
FOTRIC

Entry-Level Handheld Acoustic Imager

User Manual

About This Manual

This manual is intended as a guide. The photos, graphics, icons, and illustrations provided in this manual are for explanation and illustration purposes only and may differ from the actual product. Please refer to the actual product. Due to product version upgrades or other requirements, FOTRIC may update this manual without prior notice.

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Preface

User Manual



Symbol Conventions

 Warning	 Caution	 Note
Alerts users to the risk of potential death or serious injury	Alerts users to the risk of potential injury or property damage	Explanatory text that supplements and clarifies the main content.

Safety Information

The purpose of this content is to ensure that users use this product correctly to avoid danger or property damage. Before using this product, please read this instruction manual carefully and keep it properly for future reference.



Warning:

- Do not disassemble or modify the acoustic imager battery. The battery is equipped with safety and protective devices. If damaged, it may cause the battery to overheat, and may also lead to explosion or combustion. If the battery leaks and the leaked liquid enters the eyes, do not rub. Rinse with water and seek immediate medical attention.
- If the device is not functioning properly, please contact the dealer or our company. Do not disassemble or modify the device in any way (any issues caused by unauthorized modification or repair are at your own risk).



Caution:

- Protect the acoustic sensor array from stains, dust, and liquids, as they may affect the

performance of the acoustic imager or even cause permanent damage.

- Avoid using the product in humid, dusty, extremely hot, or extremely cold environments. Please refer to the product specifications for specific temperature and humidity requirements.
- For long-term storage, it is recommended to fully charge the battery every 3 months. Failure to do so may cause irreversible damage to the battery.
- It is strongly recommended to use the original power adapter. For specific power adapter requirements, please refer to the product specifications.
- To prevent potential data loss, please regularly copy (back up) data to a computer.
- When storing the acoustic imager, it is strongly recommended to use the original packaging and place it in a cool, dry, well-ventilated environment free from strong electromagnetic fields.
- When transporting the acoustic imager, it is strongly recommended to use the original factory packaging for protective shipping.

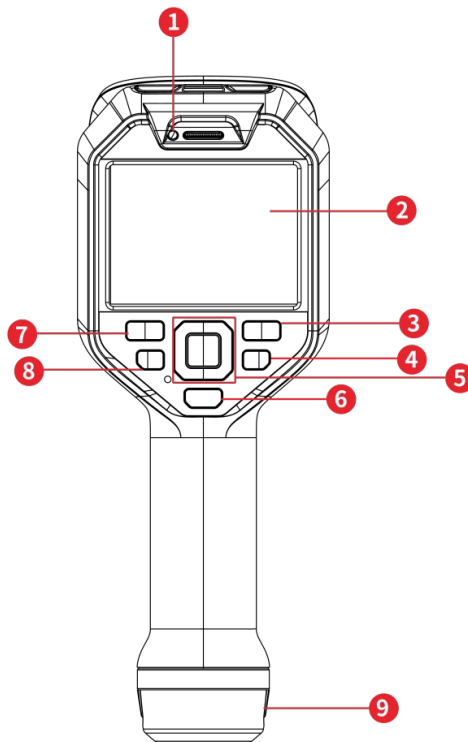
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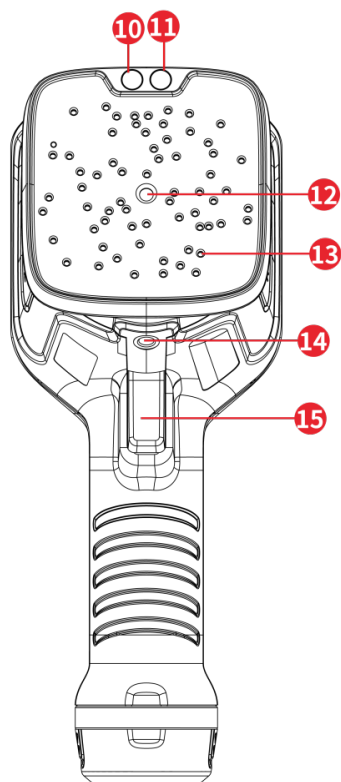
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1. Product Overview

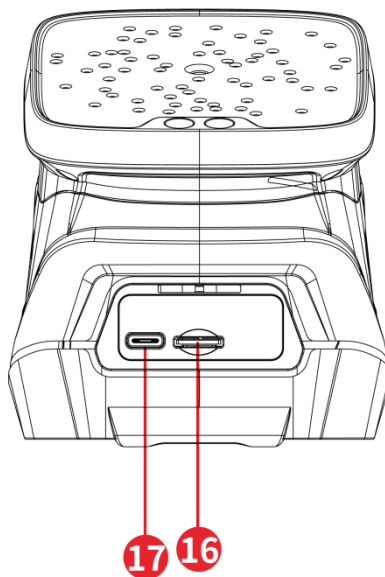
1. Front View



2. Rear View



3. Top View



1. Appearance

Note

The appearance of different models of the tool-grade handheld acoustic imager may

vary. Please refer to the actual product.

Components and Interfaces

No.	Name	Function
1	Status Light	<ul style="list-style-type: none"> ● Green flashing: Charging ● Green solid: Fully charged
2	Touchscreen	<ul style="list-style-type: none"> ● Live view display ● Touchscreen operation
3	Gallery Button	Enter Gallery
4	Back Button	Exit menu or return to previous menu
5	Navigation Buttons	Menu mode: Press ▲, ▼, ◀, ▶ to select parameters; Press confirm button to confirm
		Non-menu mode: Press confirm button to bring up main menu
6	Freeze Button	<ul style="list-style-type: none"> ● Freeze Button
7	Power Button	<ul style="list-style-type: none"> ● Long press: Power on/off the device ● Short press: Screen off/wake up the device
8	Light Button	Turn on/off the illumination light
9	Battery	Lithium battery, provides device power
10 & 11	Illumination Light	<ul style="list-style-type: none"> ● Flash: Used as flash when taking photos ● Flashlight: Used to increase ambient brightness in dark environments
12	Digital Camera	Visible light camera
13	Acoustic Imaging Module	Microphone array for sound data acquisition

14	Tripod Hole Screw	Install tripod
15	Capture Button	Capture Button
16	SD Card Slot	For securing the SD card
17	USB Type-C Port	For connecting USB Type-C cable for data transfer

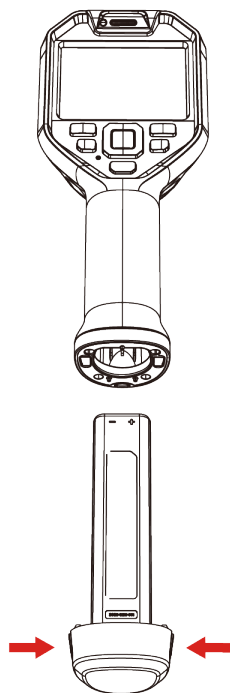
2. Battery Installation and Removal

2.1 Installing the Battery

Hold down the battery latch and push the battery into the battery compartment. A "click" sound will be heard when the battery is in place.

2.2 Removing the Battery

Turn off the device, hold down the battery latch, and remove the battery from the battery compartment.



3. Charging

Please charge the acoustic imager before first use or when the battery is low.

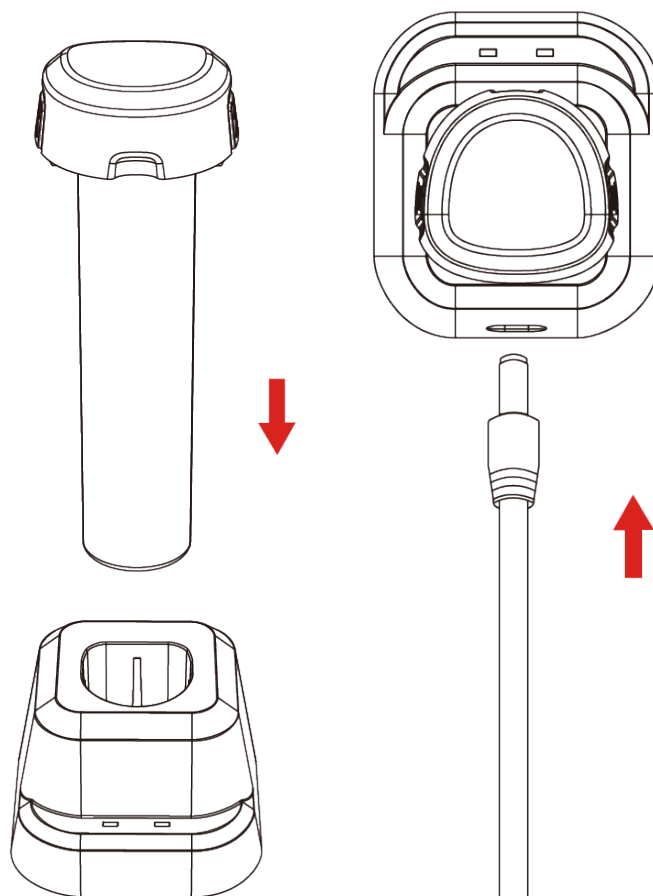
3.1 Charging via Charging Dock

For fast charging, you can remove the acoustic imager battery and install it on the charging dock for charging.

The input voltage of the charging dock is 5VDC. It is recommended to use the power adapter and USB Type-C cable included with the product to connect to a power source.

Operating Steps

1. Place the battery into the charging dock.
2. Connect the charging dock to a power source. If the charging dock is working properly, one indicator light will display green.
3. The other indicator light displays the battery charging status:
 - Red light on: Charging.
 - Green light on: Charging complete.
4. After the battery is fully charged, remove the battery from the charging dock and disconnect the charging dock from the power source.

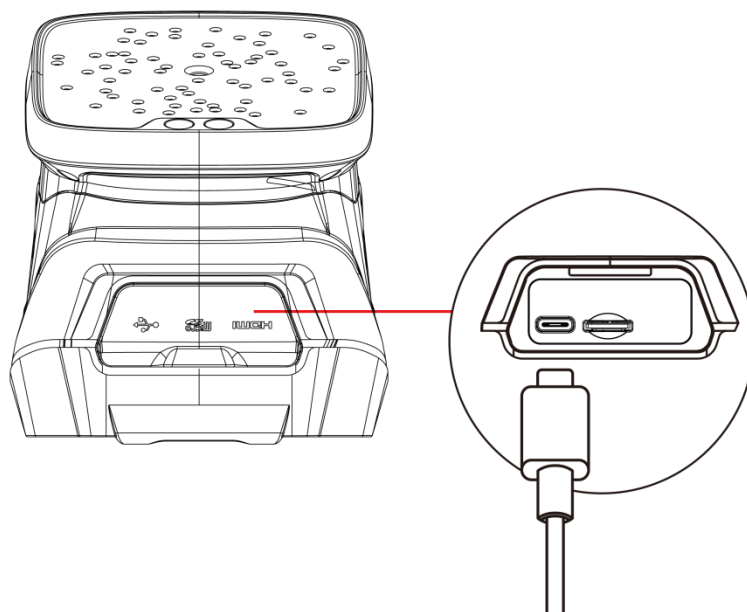


3.2 Charging via DC 5V Direct Charge

For convenient charging, you can charge the acoustic imager directly through a DC 5V power adapter.

Operating Steps

1. Place the battery into the battery compartment of the device.
2. Open the interface cover.
3. Connect the power source to start charging the battery.



4. Installing the Tripod

If you need to observe and measure for extended periods, it is recommended to install a tripod.

The device supports a UNC 1/4-20 interface for tripod connection (item 14 in the Components and Interfaces list).

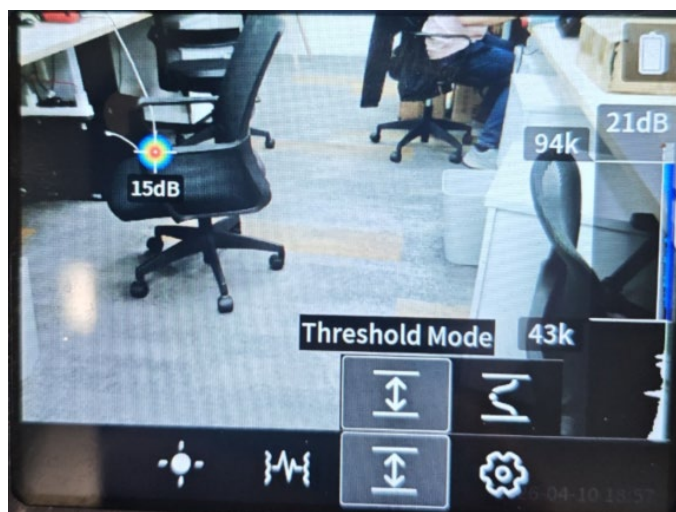
2. Measurement Analysis

1. Frequency Range

2~100kHz

2. Frequency Range Selection

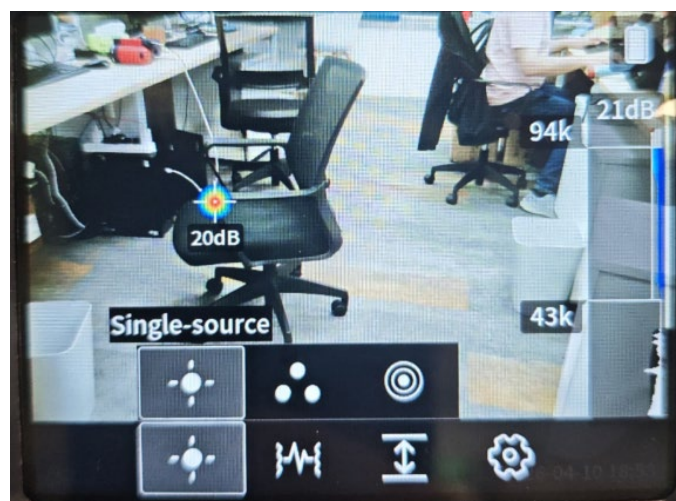
Supports manual frequency threshold adjustment and peak frequency display, as shown below:



3. Image Display

1. Image Mode

The device supports single-source, multi-source, and all-source modes, as shown below:



2. Single-Source

Overlays the acoustic image of the strongest sound pressure area on the visible light image.

3. Multi-Source

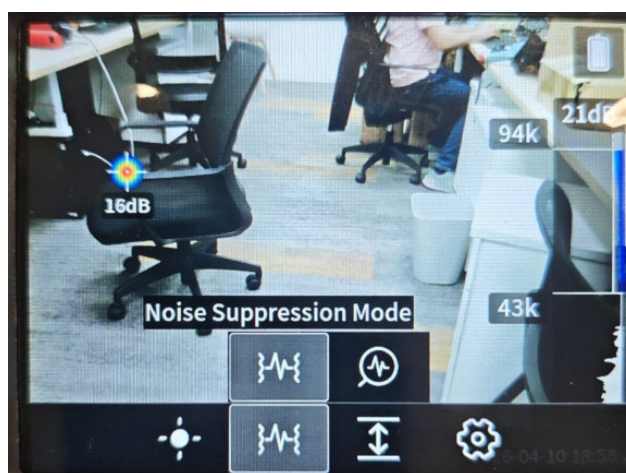
Overlays the acoustic images of multiple strong sound pressure areas on the visible light image.

4. All-Source

Overlays the acoustic images of all sound pressure areas on the visible light image.

5. Sensitivity Mode

The device supports Noise Suppression Mode and Micro-Detection Mode, as shown below:



6. Noise Suppression Mode

Filters out faint sounds and reduces environmental interference.

7. Micro-Detection Mode

Captures faint sounds without missing potential issues.

8. Image Overlay Information

The device supports displaying date and time information.

4. Capture Functions

1. Single Frame Capture

Press the capture button on the device to save an acoustic image.

2. Image Format

jpg (acoustic image).

3. Freeze Frame

Supports freezing the frame for preview by pressing the freeze button on the device.

4. Local Gallery

Files are saved on the external storage card. View all saved files through the Gallery.

Operating Steps:

1. Press the Gallery button on the device to enter the Gallery interface;
2. Tap on an image to preview it. In the preview interface, press the OK button to access the preview menu, which includes delete and file properties;
3. Tap the select icon at the top of the Gallery, select one or more files, tap the delete icon at the top of the Gallery, and click the Confirm button when prompted to delete the selected files.

5. Data Connection

1. USB Port

You can connect the device to a computer using a USB cable. Once connected, you can transfer images from the storage card to the computer.

6. Auxiliary Functions

1. LED Light

Supports flashlight and flash modes.

Flashlight: Press the light button to turn the flashlight on/off;

Flash Mode:

1. On the live view interface, press the OK button or tap the main menu to

bring up the device menu;

2. Device Menu → Settings → Device Settings → Enable LED lamp as flash.

2. Software and Firmware Upgrade

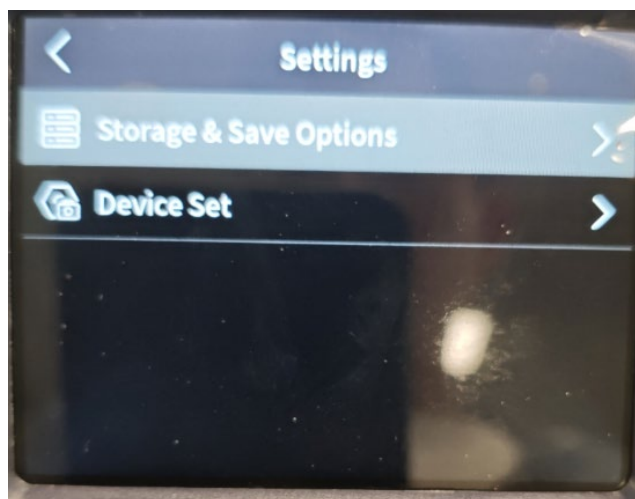
Supports offline firmware upgrade.

Offline Firmware Upgrade

1. The upgrade package file has been placed on the device's storage card;
2. On the live view interface, press the OK button or tap the main menu to bring up the device menu;
3. Device Menu → Settings → Device Settings → Device Info → System Update;
4. Tap System Update to discover the upgrade version;
5. Tap the Update button. The system will perform the upgrade operation. After the upgrade is complete, the device will restart, and the system version will be updated to the new version.

3. Device Settings

Access the settings interface through the device menu. It is mainly divided into two parts:



Storage & Save Options

1. File naming format: Named by Date & No., Named by No.
2. Delete all gallery photos: Delete all photos

3. Format SD Card: Format the external storage card

Device Settings:

1. Language, Time and Region: Set language, date, time, time zone, date format
2. Screen brightness: Adjust screen brightness
3. LED lamp as flash: On/Off
4. Screen off time: Set screen off time
5. Automatic shutdown time: Set automatic shutdown time
6. Reset: Restore device to factory settings
7. Device info: View model, serial number, firmware version, mic channel, battery level, remaining storage card capacity, system update.