



# Fisheye Parking Camera

User Manual

## Initiatives on the Use of Video Products

### **Thank you for choosing Hikvision products.**

Technology affects every aspect of our life. As a high-tech company, we are increasingly aware of the role technology plays in improving business efficiency and quality of life, but at the same time, the potential harm of its improper usage. For example, video products are capable of recording real, complete and clear images. This provides a high value in retrospect and preserving real-time facts. However, it may also result in the infringement of a third party's legitimate rights and interests if improper distribution, use and/or processing of video data takes place. With the philosophy of "Technology for the Good", Hikvision requests that every end user of video technology and video products shall comply with all the applicable laws and regulations, as well as ethical customs, aiming to jointly create a better community.

### **Please read the following initiatives carefully:**

- Everyone has a reasonable expectation of privacy, and the installation of video products should not be in conflict with this reasonable expectation. Therefore, a warning notice shall be given in a reasonable and effective manner and clarify the monitoring range, when installing video products in public areas. For non-public areas, a third party's rights and interests shall be evaluated when installing video products, including but not limited to, installing video products only after obtaining the consent of the stakeholders, and not installing highly-invisible video products.
- The purpose of video products is to record real activities within a specific time and space and under specific conditions. Therefore, every user shall first reasonably define his/her own rights in such specific scope, in order to avoid infringing on a third party's portraits, privacy or other legitimate rights.
- During the use of video products, video image data derived from real scenes will continue to be generated, including a large amount of biological data (such as facial images), and the data could be further applied or reprocessed. Video products themselves could not distinguish good from bad regarding how to use the data based solely on the images captured by the video products. The result of data usage depends on the method and purpose of use of the data controllers. Therefore, data controllers shall not only comply with all the applicable laws and regulations and other normative requirements, but also respect international norms, social morality, good morals, common practices and other non-mandatory requirements, and respect individual privacy, portrait and other rights and interests.
- The rights, values and other demands of various stakeholders should always be considered when processing video data that is continuously generated by video products. In this regard, product security and data security are extremely crucial. Therefore, every end user and data controller, shall undertake all reasonable and necessary measures to ensure data security and avoid data leakage, improper disclosure and improper use, including but not limited to, setting up access control, selecting a suitable network environment (the Internet or Intranet) where video products are connected, establishing and constantly optimizing network security.

- Video products have made great contributions to the improvement of social security around the world, and we believe that these products will also play an active role in more aspects of social life. Any abuse of video products in violation of human rights or leading to criminal activities are contrary to the original intent of technological innovation and product development. Therefore, each user shall establish an evaluation and tracking mechanism of their product application to ensure that every product is used in a proper and reasonable manner and with good faith.

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## Fisheye Parking Camera User Manual




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## Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
 <b>Danger</b>	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.
 <b>Caution</b>	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
 <b>Note</b>	Provides additional information to emphasize or supplement important points of the main text.

## Safety Instruction

### Regulatory Information

This is a class A product and may cause radio interference in which case the user may be required to take adequate measures.

### Laws and Regulations

Use of the product must be in strict compliance with the local laws and regulations. Please shut down the device in prohibited area.

### Power Supply

- Use of the product must be in strict compliance with the local electrical safety regulations.
- Use the power adapter provided by qualified manufacturer. Refer to the product specification for detailed power requirements.
- It is recommended to provide independent power adapter for each device as adapter overload may cause over-heating or a fire hazard.
- Make sure that the power has been disconnected before you wire, install, or disassemble the device in the authorized way according to the description in the manual.
- To avoid electric shock, DO NOT directly touch exposed contacts and components once the device is powered up.
- DO NOT use damaged power supply devices (e.g., cable, power adapter, etc.) to avoid electric shock, fire hazard, and explosion.
- DO NOT directly cut the power supply to shut down the device. Please shut down the device normally and then unplug the power cord to avoid data loss.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.
- Make sure the power supply has been disconnected if the power adapter is idle.
- Connect to earth before connecting to the power supply.
- Device powered by Safety Extra-Low Voltage (SELV): The power source should meet limited power source or PS2 requirements according to IEC 60950-1 or IEC 62368-1 standard.

### Transportation, Use, and Storage

- To avoid heat accumulation, good ventilation is required for a proper operating environment.
- Store the device in dry, well-ventilated, corrosive-gas-free, no direct sunlight, and no heating source environment.
- Avoid fire, water, and explosive environment when using the device.
- Install the device in such a way that lightning strikes can be avoided. Provide a surge suppressor at the inlet opening of the equipment under special conditions such as the mountain top, iron tower, and forest.
- Keep the device away from magnetic interference.
- Avoid device installation on vibratory surfaces or places. Failure to comply with this may cause device damage.
- DO NOT touch the heat dissipation component to avoid burns.

- DO NOT expose the device to extremely hot, cold, or humidity environments. For temperature and humidity requirements, see device specification.
- No naked flame sources, such as lighted candles, should be placed on the equipment.
- DO NOT touch the sharp edges or corners.
- To prevent possible hearing damage, DO NOT listen at high volume levels for long periods.

### **Maintenance**

- If smoke, odor, or noise arises from the device, immediately turn off the power, unplug the power cable, and contact the service center.
- If the device cannot work properly, contact the store you purchased it or the nearest service center. DO NOT disassemble or modify the device in the unauthorized way (For the problems caused by unauthorized modification or maintenance, the company shall not take any responsibility).
- Keep all packaging after unpacking them for future use. In case of any failure occurred, you need to return the device to the factory with the original packaging. Transportation without the original packaging may result in damage to the device and the company shall not take any responsibility.

### **Network**

- Please enforce the protection for the personal information and the data security as the device may be confronted with the network security problems when it is connected to the Internet. Contact us if network security risks occur.
- Please understand that you have the responsibility to configure all the passwords and other security settings about the device, and keep your user name and password.

### **Lens**

- DO NOT touch the lens with fingers directly in case the acidic sweat of the fingers erodes the surface coating of the lens.
- DO NOT aim the lens at the strong light such as sun or incandescent lamp. The strong light can cause fatal damage to the device.

### **Data**

DO NOT disconnect the power during formatting, uploading, and downloading. Or files may be damaged.



# Contents

<b>Chapter 1 Introduction .....</b>	<b>1</b>
<b>1.1 Product Introduction .....</b>	<b>1</b>
<b>1.2 Key Feature .....</b>	<b>1</b>
<b>Chapter 2 Activation and Login .....</b>	<b>2</b>
<b>2.1 Activation .....</b>	<b>2</b>
<b>2.1.1 Default Information .....</b>	<b>2</b>
<b>2.1.2 Activate via SADP .....</b>	<b>2</b>
<b>2.1.3 Activate via Web Browser .....</b>	<b>3</b>
<b>2.2 Login .....</b>	<b>4</b>
<b>Chapter 3 Parking Space Detection .....</b>	<b>5</b>
<b>3.1 Set Detection Rules .....</b>	<b>5</b>
<b>3.2 Set Parking Space Indicator .....</b>	<b>6</b>
<b>3.3 View Parking Space Status .....</b>	<b>8</b>
<b>Chapter 4 Capture Configuration .....</b>	<b>9</b>
<b>4.1 Set Capture Parameters .....</b>	<b>9</b>
<b>4.1.1 Set License Plate Recognition Country/Region .....</b>	<b>9</b>
<b>4.1.2 Set Image Encoding Parameters .....</b>	<b>9</b>
<b>4.1.3 Set Capture Overlay .....</b>	<b>10</b>
<b>4.2 View Real-Time Picture .....</b>	<b>11</b>
<b>Chapter 5 Live View and Local Configuration.....</b>	<b>14</b>
<b>5.1 Live View .....</b>	<b>14</b>
<b>5.1.1 Start/Stop Live View .....</b>	<b>14</b>
<b>5.1.2 Select Image Display Mode.....</b>	<b>14</b>
<b>5.1.3 Display Control.....</b>	<b>14</b>
<b>5.1.4 Select Stream Type .....</b>	<b>15</b>
<b>5.1.5 Capture Picture Manually .....</b>	<b>16</b>
<b>5.1.6 Record Manually .....</b>	<b>16</b>
<b>5.1.7 Enable Digital Zoom .....</b>	<b>16</b>
<b>5.2 PT Control.....</b>	<b>16</b>

5.3 Local Configuration .....	17
<b>Chapter 6 Storage .....</b>	<b>19</b>
6.1 Set FTP .....	19
6.2 Set Listening Host.....	20
<b>Chapter 7 Encoding and Display .....</b>	<b>22</b>
7.1 Set Video Encoding Parameters .....	22
7.2 Set Image Parameters.....	23
7.3 Set ROI.....	26
7.4 Set OSD.....	26
<b>Chapter 8 Network Configuration .....</b>	<b>28</b>
8.1 Set IP Address.....	28
8.2 Connect to ISUP Platform .....	30
8.3 Set DDNS .....	30
8.4 Set Port.....	31
<b>Chapter 9 Serial Port Configuration.....</b>	<b>33</b>
9.1 Set RS-485 .....	33
9.2 Set RS-232 .....	33
<b>Chapter 10 Alarm Configuration .....</b>	<b>35</b>
10.1 Set Motion Detection.....	35
10.2 Set Exception Alarm.....	36
<b>Chapter 11 Safety Management.....</b>	<b>37</b>
11.1 Manage User .....	37
11.2 Enable User Lock.....	37
11.3 Set SSH.....	38
11.4 Set HTTPS .....	38
11.4.1 Create and Install Self-signed Certificate .....	38
11.4.2 Install Authorized Certificate .....	38
<b>Chapter 12 Maintenance .....</b>	<b>40</b>
12.1 View Device Information .....	40
12.2 Upgrade.....	40
12.3 Reboot.....	40

<b>12.4 Restore Parameters .....</b>	<b>41</b>
<b>12.5 Synchronize Time .....</b>	<b>41</b>
<b>12.6 Set DST .....</b>	<b>42</b>
<b>12.7 Export Parameters .....</b>	<b>42</b>
<b>12.8 Import Configuration File.....</b>	<b>42</b>
<b>12.9 Export Debug File .....</b>	<b>43</b>
<b>A. Communication Matrix and Device Command .....</b>	<b>44</b>

# Chapter 1 Introduction

## 1.1 Product Introduction

The fisheye parking camera (hereinafter referred to as device) is applied in the parking guidance and find my car system to detect whether the parking space is occupied or not and recognize the license plate. It is integrated with the parking space status indicator which can indicate different colors. Different colors stand for different parking space status. The device can be widely applied in the environment with dark light, such as road, warehouse, underground garage, bar, garden, etc. to provide HD display.

## 1.2 Key Feature

- HD camera, applied in environment with low illumination such as underground garage.
- Ultra-wide lens to display 360° panoramic image without blind areas.
- Supports various display modes, including the fisheye mode, two-image calibration mode, four-image calibration mode, two-image panorama mode, and four-image panorama mode.
- Multiple video compression modes. Supports video quality and encoding complexity settings.
- Abundant interfaces.
- Detection of the parking space status, and smart analysis of crossing over line in two-image and four-image calibration modes.
- Supports motion detection.

## Chapter 2 Activation and Login

### 2.1 Activation

For the first-time access, you need to activate the device by setting an admin password. No operation is allowed before activation. The device supports multiple activation methods, such as activation via SADP software, web browser, and iVMS-4200 Client.

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#### Note

Refer to the user manual of iVMS-4200 Client for the activation via client software.

---

#### 2.1.1 Default Information

Device default information are as follows.

- Default IP address: 192.0.0.64
- Default user name: admin

#### 2.1.2 Activate via SADP

SADP is a tool to detect, activate, and modify the IP address of the devices over the LAN.

##### Before You Start

- Get the SADP software from the supplied disk or the official website (<https://www.hikvision.com/>), and install it according to the prompts.
- The device and the computer that runs the SADP tool should belong to the same network segment.

The following steps show how to activate one device and modify its IP address. For batch activation and IP address modification, refer to *User Manual of SADP* for details.

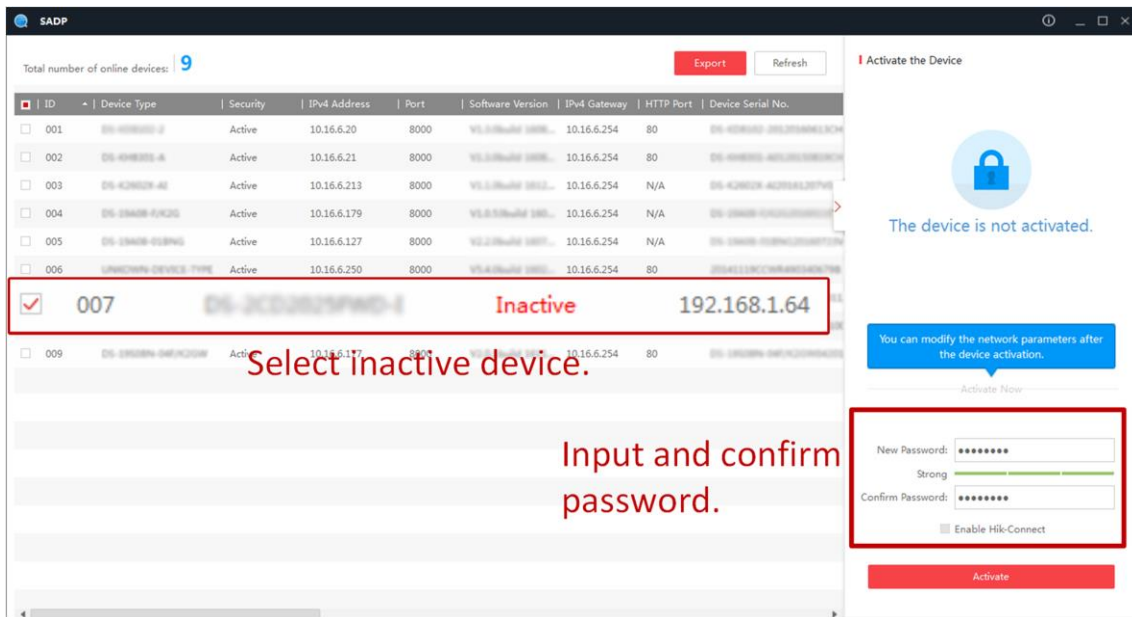
##### Steps

1. Run the SADP software and search the online devices.
2. Find and select your device in online device list.
3. Enter a new password (admin password) and confirm the password.

**Caution**

**STRONG PASSWORD RECOMMENDED**-We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

4. Click **Activate** to start activation.



**Figure 2-1 Activate via SADP**

Status of the device becomes **Active** after successful activation.

5. Modify IP address of the device.

- 1) Select the device.
- 2) Change the device IP address to the same network segment as your computer by either modifying the IP address manually or checking **Enable DHCP**.
- 3) Enter the admin password and click **Modify** to activate your IP address modification.

### 2.1.3 Activate via Web Browser

Use web browser to activate the device. For the device with the DHCP enabled by default, use SADP software or client software to activate the device.

#### Before You Start

Ensure the device and the computer connect to the same LAN.

#### Steps

1. Change the IP address of your computer to the same network segment as the device.

2. Open the web browser, and enter the default IP address of the device to enter the activation interface.
3. Create and confirm the admin password.

---

### **Caution**

**STRONG PASSWORD RECOMMENDED**-We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

---

4. Click **OK** to complete activation.
5. Go to the network settings interface to modify IP address of the device.

## 2.2 Login

You can log in to the device via web browser for further operations such as live view and local configuration.

### **Before You Start**

Connect the device to the network directly, or via a switch or a router.

### **Steps**

1. Open the web browser, and enter the IP address of the device to enter the login interface.
2. Enter **User Name** and **Password**.
3. Click **Login**.
4. Download and install appropriate plug-in for your web browser. Follow the installation prompts to install the plug-in.
5. Reopen the web browser after the installation of the plug-in and repeat steps 1 to 3 to login.
6. Optional: Click **Logout** on the upper right corner of the interface to log out of the device.

## Chapter 3 Parking Space Detection

### 3.1 Set Detection Rules

To detect the parking spaces, you should enable the smart analysis and set the parameters of parking spaces.

#### Steps

1. Go to **Configuration** → **Device Configuration** → **Smart Analysis** → **Analytics Parameters**.

Enable	<input checked="" type="checkbox"/> Camera 1 <input checked="" type="checkbox"/> Camera 2 <input type="checkbox"/> Camera 3 <input type="checkbox"/> Camera 4	
Camera	Camera 1	
Recognized Parking Space(s)	3	
Configuration Type	Manual Configuration	
Space 1	Space 2	Space 3
Parking Space No.	1	
Special Parking Space	<input type="radio"/> Yes <input checked="" type="radio"/> No	

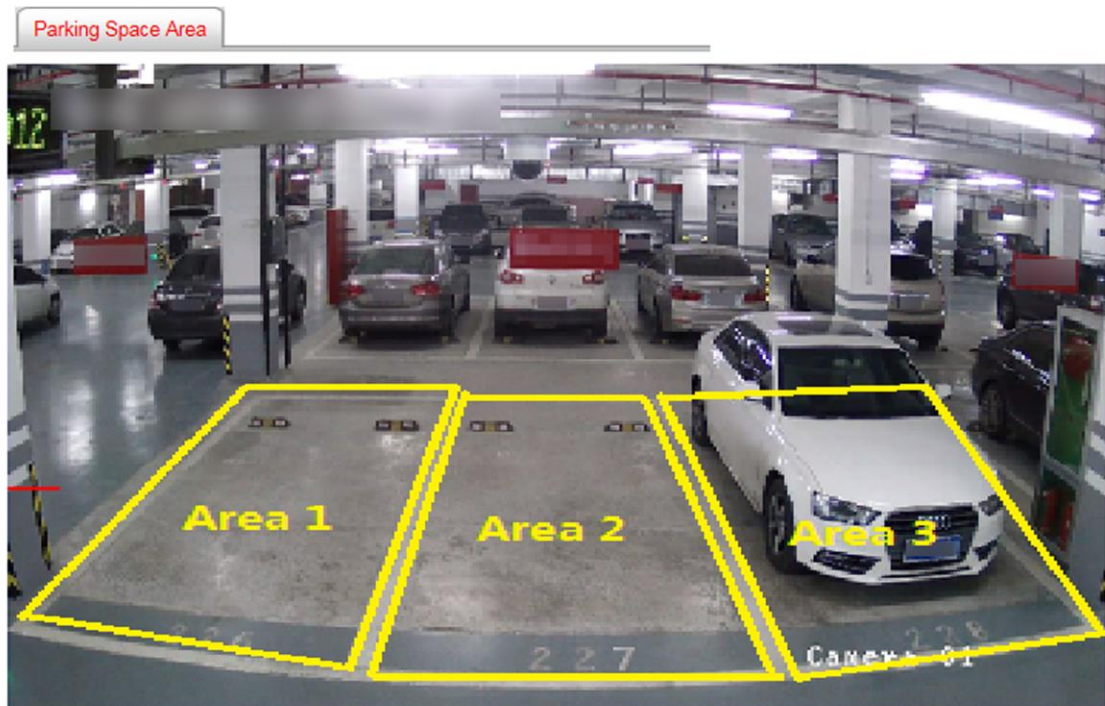


Figure 3-1 Smart Analysis



- Optional: If you have enabled two/four-image calibration mode, enable the camera(s) to detect parking spaces.

---

### **Note**

Up to two cameras can be enabled.

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- Optional: Select **Camera** if two cameras have been enabled.
- Select the number of **Recognized Parking Space(s)**.

---

### **Note**

The number may vary with different models.

---

According to the number of spaces you set, the quadrilateral(s) of the parking space area(s) will appear in the image.

- Click the tab of the parking space No. to set the parameters.
  - Enter **Parking Space No.**
  - Click **Yes** if the parking space is a special parking space.
- Adjust the parking space areas.
  - Select a quadrilateral, and drag the vertices of the quadrilateral to adjust its shape, or drag the quadrilateral to adjust the position.
  - Repeat the step above to adjust other areas.
- Click **Save**.

## 3.2 Set Parking Space Indicator

The indicator indicates the parking space status. Different colors stand for different status. You can set the indicator colors and flashing status for different parking space status.

### Steps

- Go to **Configuration** → **Device Configuration** → **Parking Space Indicator** → **Parking Space Indicator**.

**Parking Space Indicator Parameters**

Indicator Control Mode Internal Indicator

Parking Space Status	Enable	Indicator Flicker	Indicator Color
Absent	<span style="border: 1px solid #ccc; padding: 2px;">Yes</span>	<span style="border: 1px solid #ccc; padding: 2px;">No</span>	<span style="border: 1px solid #ccc; padding: 2px;">Green</span>
Occupied	<span style="border: 1px solid #ccc; padding: 2px;">Yes</span>	<span style="border: 1px solid #ccc; padding: 2px;">No</span>	<span style="border: 1px solid #ccc; padding: 2px;">Red</span>
Over Line	<span style="border: 1px solid #ccc; padding: 2px;">No</span>	<span style="border: 1px solid #ccc; padding: 2px;">No</span>	<span style="border: 1px solid #ccc; padding: 2px;">Yellow</span>
Special Parking Space	<span style="border: 1px solid #ccc; padding: 2px;">No</span>	<span style="border: 1px solid #ccc; padding: 2px;">No</span>	<span style="border: 1px solid #ccc; padding: 2px;">Blue</span>

**Alternate Indicator Control Parameters**

Enable

IP Address 0.0.0.0

**Figure 3-2 Set Parking Space Indicator**

2. Select **Indicator Control Mode**.

**Internal Indicator**

The parking space status is informed via the internal indicator of the device.

3. Set the indicator parameters for different parking space status.

1) Enable or disable the indication for different parking space status.

**Unoccupied**

The parking space is free.

**Occupied**

The parking space is occupied by a vehicle.

**Note**

Occupied status means all the detected parking spaces are occupied, and unoccupied status means not all the detected parking spaces are occupied. E.g., three parking spaces are detected. When the three spaces are all occupied, the indicator will display the color you set for the occupied status. When two spaces are occupied and one space is unoccupied, the indicator remains the color you set for the unoccupied status.

**Over Line**

A vehicle occupied two parking spaces.

**Special Parking Space**

The parking space is specified to a certain vehicle.

2) Select **Indicator Flicker** and **Indicator Color** for different parking space status.

4. Optional: If there are symmetric parking spaces on both sides, and the distance between the device to the monitored parking space lines is too far, you can enable alternate indicator control and set the parameters.

1) Check **Enable** of **Alternate Indicator Control Parameters**.

2) Enter **IP Address** of the device on the opposite parking space.

The current device can control the indicator of the device on the opposite parking space, and

vice versa.

5. Click **Save**.

### 3.3 View Parking Space Status

You can view the occupancy status, license plate number, indicator color, etc. of the detected parking spaces.

#### Steps

1. Go to **Configuration** → **Device Configuration** → **Parking Space Indicator** → **Parking Space Status**.
2. View the parking space status.

Parking Space No.	Occupancy Status	Plate No.	Indicator Flickering Status	Indicator Color
1	Unoccupied	None	No	Cyan
2	Unoccupied	None	No	Cyan
3	Unoccupied	None	No	Cyan
4	Unoccupied	None	No	Cyan
1	Unoccupied	None	No	Green
2	Unoccupied	None	No	Green
3	Unoccupied	None	No	Green
4	Unoccupied	None	No	Green

**Figure 3-3 Parking Space Status**

## Chapter 4 Capture Configuration

### 4.1 Set Capture Parameters

#### 4.1.1 Set License Plate Recognition Country/Region

You can select the license plate recognition country/region.

##### Steps

1. Go to **Configuration** → **Device Configuration** → **Capture Parameters** → **License Parameters**.



License Parameters	
Country/Region	All South Korea

Figure 4-1 Set License Plate Recognition Country/Region

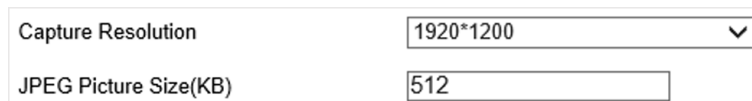
2. Select **Country/Region**.
3. Click **Save**.

#### 4.1.2 Set Image Encoding Parameters

If the captured pictures are not clear, set the resolution of the captured pictures and the picture size.

##### Steps

1. Go to **Configuration** → **Device Configuration** → **Encoding and Storage** → **Image Encoding**.



Capture Resolution	1920*1200
JPEG Picture Size(KB)	512

Figure 4-2 Set Image Encoding Parameters

2. Select **Capture Resolution**.
3. Enter the picture size.

##### JPEG Picture Size

The size of the compressed captured picture. The actual size is related to the scene complexity.

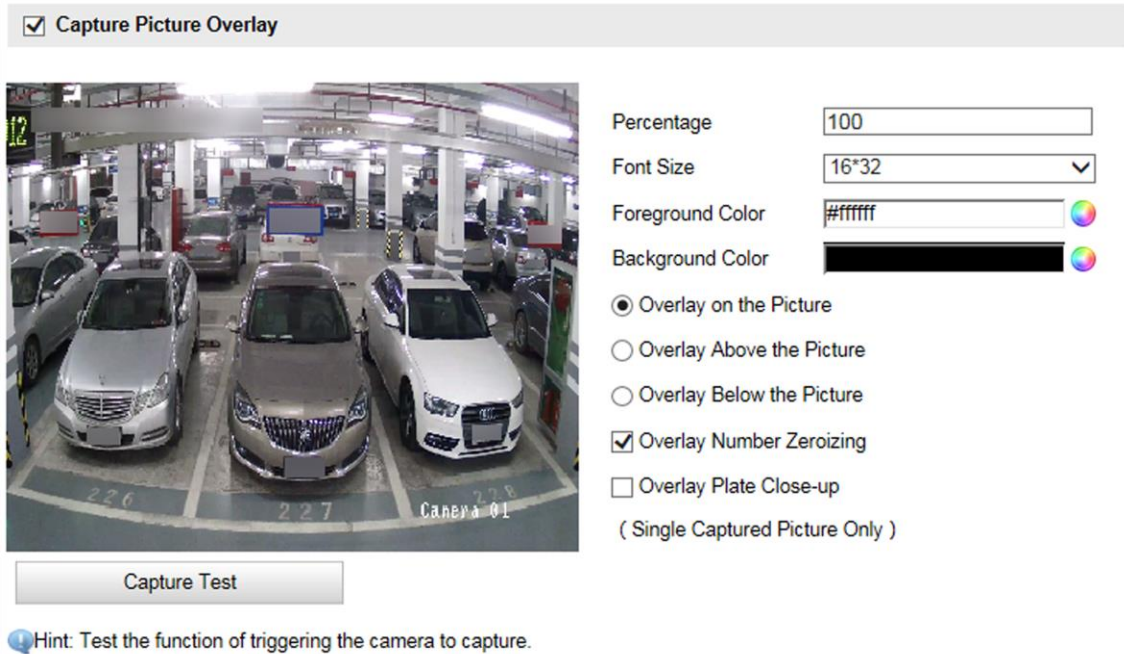
4. Click **Save**.

### 4.1.3 Set Capture Overlay

If you want to overlay information on the captured pictures, set capture overlay.

#### Steps

1. Go to **Configuration** → **Device Configuration** → **Text Overlay** → **Capture Overlay Configuration**.
2. Check **Capture Picture Overlay**.



**Figure 4-3 Set Capture Overlay**

3. Set the font size, color, overlay position, etc.

#### Percentage

It is the percentage that the overlaid information occupies on the picture.

#### Overlay Number Zeroizing

When the overlaid number digits are smaller than the fixed digits, 0 will be overlaid before the overlaid number. E.g., the fixed digits for lane No. is 2. If the lane No. is 1, 01 will be overlaid on the picture.

#### Overlay Plate Close-up

Check it, and a license plate close-up picture will be overlaid on the upper left corner of the captured picture.

4. Select the overlay information from the list.


---

#### Note

The overlay information may vary with different models. The actual device prevails.

---

5. Set the overlay information.

<b>Type</b>	You can edit the type.
<b>Overlay Information</b>	For some information types, you can edit the detailed information.
<b>Overlay Position</b>	Check it, and the current information will be displayed from a new line.
<b>Space</b>	Edit the number of space between the current information and the next one from 0 to 255. 0 means there is no space.
<b>Line Break Characters</b>	Edit the number of characters from 0 to 100 between the current information line and the previous information line. 0 means no line break.
	Adjust the display sequence of the overlay information.

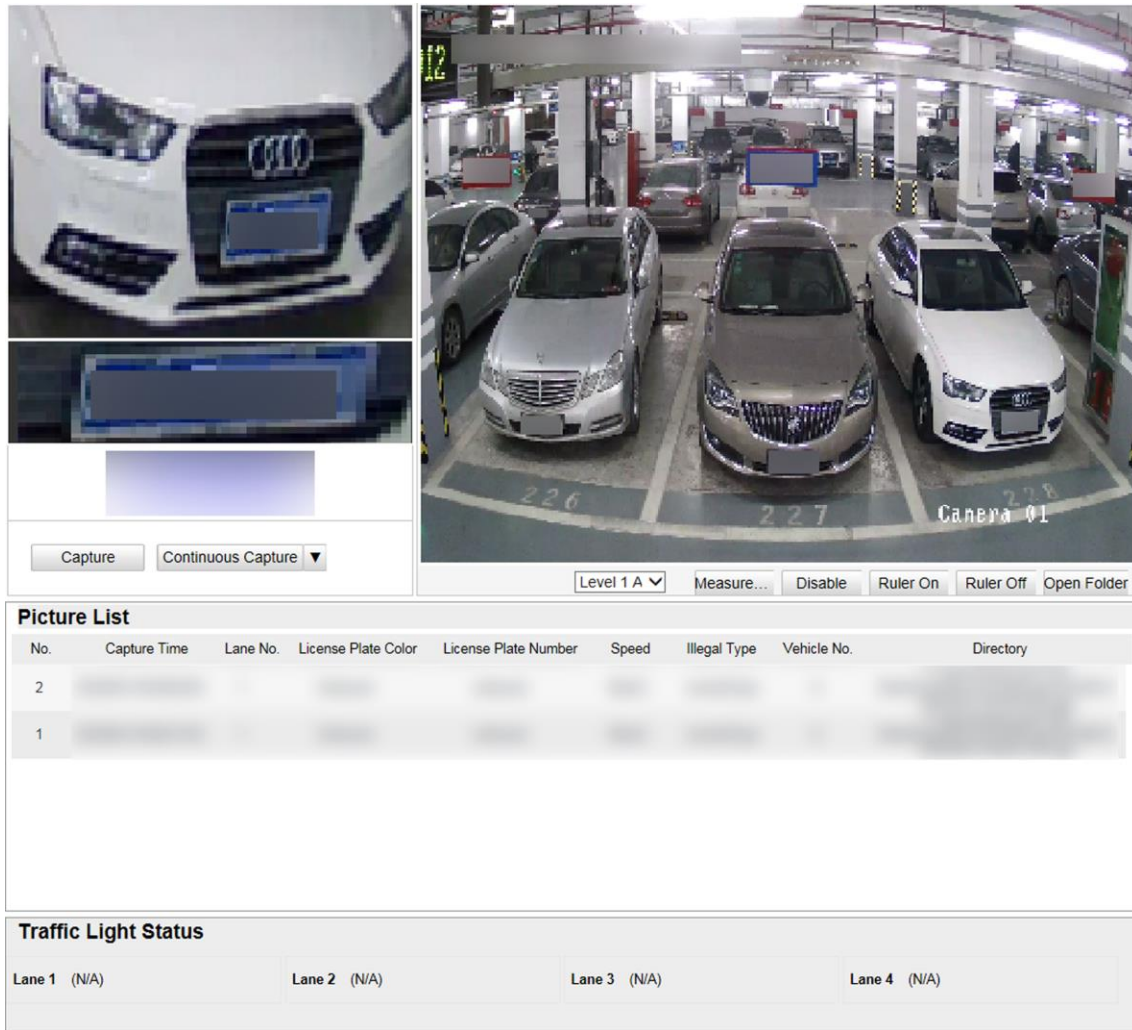
6. Click **Save**.

## 4.2 View Real-Time Picture

You can view the real-time captured pictures and information of the captured vehicles.

### Steps

1. Go to **Live View** → **Real-Time Status and Traffic Flow Statistics**.
2. Select the captured picture from the picture list, and you can view the capture scene picture and the captured license plate picture.



**Figure 4-4 Real-Time Picture**

3. You can do the following operations on this interface.

- Select the arming mode. **Level 1 Arming** can only connect one client or web. The uploaded pictures will not be stored in the storage card. The pictures in the storage card will be uploaded to the level 1 arming. **Level 2 Arming** can connect three clients or webs. The pictures will be uploaded to the client/web, and stored in the storage card. **Disarming** is to cancel the alarm status or real-time picture.
- Click **Measure Plate**, and drag a rectangle on the live view image to measure the license plate pixel. Click the button again to exit the measurement.
- Click **Ruler On** to enable rule when measuring the license plate. After the measurement, click **Ruler Off**.
- Click **Capture** to enable manual capture. The captured pictures will be saved in the set local path. Or you can click **Open Folder** to view the pictures.
- Click  on the right of **Continuous Capture** to set the continuous capture parameters. After the configuration, click **Continuous Capture** to capture pictures.

### Capture Times

Up to five times are supported.

### **Continuous Capture Interval**



Up to four intervals are supported. You can set the time of each interval.







## Chapter 5 Live View and Local Configuration

### 5.1 Live View

#### 5.1.1 Start/Stop Live View

Click  to start live view. Click  to stop live view.

#### 5.1.2 Select Image Display Mode

Click     to display the image in 4:3/16:9/original/self-adaptive display mode.

#### 5.1.3 Display Control

The device supports hardware and software decoding modes. In the two decoding modes, you can select different display modes.




##### Hardware Decoding



Hardware decoding means the obtained live view video is decoded by the device itself. In hardware decoding mode, five display modes are supported. Refer to the table below for details.

##### Note

In hardware decoding mode, once you switch a display mode, you need to reboot the device to take the settings into effect.

**Table 5-1 Display Control in Hardware Decoding Mode**

Icon	Display Mode	Description
	Fisheye mode	In the fisheye mode, the whole wide-angle view of the fisheye camera is displayed. This mode is called fisheye because it approximates the vision of a fish's convex eye. The lens produces curvilinear images of a large area, while distorting the perspective and angles of objects in the image.
	Two-image calibration mode	In two-image calibration mode, the round fisheye image is transformed to two rectangular images by some calibration methods.
	Four-image calibration	In four-image calibration mode, the round fisheye image is transformed to four rectangular images by some calibration

Icon	Display Mode	Description
	mode	methods.
	Two-image panorama mode	In two-image panorama mode, the streams of two cameras combine to one stream to display one panorama image.
	Four-image panorama mode	In four-image panorama mode, the streams of four cameras combine to one stream to display one panorama image.




### Software Decoding

Software decoding means the obtained live view video is decoded by using the CPU of your PC that is running the web browser. The live view performance depends on the decoding ability of your PC. In software decoding mode, three display modes are supported. Refer to the table below for details.

#### Note

Once you switch the decoding mode, you need to reboot the device to take the settings into effect.

**Table 5-2 Display Control in Software Decoding Mode**

Icon	Display Mode	Description
	Fisheye mode	In the fisheye mode, the whole wide-angle view of the fisheye camera is displayed. This mode is called fisheye because it approximates the vision of a fish's convex eye. The lens produces curvilinear images of a large area, while distorting the perspective and angles of objects in the image.
	Two-image calibration mode	In two-image calibration mode, the round fisheye image is transformed to two rectangular images by some calibration methods.
	Four-image calibration mode	In four-image calibration mode, the round fisheye image is transformed to four rectangular images by some calibration methods.



### 5.1.4 Select Stream Type

Click [Main Stream/Sub-Stream](#) to select the stream type. It is recommended to select the main stream to get the high-quality image when the network condition is good, and select the sub-stream to get the fluent image when the network condition is not good enough.

### 5.1.5 Capture Picture Manually

You can capture pictures manually on the live view image and save them to the computer.

#### Steps

1. Click  to start live view.
2. Click  to capture a picture.
3. Optional: Click **Configuration** → **Local Configuration** to view the saving path of snapshots in live view.

### 5.1.6 Record Manually

You can record videos manually on the live view image and save them to the computer.




#### Steps

1. Click  to start live view.
2. Click  to start recording.
3. Click  to stop recording.
4. Optional: Click **Configuration** → **Local Configuration** to view the saving path of record files.


### 5.1.7 Enable Digital Zoom

You can enable digital zoom to zoom in a certain part of the live view image.

#### Steps


1. Click  to start live view.
2. Click  to enable digital zoom.
3. Place the cursor on the live view image position which needs to be zoomed in. Drag the mouse rightwards and downwards to draw an area.  
The area will be zoomed in.
4. Click any position of the image to restore to normal image.
5. Click  to disable digital zoom.

## 5.2 PT Control

On **Live View** interface, click  to show/hide the PT control panel.



**Figure 5-1 PT Control**

Hold the direction buttons to pan/tilt the device. Click , and the device keeps panning. Click it again to stop panning.

---

 **Note**

You can also drag the cursor on the live view image to pan/tilt the device.

---

## 5.3 Local Configuration

Go to **Configuration** → **Local Configuration** to set the live view parameters and change the saving paths of videos, captured pictures, scene pictures, etc.

Live View Parameters			
Protocol	<input checked="" type="radio"/> TCP	<input type="radio"/> UDP	
Live View Performance	<input type="radio"/> Least Delay	<input type="radio"/> Balanced	<input checked="" type="radio"/> Best Fluency
Rule Information	<input type="radio"/> Enable	<input checked="" type="radio"/> Disable	
Feature Information	<input type="radio"/> Enable	<input checked="" type="radio"/> Disable	

Record File Settings			
Record File Size	<input type="radio"/> 256M	<input checked="" type="radio"/> 512M	<input type="radio"/> 1G
Save record files to	<input type="text" value="D:\"/>	<input type="button" value="Browse"/>	

Picture and Clip Settings			
Save snapshots in live view to	<input type="text" value="D:\"/>	<input type="button" value="Browse"/>	
Save downloaded pictures to	<input type="text" value="D:\"/>	<input type="button" value="Browse"/>	
Save scene picture to	<input type="text" value="D:\"/>	<input type="button" value="Browse"/>	

**Figure 5-2 Local Configuration**

### Protocol

Select the network transmission protocol according to the actual needs.

### **TCP**

Ensures complete delivery of streaming data and better video quality, yet the real-time transmission will be affected.

### **UDP**

Provides real-time audio and video streams.

## **Live View Performance**

### **Least Delay**

The video is real-time, but the video fluency may be affected.

### **Balanced**

Balanced mode considers both the real time and fluency of the video.

### **Best Fluency**

When the network condition is good, the video is fluent.

## **Rule Information**

If you enable the rule information, tracking frames will be displayed on the live view interface when there are vehicles passing.

## **Feature Information**

If you enable the feature information, information of the lane, traffic flow, speed, etc. will be displayed on the live view interface.

## **Record File Size**

Select the packed size of the manually recorded video files. After the selection, the max. record file size is the value you selected.

## **Save record files to**

Set the saving path for the manually recorded video files.

## **Save snapshots in live view to**

Set the saving path of the manually captured pictures in live view mode.

## **Save downloaded pictures to**

Set the saving path for the downloaded pictures.

## **Save scene picture to**

Set the saving path of the captured pictures in the **Real-Time Status and Traffic Flow Statistics** interface.

---

### **Note**

The parameters vary with different models. The actual device prevails.

---

## Chapter 6 Storage

### 6.1 Set FTP

Set FTP parameters if you want to upload the captured pictures to the FTP server.

#### Before You Start

Set the FTP server, and ensure the device can communicate normally with the server.

#### Steps

1. Go to **Configuration** → **Device Configuration** → **Encoding and Storage** → **FTP**.

Figure 6-1 Set FTP

2. Enable the FTP server.

#### Note

You can only enable one FTP if the device does not support the violation capture, or you should set different uploaded data for each FTP respectively.

#### Example

If you select FTP 1 as **Upload Checkpoint Data**, FTP 2 will be selected as **Upload Violation Data** by default.

3. Optional: Check **Upload Additional Information to FTP**, and then the related information can be attached when uploading.
4. Set FTP parameters.
  - 1) Enter **Server Address** and **Port**.

- 2) Enter **User Name** and **Password**, and confirm the password.
- 3) Select **Directory Structure**.

---

### **Note**

If multiple directories are needed, you can customize the directory name.

---

5. Optional: Check **Not Upload Plate Close-up** if the license plate close-up pictures are not needed to upload.
6. Optional: Click **Test** to check the FTP server.
7. Set the name rule and separator according to the actual needs.
8. Optional: Edit OSD information which can be uploaded to the FTP server with the pictures to make it convenient to view and distinguish the data.
9. Click **Save**.

## 6.2 Set Listening Host

The listening host can be used to receive the uploaded information and pictures of the device arming alarm.

### Before You Start

The listening service has been enabled for the listening host, and the network communication with the device is normal.

### Steps

1. Go to **Configuration** → **Device Configuration** → **System Configuration** → **Network Parameters**.

ANPR IP Address/Domain:	<input type="text" value="0.0.0.0"/>
ANPR Port:	<input type="text" value="80"/>
Listening Host IP Address:	<input type="text" value="0.0.0.0"/>
Listening Host Port:	<input type="text" value="7200"/>
Enable Picture Uploading ...	<input type="checkbox"/>

**Figure 6-2 Set Listening Host**

2. Set **ANPR IP Address/Domain** and **ANPR Port** if you need to upload the alarm information and pictures.
3. Set **Listening Host IP Address** and **Listening Host Port**, and check **Enable Picture Uploading Listening** if you need to upload the alarm information and pictures.

---

 **Note**

ANPR and listening conflict with each other. When you enable listening host, pictures will be uploaded via listening host in priority. When you disable listening and have set ANPR IP address and port, pictures will be uploaded via ANPR protocol.

---

4. Click **Save**.



## Chapter 7 Encoding and Display

### 7.1 Set Video Encoding Parameters

Set video encoding parameters to adjust the live view and recording effect.

- When the network signal is good and the speed is fast, you can set high resolution and bitrate to raise the image quality.
- When the network signal is bad and the speed is slow, you can set low resolution, bitrate, and frame rate to guarantee the image fluency.
- When the network signal is bad, but the resolution should be guaranteed, you can set low bitrate and frame rate to guarantee the image fluency.
- Main stream stands for the best stream performance the device supports. It usually offers the best resolution and frame rate the device can do. But high resolution and frame rate usually means larger storage space and higher bandwidth requirements in transmission. Sub-stream usually offers comparatively low resolution options, which consumes less bandwidth and storage space.

#### Steps

1. Go to **Configuration** → **Device Configuration** → **Encoding and Storage** → **Video Encoding**.
2. Set the parameters for different streams.

#### Stream Type

Video stream and video & audio stream are selectable.

#### Bitrate

Select relatively large bitrate if you need good image quality and effect, but more storage spaces will be consumed. Select relatively small bitrate if storage requirement is in priority.

#### Frame Rate

It is to describe the frequency at which the video stream is updated and it is measured by frames per second (fps). A higher frame rate is advantageous when there is movement in the video stream, as it maintains image quality throughout.

#### Resolution

The higher the resolution is, the clearer the image will be. Meanwhile, the network bandwidth requirement is higher.

#### SVC

Scalable Video Coding (SVC) is an extension of the H.264/AVC and H.265 standard. Enable the function and the device will automatically extract frames from the original video when the network bandwidth is insufficient.

#### Bitrate Type

Select the bitrate type to constant or variable.

### Video Quality

When bitrate type is variable, 6 levels of video quality are selectable. The higher the video quality is, the higher requirements of the network bandwidth.

### Profile

Under the same bitrate, the higher the profile is, the higher the image quality is, and the higher the requirement of the network bandwidth is.

### I Frame Interval

It refers to the number of frames between two key frames. The larger the I frame interval is, the smaller the stream fluctuation is, but the image quality is not that good.

### Video Encoding

The device supports multiple video encoding types, such as H.264, H.265, and MJPEG. Supported encoding types for different stream types may differ. H.265 is a new encoding technology. Compared with H.264, it reduces the transmission bitrate under the same resolution, frame rate, and image quality.

3. Click **Save**.

## 7.2 Set Image Parameters

You can adjust the image parameters to get clear image.

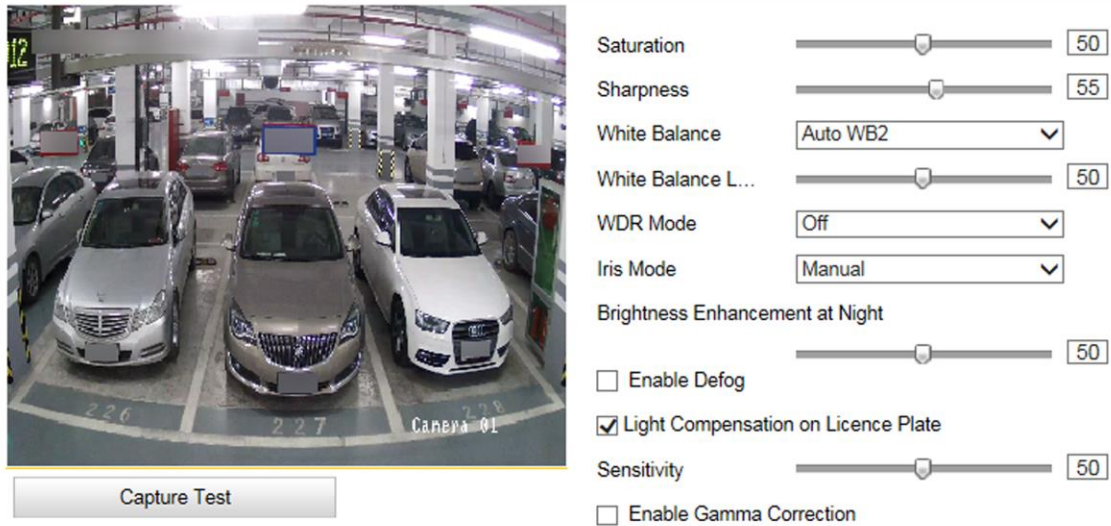
### Steps



The supported parameters may vary with different models. The actual device prevails.

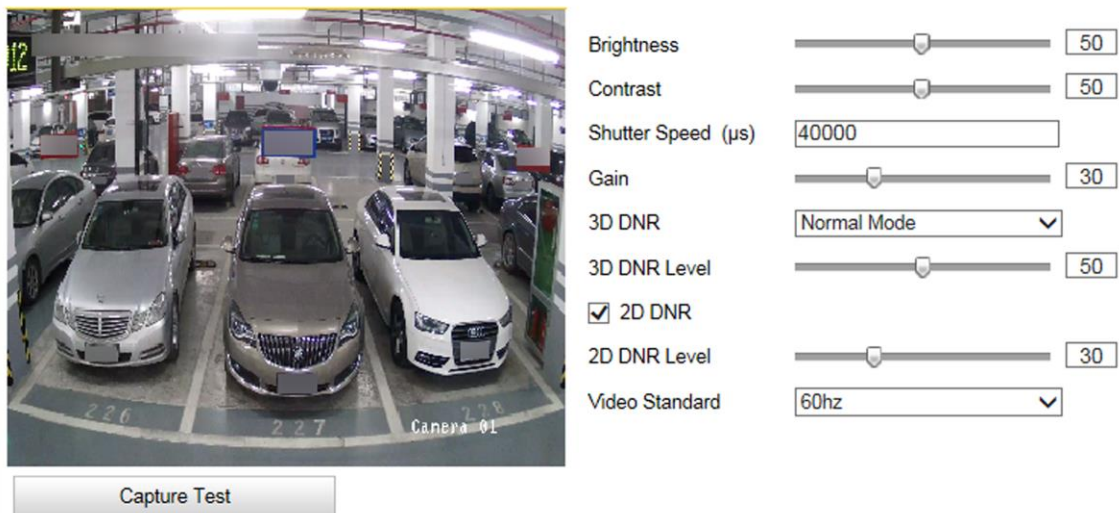
---

1. Go to **Configuration** → **Device Configuration** → **Image Parameters** → **General Parameter/Configuration** → **Device Configuration** → **Image Parameters** → **Video**.



Hint: Test the function of triggering the camera to capture.

**Figure 7-1 Set General Parameters**



Hint: Test the function of triggering the camera to capture.

**Figure 7-2 Set Video Image Parameters**

2. Adjust the parameters.

### Saturation

It refers to the colorfulness of the image color.

### Sharpness

It refers to the edge contrast of the image.

### White Balance

It is the white rendition function of the device used to adjust the color temperature according to the environment.

### **Iris Mode**

Select the iris mode as manual.

### **Brightness Enhancement at Night**

The scene brightness will be enhanced at night automatically.

### **Enable Defog**

Enable defog to get a clear image in foggy days.

### **Light Compensation on License Plate**

Check it. The light compensation on license plates can be realized, and various light supplement conditions can be adapted via setting license plate expectant brightness and supplement light correction coefficient. The higher the sensitivity is, the easier this function can be enabled.

### **Enable Gamma Correction**

The higher the gamma correction value is, the stronger the correction strength is.

### **Brightness**

It refers to the max. brightness of the image.

### **Contrast**

It refers to the contrast of the image. Set it to adjust the levels and permeability of the image.

### **Shutter Speed**

If the shutter speed is quick, the details of the moving objects can be displayed better. If the shutter speed is slow, the outline of the moving objects will be fuzzy and trailing will appear.

### **Gain**

It refers to the upper limit value of limiting image signal amplification. It is recommended to set a high gain if the illumination is not enough, and set a low gain if the illumination is enough.

### **3D DNR**

Digital Noise Reduction (DNR) reduces the noise in the video stream.

In **Normal Mode**, the higher the **3D DNR Level** is, the stronger the noise will be reduced. But if it is too high, the image may become fuzzy.

In **Expert Mode**, set **Spatial Intensity** and **Time Intensity**. If the special intensity is too high, the outline of the image may become fuzzy and the details may lose. If the time intensity is too high, trailing may appear.

### **2D DNR**

The higher the **2D DNR Level** is, the stronger the noise will be reduced. But if it is too high, the image may become fuzzy.

### **Video Standard**

Select the video standard according to the actual power supply frequency.

## 7.3 Set ROI

ROI (Region of Interest) encoding helps to assign more encoding resources to the region of interest, thus to increase the quality of the ROI whereas the background information is less focused.

### Before You Start

Please check the video encoding type. ROI is supported when the video encoding type is H.264 or H.265.

### Steps

1. Go to **Configuration** → **Device Configuration** → **Encoding and Storage** → **ROI**.

#### Figure 7-3 Set ROI

2. Optional: If you have enabled two/four-image calibration mode, select the camera.
3. Select **Stream Type**.
4. Set ROI region.
  - 1) Check **Enable**.
  - 2) Select **Area Code**.
  - 3) Click **Draw Area**.
  - 4) Drag the mouse on the live view image to draw the fixed area.
  - 5) Select the fixed area that needs to be adjusted and drag the mouse to adjust its position.
  - 6) Click **Stop Drawing**.
5. Enter **Area Name** and select **ROI Level**.

---

#### Note

The higher the ROI level is, the clearer the image of the detected area is.

---

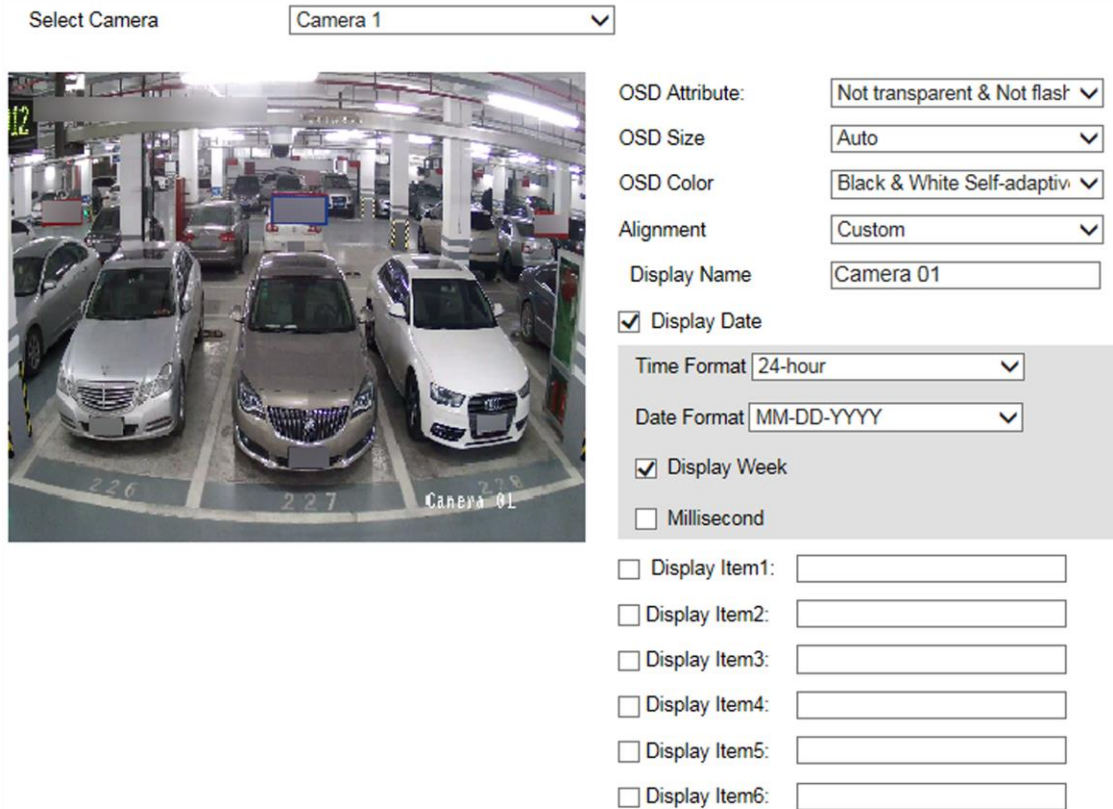
6. Click **Save**.
7. Optional: Select other area codes and repeat the steps above if you need to draw multiple fixed areas.

## 7.4 Set OSD

You can customize OSD information on the live view.

### Steps

1. Go to **Configuration** → **Device Configuration** → **Text Overlay** → **OSD Settings**.



**Figure 7-4 Set OSD**

- Optional: If you have enabled two/four-image calibration mode, select the camera.
- Set OSD property, font size, alignment, etc.
- Set the display content.
  - 1) Check **Camera Name** and enter the name.
  - 2) Check **Display Date**, and set the time and date format.
  - 3) Check **Display Week**.
  - 4) Check **Millisecond**
- Optional: Check the display item(s) and enter the information in the text field(s).
- Drag the red frames on the live view image to adjust the OSD positions.
- Click **Save**.

## Result

The set OSD will be displayed in live view image and recorded videos.

## Chapter 8 Network Configuration

### 8.1 Set IP Address

IP address must be properly configured before you operate the device over network. IPv4 and IPv6 are both supported. Both versions can be configured simultaneously without conflicting to each other.

Go to **Configuration** → **Device Configuration** → **System** → **Network Parameters**.

NIC Settings	
NIC Type	10M/100M/1000M Self-adaptive ▾
<input type="checkbox"/> DHCP	
IPv4 Address	10.10.113.241
IPv4 Subnet Mask	255.255.255.0
IPv4 Default Gateway	10.10.113.254
IPv6 Mode	DHCP ▾
IPv6 Address	
IPv6 Default Gateway	::
IPv6 Subnet Mask	
Mac Address	54:c4:15:fb:c2:1c
MTU	1500
Multicast Address	

Figure 8-1 Set IP Address

#### NIC Type

Select a NIC (Network Interface Card) type according to your network condition.

#### IPv4

Two IPv4 modes are available.

#### DHCP

The device automatically gets the IPv4 parameters from the network if you check **DHCP**. The device IP address is changed after enabling the function. You can use SADP to get the device IP address.

---

### Note

The network that the device is connected to should support DHCP (Dynamic Host Configuration Protocol).

---

### Manual

You can set the device IPv4 parameters manually. Enter **IPv4 Address**, **IPv4 Subnet Mask**, and **IPv4 Default Gateway**.

### IPv6

Three IPv6 modes are available.

#### Route Advertisement

The IPv6 address is generated by combining the route advertisement and the device Mac address.

---

### Note

Route advertisement mode requires the support from the router that the device is connected to.

---

### DHCP

The IPv6 address is assigned by the server, router, or gateway.

### Manual

Enter **IPv6 Address**, **IPv6 Subnet Mask**, and **IPv6 Default Gateway**. Consult the network administrator for required information.

### MTU

It stands for maximum transmission unit. It is the size of the largest protocol data unit that can be communicated in a single network layer transaction.

The valid value range of MTU is 1280 to 1500.

### Multicast

Multicast is group communication where data transmission is addressed to a group of destination devices simultaneously. After setting the IP address of the multicast host, you can send the source data efficiently to multiple receivers.

### DNS

It stands for domain name server. It is required if you need to visit the device with domain name. And it is also required for some applications (e.g., sending email). Set **Preferred DNS Server** properly if needed.



## 8.2 Connect to ISUP Platform

ISUP is a platform access protocol. The device can be remotely accessed via ISUP platform.

### Before You Start

- Create the device ID on ISUP platform.
- Ensure the device can communicate with the platform normally.

### Steps

1. Go to **Configuration** → **Device Configuration** → **System Configuration** → **ISUP**.

<input checked="" type="checkbox"/> Enable	
Protocol Version	v5.0
Address Type	IP Address
Platform IP Address	127.0.0.1
Platform Port	7660
Camera No.	123456789
Encryption Key	●●●●●●
Registration Status	Offline

Figure 8-2 Connect to ISUP Platform

2. Check **Enable**.
3. Select **Protocol Version**.
4. Select **Address Type**.
5. Enter **Platform IP Address**, **Platform Port**, and **Camera No.**

---

### Note

You need to enter **Encryption Key** if you select **Protocol Version** as **v5.0**.

---

6. Click **Save**.
7. Optional: View **Register Status**.

### What to do next

When the registration status shows online, you can add or manage the device via the platform software. Refer to its corresponding manual for details.

## 8.3 Set DDNS

You can use the Dynamic DNS (DDNS) for network access. The dynamic IP address of the device can be mapped to a domain name resolution server to realize the network access via domain

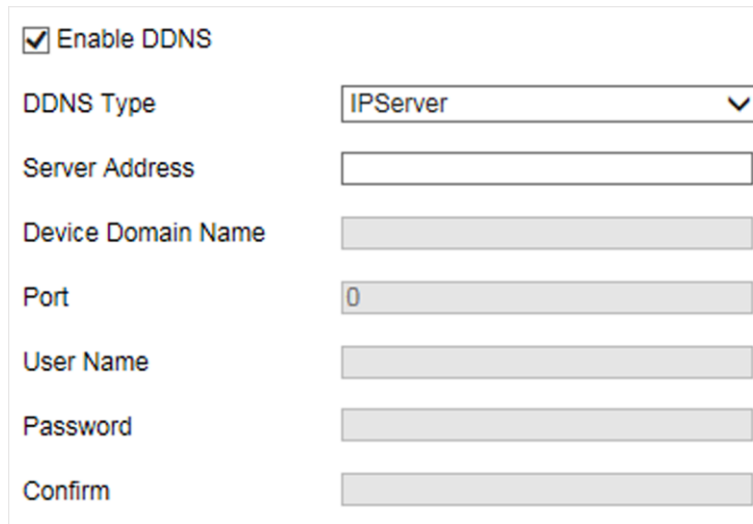
name.

## Before You Start

- Register the domain name on the DDNS server.
- Set the LAN IP address, subnet mask, gateway, and DNS server parameters. Refer to "Set IP Address" for details.
- Complete port mapping. The default port is 80, 8000, and 554.

## Steps

1. Go to **Configuration** → **Device Configuration** → **System Configuration** → **DDNS**.



**Figure 8-3 Set DDNS**

2. Check **Enable DDNS**.
3. Enter the server address and other information.
4. Click **Save**.
5. Access the device.

### By Browsers

Enter the domain name in the browser address bar to access the device.

### By Client Software

Add domain name to the client software. Refer to the client software manual for specific adding methods.

## 8.4 Set Port

The device port can be modified when the device cannot access the network due to port conflicts.

---



### Caution

Do not modify the default port parameters at will, otherwise the device may be inaccessible.

---

Go to **Configuration** → **Device Configuration** → **System Configuration** → **Port** for port settings.

---

HTTP Port	<input type="text" value="80"/>
<input checked="" type="checkbox"/> RTSP Port	
RTSP Port	<input type="text" value="554"/>
HTTPS Port	<input type="text" value="443"/>
SDK Port	<input type="text" value="8000"/>
<input checked="" type="checkbox"/> SADP Port	

**Figure 8-4 Set Port**

### **HTTP Port**

It refers to the port through which the browser accesses the device. For example, when the **HTTP Port** is modified to 81, you need to enter ***http://192.168.1.64:81*** in the browser for login.

### **RTSP Port**

It refers to the port of real-time streaming protocol.

### **HTTPS Port**

Set the HTTPS for accessing the browser. Certificate is required when accessing.

### **SDK Port**

It refers to the port through which the client adds the device.

### **SADP Port**

It refers to the port through which the SADP software searches the device.

## Chapter 9 Serial Port Configuration

### 9.1 Set RS-485

Set RS-485 parameters if the device has been connected to a vehicle detector or other RS-485 devices.

#### Before You Start

The corresponding device has been connected via the RS-485 serial port.

#### Steps

1. Go to **Configuration** → **Device Configuration** → **System Configuration** → **Serial Ports**.

RS-485 Parameters						
RS-485 No.	Baud Rate	Data Bit	Stop Bit	Parity	Flow Ctrl	Working Mode
1	38400	8	1	None	None	Application Mode Trigger

Figure 9-1 Set RS-485

2. Set **Baud Rate**, **Data Bit**, **Stop Bit**, etc.

#### Note

The parameters should be same with those of the connected device.

3. Select **Working Mode**.

#### **Application Mode Trigger**

Select it if the vehicle detector has been connected via the RS-485 serial port.

#### **Transparent Transmission**

Select it, and the network command can be transmitted to RS-485 control command via the RS-485 serial port.

#### **GPS**

The GPS devices are connected to the RS-485 serial port of the device for receiving location data.

4. Click **Save**.

### 9.2 Set RS-232

Set RS-232 parameters if you need to debug the device via RS-232 serial port, or peripheral devices

have been connected.

### Before You Start

The corresponding device has been connected via the RS-232 serial port.

### Steps

1. Go to **Configuration** → **Device Configuration** → **System Configuration** → **Serial Ports**.
2. Click **Advanced Settings**.

RS-232 Parameters	
Baud Rate	115200 bps
Data Bit	8
Stop Bit	1
Parity	None
Flow Ctrl	None
Working Mode	Console

[Advanced Settings](#)

Figure 9-2 Set RS-232

3. Set **Baud Rate**, **Data Bit**, **Stop Bit**, etc.

---

#### Note

The parameters should be same with those of the connected device.

---

4. Select **Working Mode**.

#### **Console**

Select it when you need to debug the device via RS-232 serial port.

#### **Transparent Channel**

Select it, and the network command can be transmitted to RS-232 control command via the RS-232 serial port.

#### **Narrow Band**

Reserved.

5. Click **Save**.

## Chapter 10 Alarm Configuration

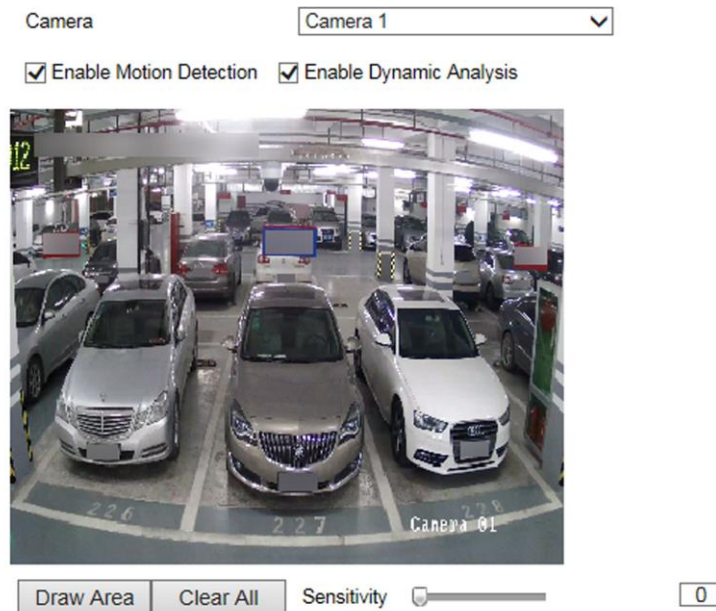
This section explains how to set the device to respond to alarm events, including motion detection and exceptions. These events can trigger the linkage methods, such as notifying the video security center.

### 10.1 Set Motion Detection

Motion detection detects the moving objects in the set video security area, and a series of actions can be taken when the alarm is triggered.

#### Steps

1. Go to **Configuration** → **Device Configuration** → **Exception** → **Motion Detection**.



**Figure 10-1 Set Motion Detection**

2. Optional: If you have enabled two/four-image calibration mode, select the camera.
3. Check **Enable Motion Detection** and **Enable Dynamic Analysis**.
4. Set the motion detection area.
  - 1) Click **Draw Area**.
  - 2) Drag the mouse on the live view to draw a motion detection area.
  - 3) Click **Stop Drawing** to complete the current drawing.
  - 4) Optional: Repeat the steps to draw more areas.
  - 5) Optional: Click **Clear All** to clear all the areas.
  - 6) Adjust **Sensitivity** of the motion detection.
5. Set the arming schedule for the motion detection.

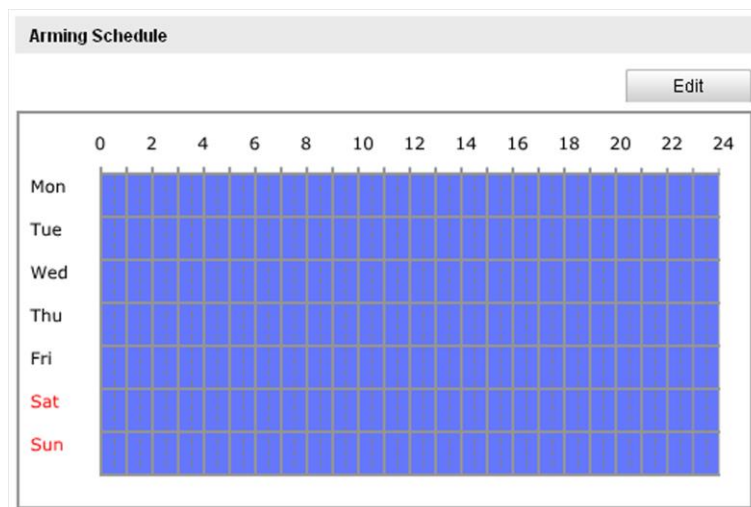
- 1) Click **Edit**.
- 2) Select a day to set the arming schedule.
- 3) Set the start time and end time of the periods.
- 4) Optional: If you want to copy the arming schedule to other days, check the day(s) and click **Copy**.
- 5) Click **OK**.

---

 **Note**

The time of each period cannot be overlapped. Up to four periods can be set for each day.

---



**Figure 10-2 Set Arming Schedule**

6. Check **Notify Surveillance Center** to send an exception or alarm signal to the video security center when the motion detection occurs, or check **Trigger Alarm Output**.
7. Click **Save**.

## 10.2 Set Exception Alarm

Set exception alarm when the network is disconnected or the IP address is conflicted.

### Steps

1. Go to **Configuration** → **Device Configuration** → **Exception** → **Exception**.
2. Check the exception type(s) to be alarmed.
3. Click **Save**.

## Chapter 11 Safety Management

### 11.1 Manage User

The administrator can add, modify, or delete other accounts, and grant different permissions to different user levels.

#### Steps

1. Go to **Configuration** → **Device Configuration** → **User Management**.
  2. Add a user.
    - 1) Click **Add**.
    - 2) Enter **User Name** and select **Level**.
    - 3) Enter **Admin Password**, **Password**, and confirm the password.
- 

#### **Caution**

To increase security of using the device on the network, please change the password of your account regularly. Changing the password every 3 months is recommended. If the device is used in high-risk environment, it is recommended that the password should be changed every month or week.

---

- 4) Assign remote permission to users based on needs.

#### **User**

Users can be assigned permission of viewing live video and changing their own passwords, but no permission for other operations.

#### **Operator**

Operators can be assigned all permission except for operations on the administrator and creating accounts.

- 5) Click **OK**.
3. You can do the following operations.
  - Select a user and click **Modify** to change the password and permission.
  - Select a user and click **Delete** to delete the user.

### 11.2 Enable User Lock

To raise the data security, you are recommended to lock the current IP address.

#### Steps

1. Go to **Configuration** → **Device Configuration** → **System Configuration** → **Service**.
  2. Check **Enable User Lock**.
-



3. Click **Save**.

### **Result**

When the times you entered incorrect passwords have reached the limit, the current IP address will be locked automatically.

## **11.3 Set SSH**

To raise network security, disable SSH service. The configuration is only used to debug the device for the professionals.

### **Steps**

1. Go to **Configuration** → **Device Configuration** → **System Configuration** → **Service**.
2. Uncheck **Enable SSH Service**.
3. Click **Save**.

## **11.4 Set HTTPS**

### **11.4.1 Create and Install Self-signed Certificate**

HTTPS is a network protocol that enables encrypted transmission and identity authentication, which improves the security of remote access.

#### **Steps**

1. Go to **Configuration** → **Device Configuration** → **System Configuration** → **HTTPS**.
2. Select **Create Self-signed Certificate**.
3. Click **Create**.
4. Follow the prompt to enter **Country/Region**, **Hostname/IP**, **Validity**, and other parameters.
5. Click **OK**.

#### **Result**

The device will install the self-signed certificate by default.

### **11.4.2 Install Authorized Certificate**

If the demand for external access security is high, you can create and install authorized certificate via HTTPS protocol to ensure the data transmission security.

#### **Steps**

1. Go to **Configuration** → **Device Configuration** → **System Configuration** → **HTTPS**.
2. Select **Create certificate request first and continue the installation**.
3. Click **Create**.
4. Follow the prompt to enter **Country/Region**, **Hostname/IP**, **Validity**, and other parameters.

5. Click **Download** to download the certificate request and submit it to the trusted authority for signature.
6. Import certificate to the device.
  - Select **Signed certificate is available, start the installation directly**. Click **Browse** and **Install** to import the certificate to the device.
  - Select **Create the certificate request first and continue the installation**. Click **Browse** and **Install** to import the certificate to the device.
7. Click **Save**.

## Chapter 12 Maintenance

### 12.1 View Device Information

#### Basic Information and Algorithms Library Version

Go to **Configuration** → **Device Configuration** → **System Configuration** → **Device Information** to view the basic information and algorithms library version of the device.

You can edit **Device Name** and **Device No.** The device No. is used to control the device. It is recommended to reserve the default value.

#### Device Status

Go to **Configuration** → **Device Status** to view the device status.

### 12.2 Upgrade

Upgrade the system when you need to update the device version.

#### Before You Start

Prepare the upgrade file.

#### Steps

1. Go to **Configuration** → **Device Configuration** → **System Maintenance** → **Upgrade**.
2. Click **Browse** to select the upgrade file.
3. Click **Upgrade**.
4. Click **OK** in the popup window.



#### Note

The upgrade process will take 1 to 10 minutes. Do not cut off the power supply.

---

#### Result

The device will reboot automatically after upgrade.

### 12.3 Reboot

When the device needs to be rebooted, reboot it via the software instead of cutting off the power

directly.

### Steps

1. Go to **Configuration** → **Device Configuration** → **System Maintenance** → **Reboot**.
2. Click **Reboot**.
3. Click **OK** to reboot the device.

## 12.4 Restore Parameters

When the device is abnormal caused by the incorrect set parameters, you can restore the parameters.

### Steps

1. Go to **Configuration** → **Device Configuration** → **System Maintenance** → **Default**.
2. Select the restoration mode.
  - Click **Restore** to restore the parameters except the IP address, subnet mask, gateway, and port No. to the default settings.
  - Click **Restore Factory Settings** to restore all the parameters to the factory settings.
3. Click **OK**.

## 12.5 Synchronize Time

Synchronize the device time when it is inconsistent with the actual time.

### Steps

1. Go to **Configuration** → **Device Configuration** → **System Configuration** → **Time Settings**.
2. Select **Time Zone**.
3. Select **Synchronization Mode**.

#### NTP Synchronization

Select it to synchronize the device time with that of the NTP server. Set **Server Address**, **NTP Port**, and **Interval**. Click **NTP Test** to test if the connection between the device and the server is normal.

#### Manual Synchronization

Select it to synchronize the device time with that of the computer. Set time manually, or check **Sync. with computer time**.

---

#### Note

The time synchronization modes vary with different models. The actual device prevails.

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4. Click **Save**.

## 12.6 Set DST

If the region where the device is located adopts Daylight Saving Time (DST), you can set this function.

### Steps

1. Go to **Configuration** → **Device Configuration** → **System Configuration** → **DST**.
2. Check **Enable DST**.
3. Set **Start Time**, **End Time**, and **DST Bias**.
4. Click **Save**.

## 12.7 Export Parameters

You can export the parameters of one device, and import them to another device to set the two devices with the same parameters.

### Steps

1. Go to **Configuration** → **Device Configuration** → **System Maintenance** → **Export Parameters**.
2. Click **Export Parameters**.
3. Set a password, and click **OK**.



The password is used for importing the configuration file of the current device to other devices.

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4. Select the saving path, and enter the file name.
5. Click **Save**.

## 12.8 Import Configuration File

Import the configuration file of another device to the current device to set the same parameters.

### Before You Start

Save the configuration file to the computer.

### Steps



Importing configuration file is only available to the devices of the same model and same version.

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1. Go to **Configuration** → **Device Configuration** → **System Maintenance** → **Import Config. File**.
2. Select **Importing Method**.

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### **Note**

If you select **Import Part**, check the parameters to be imported.

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3. Click **Browse** to select the configuration file.
4. Enter the password which is set when the configuration file is exported, and click **OK**.
5. Click **Import**.
6. Click **OK** on the popup window..

### **Result**

The parameters will be imported, and the device will reboot.

## 12.9 Export Debug File

The technicians can export the debug file to troubleshoot and maintain the device.

### **Steps**

1. Go to **Configuration** → **Device Configuration** → **System Maintenance** → **Export Debug File**.
2. Click **Export Debug File**.
3. Select the saving path, and enter the file name.
4. Click **Save**.

## A. Communication Matrix and Device Command

Scan the QR code below to get the communication matrix of the device.



**Figure A-1 Communication Matrix**

Scan the QR code below to get the device command.



**Figure A-2 Device Command**



See Far, Go Further