Nocpix

User Manual

V1.0

MT series | Thermal Dome Camera

M6T25S / M6T25SAU / M6T25SNA

Tip: Please read this guide before using the product, and keep the guide for future reference.

Important Safety Information

Environmental influences

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

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

· Handle the device with ca e: rough handling may damage the battery.
· Do not expose the device to fire or high temperatures.
· Install the batteries correctly according to the instruction on the device. Reverse connection is prohibited.
· The battery capacity dec eases when operated in a cold ambient temperature. This is not a fault and occurs for technical reasons.
· Alway store the device in a dry, well-ventilated space. For prolonged storage, remove the batteries.
· The recommended temperatur for using this product is -20℃ to +50℃. Otherwise, it will affect the service life of the product.
· Do not store the device for long periods at temperatures belo 20℃ or above 50℃, or this will permanently reduce the capacity of the battery.
· If the device has been damaged or the battery is defective, send the device to our after-sales service for repair.

EU Compliance Statement

Wireless transmitter module frequency range:
WLAN: 2.412-2.472GHz (For EU)
Wireless transmitter module power < 20dBm (only for EU)

We, Inlumen Technologies Co., Ltd. hereby declares that the radio equipment types MT are in compliance with the Dir ectives 2014/53/EU and 2011/65/EU.

Disposal of batteries

2023/1542 (Battery Regulation): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. For battery details, refer to the documentation of the specific product. The battery is marked with this symbol, which may include Cd (indicating cadmium), Pb (indicating lead), or Hg (indicating mercury). For proper recycling, please return the battery to your supplier or send it to a designated collection point. For more information, visit www.recyclethis.info.

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

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.

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 operating 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 monocular are correct.

Installing/Removing the battery

The MT series thermal imaging monocular need to install one battery pack for use. Refer to the section Battery Installation for details.

FCC Statement

FCC ID: 2BHFB-9000

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

Note: This equipment has been tested and found to comply with the

limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the
receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

To comply with RF exposure requirements, a minimum separation distance of 20 cm must bemaintained between the user's body and the handset, including the antenna.

Laser Warning

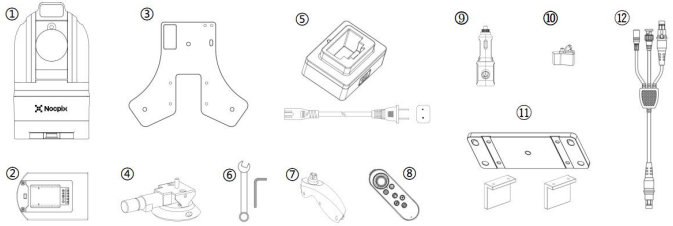
M6T25SNA/M6T25SAU

Quick Start Guide

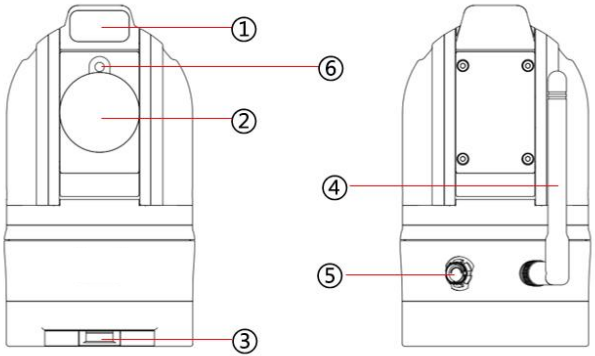
目录 CONTENTS

Package Contents

SN	Name	Count
①	Thermal Dome Camera MT	1
②	Battery	2
③	Suction base	1
④	Suction cup	3
⑤	Battery charger	1
⑥	Accessory pack	1
⑦	Wired gamepad	1
⑧	Bluetooth gamepad	1
⑨	Cigar lighter	1
⑩	Buckle	1
⑪	DIY base	1
⑫	Multifunctional cable	1
⑬	Screw	several



Components



① Laser rangefinder

② Objective lens

③ Battery cover

④Wi-Fi antenna

⑤ Multifunctional cable interface

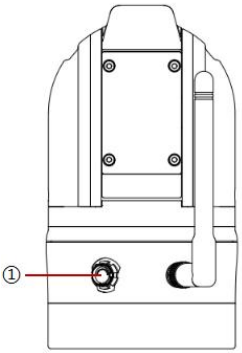
⑥Laser pointer

Note: Due to regulatory requirements, "Laser pointer" is currently unavailable in the European region.

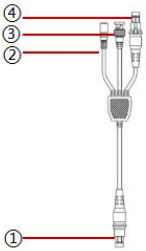
Power supply design of the device

Power supply design 1:

1、Wired power supply, with the wiring design as shown in the following figure;



MT



Multifunctional cable

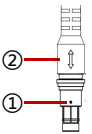
Multifunctional cable ①: Connect to the interface of the infrared MT thermal imager ①, and align the white dot on the power cord end with the white dot on the device before insertion.

Multifunctional cable ②: Power interface (**12V DC**)

Multifunctional cable ③: BNC analog output port, connected to the screen

Multifunctional cable ④: Handle cable port, connected to the wired handle

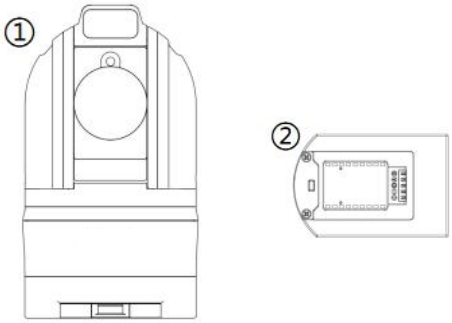
Note: The multifunctional cable's port ① is self-locking. You should press the port at the end of the cable connector ② to release it before removal after the port is inserted into the device.



Cable connector end

Power supply design 2:

2、Battery power supply;



Install battery ② to the bottom of the ①MT. After the battery is installed,, press and hold the power button on the battery for a few seconds to start supplying power to the device and turn it on.

Note: The battery cover should be removed before the battery is installed.

Display

Method 1:

When the dome camera is connected to the power supply, you can connect the InfiRay Outdoor APP. For APP download and connection, please go to “***APP Download***” on page 16.

Method 2:

The camera can be connected to the BNC interface of the display screen through the multifunctional cable.

Specifications

Model	M6T25S	M6T25SAU	M6T25SNA
Microbolometer			
Detector	640x512,VOxMicrobolometer		
Pixel Size	12μm		
Spectrum Range	8~14μm		
NETD	≤15mK		
Frame Rate	50Hz		
Optical Specifications			
Objective Lens	25mm		
FOV	17.5°×14.0°		
Imaging Range	≥20m		
Digital Magnification	×1/×2/×4		
Image Processing	Digital filter noise reduction/digital detail enhancement		
Camera			
Azimuth Range	360° continuous rotation		
Pitch Range	-90° ~ +90°		
Motor	Brushless motor direct driving, without a transmission mechanism and with low noise and stable performance		
Number of Preset Points	Up to 8		
Auto Cruise	Trace: Cruise in the order of preset points		
Intelligent Processing			
Intelligent Search	Automatic cruise search		
	Fixed-point cruise search		
Intelligent Tracking	Automatic tracking		
	Manual tracking		
Function Features			
Laser Pointer	×	√	
Laser Rangefinder	1200m		
Power Supply			
Power	12V/Selected special battery (battery life: 7h)		
Power Consumption	6W		
Interfaces			
Wi-Fi	√		
Analog Video Output	PAL analog video output		
Control	Gamepad (wired/bluetooth)/ InfiRay Outdoor APP		
Environmental/Physical Parameters			
Operating Temp. Range	-20℃ ~60℃		
IP Rating	IP56		
Dimensions	Φ80.2mm,146.6mm high		
Weight	889g		
Mounting Method			
Suction Cup	√		
Fixed Mounting	With mounting bracket		

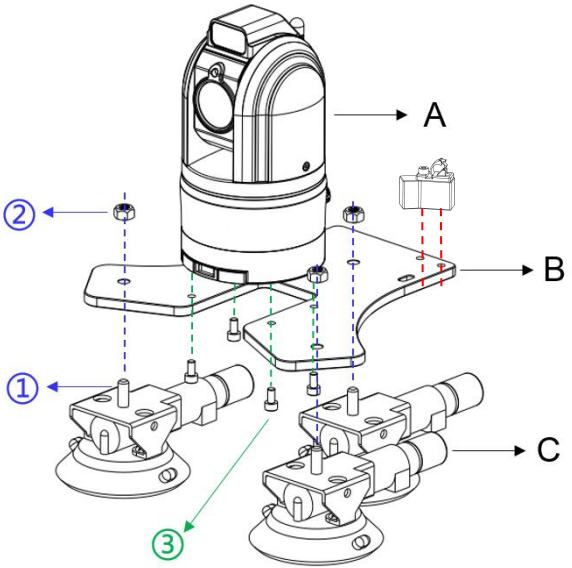
Installation

Power: 12V/Selected special battery (battery life: 7h)

Operating temp. range: -20℃ ~ 60℃

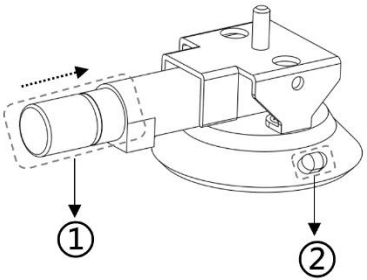
installation:

Method 1: Installation with the suction cup and its subassemblies



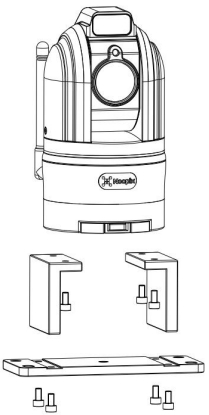
There is 1 camera (A), 1 base (B), 3 suction cups and some screws (①②③). First, fix those parts together as shown in the figure above. Next, fit the dome camera with suction cups and place it properly on the roof.

Press the suction cups tightly against the roof and squeeze the air pumps (①) on the suction cups until the red circles shrink into the pumps.
To remove the camera from the roof, pull the hump on the side (②).



Method 2: Expansed installation

There is another method if you want to mount the dome camera to somewhere else. Replace the base with 3 suction cups with the parts below, and you can get 4 Φ6.6 holes available.



Method 3: Mounting on a tripod

There is a tripod hole in the center of the bottom of the dome camera to secure the product to a tripod. When the securing method is adopted, the product cannot be powered by a battery.

Suggestions:

It is recommended to adjust the lens of the dome camera to the front of the vehicle, and set it as the zero position after the device is powered on, Please refer to the APP-Zero position setting for details.

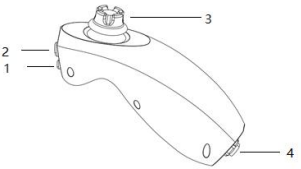
When the dome camera is fixed by sticking suction cups, these suction cups must be pressed tightly on the roof to prevent potential air leakage. At the same time, the air pump must be pressed to the extreme position.

In long-distance driving, you are advised to occasionally check if the air pump pops up on the way.

Control

Method 1:

The wired gamepad, as shown in the figure below, where 1 and 2 represent buttons, 3 joystick and 4 interface for multifunctional cable. You can control the dome camera via the following method.



Function	Operation
Shutter correction	Button 2: short press
Laser pointer (on/off)	Button 1: double press
Laser ranging (on/off)	Button 2: double press
Video record[note1] (start/stop)	Button 1: long press[note 2]
Back to zero position	Button 2: long press
Set zero position	Button 1&2: long press
Wi-Fi reset[note3]	Button 1: short press followed by long press, repeat 3 times
Camera rotation	Joystick: drag direction means rotate direction[note4]

Note 1: Run the APP before this operation so that you can replay the video on the home page of the APP;

Note 2: Long press is to press and hold for over 3 seconds;

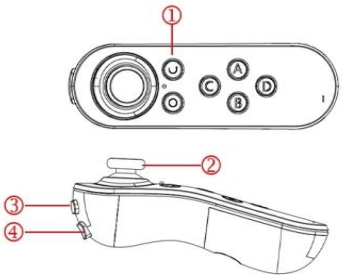
Note 3: Setting the Wi-Fi password a;

Note 4: The greater the amplitude of the joystick, the faster the camera will move.

*Due to regulatory requirements, "Laser pointer" is currently unavailable in the European region.

Method 2:

After the device is powered on, open the APP to connect to the device, and tap the Bluetooth icon button to turn on Bluetooth. Long press the button ① until the light on the gamepad starts to blink. Wait for a moment, and when the blinking light stops, it indicates that the gamepad is successfully connected to the device's Bluetooth.



Bluetooth operating manual:

Function	***Operation***
Digital zoom	Button O:press
Image-red hot	Button A:press
Image-black hot	Button B: press
Image-white hot	Button C: press
Image-pseudo color	Button D: press
Shutter correction	Button 3: press
Laser pointer(on/off)	Button 4: double press
Rangefinder(on/off)	Button 3: double press
Set zero position	Button D: long press
Video record(start/stop)	Button 4: long press
Back to zero position	Button 3: long press
Camera rotation	Joystick 2: drag direction means rotate direction

Due to regulatory requirements, "Laser pointer" is currently unavailable in the European region.

Method 3:

When the dome camera is connected to the power supply, you can control it through the InfiRay Outdoor APP, For APP download and connection, please go to “***APP Download***” on page 16.

APP download

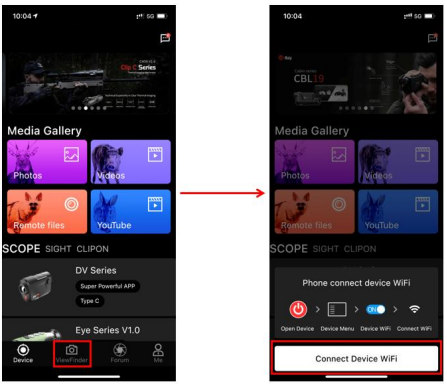
Download and install the InfiRay Outdoor APP from the official website (www.infirayoutdoor.com) or app store, or scan the QR code according to your mobile OS to download the APP directly..

GET IT ON Google Play

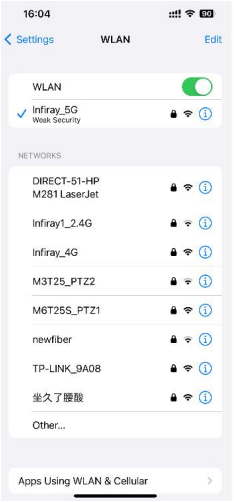
Download on the App Store

APP connection

After installation is completed, open the Infiray Outdoor to enter the software interface, and tap the photo button below. A prompt box will pop up to connect to the device's Wi-Fi.



Power on the camera and open WLAN in Settings. Select the Wi-Fi name of the dome camera and enter the password. By default, the Wi-Fi name is MT_xxxx (xxxx indicates the device type and SN) and the password is 12345678.



After installation, open the APP and connect to the device. Tap the ViewFinder icon at the bottom of the home screen to enter the operating interface of the dome camera directly.

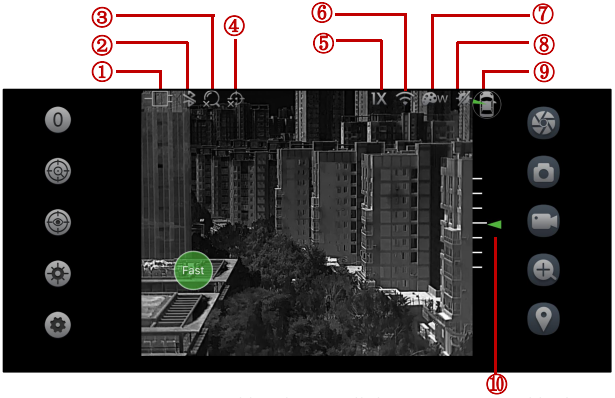
Installation precautions:

After the Wi-Fi name and password are changed, the device must be powered off and on again for the modifications to take effect.

Return to the main interface of the APP, tap the Take Photo button and directly access the operation interface of the MT.

APP functions

Display status:



①Power source (: Powered by cigarette lighter; : Powered by battery);

②Bluetooth status (: Bluetooth on; : Bluetooth off);

③Intelligent search status (:Automatic search; :Out of search; : Fixed-point cruise search);

④Intelligent tracking status (: Automatic tracking; : Out of tracking; : Manual tracking);

⑤Current zoom status (x1,x2,x4);

⑥Wi-Fi connection status (: Wi-Fi off; : Wi-Fi on);

⑦Image mode(White hot; : Black hot; : Red hot; : Pseudo-color ; : Jungle mode);

⑧Laser pointer status (:Off; : On - unavailable in Europe);

⑨Current azimuth of the dome camera (the green arrow indicates the current azimuth, which supports 360° rotation);

⑩Current pitch angle of the dome camera (the green arrow indicates the current pitch angle, which supports rotation from -90° to 90°).

Notes: During connection via a mobile app, the following additional features are available:

1、By long-tapping any position on the screen, the device will instantly rotate to the corresponding location.

2、Swiping your finger in any direction on the screen will cause the device to move in the corresponding direction. The distance and speed of the device's movement are correlated with the distance and speed of your finger's swipe. When you remove your finger from the screen, the movement stops.

Operating instruction:

Control Disk

Control the rotation angle and speed of the dome camera

Drag the control disk at the lower left corner of the interface to rotate the angle of the dome camera.

When you are dragging the disk, a circular dragging area is automatically displayed under the disk. You can only drag the disk in this area to rotate the angle of the dome camera.

When the angle of the dome camera changes, the azimuth and pitch angles on the right side vary accordingly.

Double-tap the small disk. You can switch over the rotation speeds of the dome camera, including Fast, Mid, and Slow in turn.

Zero Position Setting

Set the current position of the dome camera as zero position

It is recommended to set a zero position immediately after installation is completed. Generally, the position pointing to the direction right ahead of the vehicle head is zero.

When the dome camera is installed, adjust the lens to the direction right ahead of the vehicle head.

After the power supply is connected, tap the icon in secondary menu of icon . The current position is automatically set to zero.

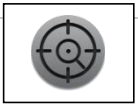
You can also adjust the control disk to set a proper angle, and then tap the icon to save it as the zero position.

Returning to Zero Position

Enable the dome camera to quickly return to the zero position

After the zero position is set, no matter where the dome camera rotates, tap the icon in the secondary menu of icon , and the device will quickly return to the preset zero position.

Intelligent Search



Adjust the pitch angle of the camera to the horizontal position and then tap the icon to enable this function.

The camera rotates horizontally and shows square if a target was found, such as human beings, and animals like boars, deer, wolves, etc. Tap the icon again to stop intelligent search.

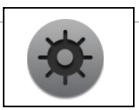
Intelligent Tracking

Tap the icon to turn on this function. Tap again to turn it off.

Tap the icon to enable the automatic tracking mode, in which you can select the target yourself.

In any state, double-pressing a target on the screen will switch to manual tracking mode to track the target. Tap the icon again to disable tracking.

Laser Pointer On/Off



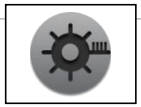
Turn on/off the laser pointer

Tap the icon to turn on the laser pointer. A green cross cursor is displayed on the interface.

Tap the icon again to turn off the laser pointer. The laser cursor disappears.

When the laser pointer is turned on or off, the icon in the status bar on the top changes accordingly.

*Due to regulatory requirements, "Laser pointer" is currently unavailable in the European region.



Laser Rangefinding ON/OFF

Enable or disable the laser rangefinding function

Tap the icon to enable the laser rangefinding function. A blue square rangefinding cursor is displayed on the interface.

An independent PIP window is displayed at the lower right corner of the interface, showing local details centered on the rangefinding cursor.

The upper right corner of the PIP window shows the distance to the target selected by the rangefinding cursor.

Tap the icon again and the laser rangefinding function is disabled.

Shutter Correction

Calibrate the images

If images degrade, tap the icon to enable the shutter correction function for clearer images.

Photo Taking

Tap the icon to take photos, and the "Succeeded" word flashes at the center of the screen.

Navigate to "Photos and Videos" on the home page of this APP to view saved photos.

Video Recording

Tap the icon to start the video recording function, and a prompt for the recording time is displayed at the top of the screen.

Tap the icon again to stop the video recording.

Navigate to "Photos and Videos" on the home page of this APP to view saved videos.

Preset Point

Set the cruise positions of the dome camera

Tap the icon to enter the secondary interface for configuring a preset point.

Tap the  Preset Point icon to add a preset point with a default pause time of 5 seconds and a cruise speed of 1 to reach the next position. Alternatively, you can long press the point to enter the preset point configuration interface, set the corresponding pause time and cruise speed, and tap "Add" to complete the operation.

Up to 8 preset points can be set in sequence. Once all 8 points are set, delete them first to reset them. When the digital button turns green, it indicates that a preset point has been set. Tapping the digital button will move the PTZ (Pan-Tilt-Zoom) camera to the corresponding preset point position. Clicking the cruise button  and the MT will cruise sequentially according to the order of the set preset points, with the cruise status flashing at the top right corner of the screen.  .Tap the cruise button again to disable it; tap the fixed-point search button  ,and MT will conduct fixed-point search sequentially according to the order of the set preset points, with the cruise status flashing at the top right corner of the screen. During the search, if a target is detected in the frame, it will pause for a moment to wait for the user to decide whether to initiate the tracking function

To delete a preset point, long-press the preset point number, wait for the pop-up window to appear, and tap the delete button on the pop-up window to delete the preset point.

Digital Zoom

Tap the icon to switch between digital zooms (x1/x2/x4) circularly. The zoom icon in the status bar on the top changes accordingly.

More

Set more functions

Tap the functions to enter the secondary menu. The icon turns green.

In the secondary menu, you can set the standby mode and image mode, and change the Wi-Fi name and password.

Standby

Tap the icon in the secondary menu of the Settings. A prompt box is displayed, asking you whether to select the standby mode.

Tap "Yes". The dome camera enters the standby state. In this case, the lens rotates to the lower center for protection.

Tap "Cancel". The operation is canceled, and you return to the secondary menu.

Tap the icon to turn on/off Bluetooth of the camera.

It is recommended to disable Bluetooth when the Bluetooth gamepad is not in use..

More

Image Mode

Under the secondary menu of Settings, tap this icon to display four options of the image mode, namely white hot (W), black hot (B), red hot (R), pseudo-color (C), and jungle mode (F) .

Tap the icon of the image mode you want to switch to. The icon in the status bar at the upper right corner changes accordingly.

After the image mode is set, you can tap icons to select other modes or exit the setting of the image mode.

Wi-Fi Setting

Tap the icon in the secondary menu of the Settings. The interface for setting the Wi-Fi is displayed.

The current Wi-Fi name ( ) and password ( ) are displayed on the interface.

Tap the corresponding positions. You can customize the Wi-Fi name and password.

After customization, tap to save the parameters and restart the device. Tap to restore the account and password to the default settings. Tap to cancel the operation.

More

Lock Function

Tap  to enable the lock, and the button turns green  ,After locking, only individual left-right panning or individual tilt up-down movement is allowed, and simultaneous diagonal panning and tilt movement is not permitted. When the disk is slided diagonally or the joystick is turned diagonally, the MT will actually move in the direction of the greater movement (for example, if the panning movement is greater than the tilt movement, the camera will pan; the same applies to tilt). This is to avoid unwanted tilt movement when only panning is intended.

Get More Information

Website:
www.nocpix.com

User manual

Facebook

Instagram

YouTube

Nocpix

Inlumen Technologies Co., Ltd.

Email: service@nocpix.com **Web:** www.nocpix.com

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