

Operating Manual

V1.0

Mini II Series

Thermal Imaging
Monocular

MH25W



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Infiray Outdoor • Mini II MH25W • Operating Manual

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IMPORTANT SAFETY INFORMATION

Environmental influences

Note: Never point the lens of the device directly at intense heat sources such as the sun or laser equipment. The objective lens and eyepiece can function as a burning glass and damage the interior components.

Risk of swallowing

Caution: Do not place this device in the hands of small children. Incorrect handling can cause small parts to come loose which may be swallowed.

Safety instructions for use

- Do not expose the device to fire or high temperatures.
- The battery capacity decreases when operated in a cold ambient temperature. This is not a fault and occurs for technical reasons.
- Always store the device in its carrying bag in a dry, well-ventilated space. For prolonged storage, remove the batteries.
- Do not expose your device to extreme temperatures lower than - 20°C and higher than + 50°C.
- The product shall only be connected to a USB Type C interface.
- If the device has been damaged or the battery is defective, send the device to our after-sales service for repair.

User information on the disposal of electrical and electronic devices (private households)



The WEEE symbol on products and/or accompanying documents indicates that used electrical and electronic products must not be mixed with ordinary household waste. For proper treatment, recovery and recycling, take these products to the appropriate collection points where they will be accepted without charge. In some countries, it may also be possible to return these products to your local retailer when you purchase a corresponding new product. The proper disposal of this product serves to protect the environment and prevents possible harmful effects on human beings and their surroundings, which may arise as a result of incorrect handling of waste.

More detailed information on your nearest collection point is available from your local authority. In accordance with state legislation, penalties may be imposed for the improper disposal of this type of waste.

For business customers within the European Union

Please contact your dealer or supplier regarding the disposal of electrical and electronic devices. He will provide you with further information.

Information on disposal in other countries outside of the European

Union

This symbol is only applicable in the European Union. Please contact your local authority or dealer if you wish to dispose of this product and ask for a disposal option.

Intended use

The device is intended for displaying heat signatures during nature observation, remote hunting observations and for civil use. This device is not a toy for children.

Use the device only as described in this instruction manual. The manufacturer and the dealer accept no liability for damages which arise due to non-intended or incorrect use.

Function test

- Before use, please ensure that your device has no visible damage.
- Test to see if the device displays a clear, undisturbed image.
- Check that the settings for the thermal imaging camera are correct. See the notes in the section Operation.

Installing/removing the battery

The Mini II MH25W series need to install one ICR123 batteries for use. Refer to the section Battery Installation for details.

1 Specifications

Model	MH25W
Detector Parameters	
Detector Type	VOx Uncooled
Resolution, pixels	640 × 512
Pixel Size, um	12
NETD, mk	≤40
Frame Rate, Hz	50
Optics Parameters	
Objective Lens, mm	25
Diopter Adjustment, D	-5 ~ +5
Field of View, °	17.6 × 13.2
Optical magnification, x	1
Digital zoom, x	1.0 ~ 4.0
Detection Range, m (Target size: 1.7m×0.5m, P(n)=99%)	1298
Display Parameters	
Type	OLED
Resolution, pixels	1024 × 768

Electrical Parameters	
Battery	ICR123A (3.7v) × 1 / 16650 × 1 (16650 battery is recommended)
Max. Battery Life (t=22) *, h	2h / 4.5h

External Interface	
USB Interface	Type-C
Video Output	PAL (RCA Port)

Functions	
Wi-Fi	√
Photo / Video / MIC	√
Built-in memory, GB	32
Remote Control	Bluetooth

Physic Parameters	
Housing Color **	Desert yellow / Black
IP Rating	IP66
Weight (without batteries), g	<340g
Dimension, mm	128 × 70 × 45

Application	
Application	Helmet / Weapon mountable

* The actual operating time depends on the density of Wi-Fi use, photographing, video recording, etc.

★★ The MH25W series includes two housing colors: desert yellow and black with different PN numbers.

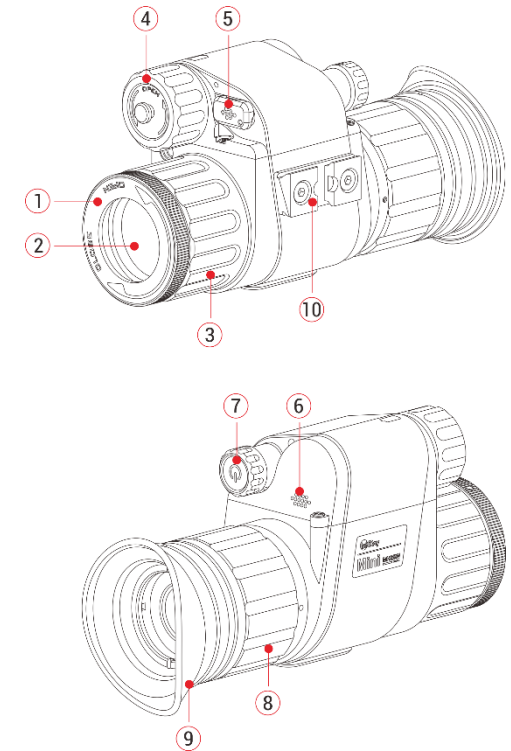
- Improvements may be made to the design and software of this product to enhance its features.
- If there is any change to the technical specifications of the product, it will be made without prior notice to the customer.

2 Description

Mini II MH25W is a multifunction thermal imager with built-in VOx uncooled infrared focal plane array detector. Mini II series has small size, light weight, high performance, various purpose and many other strengths. Moreover, a variety of sensors are equipped and it not only can be used as Monocular hand-held thermal imager or portable infrared thermal image sight but also can be used as wearable device when installed on the helmet. Mini II series can be widely used in investigation, security, search and rescue, outdoor sports and other application fields.

3 Components and Controls




1. Lens cover
2. Objective lens
3. Lens focus ring
4. Battery cover
5. Type-C interface
6. Microphone
7. Rotary encoder
8. Eyepiece
9. Eyeshade
10. Helmet mounting kit















4 Features

- 1024×768 high resolution AMOLED display
- Support photographing and video recording
- 32GB built-in memory
- Support InfiRay Outdoor app
- Microphone input
- Bluetooth remote control
- Four image modes – white hot, black hot, red hot, pseudo color
- Monocular digital zoom: ×1.0 ~ ×4.0
- Helmet & weapon mountable

5 Icons Instructions

	Take picture
	Image mode: B (Black hot)、W (White hot)、R (Red hot)、C (Pseudo Color)
	Screen brightness adjustment

	Laser indicator *
	Shutter calibration
	Auto shutter calibration
	Manual shutter calibration
	Video
	Bluetooth *
	Wifi
	Microphone
	E-zoom
	Video output
	Battery capacity indicator
	Type C connection

* The laser function may be disabled due to the legal restrictions in your countries and regions.

* The product does not support bluetooth, the bluetooth function has been disabled .

6 Battery Installation

ICR123A Battery Installation

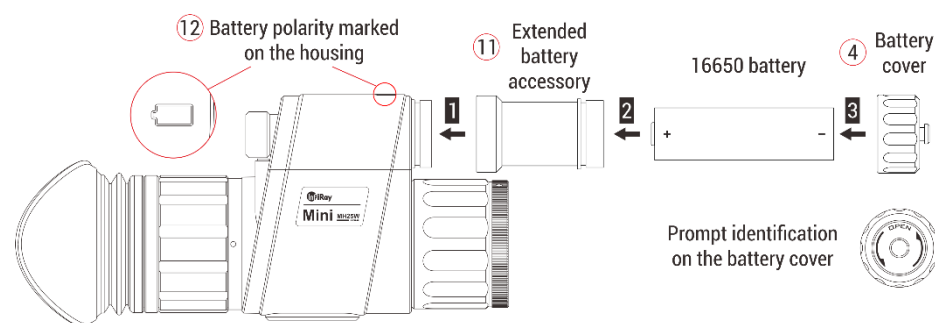
- Open the battery cover (4) counterclockwise according to the prompt identification on the cover.
- Install one ICR123A rechargeable battery correctly according to the battery polarity (12) marked on the housing, that is, the positive pole facing in and the negative pole facing out.
- Then, turn clockwise to close the battery cover (4).
- Battery level is displayed on the status bar when the device is on.
- When the battery icon turns red, please replace the new battery in time.
- It is necessary to power off before replacing battery.

16650 Battery Installation

- 16650 battery is also supported by the extended battery accessory for longer battery life.
- Turn counterclockwise to open the battery cover (4).
- Attach the extend battery accessory (11) to the battery compartment by

threading.

- Install one 16650 battery correctly according to the battery polarity (12) marked on the housing.
- Then, turn clockwise to close the battery cover (4).



Safety Regulation

- Please use standard batteries. Do not throw the batteries away or put them into fire after usage.
- Please use standard charger to prevent the product from damage.
- Short circuit products are prohibited.
- It is prohibited to expose the product in the high temperature environment more than 60° .
- It is prohibited to put the product into fire

7 Description of Rotary Encoder

Current Status	Rotate	Short Press	Long press
Home screen	Digital zoom	Enter the shortcut menu interface	Power off the device when the lens is vertically down. Enter the main menu interface when the lens is pointing at other directions.
Shortcut menu interface	Toggle the menu options	Adjust the parameters of the option	---
photo option is selected	---	Take a photo	Start / End the video recording
Main menu interface	Toggle the submenu options	Switch the main menu function / Adjust the parameters of the submenu option	---

8 Operation



- Open the lens cover **(1)**.
- Press and hold down the **Rotary Encoder (7)** for 3s to power the device on. Wait for 5s until thermal image appears on the display.
- **Lens Focus Adjustment:** Rotate the lens Focus knob **(3)** to focus on the object being observed.
- **Calibration:** In shortcut menu, select the calibration icon and short press the **Rotary Encoder (7)**, when the lens is vertically down, it will do a background calibration, and when the lens is pointing at other directions, it will do a shutter correction. Before performing background calibration, please close the lens cover **(1)** first.
- **Power Off:** After using, keep the lens downward and long press the **Rotary Encoder (7)** for 3s to power off the device.




9 Shortcut Menu

- In the home screen, short press **Rotary Encoder (7)** to enter the shortcut menu interface.
- There are five functions, in order is camera, image mode, screen brightness, laser* and image correction.
- Rotate the **Rotary Encoder (7)** to switch among the five functions.
- Press the **Rotary Encoder (7)** to adjust the function parameter.
- Press and hold the **Rotary Encoder (7)** exit the shortcut menu.
- It will automatically exit to the home screen if no operations is performed within 5 seconds.



Shortcut Menu Options and Descriptions

Shortcut menu items	Operation
<p>Camera</p> 	<p>Take a picture or Record videos</p> <ul style="list-style-type: none"> ➤ Rotate the Rotary Encoder (7) to select the camera icon. ➤ Short press the Rotary Encoder (7) to take a photo ➤ Long press Rotary Encoder (7) to start / end a video recording
<p>Image mode</p> 	<p>Select the image mode</p> <ul style="list-style-type: none"> ➤ Rotate the Rotary Encoder (7) to select the Image mode icon ➤ Short press the Rotary Encoder (7) to switch the image mode. ➤ There are four modes for selection, in order of White hot (W), Black hot (B), Red hot (R), Pseudo Color (C).

	<ul style="list-style-type: none"> ➤ The current mode will be displayed on the status bar in the upper left corner of the screen.
<p>Screen brightness</p> 	<p>Adjust the screen brightness</p> <ul style="list-style-type: none"> ➤ There are five levels for selection. ➤ Rotate the Rotary Encoder (7) to select the Image mode icon. ➤ Short press the Rotary Encoder (7) to adjust the screen brightness level.
<p>Laser (If the model supports the laser function)</p> 	<p>Turn on/off the laser indicator</p> <ul style="list-style-type: none"> ➤ Rotate the Encoder (7) to select the laser icon. ➤ Short press the Encoder (7) to turn the laser indicator on / off.
<p>Image correction</p> 	<p>Calibrate the image sensor manually</p> <ul style="list-style-type: none"> ➤ Rotate the Rotary Encoder (7) to select the image correction icon. ➤ When the lens is vertically down, short press

	<p>the Rotary Encoder (7) to do the background correction.</p> <ul style="list-style-type: none"> ➤ When the lens is pointing at other directions, short press the Rotary Encoder (7) to do shutter calibration.
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10 Main Menu

In the home screen, press and hold down the **Rotary Encoder (7)** for 3 seconds to enter the main menu interface (Don't keep the lens downward). The functional options from left to right are:

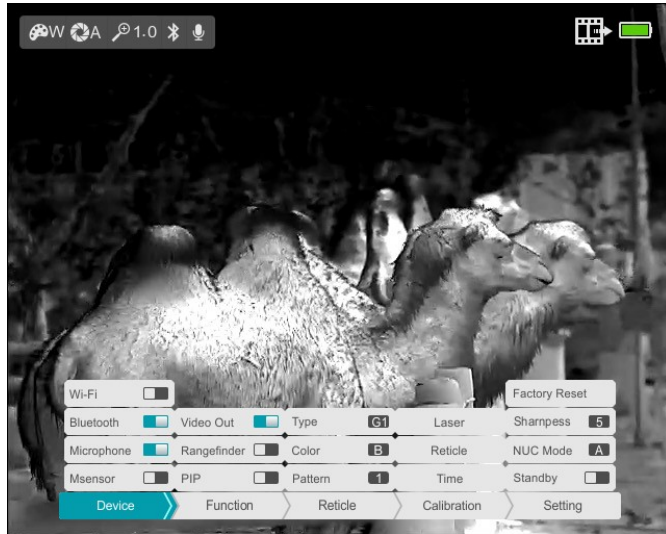
Device (Wifi、Bluetooth、Microphone、M-sensor);

Function (Video out、Rangefinder、PIP);

Reticle (Type、Color、Pattern);

Calibration (Laser、Reticle、Time);


Setting (Factory reset、Sharpness、NUC mode、Standby、Battery type);







Operations:

- In the main menu, press the Rotary encoder briefly to switch the main menu option.
- In main menu option, rotate the rotary encoder to switch the secondary menu.
- In secondary menu, press the rotary encoder briefly to adjust the parameters of present option.
- Press and hold down the rotary encoder for three seconds to exit from the main menu interface to the home screen.

Main menu function description


Function	Option item	Operation
Device	Wi-Fi	<p>Turn Wi-Fi function on/off</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface. ➤ Rotate the rotary encoder to select the Wi-Fi option. ➤ Turn the Wi-Fi function on /off with a short press of rotary encoder. ➤ The icon  will be displayed on the top left corner of the screen when the Wi-Fi is on. ➤ When Wi-Fi is on, it can be connected with the mobile phone APP.

Bluetooth	<p>Turn the Bluetooth function on/off</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface. ➤ Rotate the rotary encoder to select the Bluetooth option. ➤ Turn the Bluetooth function on /off with a short press of rotary encoder. ➤ The icon  will be displayed on the top left corner of the screen when the Bluetooth is on. ➤ When Bluetooth is on, the device can be connected with the remote controller.
Microphone	<p>Turn Microphone function on/off</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface. ➤ Rotate the rotary encoder to select the Microphone option. ➤ Turn the Microphone function on /off with a short press of rotary encoder. ➤ The icon  will be displayed on the top left corner of the screen when the Microphone is on. ➤ When Microphone is on, the sound can be recorded while recording videos.
Msensor	<p>Turn Msensor function on/off</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface.

		<ul style="list-style-type: none"> ➤ Rotate the rotary encoder to select the Msensor option. ➤ Turn the Msensor function on /off with a short press of rotary encoder. ➤ The Horizontal and vertical angles will be displayed on the left side of the screen when the M-sensor is on. 	
<p style="text-align: center;">Function</p>	<p>Video out</p>	<p>Turn Video out function on/off</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface. ➤ Press the rotary encoder briefly to switch to the Function item. ➤ Then rotate the rotary encoder to select the video out option. ➤ Turn the video out function on /off with a short press of rotary encoder. ➤ The icon  will be displayed on the top right corner of the screen when the video out is on. ➤ When video out is on, the device can be connected with an external display or recording device via type C cable. 	
	<p>Rangefinder</p>	<p>Turn the stadiametric rangefinder function on/off</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface. ➤ Press the rotary encoder briefly to switch to the Function item. 	

		<ul style="list-style-type: none"> ➤ Then rotate the rotary encoder to select the Rangefinder option. ➤ Turn the stadiametric rangefinder function on /off with a short press of rotary encoder. ➤ When the stadiametric rangefinder function is on, it will enter the stadiametric rangefinder interface automatically. ➤ You will see the following on the display: two ranging lines, icons of three reference objects and respective distances of each. ➤ There are three pre-set reference objects: <ul style="list-style-type: none"> - Bear - height 1.7m - Wild boar - height 0.9m - Hare - height 0.2m ➤ Rotate the rotary encoder until the ranging lines are aligned with the target. Rotate clockwise to increase the distance between ranging lines and rotate counterclockwise to decrease the distance. ➤ The distance to the object is automatically recalculated while moving the measurement bars and displayed on the left of the three reference objects. ➤ Long press the rotary encoder to exit to the home screen.
	<p>PIP</p>	<p>Turn the PIP function on/off</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface.



		<ul style="list-style-type: none"> ➤ Press the rotary encoder briefly to switch to the Function item. ➤ Then rotate the rotary encoder to select the PIP option. ➤ Turn the PIP function on /off with a short press of rotary encoder. ➤ When the PIP function is on, a small window will appear on the top of the display. ➤ The image in the small window is a 2x magnified image centered by the reticle center. 
Reticle	Type	<p>Select the gun type</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface. ➤ Press the rotary encoder briefly to switch to the Reticle item. ➤ Rotate the rotary encoder to select the Type option. ➤ Press the rotary encoder briefly to switch the gun type. There are four types for selection: G1/G2/G3/G4.
	Color	<p>Select the reticle color</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface. ➤ Press the rotary encoder briefly to switch to the Reticle item. ➤ Rotate the rotary encoder to select the Color option. ➤ Press the rotary encoder briefly to switch Reticle color. There are three colors for

		<p>selection: White (W), Black (B) and Green (G).</p>
	<p>Pattern</p>	<p>Select the reticle pattern</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface. ➤ Press the rotary encoder briefly to switch to the Reticle item. ➤ Rotate the rotary encoder to select the Pattern option. ➤ Press the rotary encoder briefly to turn off the Reticle (OFF) or switch the Reticle Pattern. <p>There are four patterns for selection.</p>
<p>Calibration</p>	<p>Laser (If the model supports laser function)</p>	<p>Calibrate the laser indicator</p> <p>When the target position pointed by the laser is not consistent with the laser cursor on the display, this function can be used to correct the laser position.</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface. ➤ Press the rotary encoder briefly to switch to the Calibration item. ➤ Rotate the rotary encoder to select the Laser option. ➤ Press the rotary encoder to enter the laser calibration interface. The laser cursor appears on the screen, and a tooltip appears at the bottom of the screen. ➤ The tooltip displays the moving direction (horizontal ↔ and vertical ↕ directional arrows) and the position of the cursor. The horizontal and




		<p>vertical arrows indicate to move the laser cursor with the coordinates along the X and Y axes.</p> <ul style="list-style-type: none"> ➤ Switch movement direction with a short press of the rotary encoder. ➤ Rotate the rotary encoder to move the laser cursor. Rotate clockwise to move upward / rightward, and rotate counterclockwise to move downward / leftward. ➤ When done, press and hold down the rotary encoder to save and exit to the home screen.
	<p>Reticle</p>	<p>Calibrate the reticle</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface. ➤ Press the rotary encoder briefly to switch to the Calibration item. ➤ Rotate the rotary encoder to select the Reticle option. ➤ Press the rotary encoder to enter the reticle calibration interface. The white cross cursor appears on the screen, and a tooltip appears at the bottom of the screen. ➤ The tooltip displays the moving direction (horizontal ↔ and vertical ⇕ directional arrows) and the position of the cursor. The horizontal and vertical arrows indicate to move the laser cursor with the coordinates along the X and Y axes. ➤ Switch movement direction with a short press of the rotary encoder.



		<ul style="list-style-type: none"> ➤ Rotate the rotary encoder to move the cross cursor. Rotate clockwise to move upward / rightward, and rotate counterclockwise to move downward / leftward. ➤ When done, press and hold down the rotary encoder to save and exit to the home screen. <p>NOTES: The type of gun selected should be confirmed before the reticle calibration. The value display is the default distance of 100 meters.</p>
	<p>Time</p>	<p>Calibrate the Time</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface. ➤ Press the rotary encoder briefly to switch to the Calibration item. ➤ Rotate the rotary encoder to select Time option. ➤ Press the rotary encoder to enter the time setting interface, that is displayed as Year. Month. Day Hour: Minute format. ➤ Short press the rotary encoder to switch among the “Year/Month/Date/Hour/Minute” and rotate rotary encoder to select the correct value. ➤ Press and hold down the rotary encoder to save the settings and exit to the home screen.
<p>Setting</p>	<p>Factory Reset</p>	<p>Reset to the Factory Settings</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface.



		<ul style="list-style-type: none"> ➤ Press the rotary encoder briefly to switch to the Setting item. ➤ Rotate the rotary encoder to select the Factory Reset option. ➤ Short press of rotary encoder, the screen will prompt “Restore to factory settings?”. Select “Yes” to do factory resetting and select “No” to exit the Factory Reset option. 	
	<p>Sharpness</p>	<p>Adjust the image sharpness</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface. ➤ Press the rotary encoder briefly to switch to the Setting item. ➤ Rotate the rotary encoder to select the Sharpness option. ➤ There are four levels for selection. ➤ Short press the Rotary encoder to adjust the screen sharpness level. 	
	<p>NUC Mode</p>	<p>Select the NUC Mode: Auto or Manual</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface. ➤ Press the rotary encoder briefly to switch to the Setting item. ➤ Rotate the rotary encoder to select the NUC Mode option. ➤ Short press the Rotary encoder to select auto or manual NUC Mode. 	

	<p>Standby</p>	<p>Turn the standby mode on/off</p> <ul style="list-style-type: none"> ➤ Press and hold down the rotary encoder to enter the Main Menu interface. ➤ Press the rotary encoder briefly to switch to the Setting item. ➤ Rotate the rotary encoder to select the Standby option. ➤ Short press the Rotary encoder to turn the standby mode on/off.
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11 Stadiametric Rangefinder

Stadiametric rangefinder can estimate approximate distance to an object of known size.

- Enter the stadiametric rangefinder interface in the main menu, referring to the Section 10 **Main Menu - Function - Rangefinder**.
- You will see the following on the display: two ranging lines, icons of three reference objects and respective distances of each.
- There are three pre-set reference objects:
 - **Bear** - height 1.7m
 - **Wild boar** - height 0.9m


- **Hare** - height 0.2m
- Rotate the rotary encoder until the ranging lines are aligned with the target. Rotate clockwise to increase the distance between ranging lines and rotate counterclockwise to decrease the distance.
- The distance to the object is automatically recalculated while moving the measurement bars and displayed on the left of the three reference objects.
- Exit rangefinder mode with a long press of the rotary encoder.



12 Bluetooth Remote Control



MH25W is equipped with external devices that can be connected via Bluetooth. The rotary encoder functions and operation methods are also corresponding with MDH25W device.

- Turn on the Bluetooth of the device and the icon will be flashing at top left corner of the screen (referring to the **Main Menu - Device-Bluetooth**).
- Long press the Rotary encoder on the remote control for 15s until the Bluetooth icon on the screen turns to , which means the connection is done and the remote control is ready to use.
- After connecting to the device, if the signal is disconnected in

between, the Bluetooth remote control will continue to search for connection within 1 minute.

- Turn off the Bluetooth on the device, and the remote control will automatically shut down if no Bluetooth signal is found within 1 minute.

13 Wi-Fi function

MH25W has a built-in Wi-Fi module, which enables the device to connect wirelessly to external devices such as computers and smart phones.

- Enable Wi-Fi on the device through the main menu operation.
- Retrieve a Wi-Fi named "MH25W_XXXXXX" on a external device, where XXXXXX represents the SN code of the device.
- Select the Wi-Fi, enter the password and connects. The initial password is 12345678.
- Wi-Fi successfully connects and controls the device through APP

Set the Wi-Fi name and password

The MH25W allows users to change the name and password of device Wi-Fi in the APP

- In APP, locate the "Settings" icon, click and enter the Settings interface;
- Enters and submit the new Wi-Fi name (SSID) and password in the text box;
- Submission complete and needs to restart the device to take effect.

Note:

- Restore factory Settings, the Wi-Fi name, password, and system time are restored to the factory default Settings.
-

14 Take photos and Video recording

The MH25W has built-in storage space for photo taking and video recording. The files of images and videos will be named by time, so it is recommended to set the time in the main menu or synchronize the time in the Settings of the APP before using the function of photographing

and recording. For specific operations, you can download the operation instructions of the APP from the company website.

Take Photos

- Short press the **Rotary Encoder (7)** to select the photo icon
- Short press the **Rotary Encoder (7)** to take a picture, the screen freezes for 0.5s, and a photo icon appears on the screen.
- Photographs are saved in a built-in storage space.

Video recording

- Short press the **Rotary Encoder (7)** to select the photo icon.
- Hold and press the **Rotary Encoder (7)** to record a video, and it will display a recording time icon in the top right corner of screen, the time format is MM: SS (minute: second).
- Recording process, the red dot on the left side of the tip box flashes.
- Select the taking picture menu, and hold down the rotary encoder to stop and save the recording.

- The videos and photos are saved in the built-in storage space.

15 Technical Inspection

A technical inspection of the device is recommended before use.

- Check the external appearance of the device (there should be no cracks in the casing).
- Check the condition of the lens and eyepiece (there should be no cracks, greasy spots, dirt or other deposits)

16 Maintenance

Maintenance should be carried out at least twice a year and consist of the following actions.

- Wipe the external surfaces of metal and plastic parts free of dust and dirt with a cotton cloth. Silicone grease maybe used for this.
- Clean the electrical contacts of the battery and battery slot on the

unit using a non-greasy organic solvent.

- Check the glass surfaces of the eyepiece and the lens. If necessary, remove dust and sand from the lenses (preferably using a non-contact method). Cleaning of the external surfaces of the optics should be done with substances designed especially for this purpose.

17 General Trouble Shooting

The table lists all the problems that may occur when operating the device. Carry out the recommended checks and troubleshooting steps in the order shown in the table. If there are defects that are not listed in the table or it is impossible to repair yourself, please contact with us as soon as possible. Private demolition is strictly prohibited.

Trouble description	Probable reason	Trouble shooting
Fail to start up	Wrong battery installation.	Reinstall the batteries observing polarity
	Batteries are fully exhausted or low power.	Change and install new batteries.
	Battery cover is not tightly closed.	Close tightly the battery cover.
Fail to work with an external power supply	Insufficient external supply voltage.	Check the voltage of external power supply.
Image is fuzzy, not clear, with vertical stripes and uneven background.	No calibration for a long time.	Perform the calibration according to the section Operation.
Image is too dark.	Low screen brightness.	Adjust the screen brightness.
Blurred image with clear GUI	The objective lens is not focused.	Adjust the focus ring of the objective lens until the image becomes clear.
	There is dust or condensate on the interior or exterior optical surfaces of the lens.	Wipe off the outside optical surfaces with a soft cotton cloth. Let it dry by leaving it in a warm environment for 4 hours.
No analog video output	The video out function is not turned on.	Turn the video out function in the Main Menu.
	Data cable doesn't support data transmission.	Replace a new data cable.
Point of impact does not match the aiming point.	Reticle calibration needs to be done.	Do reticle calibration according to the section 10 Calibration: Reticle.


18 Legal and Regulatory Information

Wireless transmitter module frequency range:

WIFI 2.4G: 2412-2472MHz (For EU)

Wireless transmitter module power<20dBm (only for EU)

 IRay Technology Co., Ltd. thus declares that the Mini II MH25W series complies with the directives 2014/53/EU and 2011/65/EU. The full text of the EU declaration of conformity as well as additional information are available at: www.infirayouordoor.com.

 This device may be operated in all member states of the EU.

FCC Statement

FCC ID: 2AYGT-24-00

Labeling requirements

This device complies with part 15 of the FCC Rules. Operation is subject

to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Information to the user

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

Body-worn Operation

This device was tested for typical body-support operations. To comply with RF exposure requirements, a minimum separation distance of 0mm must be maintained between the user's body and the handset, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna. The maximum results of Specific Absorption Rate (SAR) found during testing for MH25W are 0.504W/kg

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.