User manual

Mobile Surveillance Trailers



【Important Notes】

Dear Customer:

Thank you for purchasing and using this product. Upon unboxing, please first verify that all accessories are included. Before connecting components or powering on the device, carefully read this user manual and retain it for future reference.

Safety Guidelines:

To ensure your safety and the longevity of this product, please thoroughly review the following safety precautions before use.

• Always follow all operating instructions during use.

• Do not use any attachments or accessories not recommended by the manufacturer. Improper use may cause unexpected malfunctions.

• Use only the power cord supplied with the product. Before connecting the AC power cord to an outlet, verify that the product's power requirements match your local power supply conditions. If you are unsure about the power source type, contact our customer service representatives.

• Do not place any objects on top of or wrap around the power cord. Damaged power cords may cause electric shock or fire hazards.

• Do not attempt to repair this unit yourself. Internal high-voltage components and other fragile parts may pose risks to personnel or the product itself. Always have repairs performed by qualified service technicians.

• Do not touch any control components not specified in the user manual. Improper adjustment of unspecified controls
may damage the unit and increase repair complexity for technicians.

• When replacing parts, confirm with service personnel that manufacturer-specified replacements or components with equivalent performance are used.

• Install replacements according to the manufacturer's recommended methods.

• The display panel is made of sensitive material. Do not strike it with any object. If dropped or impacted, the panel may crack. Immediately cease using the unit if this occurs.

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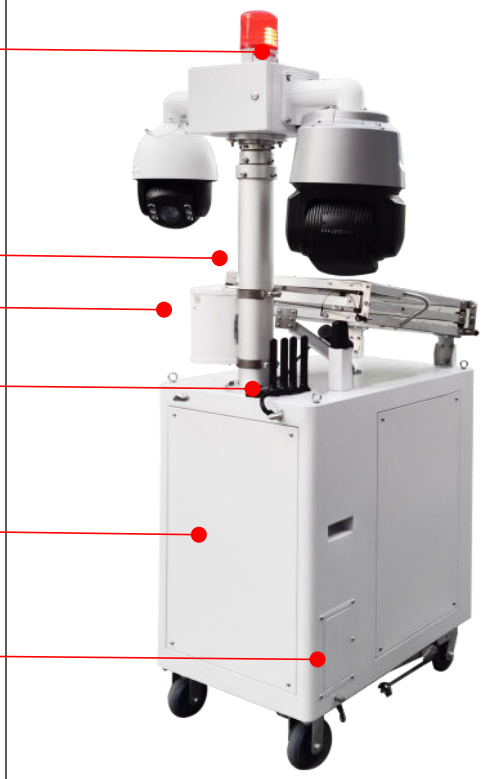
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一、Overall Structure Description

Instruction	Number	Body Diagram
[1] Pole-mounted box [2] Camera [3] Solar panels [4] Handle [5] Control Panel Lock [6] Caster wheel	[1] [2] [3] [4] [5] [6]	

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[7] Warning light [8] Lifting pole [9] Sound Column [10] Antenna [11] Air cylinder, air pump compartment [12] Charging Dock	[7] [8] [9] [10] [11] [12]	

二、Introduction to the Control Panel

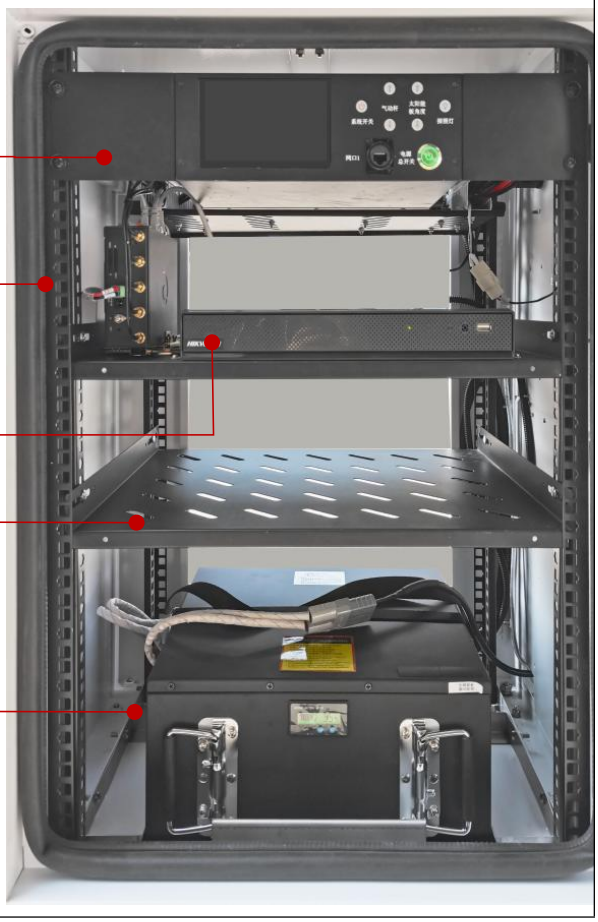
Instruction	Number	Control Panel Diagram
[1] Touchscreen	[1]	

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[2] Searchlight Switch (Reserved) [3] Solar Panel Angle Increase [4] Pneumatic lifting rod [5] System Switch [6] Solar Panel Angle Reduction [7] Pneumatic lifting rod lowering [8] Ethernet port [9] Main Power Switch	[2] [3] [4] [5] [6] [7] [8] [9]	

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三、Introduction to the Interior of the Enclosure

Instruction	Number	Internal diagram
[1] Control Panel [2] Router [3] NVR [4] Reserved Tray [5] Battery	[1] [2] [3] [4] [5]	

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四、Pole Top Installation and Removal Instructions

（一）Top-of-Pole Installation Method

For convenient transportation, the pole-top camera is typically removed and must be reinstalled when in use. When installing the pole-top equipment, turn off the power supply to ensure the safety of both the equipment and personnel. The specific procedure for connecting the pole-top device to the pole-top box is as follows:

1. Step 1: Remove the retaining nut from the pole top box, as shown in Figure 4-1 below.

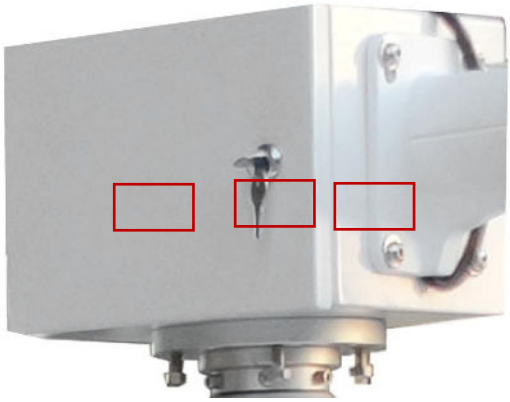


Figure 4-1 Rod Top Box Retaining Nut

2. Step 2: Two people lift the pole-mounted box. Use the pole-mounted box key (secured with a cable tie to the device's lifting ring) to open the pole-mounted box door. Thread the pole-mounted power quick connector, alarm light quick connector, and network cable through the pole-mounted box's circular opening. Plug in the power connector, alarm light connector, and network cable as shown in Figure 4-2.

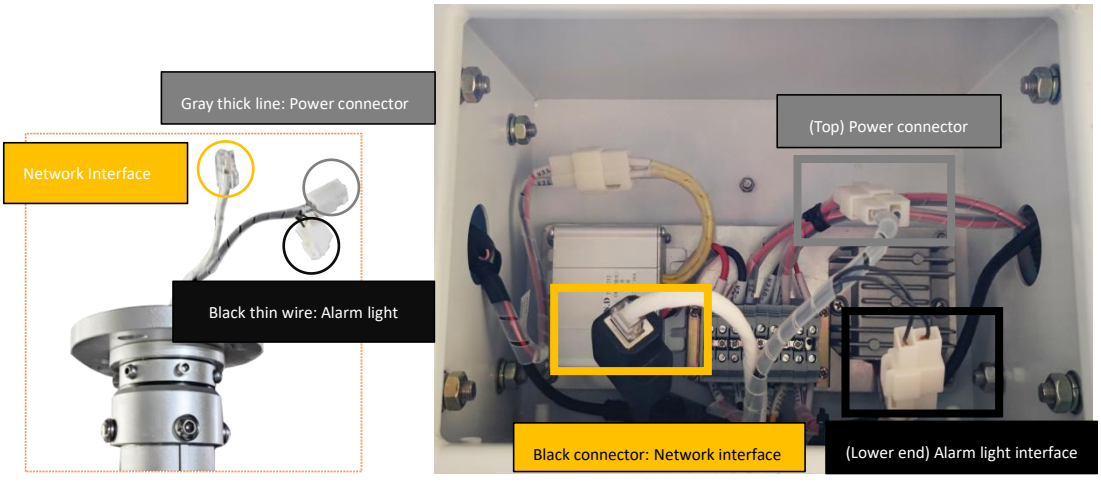


Figure 4-2 Schematic Diagram of Pole-Top Power Supply and Network Connections

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3. Step Three: Align the studs on the pole top box with the holes in the lifting pole flange, lower it into place, and secure it with nuts. As shown in Figure 4-3 below.



Figure 4-3 Schematic Diagram of Rod Top Box Connection to Flange

4. After installation, simply close the door of the pole-mounted set-top box compartment.

（二）Method for Removing the Pole Top

The pole top generally does not require disassembly. When disassembly is necessary, follow these steps:

(1) Turn off the main power supply to the equipment to ensure operation is performed without electricity.

(2) Use a screwdriver to loosen the four fixing screws connecting the pole top housing to the lifting pole, then lift the pole top housing.

Simply disconnect the power cable connecting the camera to the lifting pole, along with the alarm light connection cable and network cable.

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五、Equipment Startup Instructions

1. Use the bin door key (secured to the top of the rod with a cable tie) to unlock the bin door. Press the pop-out handle, then rotate it to open the bin door, as shown in Figure 5-1.



Figure 5-1 Schematic Diagram of Bin Door Unlocking

2. On the control panel, press the main power switch to illuminate the panel and power it on. Then press and hold the system switch for more than 5 seconds. The display will brighten and show device status information, as shown in Figure 5-2.



Figure 5-2 Equipment Startup

3、 The vehicle body compartment is equipped with LED lights and an automatic sensor switch. After the equipment is powered on, the compartment's LED lights will automatically illuminate when the control compartment door is opened, as shown in Figure 5-3 below.

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Figure 5-3 Equipment LED Sensor Light

六、Lowering and Raising Boom Operation Instructions

The lifting and lowering of this equipment's lifting rod can be operated via the touchscreen and buttons on the control panel, as follows:

（一）Raising the Pole Operation Instructions

1、After turning on the equipment, on the control panel, tap the “Pneumatic Rod Up” button on the touchscreen (or press the corresponding physical button). The pneumatic rod will automatically rise. Once it reaches the desired height, tap the button again (or press it) to stop the movement. The lifting rod can be stopped at any height. As shown in Figure 6-1 below.



Figure 6-1: Schematic Diagram of the Hoist Rod Operation

（二）Lowering the Boom Operation Instructions

1. Tap the “Lower Pneumatic Rod” button on the touchscreen (or press the corresponding physical button), and the pneumatic rod will automatically descend. Once it reaches the desired height, tap the “Lower Pneumatic Rod” button again (or press the corresponding physical button) to stop the movement, as shown in Figure 6-2 below.

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Figure 6-2 Lowering Boom Operation Diagram

【Important Notes】

1. When performing lifting operations, ensure the area above the equipment is clear of overhead wires and other obstructions to prevent hazards.
2. To ensure stability at height, fully extend the support brackets before raising the mast.
3. When moving the equipment, fully lower the lifting pole before relocating the device.
4. Do not attempt to raise the pole when the battery voltage falls below the pole-raising protection threshold; recharge the battery before proceeding.
5. To extend battery life, when the battery voltage drops below the under-voltage protection threshold, the battery enters protection mode and ceases output. A charging alert will appear on the screen, and buttons will become unresponsive. Recharge immediately.

七、Remote Control Operation Instructions

The device is equipped with a remote control that allows you to raise or lower the pole and raise or lower the solar panel. The specific operation is as follows:

1、Locate the remote control in the accessory box. The remote control is shown in Figure 7-1. Set the remote control's power switch to the N position, as shown in Figure 7-2.

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Figure 7-1 Remote Control Schematic Diagram



Figure 7-2 Turn on the remote control power switch

2、Fully extend the remote control antenna as shown in Figure 7-3. Press button A to raise the lifting pole; press button B to lower the lifting pole; press button C to raise the solar panel; press button D to lower the solar panel.



Figure 7-3 Remote Control Antenna

按键 A	Lifting pole raised
按键 B	Lower the lifting pole
按键 C	Solar panels rise
按键 D	Solar panels lowered
按键 N	Turn on the remote control
按键 F	Turn off the remote control

3、When not in use, retract the antenna and slide the switch to F to turn off the power.

八、4G Router User Manual

（一）4G/5G SIM Card Installation Guide

The router requires a data SIM card to access the internet. The specific steps for installing the SIM card are as follows:

1、The router is installed inside the equipment compartment. Open the compartment door and disconnect the router's power supply cable, as shown in Figure 8-1 below.

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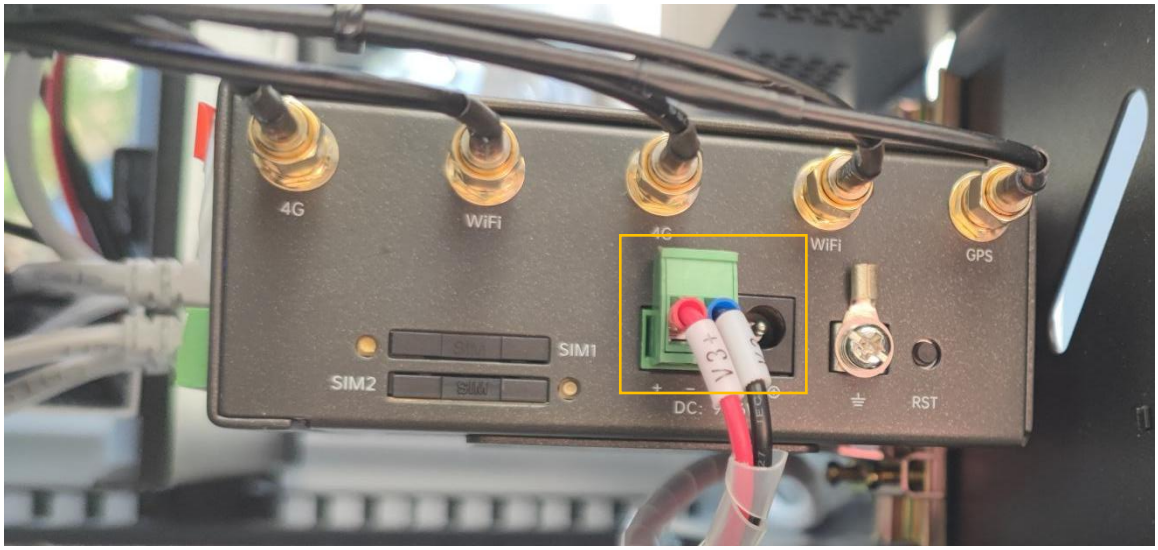


Figure 8-1 Router with Power Cord Disconnected

2、Insert the SIM eject tool into the SIM ejector to pop out the SIM card tray. Place the SIM card into the tray, secure the tray cover, and plug in the power supply, as shown in Figure 8-2 below.

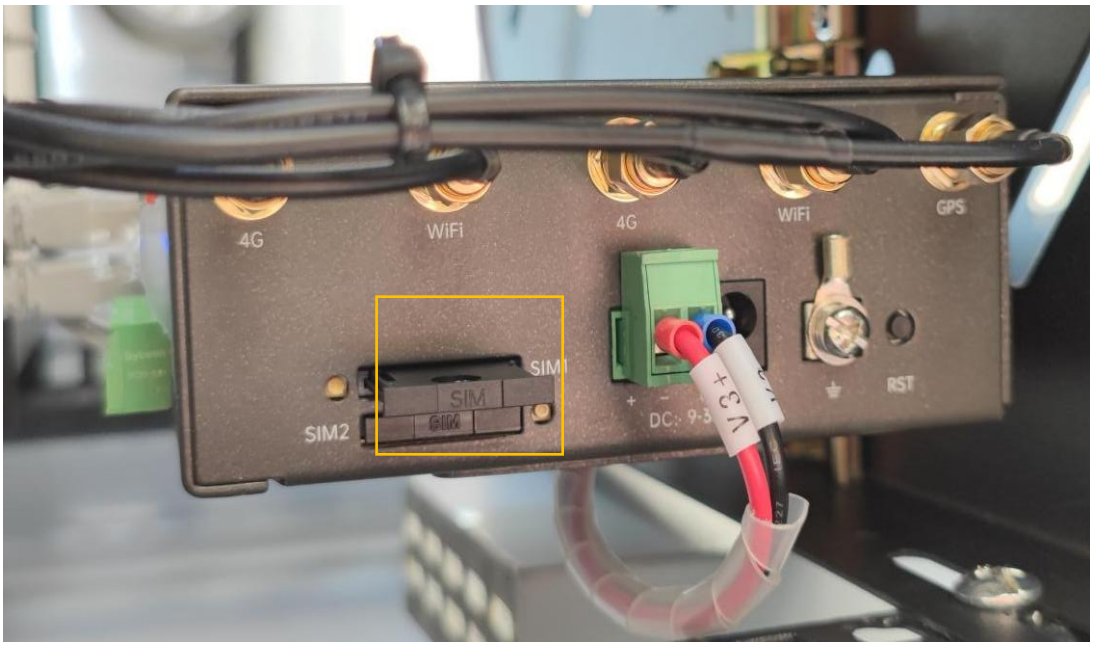


Figure 8-2 Installing the SIM Card in the Router

（二）Router WiFi Setup Guide

The router features Wi-Fi functionality, allowing users to connect to the internet via the router's Wi-Fi network. The specific steps for configuring the router's Wi-Fi are as follows:

1、Plug the network cable into the Ethernet port reserved on the control panel, and set the laptop's IP address to the 192.168.1.X subnet.

2、Open your browser, enter http://oraybox.com, and log in using the router's SN code and password. The default password is: ylh888888. Access the router's remote management backend,

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as shown in Figure 8-3.

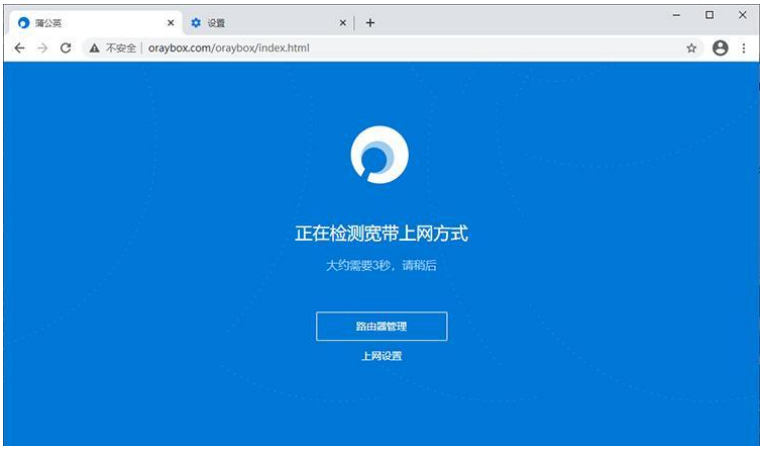


Figure 8-3 Router Management Backend

3、Tap Network Settings > Wi-Fi Settings to configure 2.4 GHz and 5 GHz channels separately, as shown in Figure 8-4.

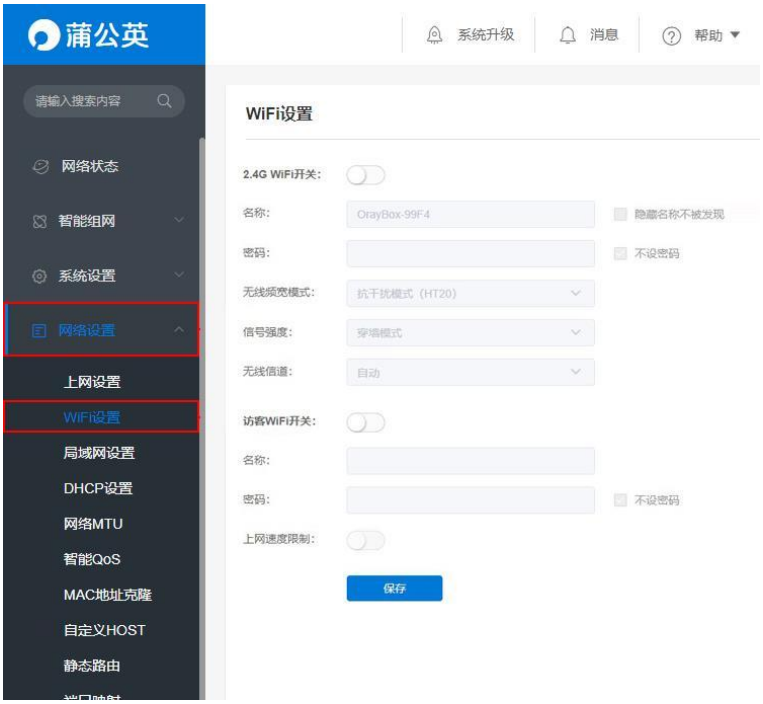


Figure 8-4 Router Wi-Fi Settings

（三）Router Wi-Fi Connection Guide

【Note】If you don't have a SIM card, you can also connect to Wi-Fi through your router settings. The specific setup steps are as follows:

1、 If unable to connect to the internet, the device will enter the Dandelion local management page. Set the internet access method to “Wireless Repeater” as shown in Figure 8-5.

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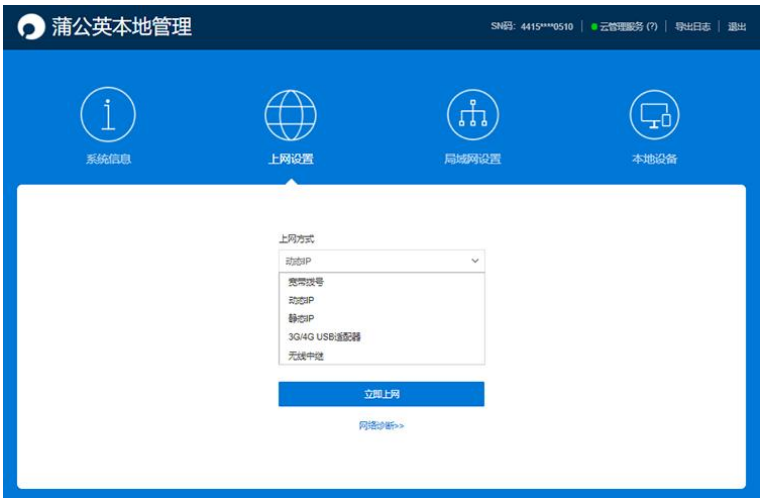


Figure 8-5: Selecting Wireless Repeater Mode for Router Internet Access

2、 Scan for wireless networks or manually enter the Wi-Fi name and password you wish to connect to, as shown in Figure 8-6 below.



Figure 8-6 Wireless Repeater Settings for the Router

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（四）Router GPS Instructions

Select the GPS application tool to view GPS information, as shown in Figure 8-7 below.

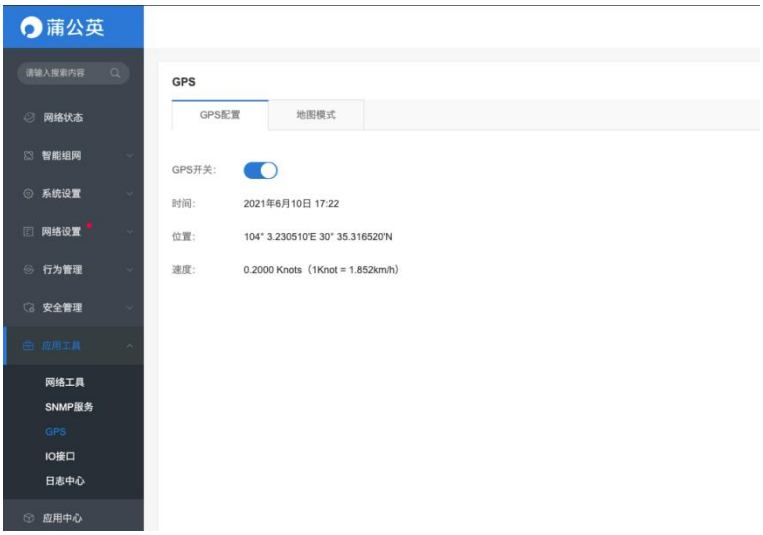


Figure 8-7 Router GPS Settings

（五）Smart Networking Guide for Routers

The router features intelligent networking capabilities, enabling the rapid establishment of a virtual local area network (VLAN). This facilitates seamless connectivity among smartphones, computers, and servers within the network. The specific steps for intelligent networking are as follows:

1、In the Smart Networking - Member List, click Bind Account to associate the router with your Oray account, as shown in Figure 8-8. If you do not have an Oray account, you must first register one by visiting the link https://account.oray.com/register?fromurl=https%3A%2F%2Fconsole-v2.oray.com 注册账号, as shown in Figure 8-9.



Figure 8-8: Router Group Networking Capability

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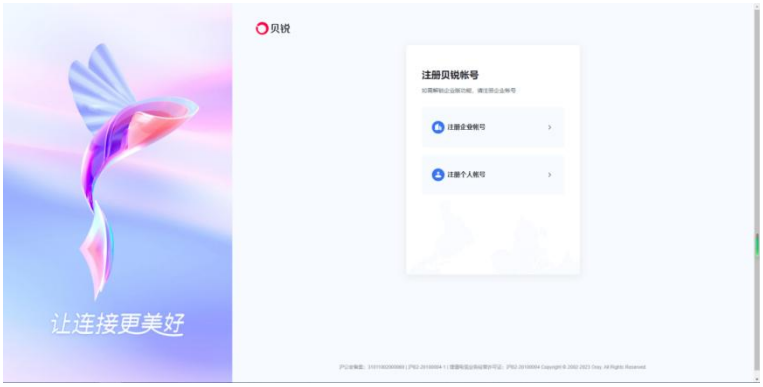


Figure 8-9 Registering an Oray Account

2、After successfully registering your account, click “Create Network” to enter the Dandelion official website management page. Then click “Create Network Now,” as shown in Figure 8-10 below.

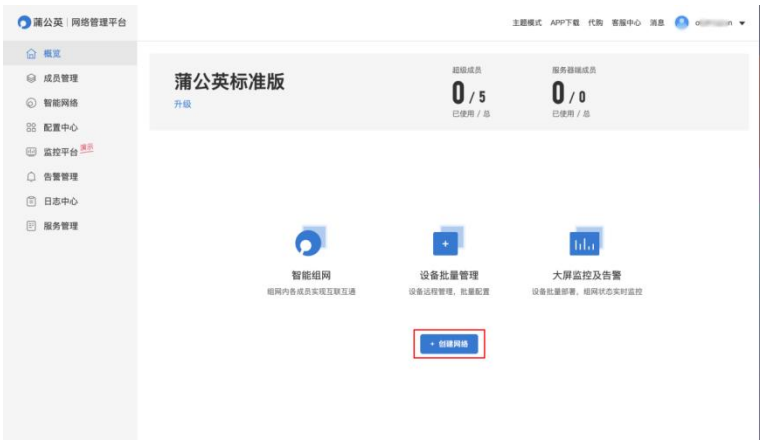
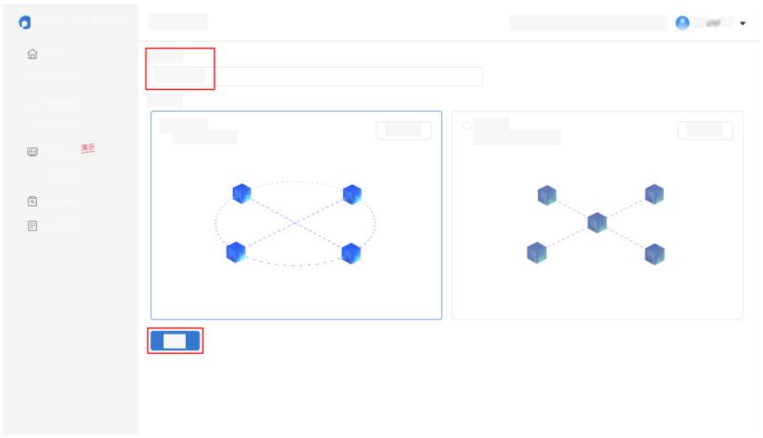


Figure 8-10 Creating a Network

3、Customize the network name, select the network type (choose between peer-to-peer or hub-and-spoke), then click OK, as shown in Figure 8-11 below.

Important Notice: The router's LAN management IP address must not be within the same subnet.



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Figure 8-11 Entering the Network Name and Selecting the Network Type

4、After the network is created, click [Add Member], select [Hardware Member], enter the Dandelion router's SN code to bind and add it, then click OK, as shown in Figure 8-12 below.

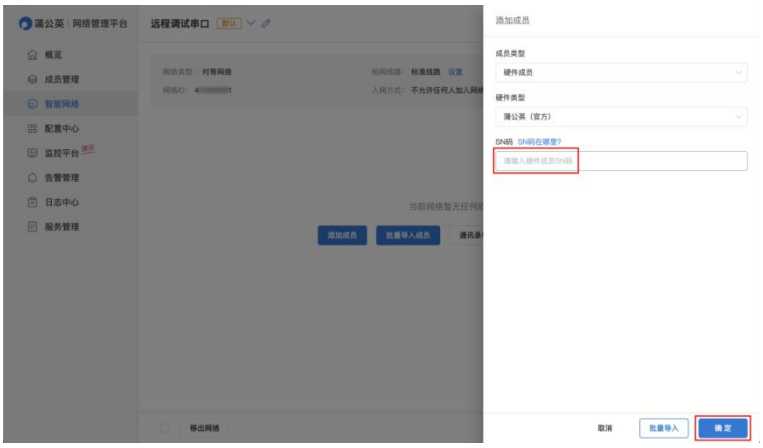


Figure 8-12 Adding Hardware Members

5、Add a 【Software Member】, enter the quantity to add, set the login password, and finally click OK, as shown in Figure 8-13 below.

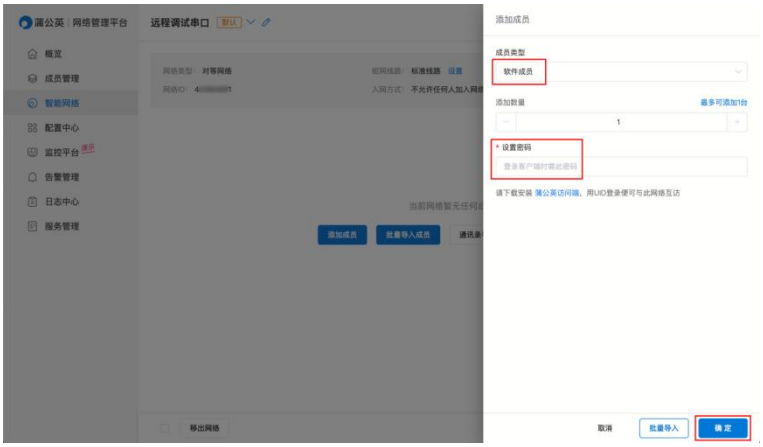


Figure 8-13 Adding Software Members

6、After the network is set up, devices under the Dandelion system at both locations can communicate using their assigned LAN IP addresses. Remote computers can install the “Dandelion Access Client,” log in with the account credentials of the software member created earlier, and then remotely access the router and its connected devices via their LAN IP addresses.

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九、Sound Bar and Warning Light Instructions

1、Audio Column: The device is equipped with an audio column connected to the camera's audio interface, enabling remote announcements and intercom communication. As shown in Figure 9-1.



Figure 9-1 Equipment Sound Column

2、Alarm Light: The device is equipped with an alarm light. When AI-linked alarms are triggered by the PTZ camera upon detecting an alert event, the alarm light activates, sounding and flashing. The alarm light features an audio switch button. When sound is not required, it can be disabled. The factory default setting is for sound to be off, as shown in Figure 9-2 below.



Figure 9-2 Equipment Alarm Light

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十、Battery Charging Instructions

（一）AC Charging Instructions

The battery charge level and voltage status can be viewed on the display screen. When the battery voltage drops below 21.2V, please recharge it promptly to avoid affecting the battery's service life.

1. Step 1: Press the charging compartment door. The door will automatically pop open, allowing you to lift it up as shown in Figure 10-1.



Figure 10-1 Opening the Device Charging Compartment Door

2. Connect the blue end of the charging cable to the device's charging port, as shown in Figure 10-2 below.



Figure 10-2 Power Adapter Diagram

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3. Step Three: Plug the other end of the charging cable into an AC 220V outlet.
4. You can view the charging status on the touchscreen, as shown in Figure 10-3 below, indicating that mains charging is normal. After charging is complete, first unplug the charging cable from the mains power outlet, then disconnect the charging cable from the battery charging port.



Figure 10-3 Mains Charging Status

5. Press the charging compartment door to lock it securely.

（二）Solar Charging Instructions

When the weather is clear and sunny, you can use solar energy to charge the device. Follow these steps:

1、Remove the retaining ring from the solar panel mounting bracket, pull the bracket outward, then reinsert the retaining ring as shown in Figure 10-4.



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Figure 10-4 Solar Panel Mounting Panel Pull Ring

2、 Unfold the solar panel to the left. Support the solar panel while removing the upper and lower locking pins. Lay the solar panel flat, align the mounting holes, and reinsert the locking pins as shown in Figures 10-5 and 10-6.



Figure 10-6 Schematic Diagram of Solar Panel Deployment



Figure 10-5 Schematic Diagram of Solar Panel Locking Pin Operation

3、Repeat the same procedure to unfold the other solar panel to the right. Once fully extended, it should appear as shown in Figure 10-7.



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Figure 10-7 Schematic Diagram of Solar Panel Deployment

4、The angle of the solar panel can be adjusted via either the touchscreen or buttons on the control panel. Tap the Solar Panel Angle Up button on the touchscreen (or press the Solar Panel Angle Up button) to automatically raise the solar panel. Once it reaches the desired height, tap the Solar Panel Angle Up button again (or press the Solar Panel Angle Up button) to stop the movement, as shown in Figure 10-8.



Figure 10-8 Control Panel Solar Panel Angle Switch

5、Rotate the device to align the solar panels with the sun's angle. Press the main power switch on the control panel to turn on the device, initiating solar charging. Monitor the solar charging status on the status interface of the touchscreen. The icon shown in Figure 10-9 indicates normal solar charging.



Figure 10-9 Touchscreen Solar Charging Display

6、Method for retracting the solar panel: Tap the “Solar Panel Angle Lower” button on the touchscreen (or press the Solar Panel Angle Lower button), and the solar panel will automatically lower. Lower the solar panel to its initial height, then tap the “Solar Panel Angle Lower” button again (or press the Solar Panel Angle Lower button) to stop. Next, follow the steps for deploying the solar panel to retract it.

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十一、Caster and Support Leg User Guide

（一）Caster Wheel User Manual

【Caution】To ensure safety, lower the lifting pole before moving the equipment.

1、When the equipment needs to be moved over short distances, it can be pushed using the swivel casters, as shown in Figure 11-1.

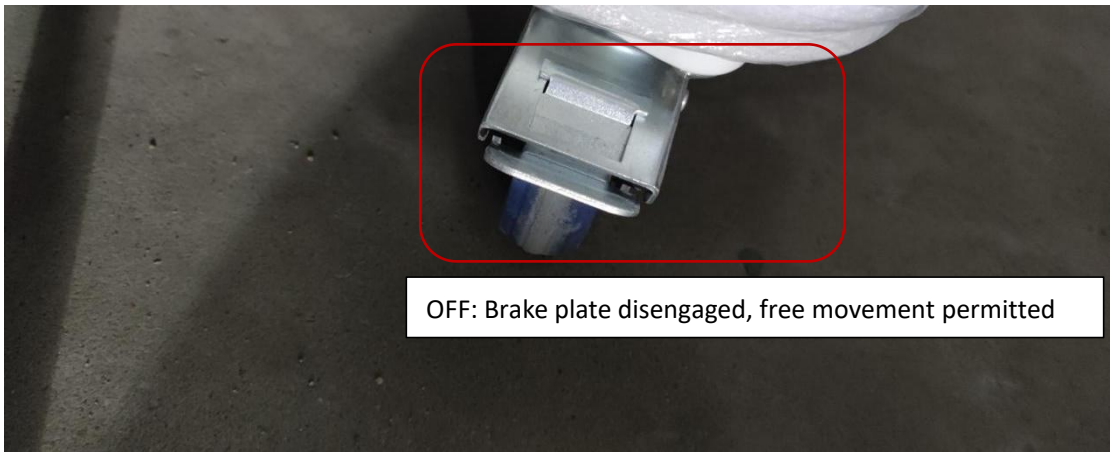


Figure 11-1 Swivel Casters in Movable State

2、When parking the equipment, press down the brake plate on the swivel casters to secure it in place, as shown in Figure 11-2. To move the equipment, lift the brake plate, grip the handlebar, and push the equipment forward.

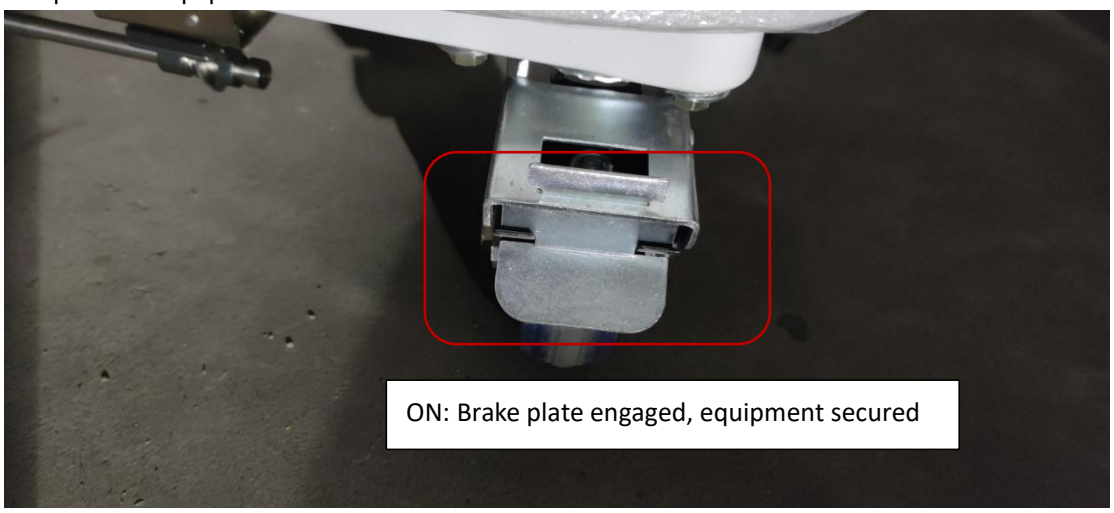


Figure 11-2 Swivel Castor Brake Status

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（二）Support Leg Usage Instructions

【Caution】To ensure safety, lower the lift pole before extending or retracting the equipment support legs.

When the device needs to be parked at a monitoring location for an extended period, deploy the support legs to ensure device safety and stability. Follow these steps:

1、 Pull down the support leg handle with one hand as shown in Figure 11-3, then extend the support leg with the other hand as shown in Figure 11-4.

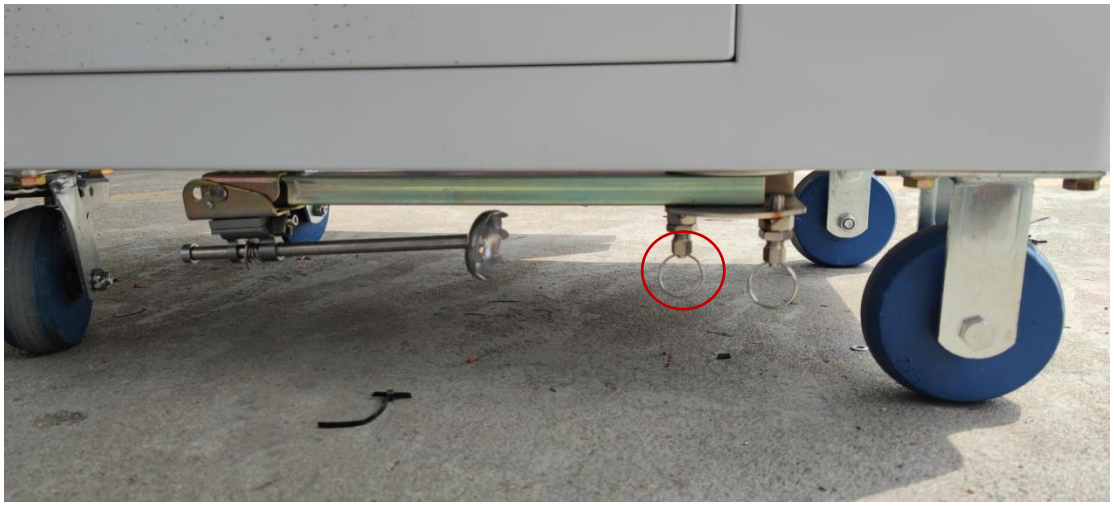


Figure 11-3 External Pull Ring



Figure 11-4 Extending the Support Leg

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2、 Flip out the support legs, unlock the latches, and adjust the height as shown in Figure 11-5 to ensure the legs grip the ground firmly. Then lock the legs in place. Repeat this procedure to extend and secure all support legs of the equipment.



Figure 11-5 Support Leg Locking and Release Diagram

3、 Similarly, when retracting the support legs, first unlock the support leg latches and adjust the legs for retraction. Then, pull the support leg pull ring while simultaneously pushing the leg inward with your other hand. Repeat this procedure to retract all support legs on the device.

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十二、Instructions for Using Fixed Ropes

To ensure safe operation of the equipment, when raising the mast is required during use, the equipment must be secured with a fixed rope. The specific steps are as follows:

1. Hook the ring at one end of the securing rope onto the equipment hook, as shown in Figure 12-1.

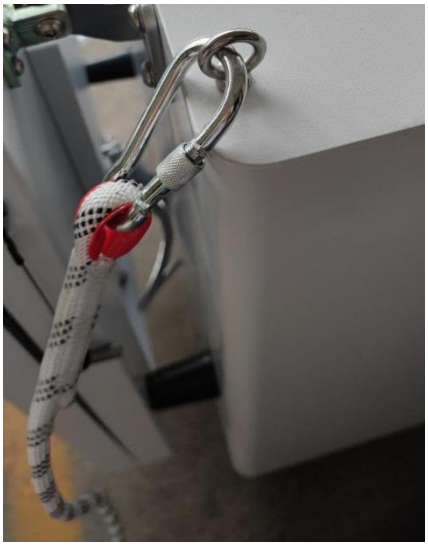


Figure 12-1: Fixed rope suspended from equipment hook

2. Attach the other end of the fixed rope to the ring and secure it to the ground stake as shown in Figure 12-2. Drive the ground stake firmly into the ground to ensure it remains secure and does not loosen.



Figure 12-2 Fixed Rope Secured to Ground Anchor

3. Follow these steps to secure all four anchor ropes on the device.

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十三、How to Add Devices to Fluorescent Cloud

（一） PC Client User Guide

Step 1: Download and install the client at https://service.ys7.com/download/document?id=69.

Step 2: Double-click the Ezviz Cloud icon on your desktop to open the Ezviz Cloud PC client.

Step 3: Register and log in to the PC client (this account can be shared with your mobile or other registered accounts).

Step 4: Bind the device:
- Click “Add” in the bottom-left corner of the client
- Select “Add by Serial Number” (found on the device label)
- Enter the verification code.
(If using IE: Navigate to Network Settings > Platform Access > Ezviz Cloud to view the verification code).

（二） Mobile App User Guide

Step 1: Download the App
Scan the QR code with WeChat
Search for ‘Yi Cloud Video’ in the app store.

Step 2: Register and log in to the PC client version of YI Cloud (this account can be shared with accounts already registered on your phone or other mobile devices).

Step 3: Bind devices:
- Click “Add” in the bottom-left corner of the client
- Select “Add via QR Code” (scan the label on the device)
- Enter the verification code (if using IE, navigate to Network Settings > Platform Access > YI Cloud to view the code).

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【Attached: Equipment Management Account and Password】

Device information and account password labels are affixed to the equipment operating compartment door.

Mobile Surveillance Device 1

1、Equipment Information

Product Name	Multi-functional Mobile Surveillance Equipment
Product Model	ULS-MX03-SW
Date of Manufacture	2023-2-16
Serial Number	UM0064230216001

2、Router

Local Management IP	192.168.1.1
Password	ylh888888
SN	324200542332
SMEI	868159057698123
2.4G WIFI Name	OrayBox-0D6E
5G WIFI Name	OrayBox-5G-0D6E
WIFI Password	ylh888888

3、NVR

NVR IP	192.168.1.168
Username	admin
Password	ylh888888
Serial Number	K97045076
Verification code	ylh888888
Password	ylh888888

4、Camera 1

IP PTZ Camera	192.168.1.64
Username	admin
Password	ylh888888
Serial Number	L01272099
Verification code	ylh888888

5、Camera 2

IP PTZ Camera	192.168.1.65
Username	admin
Password	ylh888888
Serial Number	L06791827

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Verification code	ylh888888

Mobile Surveillance Device 2

1、Equipment Information

Product Name	多功能移动式监控设备
Product Model	ULS-MX03-SW
Date of Manufacture	2023 年 2 月 16 日
Serial Number	UM0064230216002

2、Router

Local Management IP	192.168.1.1
Password	ylh888888
SN	329051893483
SMEI	868159052672941
2.4G WIFI Name	OrayBox-15E8
5G WIFI Name	OrayBox-5G-15E8
WIFIPassword	ylh888888

3、NVR

NVR IP	192.168.1.168
Username	admin
Password	ylh888888
Serial Number	K97045232
Verification code	ylh888888
Password	ylh888888

4、Camera 1

IP PTZ Camera	192.168.1.64
Username	admin
Password	ylh888888
Serial Number	L01272013
Verification code	ylh888888

5、Camera 2

IP PTZ Camera	192.168.1.65
Username	admin
Password	ylh888888
Serial Number	L07527706
Verification code	ylh888888

【Note】Hikvision security questions default to:

What is your favorite book?

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What is your favorite color?
What is your favorite movie?
All default answers are: 1.

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