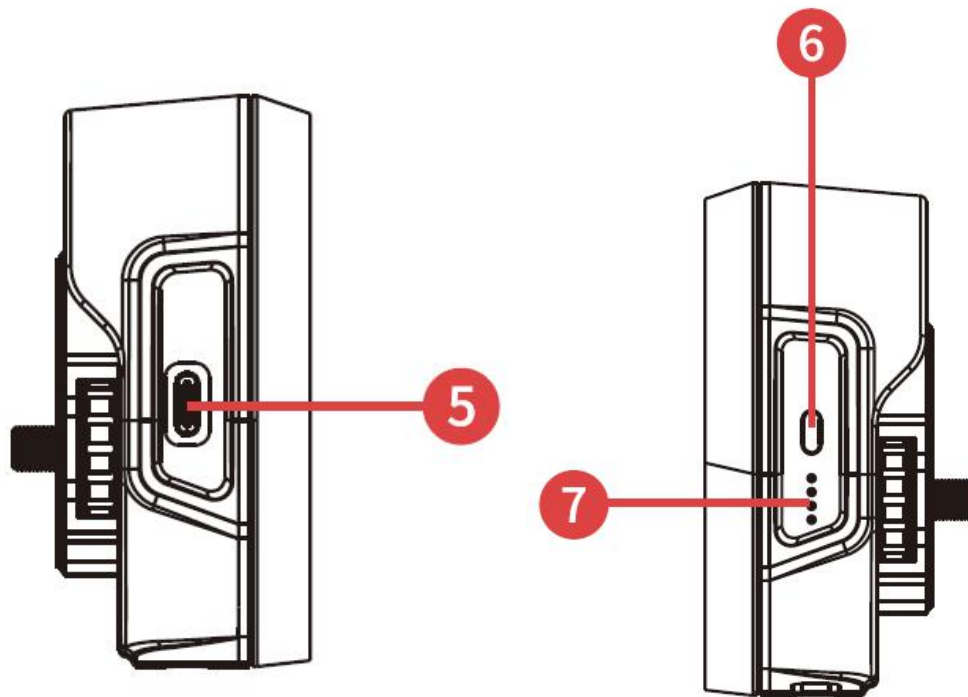
Front View



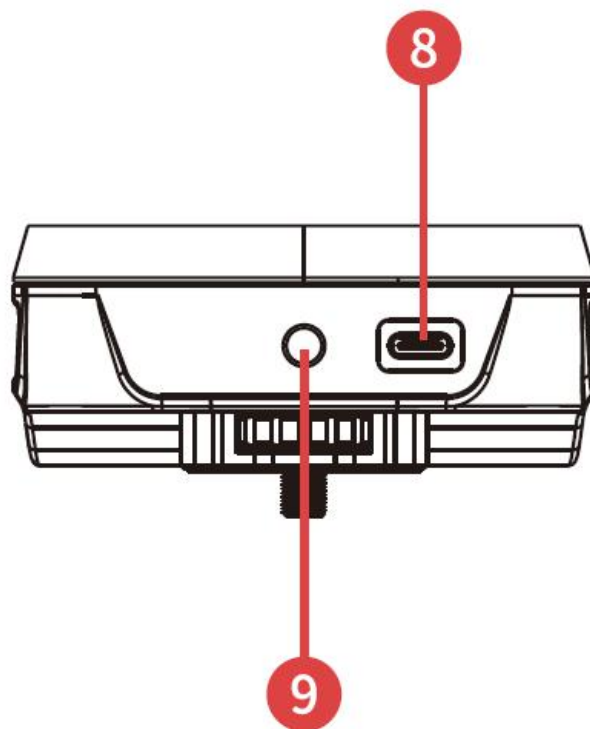
Rear View



Side View



Bottom View



**Notes**

The appearance of different models the devices may vary. Please refer to the actual product.

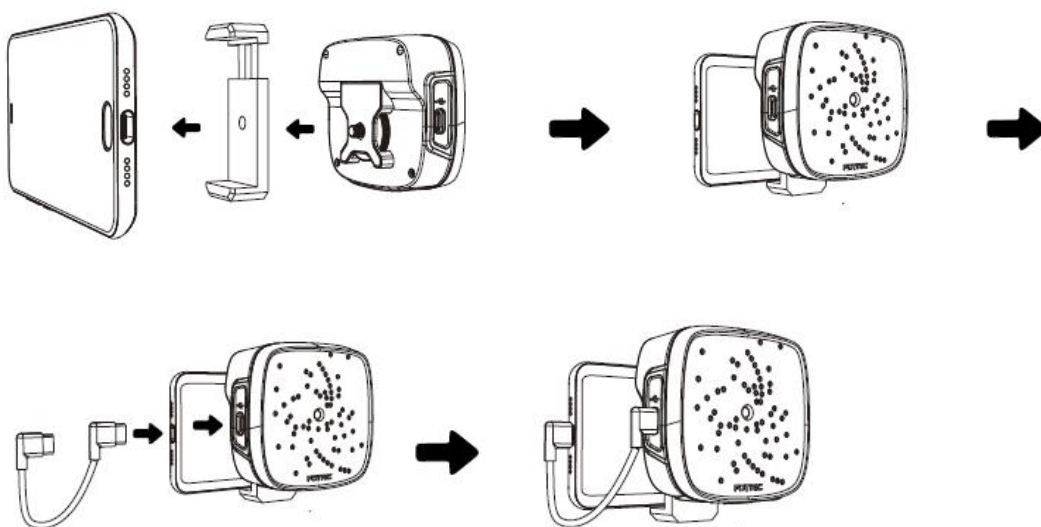
Parts and interfaces

	Name	Function
1	Digital Camera	Digital visible-light camera
2	Acoustic Module	Microphone array
3	Tripod Mounting Screw	Tripod mounting screw
4	Tripod Mounting Block	Tripod mounting block
5	USB Type-C Interface	For connecting to a USB Type-C cable; For Data transmission purposes
6	Power Button	Turn the device on/off
7	Power Indicator	After powering on >75%(4 lamps on) >50%(3 lamps on) >25%(2 lamps on) >0%(1 lamps on)
		When charging (regardless of status) >75%(4 lamps flickering; 4 lamps on when fully charged) >50%(3 lamps flickering) >25%(2 lamps flickering)

		>0%(1 lamps flickering)
8	USB Type-C Charging Port	For charging the device
9	Tripod Connection Interface	For mounting on a tripod

2. Installation

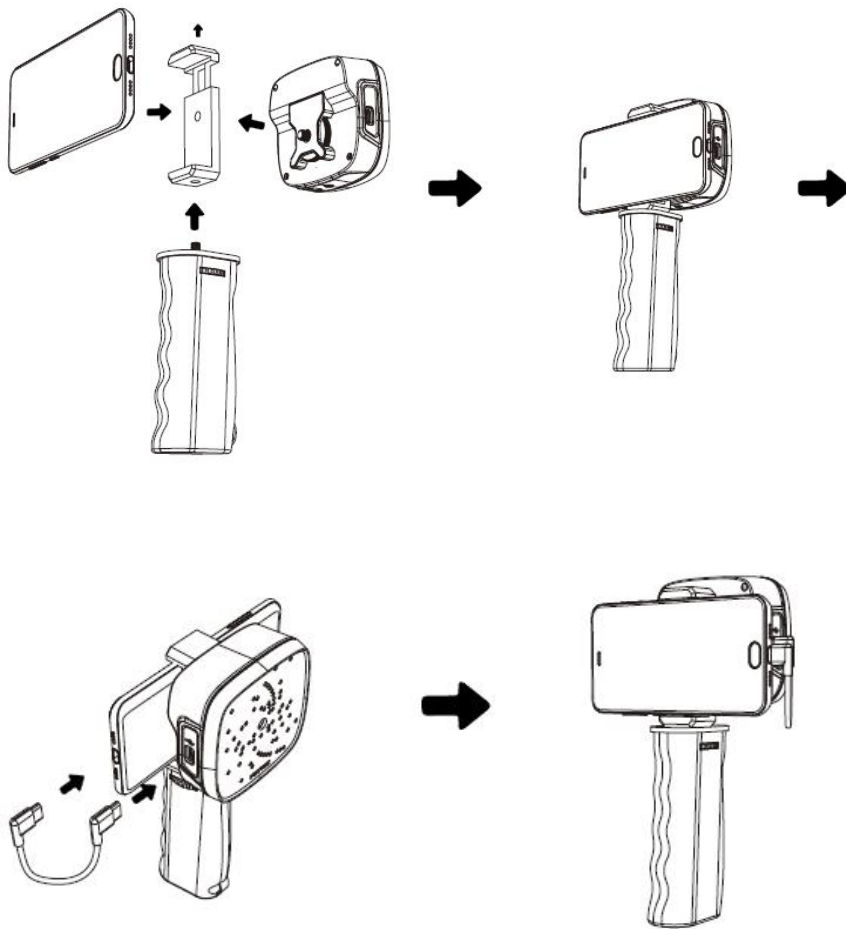
(1) Standard Mounting Method



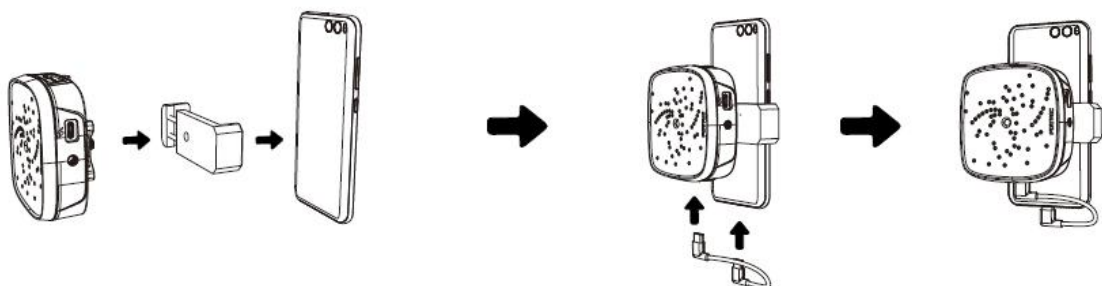
Operation Procedure:

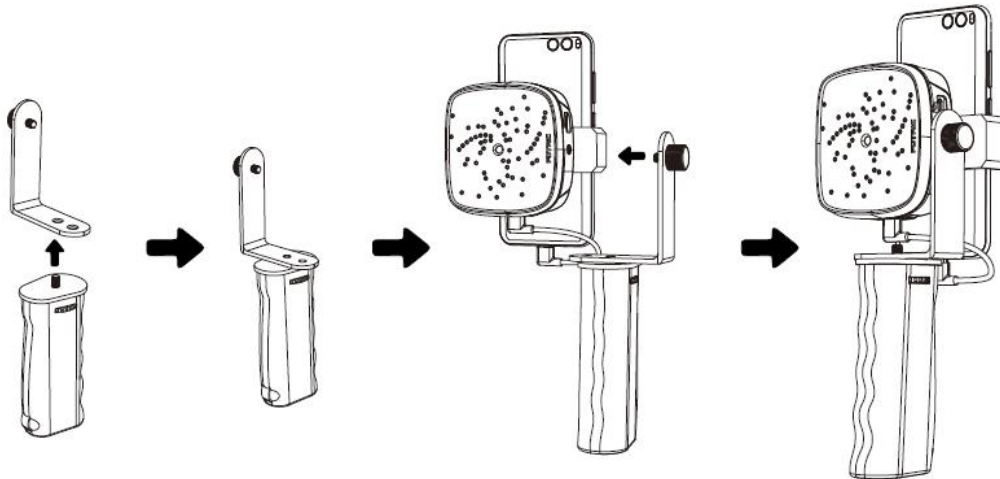
1. Secure the acoustic imager to the phone holder using the tripod mounting screw and mounting block.
2. Mount the phone onto the phone holder.
3. Connect the phone and the acoustic imager via a USB Type-C data cable for data transfer.

(2) Other Mounting Methods (Optional Handle) :Method 1

**Operation Procedure:**

1. Secure the acoustic imager to the phone holder using the tripod mounting screw and mounting block.
2. Mount the phone onto the phone holder.
3. Connect the phone holder to the handle.
4. Connect the phone and the acoustic imager via a USB Type-C data cable for data transfer.

(3) Method 2

**Operation Procedure:**

1. Secure the acoustic imager to the phone holder using the tripod mounting screw and mounting block.
2. Mount the phone onto the phone holder.
3. Connect the phone and the acoustic imager via a USB Type-C data cable for data transfer.
4. Attach one end of the L-shaped adapter bracket to the handle. Secure the other end of the L-shaped bracket to the standard tripod mounting hole on the acoustic imager.

3. Power On/Off

Press the power button to turn on/off the device

4. Charging the Acoustic Imager

When using the acoustic imager for the first time or when the battery is low, charge the device using a DC 5V power adapter (Item 8 in the parts and interface list).

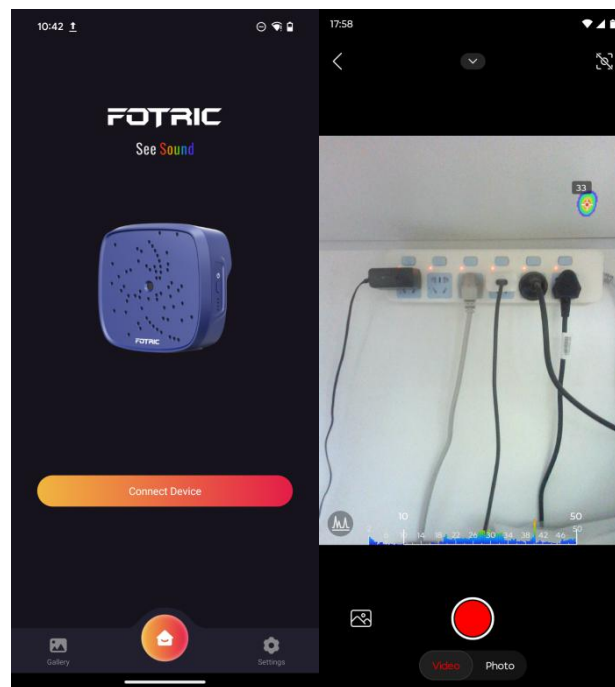
3. Device Management

1. Connections

USB Connections

2. Device connection via USB

After the phone is plugged into the USB port to connect to the acoustic imager, it can automatically scan for and connect to the device. After agreeing to the software's various permission requests, users can access the live feed.



4. Measurement Analysis

1. Frequency Range

The frequency range is 2~50kHz.

2. Frequency Selection

Support manually changing frequency range. Operation steps:

1. On the live interface, click  to view different options
2. User may also manually adjust the frequency range by long press and drag the bracket on the frequency



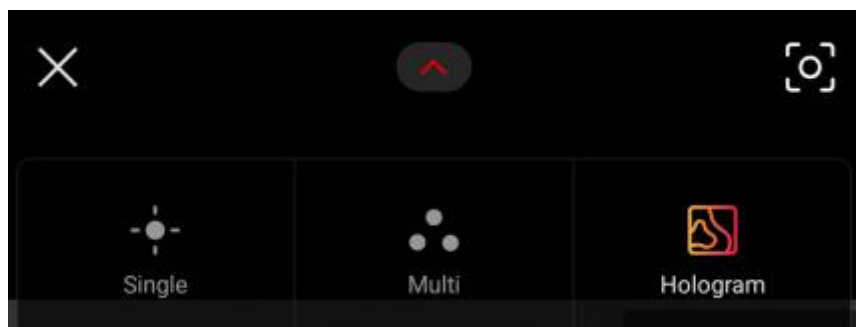
3. Acoustic Imaging Focus

Shield off the acoustic signal from the surrounding area and focus on the center of the screen. Press the  icon on the live interface to toggle the feature on and off.

5. Image Display

1. Sound Source Mode

The software support switching sound source mode. Press the  icon, to summon different options:



2. Single-source

Display the strongest sound pressure level area on the live view.

3. Multi-source

Display multiple strong sound pressure level areas on the live view.

4. Hologram

Display sound pressure level distribution on the live view.

5. Digital Zoom

Support 1~3 times continuous zoom by pinching on the screen.

6. SPL Tracking

Track the maximum SPL spot with a cursor and overlay it on the live view.

7. Automatic view orientation

The APP support automatic orientation, but only if the Automatic screen orientation is enabled on the phone.

6. Capture Functions

1. Single Frame Capture

Click on ‘Photo’ option on the live interface, and click  icon to capture images to save in the phone.

2. MP4 Video Recording

Click on ‘Video’ option on the live interface, and click  icon to record. Once the recording is done, click  icon to stop and save the video on the phone. Users may also conduct single frame capture during video recording.

3. Image Format

The image format is jpg.

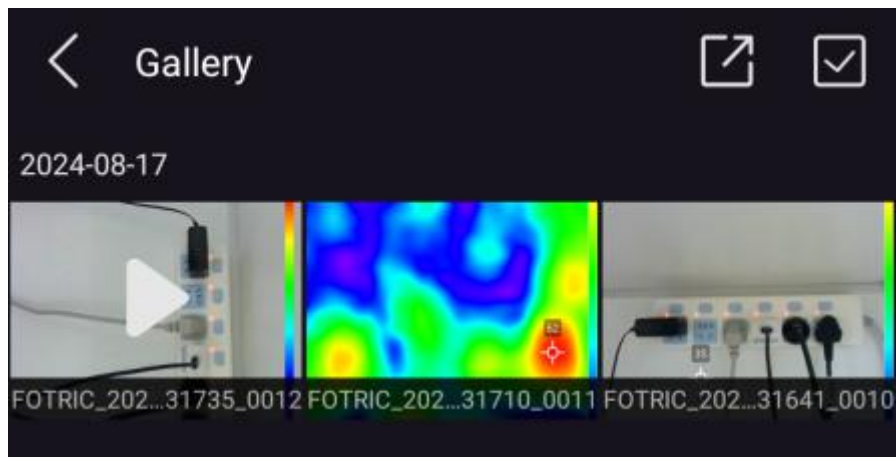
4. Video Format

The video format is mp4.

7. Gallery Management

1. Gallery

Captured images and videos will be saved on the cell phone. Users may access them via image galleries on their phone.



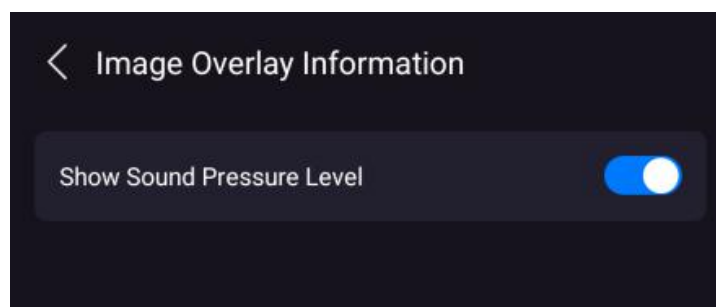
2. Sharing

The software support sharing images and videos through the  icon in the gallery.

8. System Config

1. Image Overlay

Users can show/hide image overlay info by toggling them in this section:



2. Supported Languages

The APP can automatically change the interface language to English, German, French, Spanish, Portuguese, Italian, Japanese, Korean, Simplified Chinese, Thai, and Traditional Chinese based on the environment language. For any other environment, the software will display English.

3. APP Update

Support updating in Google Play store.

4. Supported System

Support mainstream mobile phones with Android version 12 or above.