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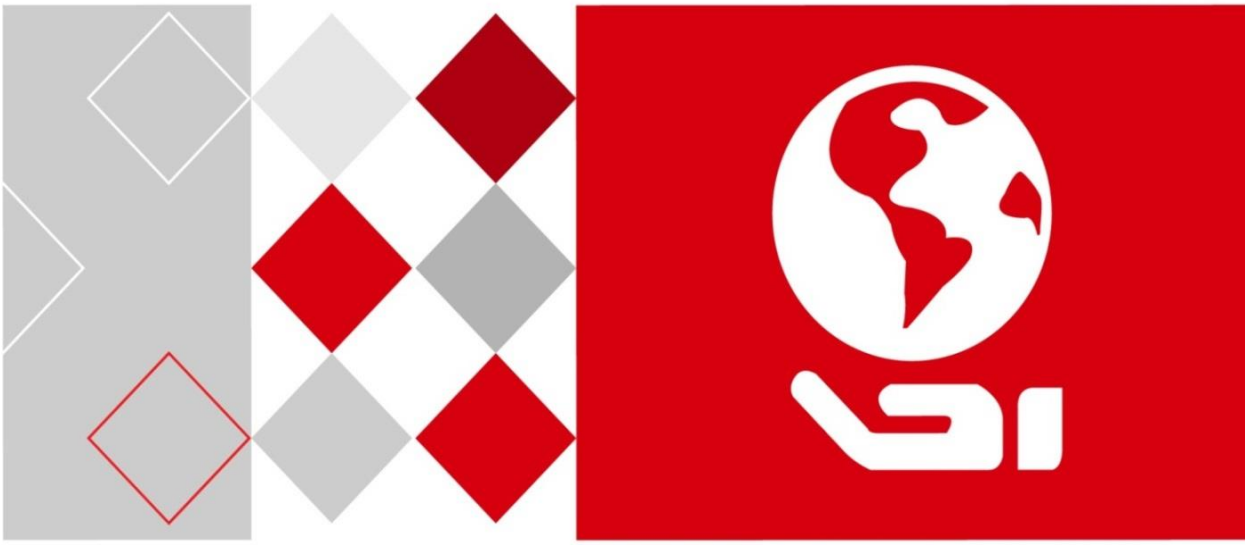

Entrance/Exit Capture Unit

User Manual

UD11822B

User Manual

About this Manual

This Manual is applicable to DS-TCG227-A and DS-TCG227-AIR Series Entrance/Exit Capture Unit.

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website (http://overseas.hikvision.com/en/).

Please use this user manual under the guidance of professionals.

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Regulatory information

FCC information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC compliance: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement

This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the LVD Directive 2014/35/EU, the RoHS Directive 2011/65/EU.

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

2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

Symbol Conventions

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

Symbol	Description
NOTE	Provides additional information to emphasize or supplement important points of the main text.
WARNING	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
DANGER	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.

Safety Instructions

- Please adopt the power adapter which can meet the safety extra low voltage (SELV) standard. And source with 12 VDC (depending on models) according to the IEC60950-1 and Limited Power Source standard.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)
- To reduce the risk of fire or electrical shock, do not expose this product to rain or moisture.
- This installation should be made by a qualified service person and should conform to all the local codes.
- Please install blackouts equipment into the power supply circuit for convenient supply interruption.
- Please make sure that the ceiling can support more than 50(N) Newton gravities if the camera is fixed to the ceiling.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)
- Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

Preventive and Cautionary Tips

- Make sure the power supply voltage is proper before using the camera.
- Do not drop the camera or subject it to physical shock.
- Do not touch sensor modules with fingers. If cleaning is necessary, use a clean cloth with a bit of ethanol and wipe it gently. If the camera will not be used for an extended period of time, put on the lens cap to protect the sensor from dirt.
- Do not aim the camera lens at the strong light such as sun or incandescent lamp. The strong light can cause fatal damage to the camera.
- The sensor may be burned out by a laser beam, so when any laser equipment is being used, make sure that the surface of the sensor not be exposed to it.
- Do not place the camera in extremely hot, cold temperatures (the operating temperature should be between -30°C to 60°C, or -40°C to 60°C if the camera model has an "H" in its suffix), dusty or damp environment, and do not expose it to high electromagnetic radiation.
- To avoid heat accumulation, good ventilation is required.
- Keep the camera away from water and any liquid.
- While shipping, the camera should be packed in its original packing.
- Improper use or replacement of the battery may result in hazard of explosion. Please use the manufacturer recommended battery type.

Table of Contents

Chapter 1 Overview

1.1 Introduction

DS-TCG227-A series entrance/exit capture unit (hereinafter referred to as capture unit) is an all-in-one capture unit. It adopts advanced video compression technology with high compression ratio and flexible operations.

The capture unit can be widely applied in entrance/exit vehicle capture and recognition in community, mall, school, hospital, airport, station, gas station, 4S store, government, etc.

1.2 Key Features

- Supports advanced video compression with high compression ratio and flexible operation.
- Supports multiple trigger modes: IO coil trigger, RS-485 trigger, and video trigger modes.
- Supports capture and recognition though vehicle direction and plate.
- Supports opening, closing, locking and unlocking the barrier gate remotely.
- Supports auto control of light and time control.
- Supports controlling the external audio device to output voice via audio output interface.
- Supports offline and online voice broadcast. After the license plate is recognized, voice will be broadcasted. No license plate is also will be broadcasted.

Chapter 2 Getting Started

2.1 Activation

Activate the capture unit and set login password before getting started. You can activate it via SADP software, client and web browser.

WARNING

STRONG PASSWORD RECOMMENDED–We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: 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.

- **Factory default value**

IP Address: 192.168.1.64
Port number: 8000
User name: admin

2.2 Activation via SADP Software

Purpose:
Search and connect the device through SADP software.
Precondition required:

- Installed the SADP software.
- Connect the computer and capture unit on the same network segment.

Steps:

1. Run the SADP software, and search the online device in LAN.
2. Check the capture unit that not activated. Set password in Activate Device, and enter the password again to confirm it. Click **Activate** as following figure.

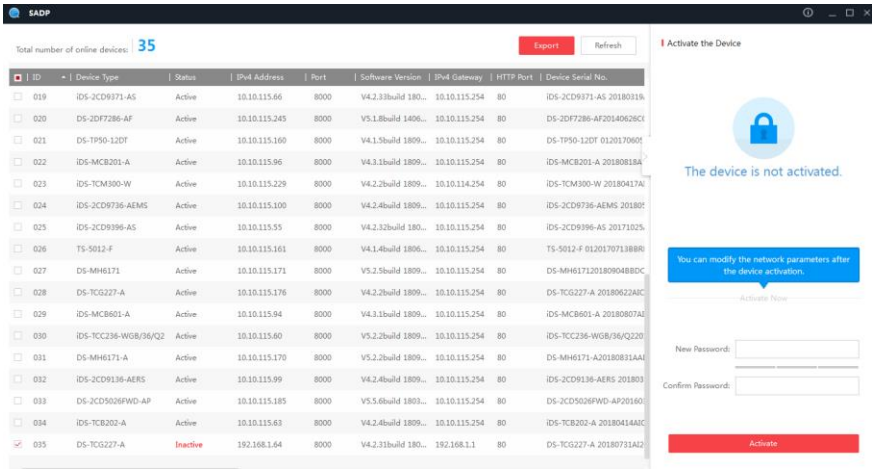


Figure 2-1 Activate Interface(SADP)

WARNING

STRONG PASSWORD RECOMMENDED–We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: 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.

NOTE

- You can get the SADP software from the official website (http://www.hikvision.com/cn/download_more_393.html) and install the SADP according to the prompts.
- Keep capture unit IP address on the same network segment with computer IP address.

2.3 Activation via Client

Purpose:

Centralized device management though client.

Precondition required:

- Client has been installed.
- Connect the computer and capture unit on the same network segment.

Steps:

1. Run the client, click **Control Panel > Device Management**. All online devices in LAN will be auto searched. Device type, IP, safety status and device No. will be displayed in list.
2. Check the capture unit that not activated, and click **Activate**. After activation,

"The device is activated successfully" will be updated in the interface.

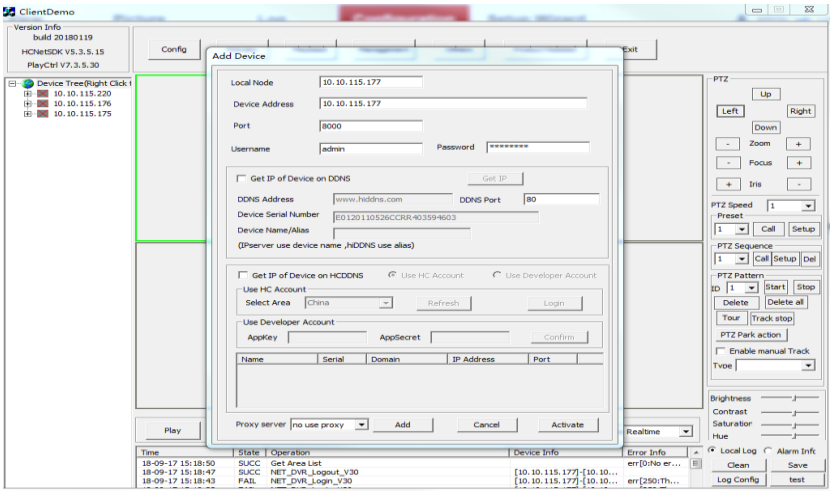


Figure 2-2 Activate Interface(client)

WARNING

STRONG PASSWORD RECOMMENDED–We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: 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.

NOTE

- Keep capture unit IP address on the same network segment with computer IP address.
- If there are many capture units in your network, we recommend you repeat step 3) to edit IP address, subnet mask and gateway parameters to avoid exceptional visit.
- The default account is "admin". We recommend you create a new account, please refer to User Management.

2.4 Activation via Web Browser

Purpose:

Activate and visit device through web browser.

Precondition required:

- Connect the computer and capture unit through cable.
- Keep capture unit IP address on the same network segment with computer IP address.

Steps:

1. Open the web browser, and enter default capture unit IP address. The interface will be as followed.

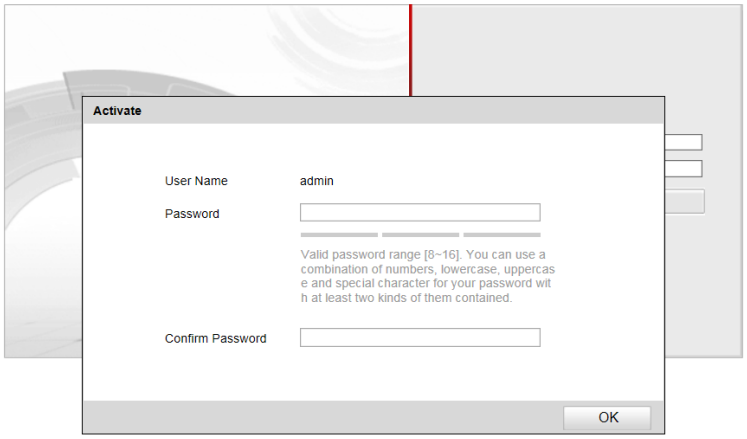


Figure 2-3 Activate Interface(Web Browser)

2. Set password, and enter password again to confirm it.
3. Click **OK** to finish the activation.

WARNING

STRONG PASSWORD RECOMMENDED–We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: 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.

- (Optional) If there are many capture units in your network, we recommend you repeat step 3) to edit IP address, subnet mask and gateway parameters to avoid exceptional visit.

2.5 Login

Steps:

1. Open the web browser.
2. Enter the IP address of the capture unit in the address bar, e.g., 10.10.1.64 and press the **Enter** key to enter the login interface.
3. Enter the user name and password and click **Login**.

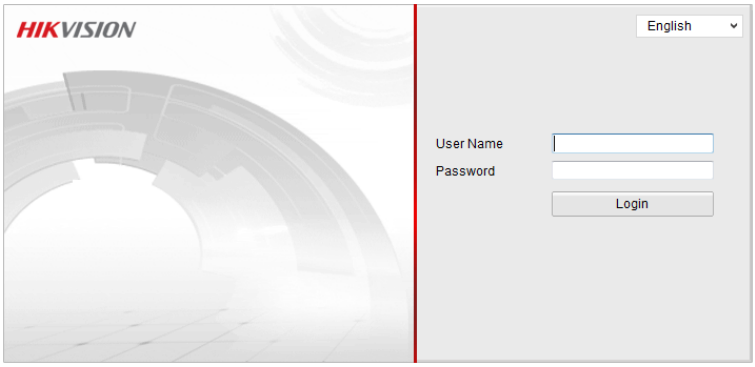


Figure 2-4 Login Interface

WARNING

STRONG PASSWORD RECOMMENDED–We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: 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. Install the plug-in before viewing the live video and operating the capture unit. Please follow the installation prompts to install the plug-in.

NOTE

- You may have to close the web browser to install the plug-in. Please reopen the web browser and log in again after installing the plug-in.
- You may receive "New version of plugin is detected. Update it?" Click **OK** to update to the latest version.

2.6 Logout

After login, click **Logout** to log out of the capture unit.

2.7 Configure Setup Wizard

Purpose:
By default, the Setup Wizard starts once the device has loaded. You can configure the general parameters and adjust image.

2.7.1 Configure General Parameters

Purpose:
You can configure the IP address, subnet mask, default gateway, capture mode, and

scene mode for the capture unit.

Steps:

1. Go to **Setup Wizard > General Configuration**.

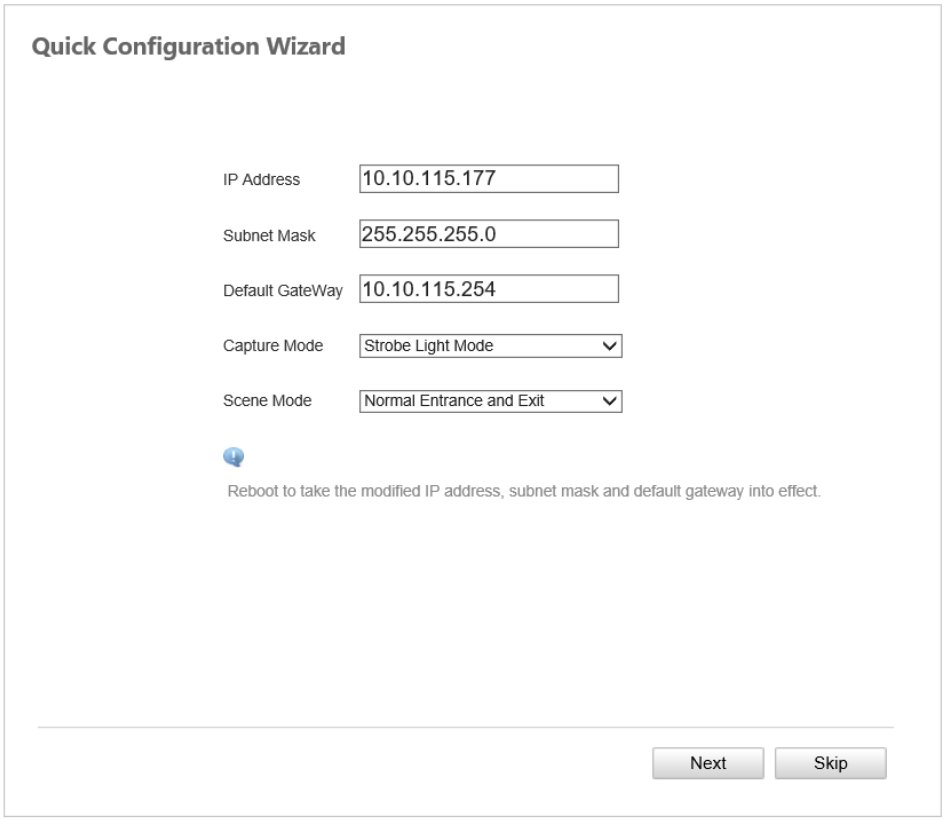


Figure 2-5 General Configuration

2. Configure the parameters.
   - **IP Address, Subnet Mask, Default Gateway**: Configure the parameters of the captured unit.
   - **Capture Mode**: The default capture mode is **Strobe Light Mode**.
   - **Scene Mode**: **Entrance and Exit of Underground Parking Lot**, **Normal Entrance and Exit**, and **Toll Station** are selectable.

2.7.2 Adjust Image

Purpose:

You can configure the lane line, right border line, LPR area, and trigger line, draw the plate recognition area, and adjust the lens on the Image Adjustment page.

Go to **Setup Wizard > Image Adjustment**. The default LPR area and lines will display on the image.

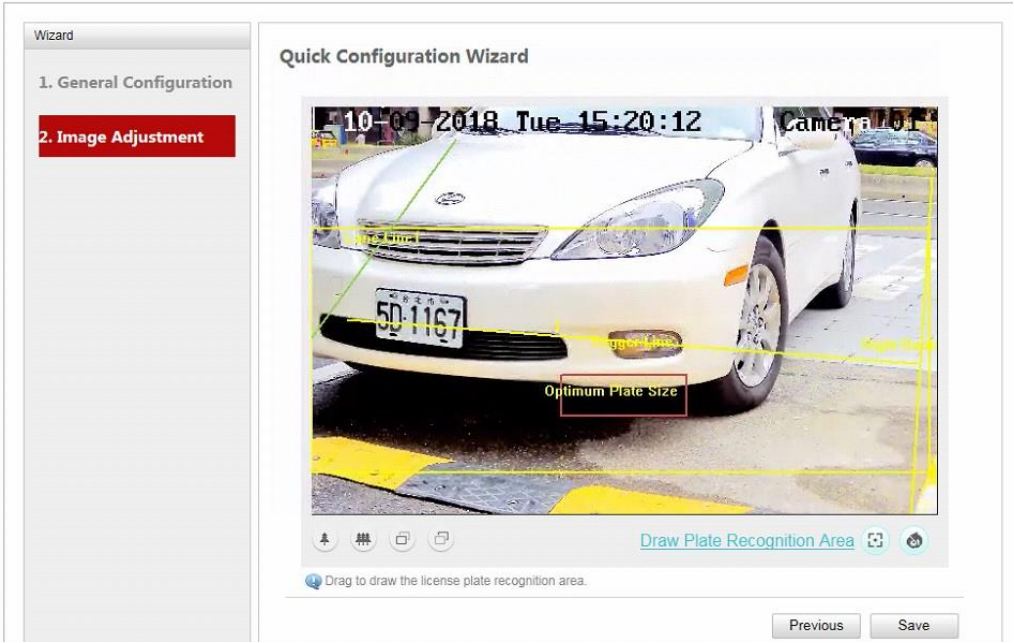


Figure 2-6 Image Adjustment

- **Adjust Default LPR Area and Lines**
  1. Select the LPR area.
  2. Drag the vertex to adjust the shape of the area or drag the area to adjust its position.
  3. Select the lane line, right border line, or trigger line.
  4. Drag the endpoint to adjust the position and length of the line, or drag the line to adjust its position.
  5. Click **Save** to save the settings.
- **Redraw LPR Area**
  1. Click **Draw Plate Recognition Area**.
  2. Left click on the image, drag the mouse to another position, and then left click again to draw a border of the area.
  3. Repeat step 2) to draw more borders of the area.
  4. Right click on the image to complete the drawing. Then the **LPR Area 1** will appear on the image.

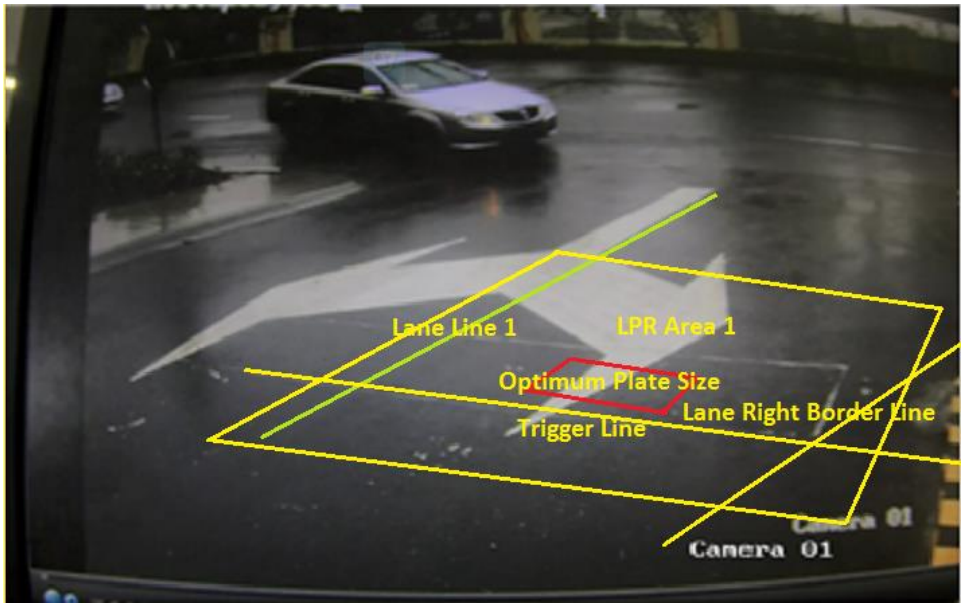


Figure 2-7 Redraw the LPR Area

NOTE

If you redraw the area, the default area will disappear.

5. Click **Save** to save the settings.

- **Adjust Lens**

  Hold or click the icons on the page to realize the following functions.

Icon	Function	Icon	Function
	Hold it to realize zoom +.		Click it to realize one-touch focus.
	Hold it to realize zoom -.		Click it to initialize the lens, and all the parameters will restore to default.
	Hold it to realize focus +.		
	Hold it to realize focus -.		

NOTE

The different models support different functions. Please refer to the actual product.

Chapter 3 Live View

Purpose:

The live view page allows you to view the real-time captured pictures and license plate pictures.

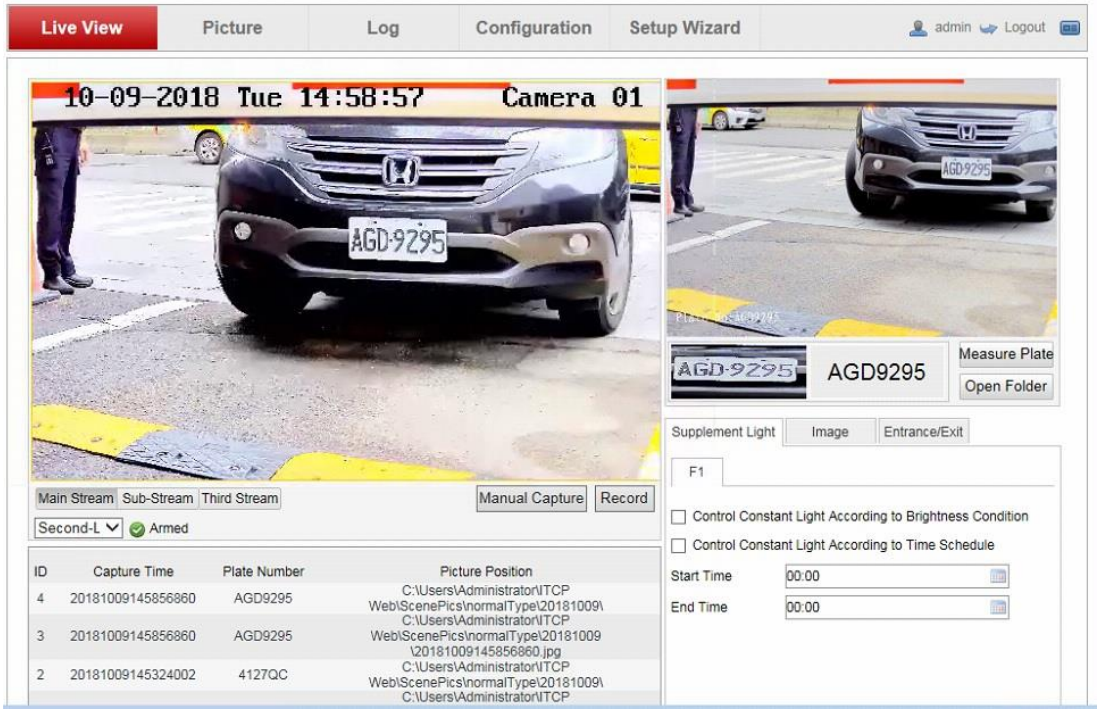
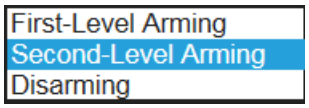
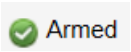


Figure 3-1 Live View Page

Refer to the table below for the description of the icons on the Live View page.

Table 3-1 Description of Live View Page

Icon	Description
Main Stream Sub-Stream Third Stream	You can select main stream, sub-stream, or thrid stream. The main stream is the HD stream, used for HD storage and live view. The sub-stream is the SD stream, used for SD storage and live view when the network bandwidth is not enough. The third stream is optional and reserved.
Manual Capture	Click it to enable manual capture. The device will capture one picture once you click the icon. The captured picture will be displayed on the right. Refer to Chapter 3.1 Configure License Plate Recognition for details.
Record / Stop	Start/Stop record.

	Select the arming mode. Web only supports first-level arming, second-level arming, and disarming. SDK supports first-level, second-level, third-level arming, and disarming. The first-level and second-level arming are mainly used for capture. The third-level arming only supports alarm. If you select disarming, you cancel the alarm satus or capture. NOTE ● The first-level arming can only create one connection via client or web. The uploaded pictures will not be stored in SD card. The pictures in SD card will be uploaded to the first-level arming. ● The second-level arming can create three connections all via client, or all via web, or one via client and 2 via web. The pictures will be uploaded to the client/web, and stored in the SD card.
	Notice information. When you arm, disarm, or enable manual capture, the notice information will be displayed.

3.1 Configure License Plate Recognition

Purpose:

You can view the captured picture, license plate close-up, and license plate number, measure plate, and open the folder storing the captured pictures.

Steps:

1. Go to Live View page. The captured pictures, license plate close-up, and license plate number will be shown on the upper right of the page.

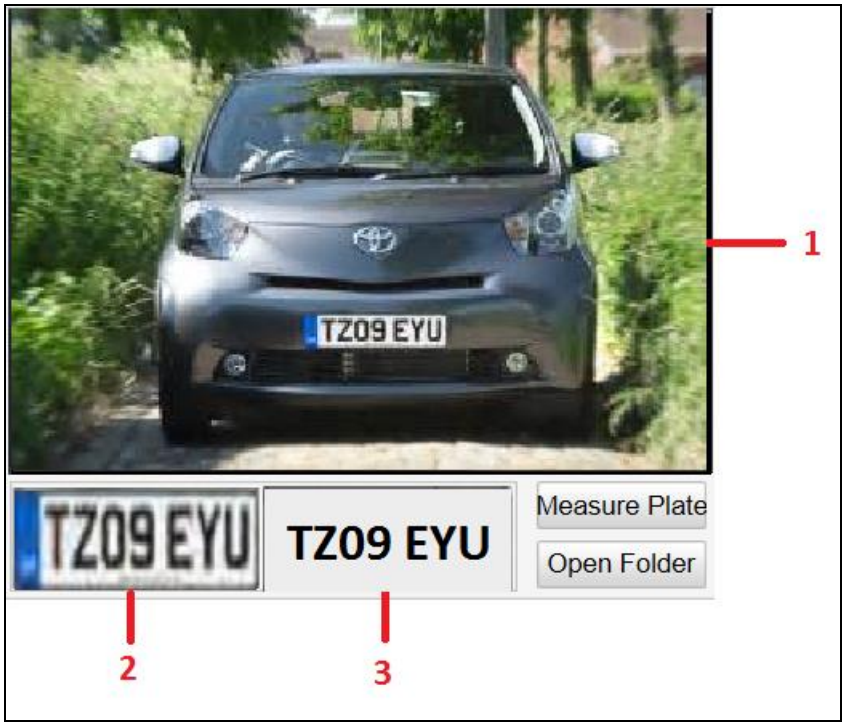


Figure 3-2 License Plate Recognition

Refer to the following table for the description of the License Plate Recognition page.

No.	Description
1	Captured vehicle picture
2	Captured license plate close-up
3	Recognized license plate number

2. View the capture information including the **Capture Time**, **Plate Number**, and **Picture Position** under the live view.

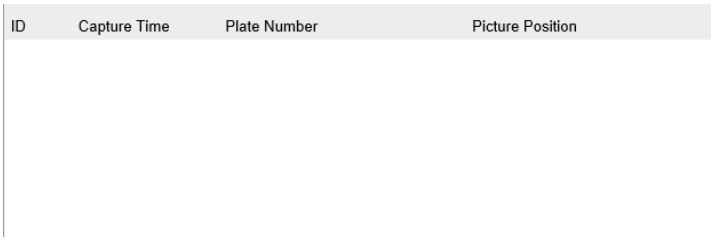


Figure 3-3 Capture Information

3. Click **Measure Plate** to measure the pixel of the captured license plate.
4. Click **Open Folder** to open the folder storing the captured pictures.

3.2 Configure Supplement Light Parameters

Purpose:

F1 is used for controlling the internal supplement light. You can control the supplement light according to the brightness or time schedule.

NOTE

For different models, the number of internal and external supplement lights is different. Please refer to the actual product.

Steps:

1. Go to Live View page.
2. Click **Supplement Light**.
3. Select F1.
4. Configure the constant light control mode.
   - Controlling constant light according to brightness condition:

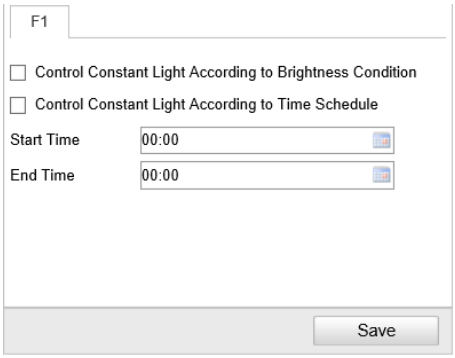


Figure 3-4 Supplement Light Configuration (1)

1) Check Control Constant Light According to Brightness Condition. Then the light will change brightness according to the environment.
2) Click **Save** to save the settings.

   - Controlling constant light according to time schedule:

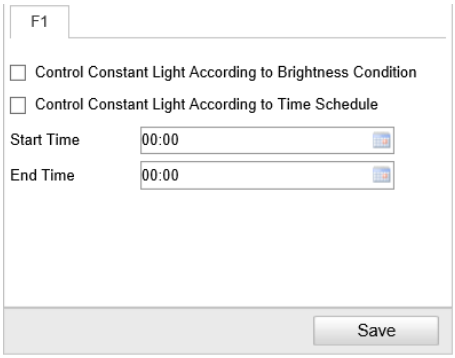


Figure 3-5 Supplement Light Configuration (2)

1) Check **Control Constant Light According to Time Schedule**. Then the light will work only during the configured time schedule.
2) Configure the **Start Time** and **End Time**.
3) Click **Save** to save the settings.

3.3 Configure Image Parameters

Purpose:

You can configure the image parameters such as brightness, contrast, shutter speed, and gain etc. of the capture unit.

Steps:

1. Go to Live View page.
2. Click **Image** tab.
3. Configure the parameters shown in the figure below.

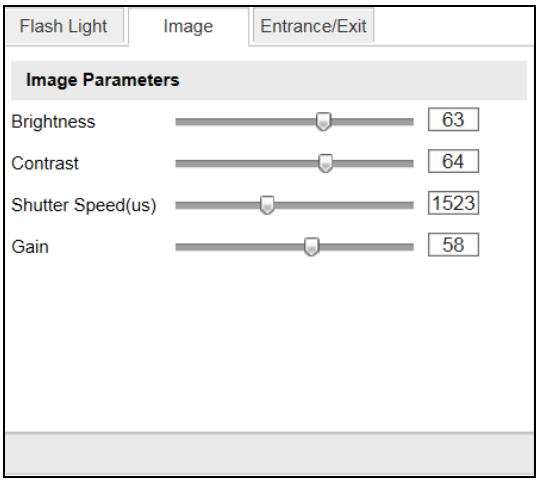


Figure 3-6 Image Configuration

NOTE

The **Brightness**, **Contrast**, and **Gain** range from 0 to 100. The **Shutter Speed** ranges from 60 to 4000 us.

3.4 Configure Entrance/Exit

Click **Entrance/Exit** tab on the Live View page and it will go to the entrance/exit, whitelist and blacklist, and audio configuration. Refer to Chapter 6.9 Configure Entrances and Exits for details.

Chapter 4 Picture Search

NOTE

- The picture search function can be used normally only after the TF card is installed and works normally.
- The TF card supports up to 64 GB capacity.

Purpose:

You can search the captured pictures according to the search conditions and export the pictures you need.

Steps:

1. Click **Picture** on the home page.

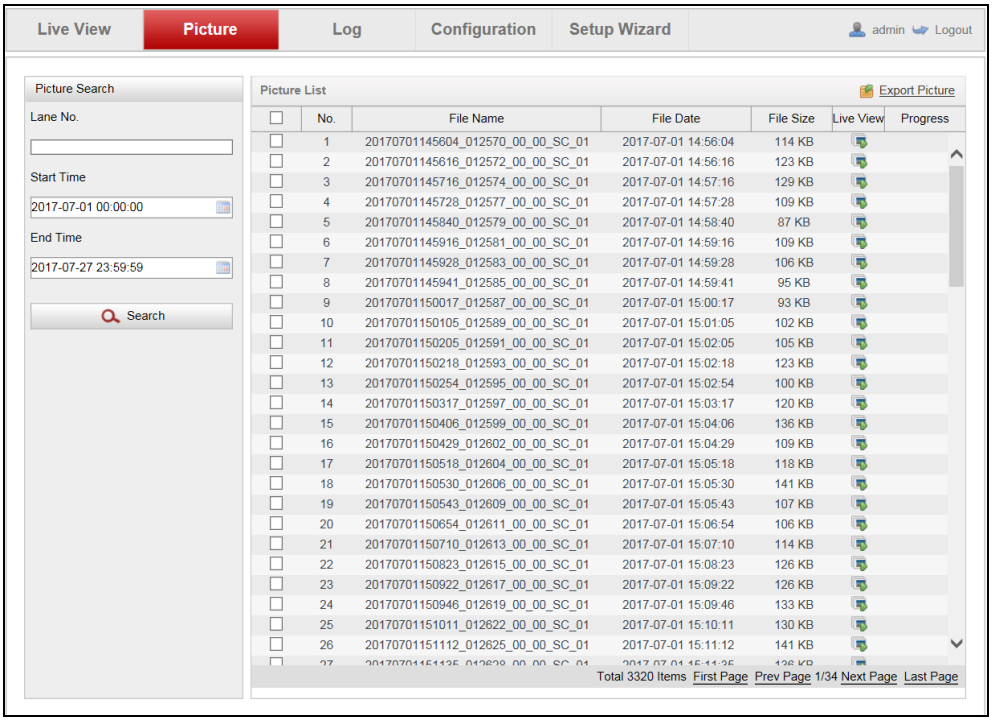


Figure 4-1 Picture Search

2. Configure the search conditions including the **Lane No.**, **Start Time**, and **End Time**.
3. Click **Search** to search the captured pictures. Then the searched pictures information will be displayed in the Picture List.
4. (Optional) Click to preview the selected picture. You can view the picture and the related information such as the captured time, lane No., license plate number, etc.

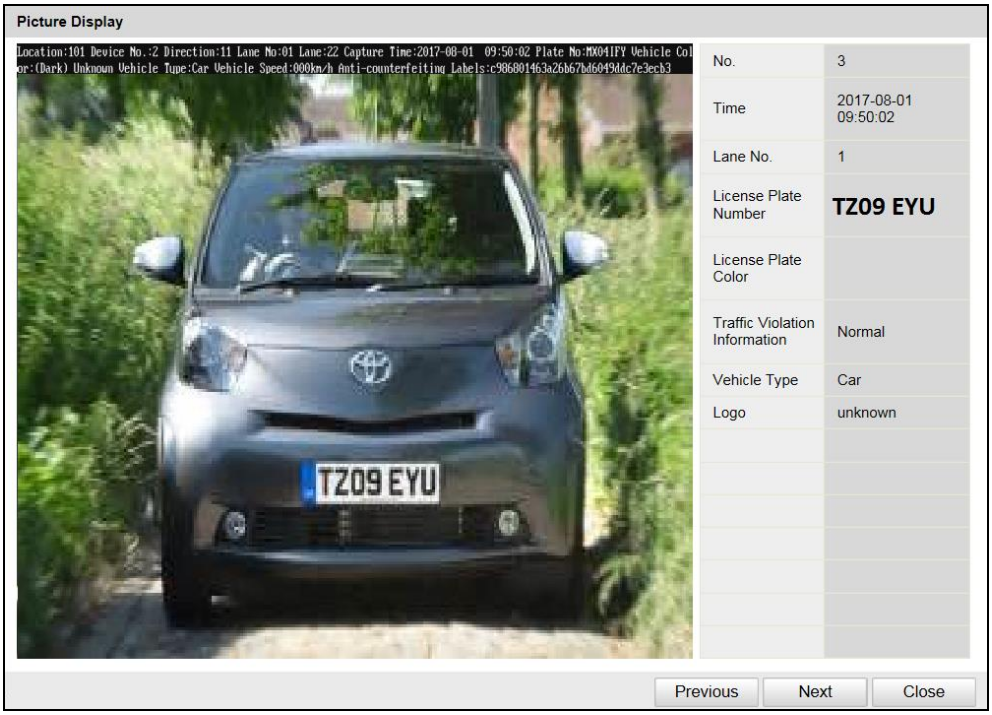


Figure 4-2 Picture Display

5. (Optional) Check a picture or several pictures and click **Export Picture** to export it/them to the saving path you have configured.

Chapter 5 Log Search

NOTE

You can search, view, and save the log information normally only after the TF card is installed and works normally.

Purpose:

You can search, view, and save the log information saved in the TF card.

Steps:

1. Click **Log** on the home page.

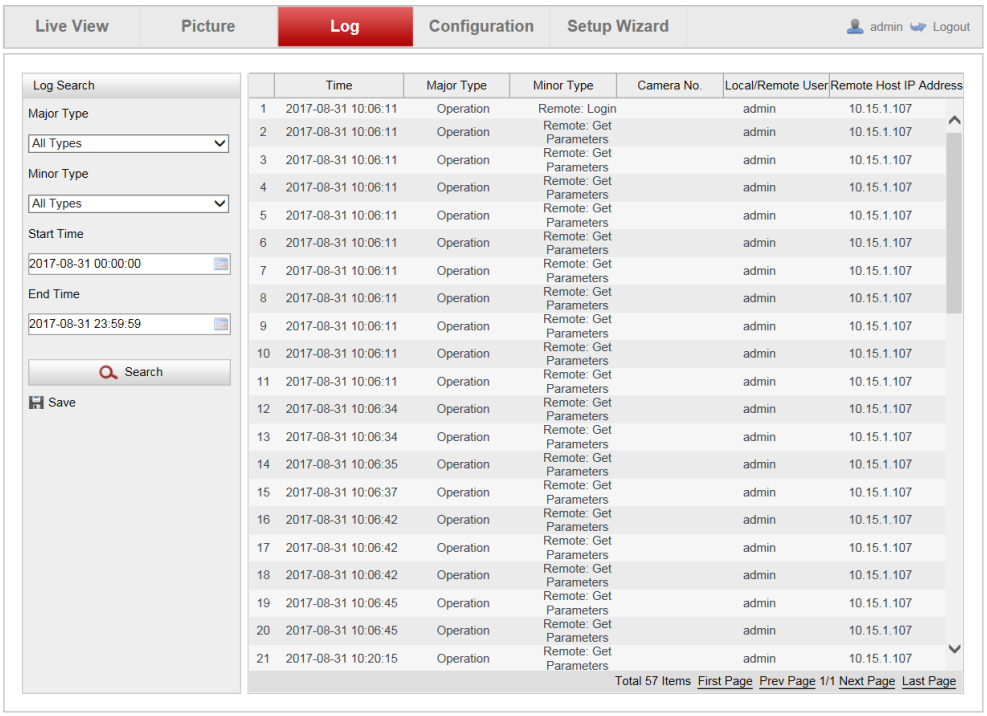


Figure 5-1 Log Search

2. Configure the search conditions including the **Major Type**, **Minor Type**, **Start Time**, and **End Time**.
3. Click **Search** to search the log. Then the searched log information will be displayed on the right.
4. (Optinal) Click **Save** to save the searched log in the local PC.

Chapter 6 Capture Unit Configuration

6.1 View Device Status

Purpose:

You can view the device IP address and device status such as the live view IP address, frame rate, stream time, etc.

Steps:

1. Go to **Configuration > Device Status**.

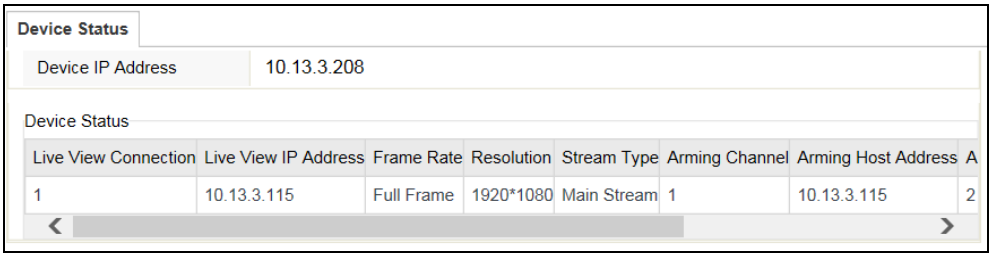


Figure 6-1 Device Status

2. View the **Device IP Address** and other information.

6.2 Local Configuration

NOTE

The local configuration refers to the parameters of the live view, record files and captured pictures. The record files and captured pictures are the ones you record and captured using the web browser and thus the saving paths of them are on the PC running the browser.

Steps:

1. Go to **Configuration > Local Configuration**.

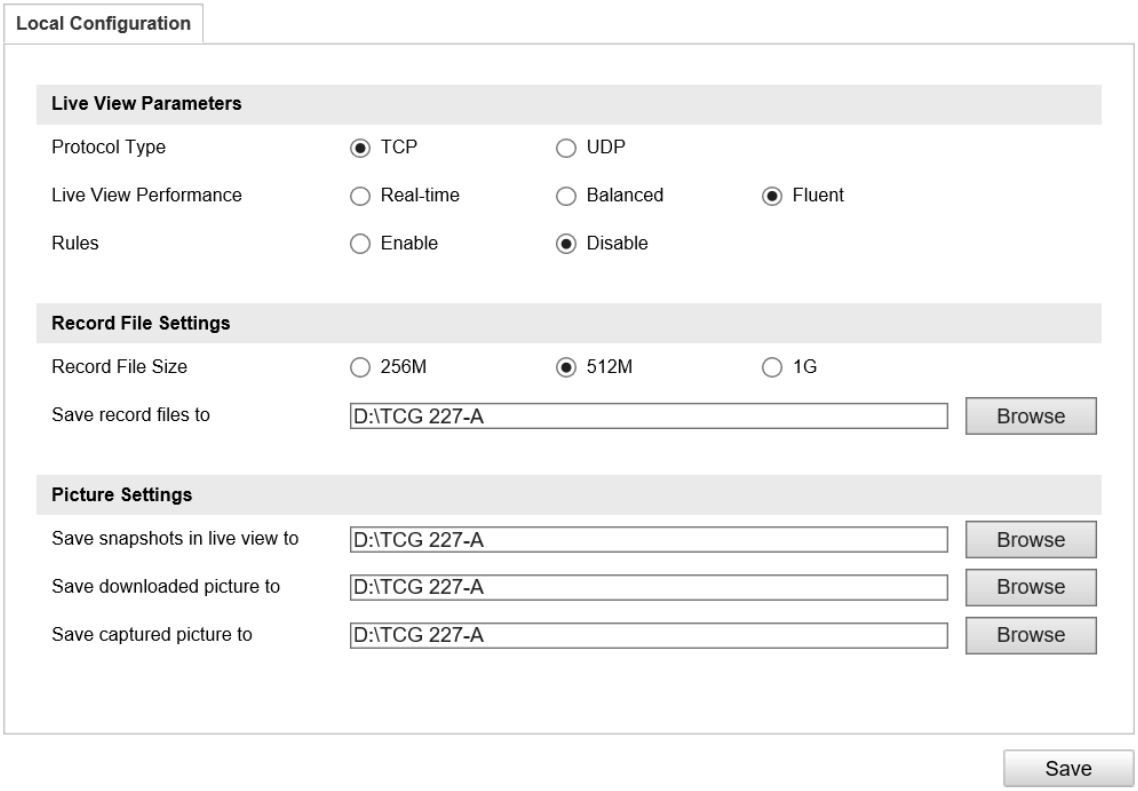


Figure 6-2 Local Configuration

2. Configure the following parameters.

- **Live View Parameters:** Set the protocol type, live view performance, and rules.
  - **Protocol Type:** TCP and UDP are selectable.
    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:** Set the live view performance to Real-time, Balanced or Fluent.
  - **Rules:** It refers to the rules on your local browser. Select Enable or Disable to display or not display the colored marks when the motion detection, face detection, or intrusion detection is triggered. E.g.: enabled as the rules are, and the face detection is enabled as well, when a face is detected, it will be marked with a green rectangle on the live view.
- **Record File Settings:** Set the saving path of the recorded video files. Valid for the record files you recorded with the web browser.
  - **Record File Size:** Select the packed size of the manually recorded and downloaded video files to 256M, 512M or 1G. After the selection, the maximum record file size is the value you selected.
  - **Save record files to:** Set the saving path for the manually recorded video files.
- **Picture Settings:** Set the saving paths of the captured pictures. Valid for the pictures you captured with the web browser.

- **Save snapshots in live view to:** Set the saving path of the manually captured pictures in live view mode.
- **Save downloaded picture to:** Set the saving path for the downloaded picture.
- **Save captured picture to:** Set the saving path of the captured picture.

NOTE

You can click **Browse** to change the saving directory.

3. Click **Save** to save the settings.

6.3 Device Configuration

You can configure device parameters in Device Configuration, including system maintenance, system configuration, encoding and storage, text overlay, application mode, capture parameters, image parameters, entrances and exits, user management.

6.3.1 System Maintenance

6.3.1.1 Reboot the Device

Steps:

1. Go to **Configuration** > **Device Configuration** > **System Maintenance** > **Reboot**.
2. Click **Reboot** to reboot the device.

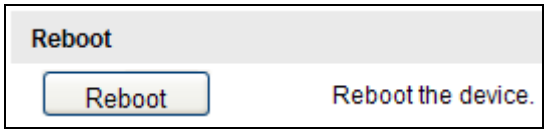


Figure 6-3 Reboot the Device

6.3.1.2 Restore Default Settings

Steps:

1. Go to **Configuration** > **Device Configuration** > **System Maintenance** > **Default**.
2. Click **Restore** or **Default** to restore the default settings.

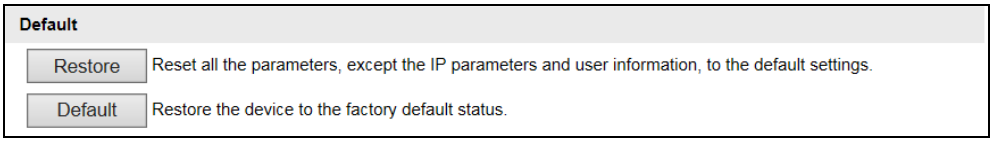


Figure 6-4 Restore Default Settings

NOTE

After restoring the default settings, the IP address is also restored to the default IP address, please be careful for this action.

6.3.1.3 Export Debug File

Steps:

1. Go to **Configuration > Device Configuration > System Maintenance > Export Debug File**.
2. Click **Export Debug File** to export the debug file.

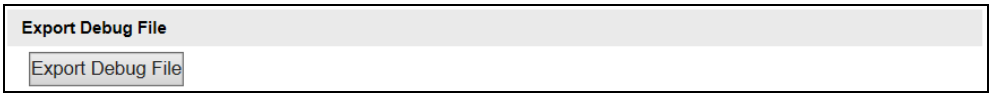


Figure 6-5 Export Debug File

6.3.1.4 Import Configuration File

Purpose:

Configuration file is used for the batch configuration of the device, which can simplify the configuration steps when there are a lot of devices needing configure.

Steps:

1. Go to **Configuration > Device Configuration > System Maintenance > Import Configuration File**.

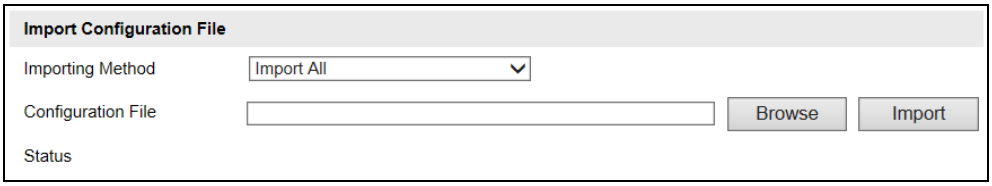


Figure 6-6 Import Configuration File

2. Select the **Importing Method**. You can select **Import All** or **Import Part**.
   If you select **Import Part**, select **OSD Configuration**, **Application Mode**, **Image** or **Supplement Light** for import.
3. Click **Browse** to select the saved configuration file.
4. Click **Import** to start importing configuration file.

NOTE

You need to reboot the camera after importing configuration file.

6.3.1.5 Export Configuration File

Steps:

1. Go to **Configuration > Device Configuration > System Maintenance > Export Configuration File**.

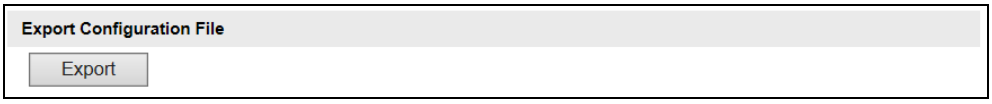


Figure 6-7 Export Configuration File

2. Click **Export** and set the saving path to save the configuration file in local storage**.**

6.3.1.6 Upgrade the System

Steps:

1. Go to **Configuration > Device Configuration > System Maintenance > Import Configuration File**.

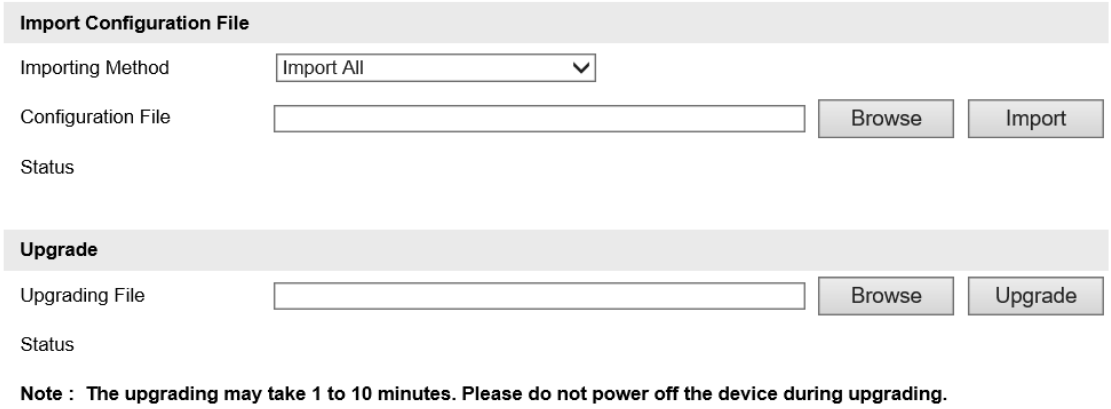


Figure 6-8 Upgra(0de

2. Click **Browse** to select the ALG file, and click **Import** to import the ALG file.
3. Go to **Configuration > Device Configuration > System Maintenance > Upgrade**.
4. Click **Browse** to select the local upgrade file.
5. Click **Upgrade** to start upgrade.

NOTE

ALG file importing is optional. Please operate according to situations.
The upgrading process will take 1~10 minutes. Please don't disconnect power of the camera during the process, and the camera reboots automatically after upgrade.

6.3.2 System Configuration

6.3.2.1 View Device Information

Steps:

1. Go to **Configuration > Device Configuration > System Configuration > Device Information**.

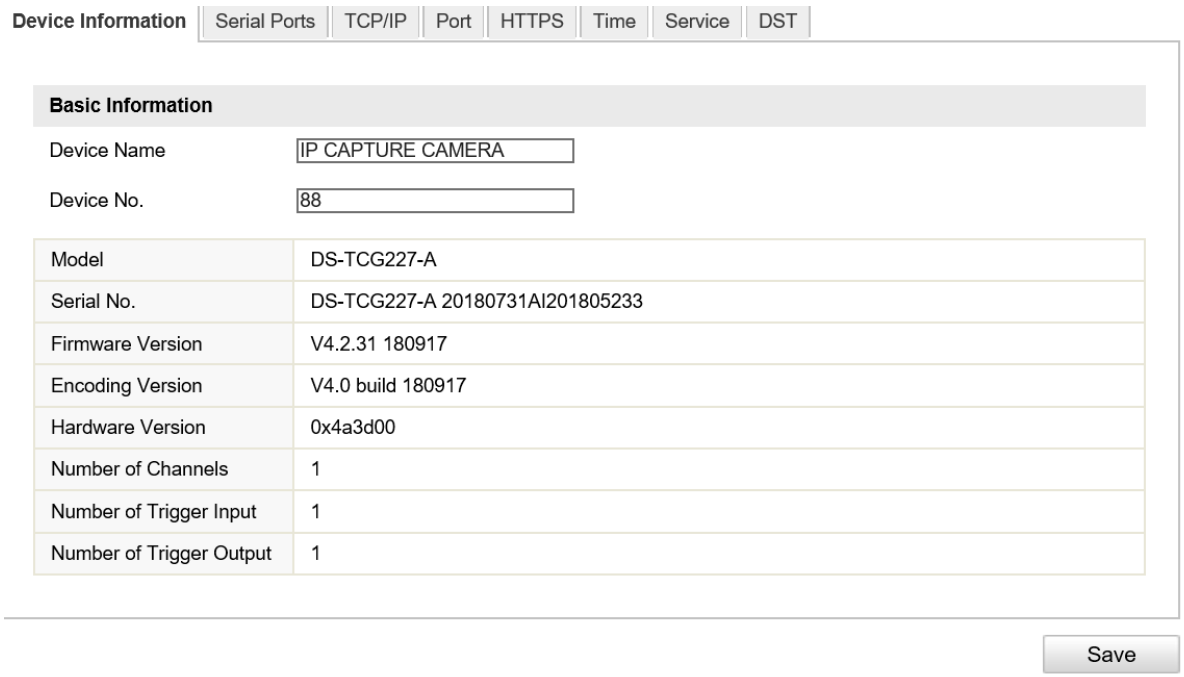


Figure 6-9 Device Information

2. View the device information.

6.3.2.2 Configure Serial Ports

Purpose:

When the RS-485 signal of the vehicle detector is connected to the capture unit, you need to configure the RS-485 parameters. Only when the RS-485 parameters of the capture unit are consistent with that of the sending device, they can communicate normally.

Steps:

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

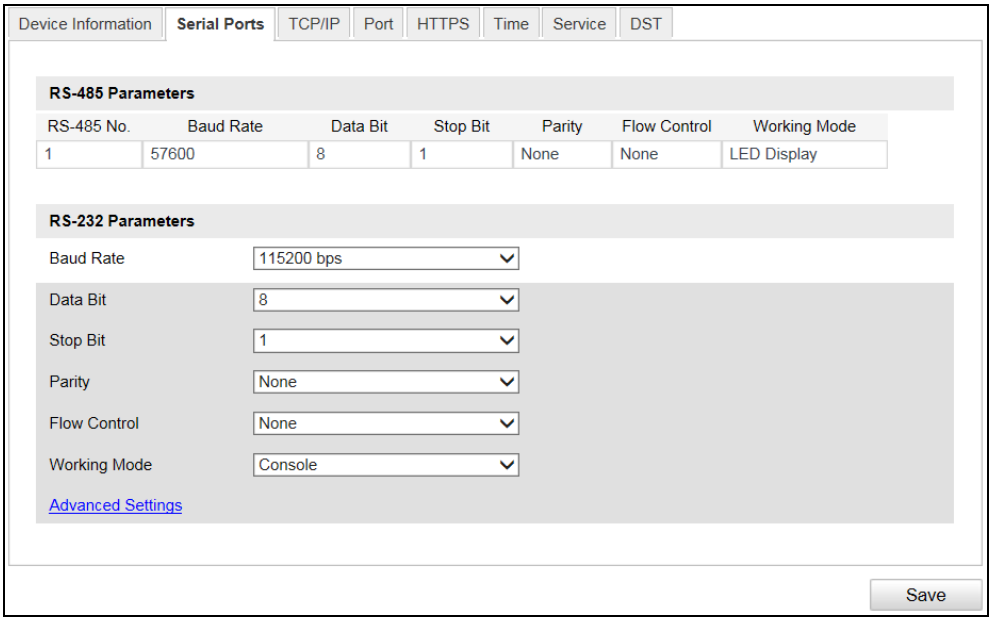


Figure 6-10 Serial Port Configuration

2. Configure the RS-485 parameters including the **Baud Rate**, **Data Bit**, **Stop Bit**, **Parity**, **Flow Control**, and **Working Mode**.

NOTE

- The default working mode for RS-485 is **LED Display**. The **Application Trigger Mode** is used for capture.
- The RS-232 parameters are used for debugging. You do not need to configure them.

3. Click **Save** to save the settings.

6.3.2.3 Configure TCP/IP

Purpose:

TCP/IP settings must be properly configured before you operate the capture unit over network. The capture unit supports both the IPv4 and IPv6. Both versions may be configured simultaneously without conflicting to each other, and at least one IP version should be configured.

Steps:

1. Go to **Configuration** > **Device Configuration** > **System Configuration** > **TCP/IP**.

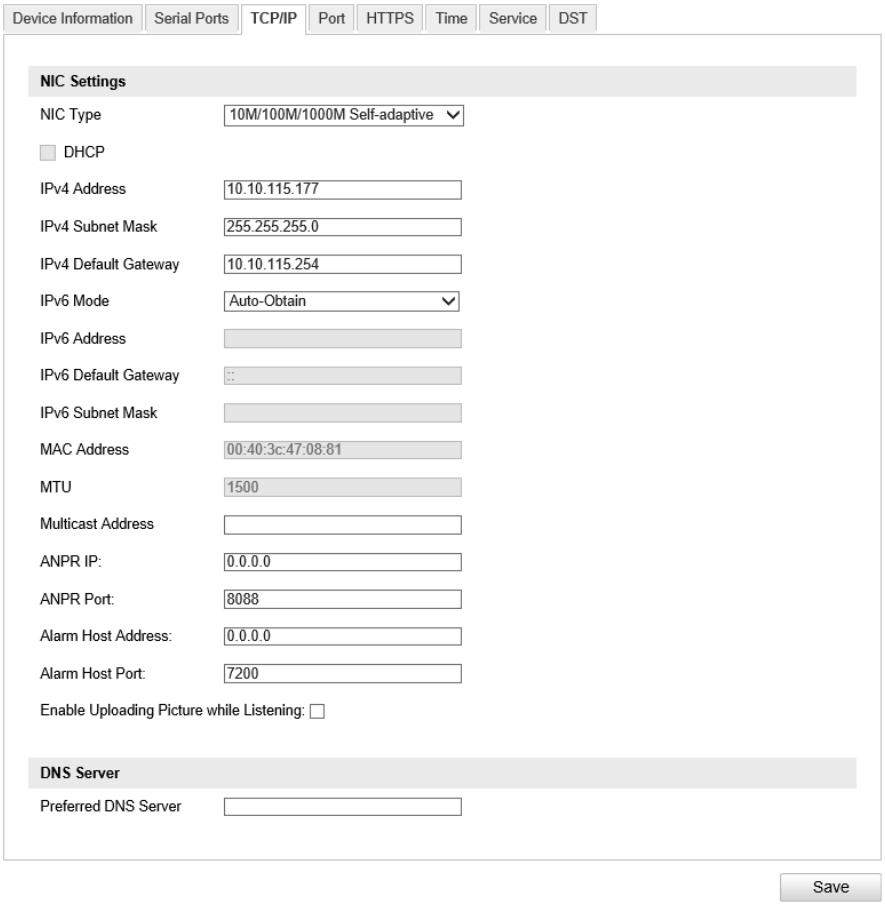


Figure 6-11 TCP/IP Configuration

2. Configure the basic network settings, including the NIC Type, IPv4 or IPv6 Address, IPv4 or IPv6 Subnet Mask, IPv4 or IPv6 Default Gateway, MTU settings, Multicast Address, ANPR IP settings, Alarm settings, and etc.
3. (Optional) Configure the Preferred DNS Server.
4. Click **Save** to save the settings.

NOTE

- The valid value range of MTU is 1280 ~ 1500.
- The Multicast sends a stream to the multicast group address and allows multiple clients to acquire the stream at the same time by requesting a copy from the multicast group address. Before utilizing this function, you have to enable the Multicast function of your router.
- A reboot is required for the settings to take effect.

6.3.2.4 Configure Port Settings

Purpose:

You can set the port No. of the capture unit, e.g. HTTP port, RTSP port and SDK port.

Steps:

1. Go to **Configuration > Device Configuration > System Configuration > Port**.

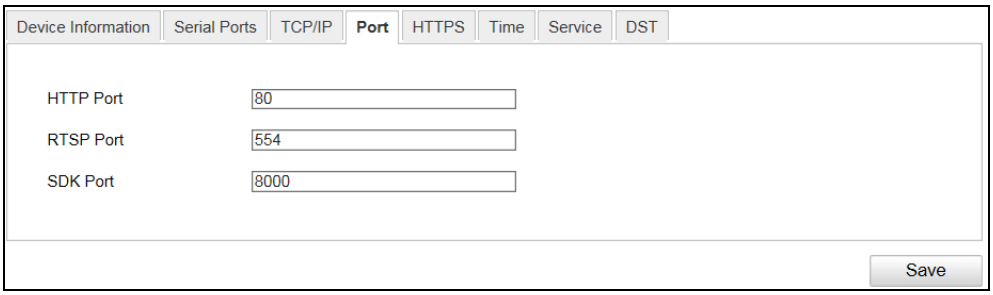


Figure 6-12 Port Settings

2. Set the HTTP port, RTSP port, and SDK port of the capture unit.
   HTTP Port: The default port number is 80, and it can be changed to any port No. which is not occupied.
   RTSP Port: The default port number is 554 and it can be changed to any port No. ranges from 1024 to 65535.
   SDK Port: It is reserved.
3. Click **Save** to save the settings.

NOTE

A reboot is required for the settings to take effect.

6.3.2.5 Configure HTTPS Settings

Purpose:
HTTPS provides authentication of the web site and associated web server that one is communicating with, which protects against Man-in-the-middle attacks. Perform the following steps to set the port number of https.
Example
If you set the port number as 443 and the IP address is 192.168.1.64, you may access the device by inputting https://192.168.1.64:443 via the web browser.

NOTE

The HTTPS port can be only configured through the web browser.

1. Go to **Configuration** > **Device Configuration** > **System Configuration** > **HTTPS**.

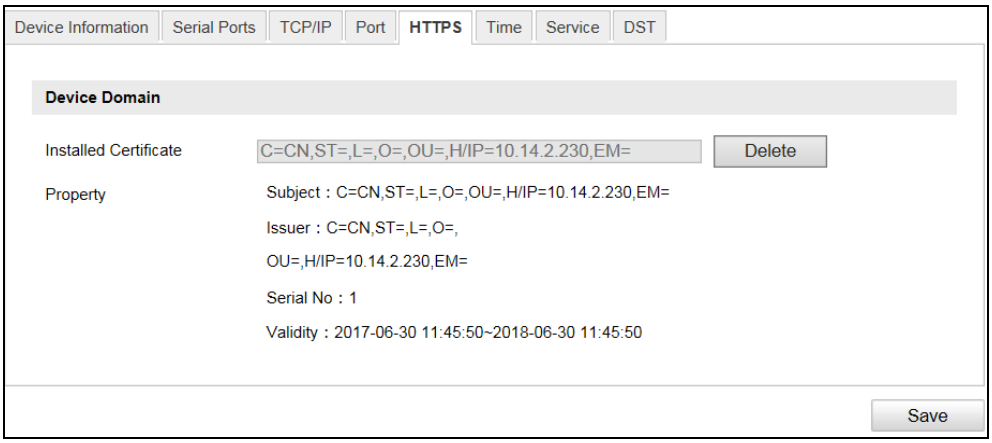


Figure 6-13 HTTPS Configuration

2. Create the self-signed certificate or authorized certificate.

   OPTION 1: Create the self-signed certificate

   1) Click the **Create** button to create the following dialog box.
   2) Enter the country, host name/IP, validity and other information.
   3) Click **OK** to save the settings.

   OPTION 2: Create the authorized certificate

   1) Click the **Create** button to create the certificate request.
   2) Download the certificate request and submit it to the trusted certificate authority for signature.
   3) After receiving the signed valid certificate, import the certificate to the device.

   There will be the certificate information after you successfully create and install the certificate.

3. Click **Save** to save the settings.

6.3.2.6 Configure Time

Steps:

1. Go to **Configuration > Device Configuration > System Configuration > Time**.

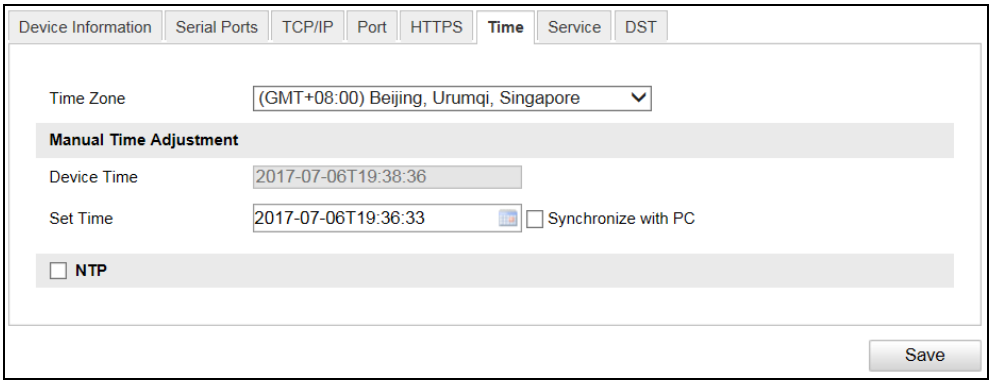


Figure 6-14 Time Settings

2. Select the **Time Zone** of your location from the drop-down menu.

3. Synchronize time.

- **Synchronizing Time by NTP Server**

(1) Check **NTP** to enable the function.

(2) Configure the following parameters:

Server Address: IP address of NTP server.

NTP Port: Port of NTP server.

Interval: The time interval between the two synchronizing actions with NTP server.

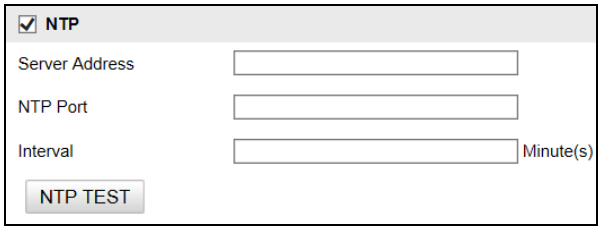


Figure 6-15 Time Sync. by NTP Server

NOTE

If the capture unit is connected to a public network, you should use a NTP server that has a time synchronization function, such as the server at the National Time Center (IP Address: 210.72.145.44). If the capture unit is set in a customized network, NTP software can be used to establish a NTP server for time synchronization.

- **Synchronizing Time Manually**

Click  to set the system time from the pop-up calendar.

NOTE

You can also check the **Synchronize with PC** to synchronize the time of the capture unit with that of your computer.

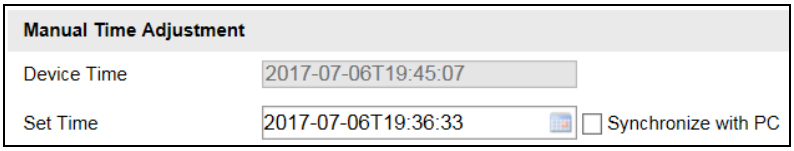


Figure 6-16 Manual Time Sync.

4. Click **DST** tab to enable the DST function and set the date of the DST period.

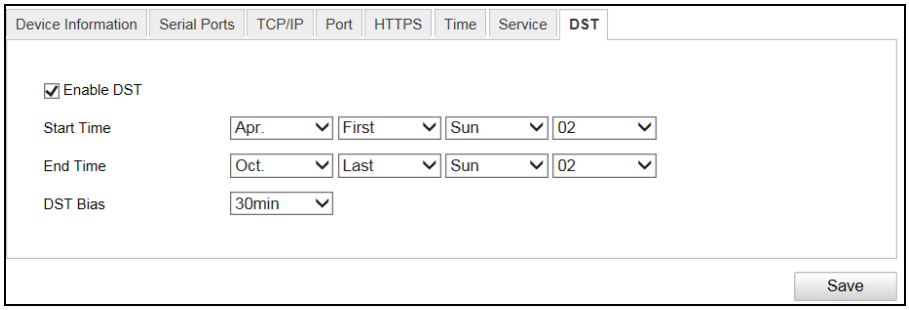


Figure 6-17 DST Settings

5. Click **Save** to save the settings.

6.3.2.7 Configure Service

Purpose:

You can enable user lock. Then if the admin logs in to the capture unit incorrectly for 7 times continuously, the admin will be locked for 30 minutes. If the operator logs in to the capture unit incorrectly for 5 times continuously, the operator will be locked for 30 minutes.

Steps:

1. Go to **Configuration** > **Device Configuration** > **System Configuration** > **Service**.

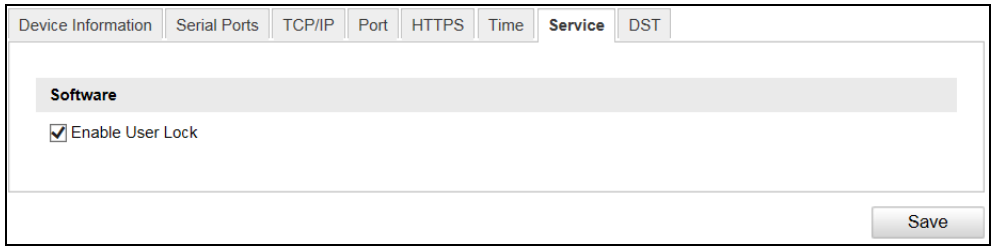


Figure 6-18 Enable User Lock

2. Check **Enable User Lock**.
3. Click **Save** to save the settings.

NOTE

After the capture unit is powered off and reboots, the user lock will be disabled.

6.3.2.8 Configure DST

Steps:

1. Go to **Configuration > Device Configuration > System Configuration > DST**.

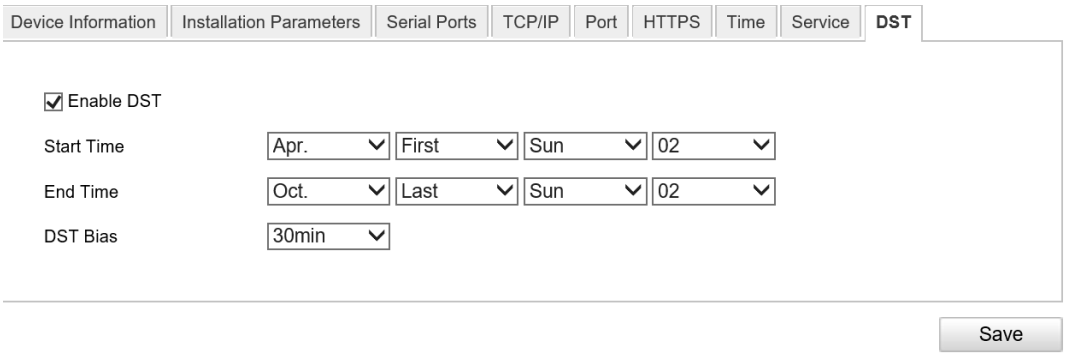


Figure 6-19 Enable DST

2. Check **Enable DST**, and you can set **Start Time**, **End Time** and **DST Bias**.

3. Click **Save** to save the settings.

6.4 Configure Encoding and Storage

6.4.1 Configure Video Encoding

Purpose:

You can configure the stream parameters of the capture unit, including the main stream, sub-stream, and third stream.

Steps:

1. Go to **Configuration > Device Configuration > Encoding and Storage > Video Encoding.**

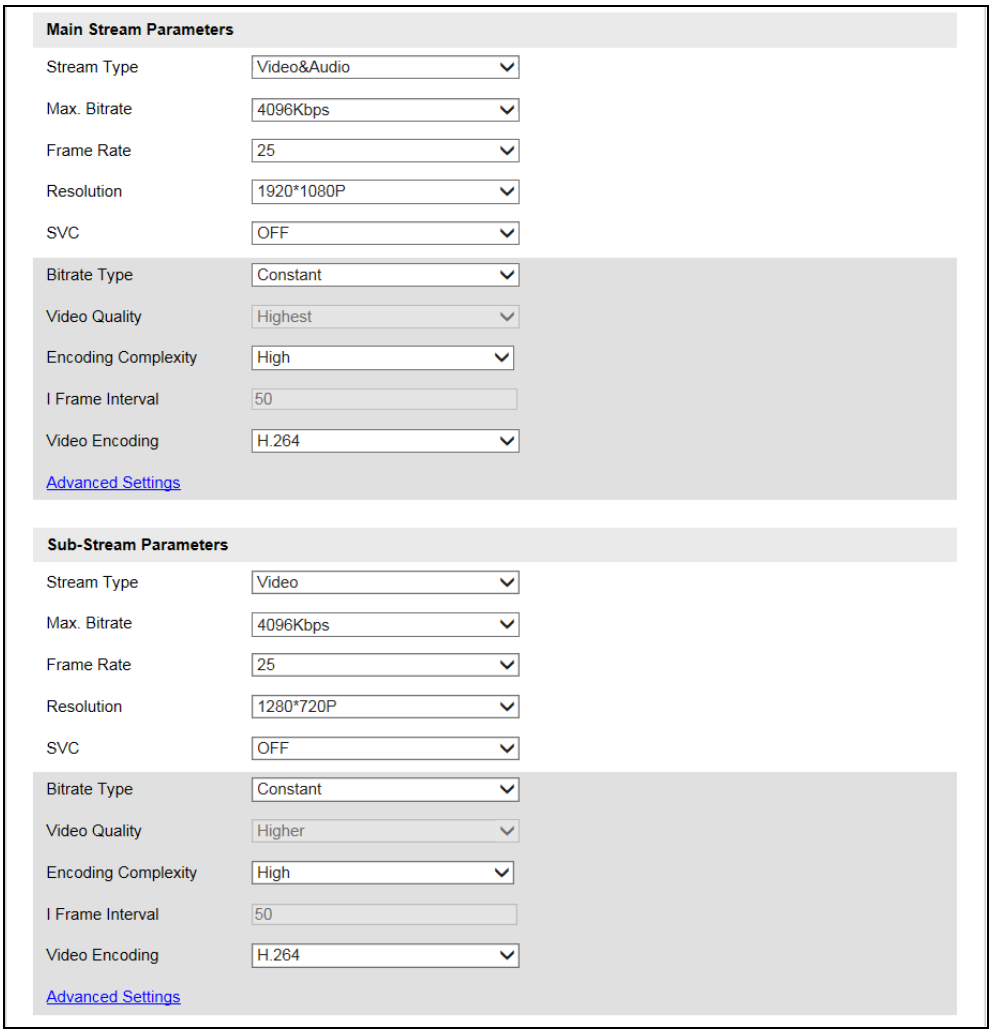


Figure 6-20 Main Stream and Sub-Stream Configuration

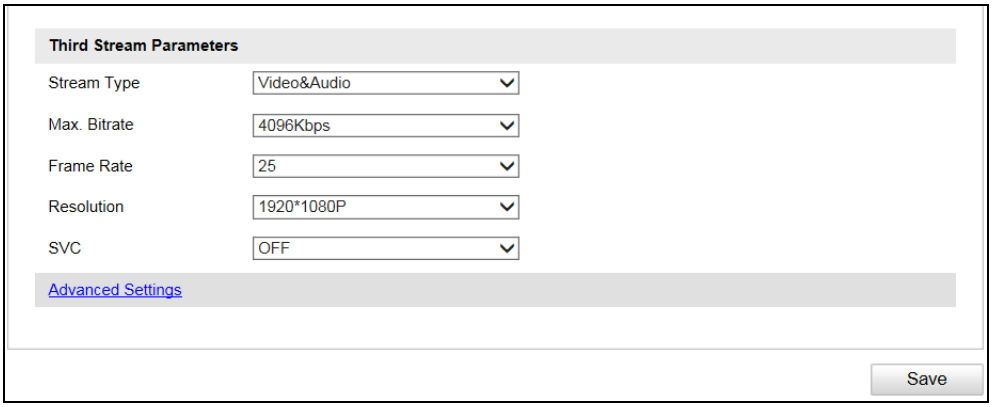


Figure 6-21 Third Stream Configuration

2. Select the **Stream Type**.
   Video and **Video & Audio** are selectable.
3. Customize the following parameters.
   Max. Bitrate: Set the max. bitrate to 32~16384 Kbps. The higher value corresponds to the higher video quality, but the higher bandwidth is required.
   Frame Rate: Set the frame rate to 1/16~25 fps. The frame rate 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: Select the resolution of the video output.
   SVC: Scalable Video Coding is an extension of the H.264/AVC standard. Select **OFF**/**ON** to disable/enable the SVC function. Turn on the function, and the device will automatically extract frames from the original video when the network bandwidth is insufficient.
4. Click **Advanced Settings** to expand the menu and configure the following parameters.
   Bitrate Type: Select the bitrate type to constant or variable.
   Video Quality: When bitrate type is selected as **Variable**, 6 levels of video quality are selectable.
   Encoding Complexity: Select the encoding complexity. The higher the complexity is, the better the image quality is.
   I Frame Interval: Set the I-Frame interval to 1~400.
   Video Encoding: Select the encoding mode to **H.264**，**H.265** or **MJPEG**.
5. Click **Save** to save the settings.

6.4.2 Configure Image Encoding

Steps:

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

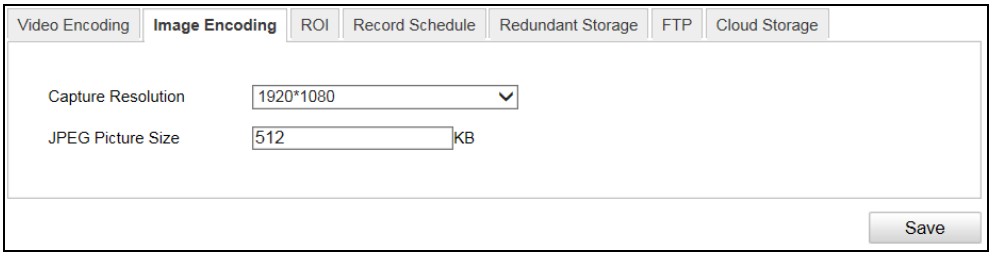


Figure 6-22 Image Encoding Configuration

2. Select the **Capture Resolution**.
3. Enter the **JPEG Picture Size**.
   It ranges from 64 to 8196 KB.
4. Click **Save** to save the settings.

NOTE

The capture resolution and picture size are target value. When the image encoding reaches the limit, the actual value may be larger than the target value.

6.4.3 Configure ROI

Purpose:

ROI (Region of Interest) encoding helps to discriminate the ROI and background information in video compression, which means, the technology assigns more encoding resource to the region of interest, thus to increase the quality of the ROI whereas the background information is less focused.

Steps:

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

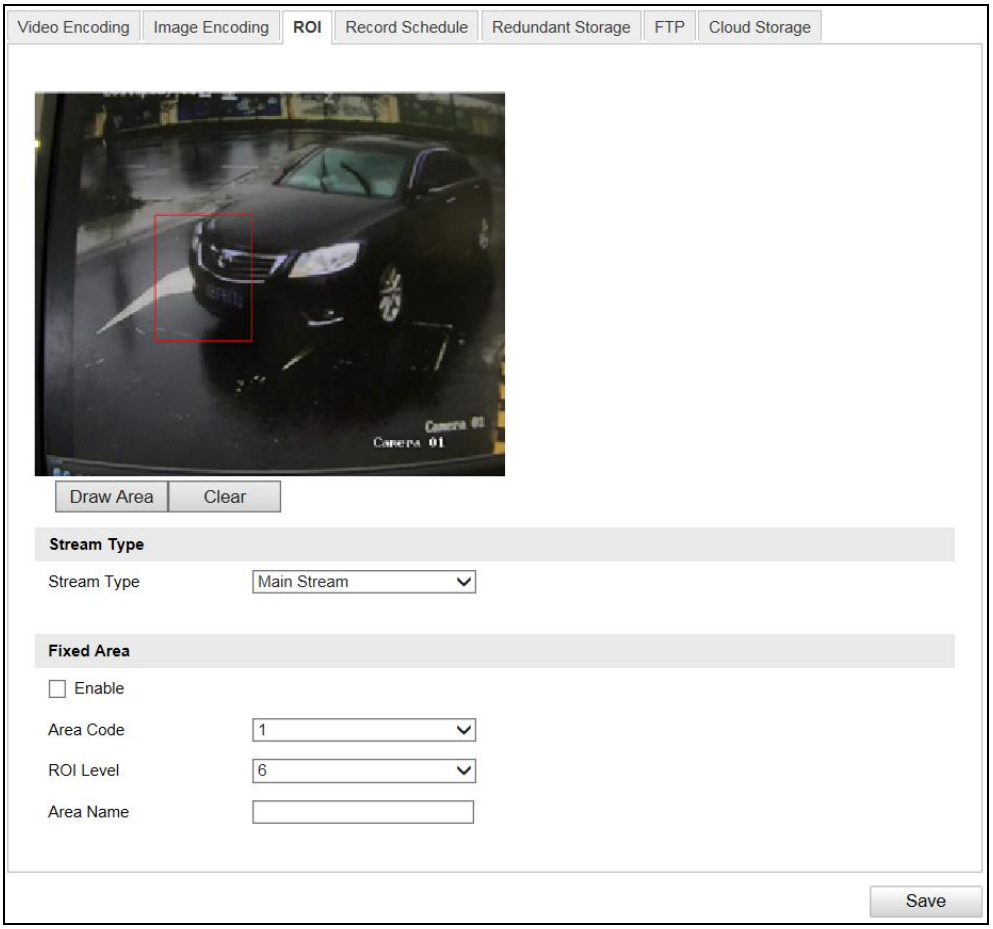


Figure 6-23 Region of Interest Settings

1. Check **Enable** under Fixed Area item.
2. Select the **Stream Type** for ROI encoding.

   NOTE

   Each stream type only supports one ROI.
3. Select the **Area Code** from the drop-down list for ROI settings. There are four fixed areas selectable.
4. Click **Draw Area**, and then drag the mouse to draw the region of interest on the live video.
5. Select the **ROI Level** to set the image quality enhancing level. The larger the value is, the better the image quality is.
6. Enter the **Area Name** for ROI as desired.
7. Click **Save** to save the settings.

6.4.4 Configure Record Schedule

Purpose:

You can follow the instructions to configure the scheduled recording. By default, the

record files of scheduled recording are stored in the TF card.

Steps:

1. Go to **Configuration** > **Device Configuration** > **Encoding and Storage** > **Record Schedule.**

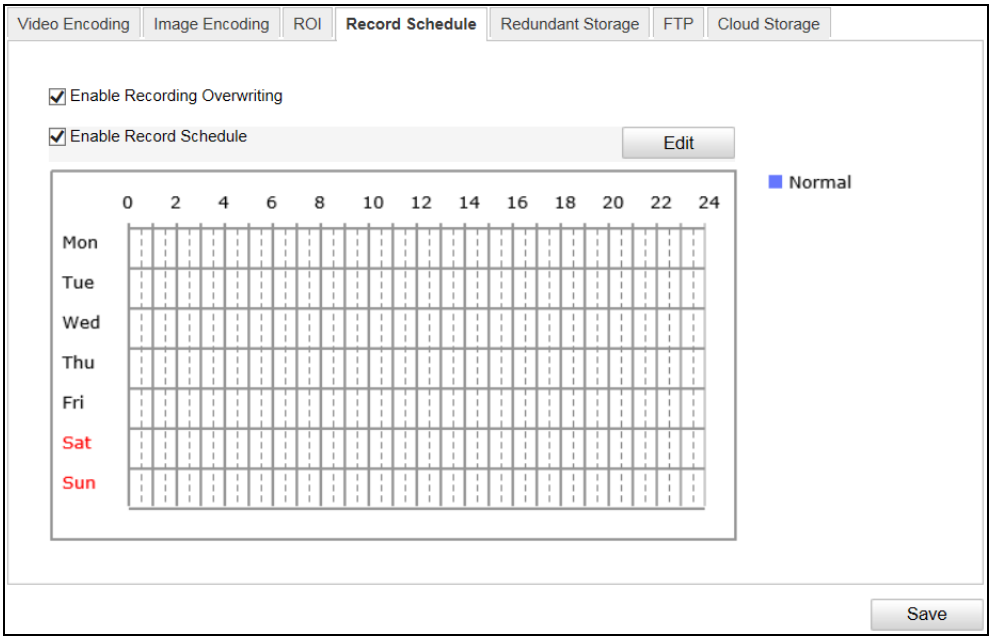


Figure 6-24 Record Schedule Configuration

2. (Optional) Check **Enable Recording Overwriting**.

   If you enable the function, when the storage space is full, the former record files will be overwritten.

   If you disable the function, when the storage space is full, the notice that the space is full will be reminded.

3. Check **Enable Record Schedule**.

4. Click **Edit** to edit the record schedule.

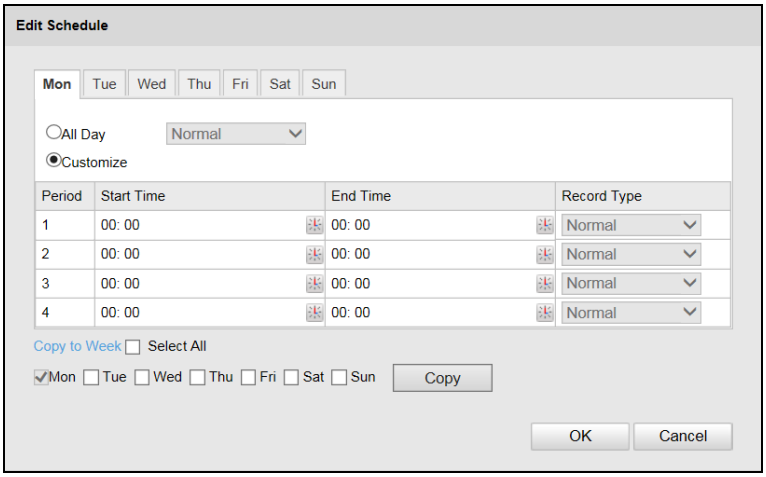


Figure 6-25 Edit Record Schedule

1) Select the day to set the record schedule.

2) Set all-day record or segment record.

   If you want to configure the all-day recording, check the **All Day** checkbox.

If you want to record in different time sections, check the **Customize** checkbox. Set the **Start Time** and **End Time.**

NOTE

- The time of each segment cannot be overlapped. Up to 4 segments can be configured.
- The default record type is **Normal** and you cannot edit it.

3) Check **Select All** and click **Copy** to copy settings of this day to the whole week. You can also check any of the checkboxes before the date and click **Copy**.
4) Click **OK** to save the settings and exit from the interface.

5. Click **Save** to save the settings.

6.4.5 Configure Redundant Storage

Purpose:

You can manage the storage, view the HDD information, format the HDD, etc.

Steps:

1. Go to **Configuration** > **Device Configuration** > **Encoding and Storage** > **Redundant Storage.**

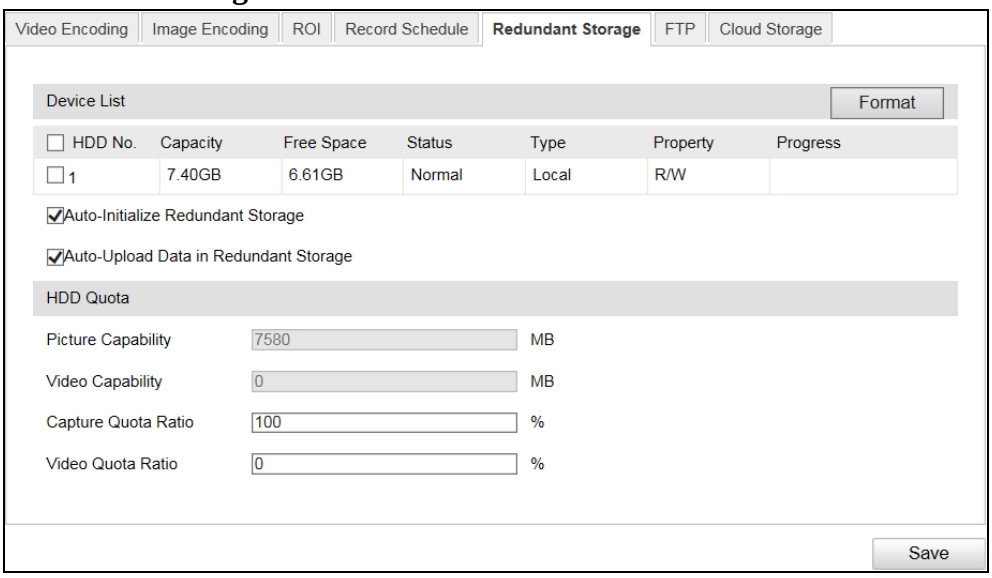


Figure 6-26 Redundant Storage Configuration

2. View the HDD information such as Capacity, Free Space, Status, etc.
3. (Optional) Check the HDD and click **Format** to format it.
4. (Optional) Check **Auto-Initialize Redundant Storage**. Then the TF card in the redundant storage can be formatted automatically. The storage is used for store captured pictures, traffic violation video, and log.
5. (Optional) Check **Auto-Upload Data in Redundant Storage**.
6. Configure the HDD Quota.

1) Enter the **Capture Quota Ratio**.

2) Enter the **Video Quota Ratio**.

NOTE

- The Capture Quota Ratio ranges from 0 to 100%.
- The sum of Capture Quota Ratio and Video Quota Ratio should be 100%.

6.4.6 Configure FTP

Purpose:

You can configure the FTP server related information to upload the captured pictures to the FTP server.

Steps:

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

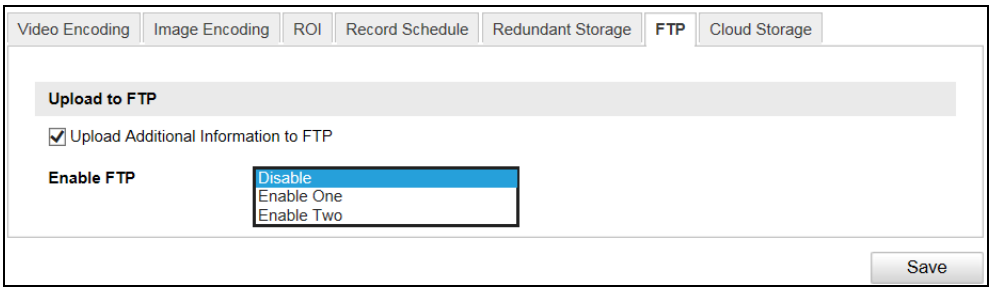


Figure 6-27 FTP Configurations

2. Check **Upload Additional Information to FTP** to enable the uploading function.
3. Select the FTP uploading mode.
   - **Disable**: No data will be uploaded to FTP.
   - **Enable One**: Data can be uploaded to one FTP server.
     1) Select **Enable One**.

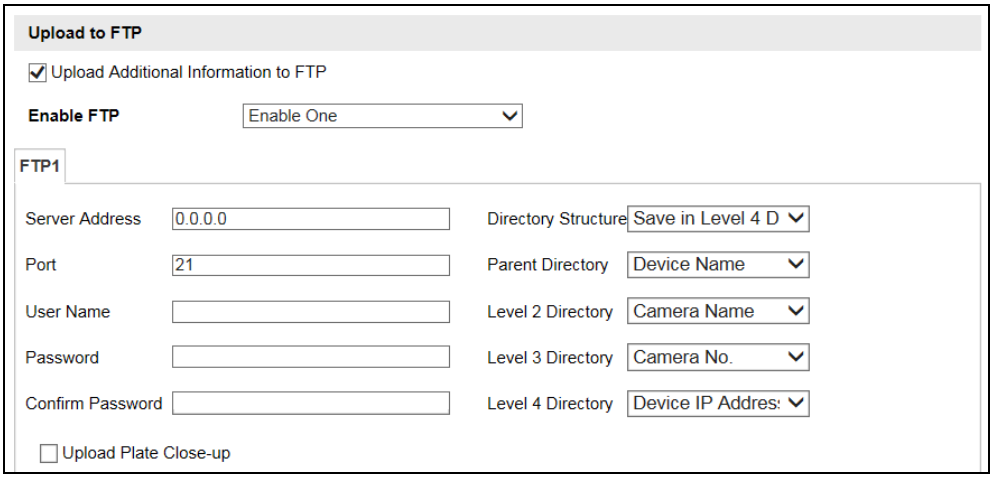


Figure 6-28 Upload to One FTP Server

2) Configure the FTP server parameters, including **Server Address**, **Port**, **User Name**, and **Password**.
3) Select the **Directory Structure** to save the files. **Save in Root Directory**, **Save in Parent Directory**, and **Save in Level 2/3/4 Directory** are

selectable.

4) Select the content in different directories. For the **Parent Directory**, you can select **Device Name**, **Device No.**, and **Device IP Address**. For the **Level 2/3/4 Directory**, you can select **Camera Name**, **Camera No.**, **Device IP Address**, etc.

5) (Optional) Check **Upload Plate Close-up** to upload the close-up of the license plate to the FTP server.

- **Enable Two**: Data can be uploaded to two FTP servers.

1) Select **Enable Two**.

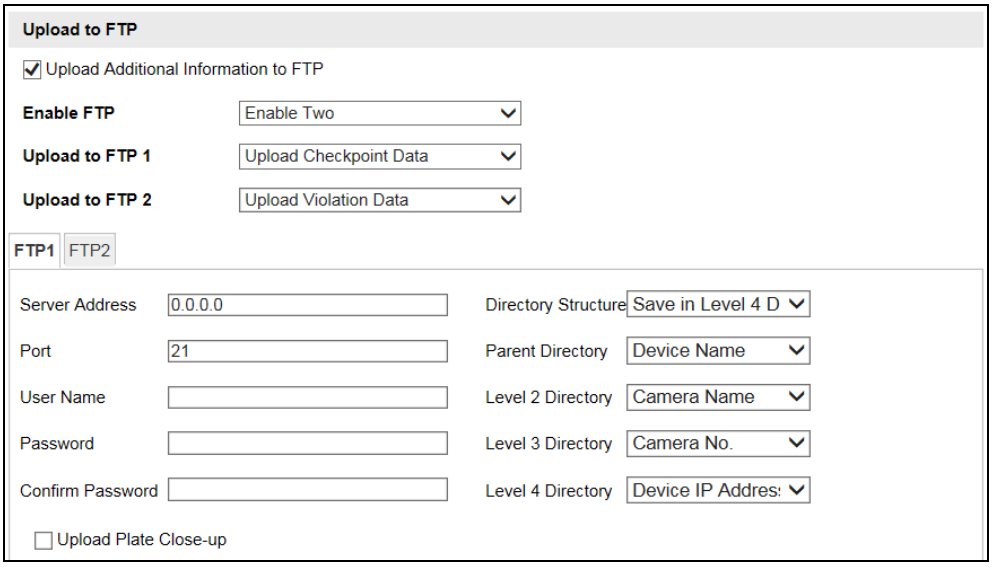


Figure 6-29 Upload to Two FTP Servers

2) Select the data type for uploading to FTP 1.

3) Select the data type for uploading to FTP 2.

NOTE

For the data type, **Chekpoint Data** and **Violation Data** are selectable. If you select **Chekpoint Data** for FTP 1, FTP 2 will receive the **Violation Data** by default.

4) Configure the FTP server parameters, including **Server Address**, **Port**, **User Name**, and **Password**.

5) Select the **Directory Structure** to save the files. **Save in Root Directory**, **Save in Parent Directory**, and **Save in Level 2/3/4 Directory** are selectable.

6) Select the content in different directories. For the **Parent Directory**, you can select **Device Name**, **Device No.**, and **Device IP Address**. For the **Level 2/3/4 Directory**, you can select **Camera Name**, **Camera No.**, **Device IP Address**, etc.

7) (Optional) Check **Upload Plate Close-up** to upload the close-up of the license plate to the FTP server.

4. Configure the **Name Rule**.

1) Select the **Separator**.
2) Select the **Elements** of each name.

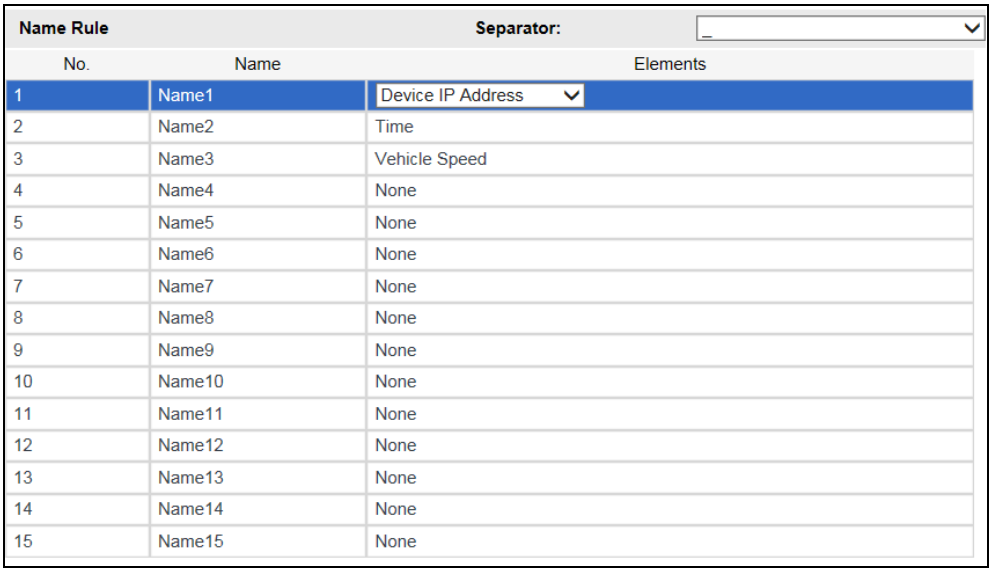


Figure 6-30 Name Rule Configuration

5. Configure the **OSD Information**.

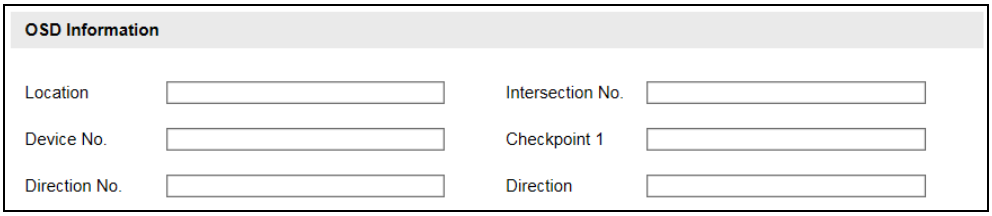


Figure 6-31 OSD Information

6. Click **Save** to save the settings.

6.5 Configure Text Overlay

6.5.1 Configure Single Picture Overlay

Purpose:
You can configure the overlay information of the captured single picture.
Steps:
1. Go to **Configuration > Device Configuration > Text Overlay > Single Picture Overlay**.

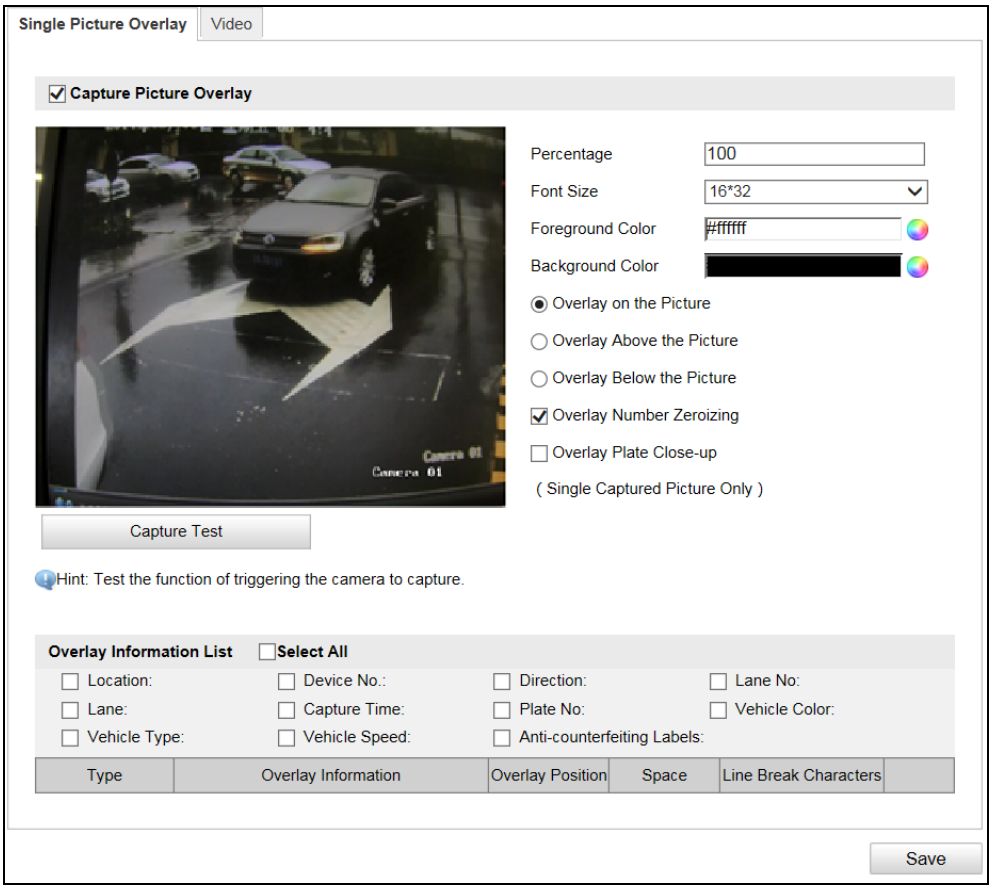


Figure 6-32 Single Picture Overlay

2. Check **Capture Picture Overlay**.
3. Configure the parameters below.
   - **Percentage**: the percentage of the information overlaid on the picture.
   - **Font Size**: the font size of the overlay information.
   - **Foreground Color**: the foreground color of the overlay information.
   - **Background Color**: the background color of the overlay information.
4. Configure the overlay position.
   Overlay on the Picture, **Overlay Above the Picture**, and **Overlay Below the Picture** are selectable.
5. (Optional) Check **Overlay Number Zeroing**.
6. (Optional) Check **Overlay Plate Close-up** to overlay the plate close-up on the upper left corner of the captured picture.
7. Configure the overlay information.

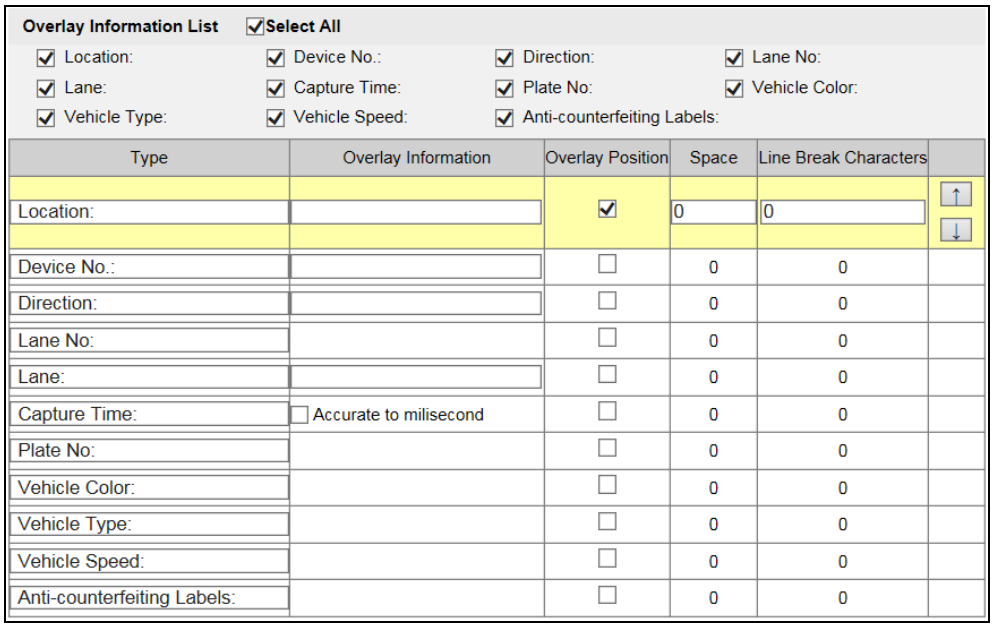


Figure 6-33 Overlay Information List

1) Check the overlay information or check **Select All** to display all the overlay information.
2) Configure the overlay information.
   - **Type**: You can edit the overlay information type.
   - **Overlay Information**: You can edit the details of the overlay information type.
   - **Overlay Position**: If you check it, the overlay information of this type will be displayed in a new line.
   - **Space**: You can edit the space number of the current overlay information and the next information. The number ranges from 0 to 255.
   - **Line Break Characters**: You can edit the character number of the break line. The number ranges from 0 to 100.
   - ↑/↓: Click ↑ to move the overlay position up. Click ↓ to move the overlay position down.

8. (Optional) Click **Capture Test** to view the captured picture on the pop-up webpage.

NOTE

The capture test is used to test the function of triggering the camera to capture.

9. Click **Save** to save the settings.

6.5.2 Configure Video OSD

Purpose:

You can customize the video OSD on the screen.

Steps:

1. Go to **Configuration > Device Configuration > Text Overlay > Video**.

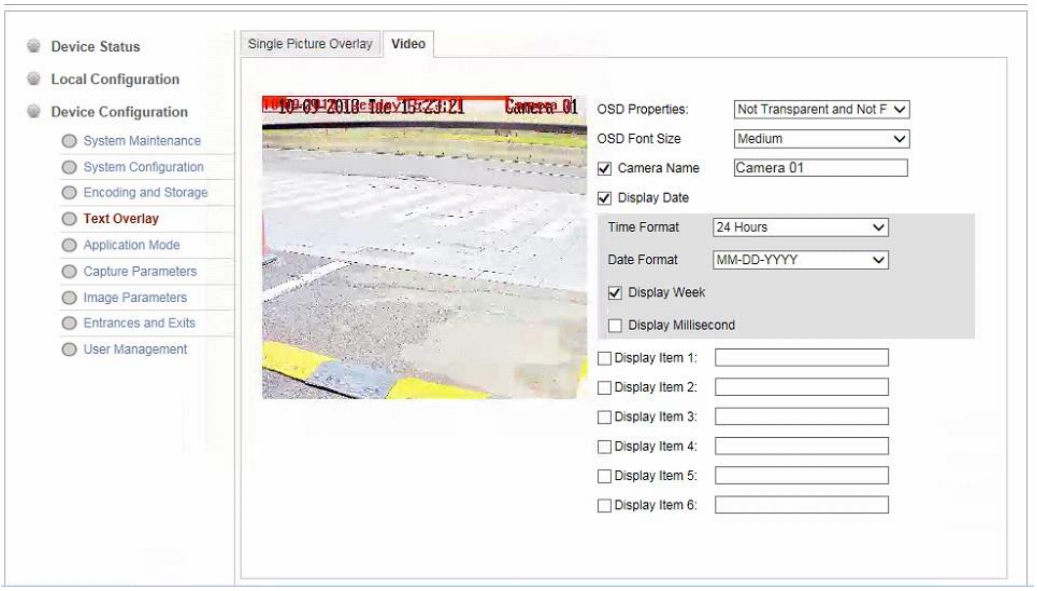


Figure 6-34 Video OSD Settings

2. Select the **OSD Properties**.
3. Select the **OSD Font Size**.
4. Configure the parameters below according to your needs.
   - Check **Camera Name** and edit the name in the text field.
   - Configure date.
     1) Check **Display Date**.
     2) Select the **Time Format**.
     3) Select the **Date Format**.
     4) Check **Display Week**.
     5) Check **Display Millisecond**.
   - Check **Display Item** and edit the custom content in the corresponding text fields.
5. Click **Save** to save the settings.

6.6 Configure Application Mode

Purpose:

You can configure the license plate recognition application mode, trigger type, and configure the mode parameters.

Steps:

1. Go to **Configuration > Device Configuration > Application Mode**.

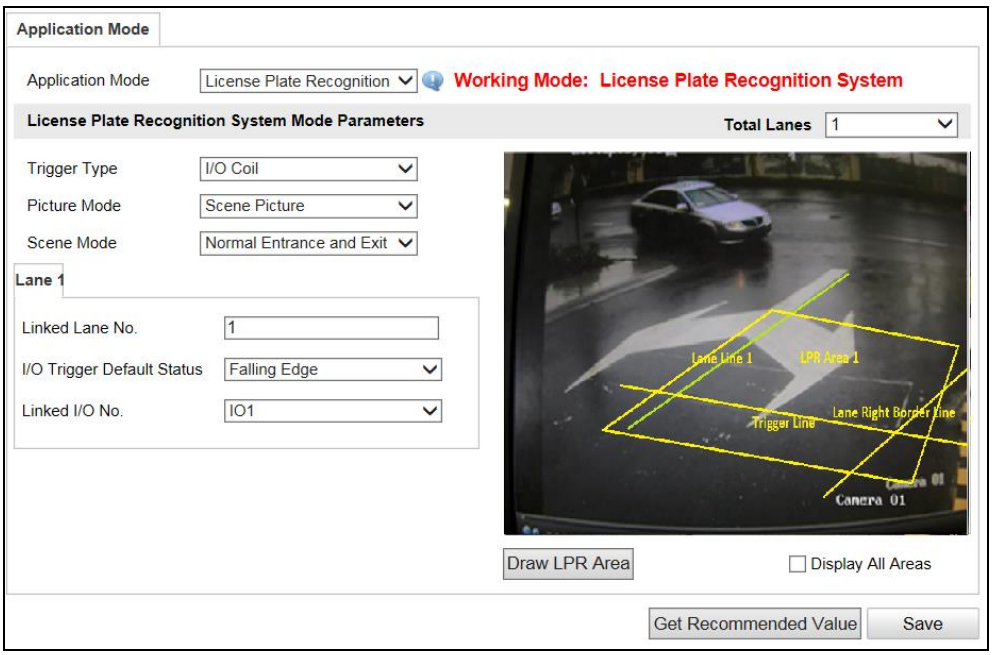


Figure 6-35 Application Mode

2. Select the **Trigger Type**.

- **Vehicle Detection**
  1) Select the **Picture Mode**. **Scene Picture** and **Scene Picture + Close-up Picture** are selectable.
  2) (Optional) Check **Capture Plate Absence Vehicle**. Then the vehicle without license plate will be captured.
  3) Select the **Capture Mode**. Only **Strobe Light Mode** is selectable.
  4) Select the **Scene Mode**. **Entrance and Exit**, **Toll Station**, and **Entrance and Exit of Underground Parking Lot** are selectable.
  5) Enter the **Linked Lane No.** ranging from 1 to 99. The lane No. will be overlaid on the captured picture.
- **I/O Coil**
  1) Select the **Picture Mode**. **Scene Picture** and **Scene Picture + Close-up Picture** are selectable.
  2) Select the **Scene Mode**. **Entrance and Exit**, **Toll Station**, and **Entrance and Exit of Underground Parking Lot** are selectable.
  3) Enter the **Linked Lane No.** ranging from 1 to 99. The lane No. will be overlaid on the captured picture.
  4) Select the **I/O Trigger Default Status**. **Rising Edge** and **Falling Edge** are selectable.
  5) Select the **Linked I/O No.** When the coil detects that there is vehicle passing, a rising or falling edge signal is sent to the linked I/O of the capture unit to trigger capture.

  NOTE

  The **I/O Trigger Default Status** and **Linked I/O No.** should be

configured according to the actual conditions.

- **RS-485**
  1) Select the **Picture Mode**. **Scene Picture** and **Scene Picture + Close-up Picture** are selectable.
  2) Select the **Scene Mode**. **Entrance and Exit**, **Toll Station**, and **Entrance and Exit of Underground Parking Lot** are selectable.
  3) Enter the **Linked Lane No.** ranging from 1 to 99. The lane No. will be overlaid on the captured picture.
  4) Enter the **RS-485 Linked Camera No.** ranging from 1 to 16. The No. refers to the RS-485 serial port connected channel No. of the vehicle detector.

3. Click **Draw LPR Area** to enter the License Plate Recognition System Configuration page. A default LPR area is displayed on the screen.

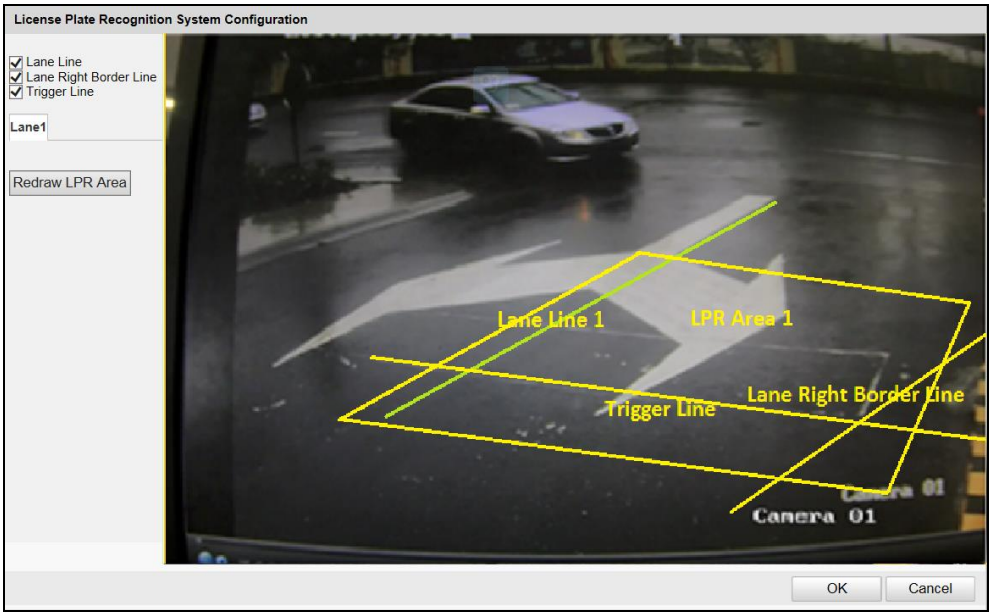


Figure 6-36 Draw LPR Area

   1) Check the lines to be displayed.
   2) (Optional) Click **Redraw LPR Area**. Refer to Chapter 2.7.2 Adjust Image for reference
   3) Click **OK** to save the settings.
4. (Optional) Click **Get Recommended Value** to get the default value.
5. Click **Save** to save the settings.

6.7 Configure Capture Parameters

6.7.1 Configure License Plate Recognition Parameters

Purpose:

You can configure the license plate type for recognition.

Steps:

1. Go to **Configuration > Device Configuration > Capture Parameters > LPR Parameters**.

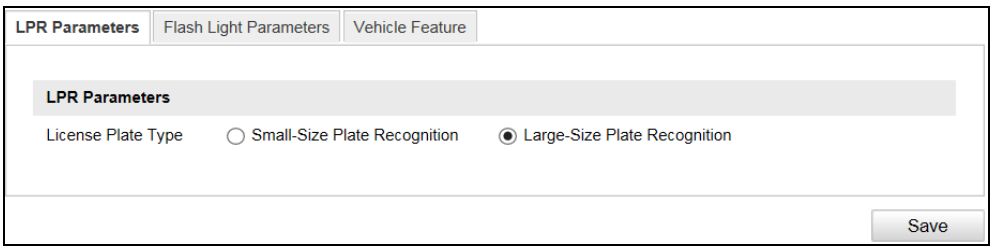


Figure 6-37 LPR Parameters

2. Select the **License Plate Type**. **Small-Size Plate Recognition** and **Large-Size Plate Recognition** are selectable.

NOTE

Keep the default type. If the effect is not good, change to the other one. If the effect is still not good, please consult the local dealer for the license plate type.

3. Click **Save** to save the settings.

6.7.2 Configure Flash Light Parameters

Purpose:

You can configure the constant light parameters.

Steps:

1. Go to **Configuration > Device Configuration > Capture Parameters > Flash Light Parameters.**

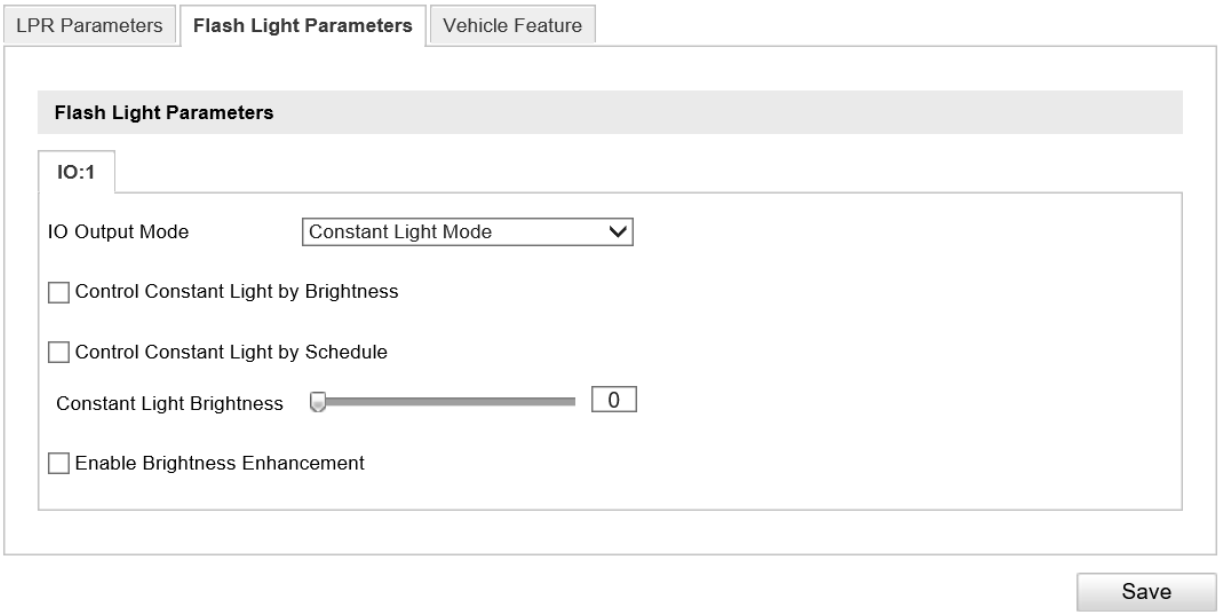


Figure 6-38 Flash Light Parameters

2. Click **IO:1** to control constant light.
   - **Control Constant Light by Brightness**
     1) Check **Control Constant Light by Brightness**.
     2) Drag the slider to adjust the **Brightness Threshold**.
        Or enter the value in the text field.
   - **Control Constant Light by Schedule**
     1) Check **Control Constant Light by Schedule**.
     2) Click to configure the **Start Time** and **End Time**.
   - **Enable Brightness Enhancement**
     1) Check **Enable Brightness Enhancement**.
     2) Enter the **Enhancement Duration**.
     3) Drag the slider to adjust the **Strength**.
        Or enter the value in the text field.
     4) Enter the **Delay Capture**.
3. Click **Save** to save the settings.

6.7.3 Configure Vehicle Feature

Purpose:

You can configure vehicle color recognition，car logo recognition and face picture matting.

Steps:

1. Go to **Configuration > Device Configuration > Capture Parameters > Vehicle**

Feature.

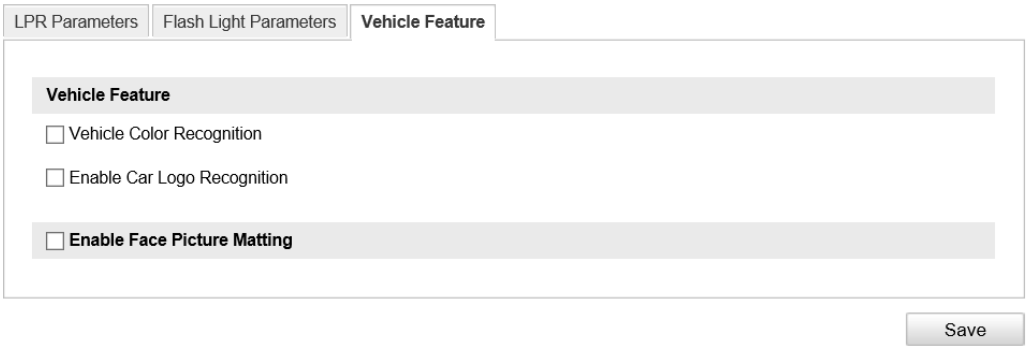


Figure 6-39 Vehicle Feature

2. Check **Vehicle Color Recognition** or **Enable Car Logo Recognition** to enable the function.
3. Click **Save** to save the settings.

6.8 Configure Image Parameters

6.8.1 Configure General Parameters

Purpose:

You can configure the general image parameters such as saturation, sharpness, white balance, etc.

Steps:

1. Go to **Configuration > Device Configuration > Image Parameters > General Parameters.**

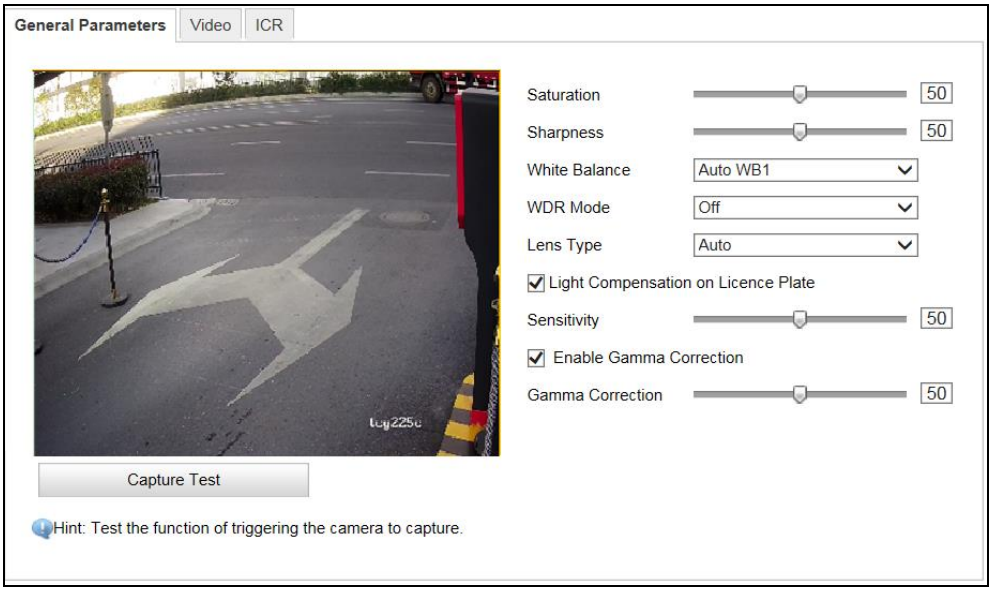


Figure 6-40 General Parameters

2. Configure the parameters below.

- **Saturation**: It describes the colorfulness of the image color, which ranges from 1 to 100, and the default value is 50.
- **Sharpness**: It describes the edge contrast of the image, which ranges from 1 to 100, and the default value is 50.
- **White Balance**: It is the white rendition function of the camera used to adjust the color temperature according to the environment.

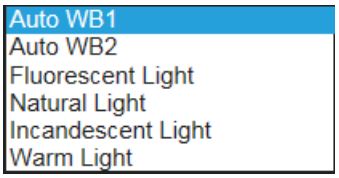


Figure 6-41 White Balance

- **WDR Mode**: Wide Dynamic Range can be used when there is a high contrast of the bright area and the dark area of the scene. You can select **WDR**, **D-WDR**, or **Off**.

  If you select **WDR** or **D-WDR**, you should configure the **WDR Switch**.

  On: Configure the **WDR Level**. The higher the level is, the higher the WDR strength is.

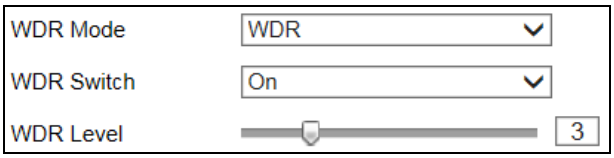


Figure 6-42 WDR Configuration (1)

Time: Enable WDR according to the time. Configure the **Start Time**, **End Time**, and **WDR Level**.

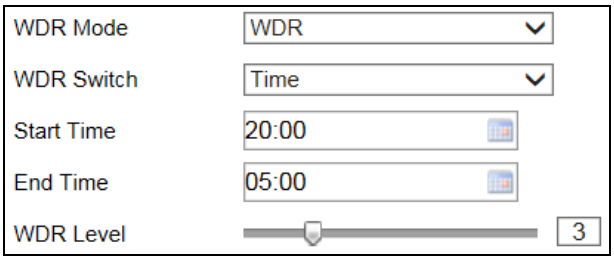


Figure 6-43 WDR Configuration (2)

Brightness: Configure the **Light Threshold** and **WDR Level**. When the brightness reaches the threshold, WDR will be enabled.

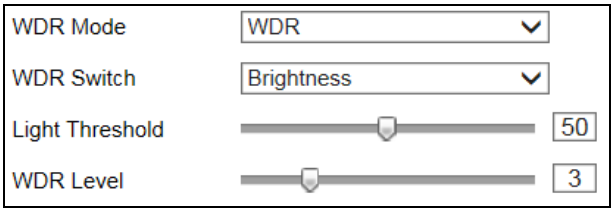


Figure 6-44 WDR Configuration (3)

- **Lens Type**: Select **Auto** for the auto iris lens. Select **Manual** for the manual iris lens.
- **Light Compensation on License Plate**: Check the function and adjust the

Sensitivity.

- **Enable Gamma Correction**: Check the function and adjust the **Gamma Correction**. The higher the value is, the stronger the correction strength is.

3. (Optional) Click **Capture Test** to test the effect.

6.8.2 Configure Video Parameters

Purpose:

You can configure the video parameters such as brightness, contrast, shutter speed, etc.

Steps:

1. Go to **Configuration > Device Configuration > Image Parameters > Video**.

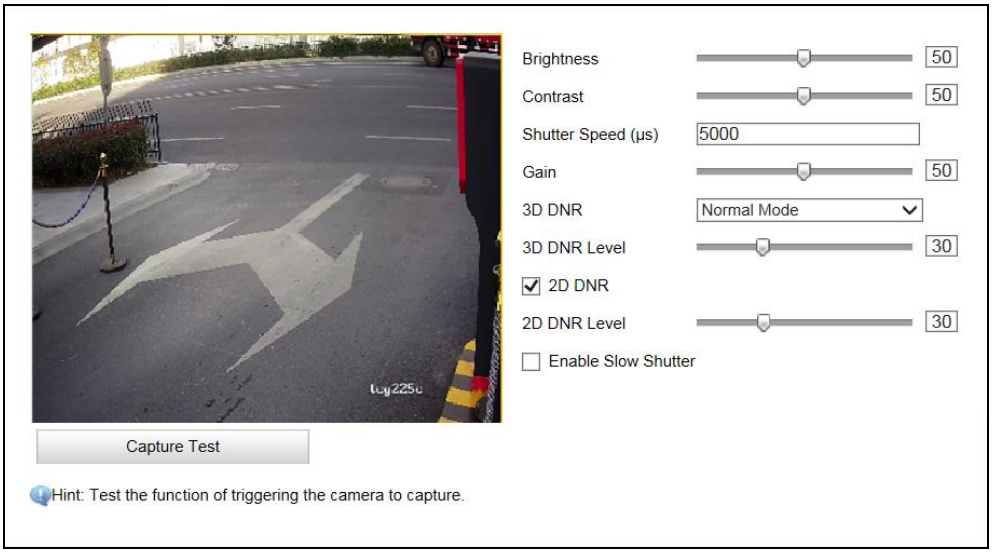


Figure 6-45 Video Parameters

2. Configure the parameters below.
   - **Brightness**: It describes bright of the image, which ranges from 1 to 100, and the default value is 50.
   - **Contrast**: It describes the contrast of the image, which ranges from 1 to 100, and the default value is 50.
   - **Shutter Speed**: Enter the 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 configure a high gain if the illumination is not enough, and configure a low gain if the illumination is enough.
   - **3D DNR**: You can select **Close**, **Normal Mode**, and **Expert Mode**.
     - **Normal Mode**: Adjust the **3D DNR Level**.

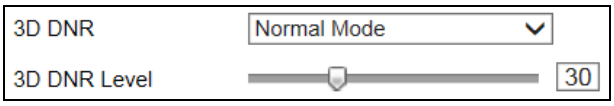


Figure 6-46 Normal Mode

NOTE

If the 3D DNR level is too high, the image may become fuzzy.

- **Expert Mode**: Adjust the **Spatial Intensity** and **Time Intensity**.

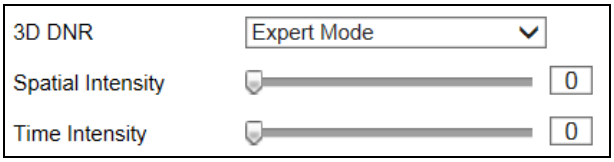


Figure 6-47 Expert Mode

NOTE

- 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**: Check the function and adjust the **2D DNR Level**.

Figure 6-48 2D DNR Configuration

NOTE

If the 2D DNR level is too high, the image may become fuzzy.

- **Enable Slow Shutter**: Check the function and select the **Slow Shutter Level**.

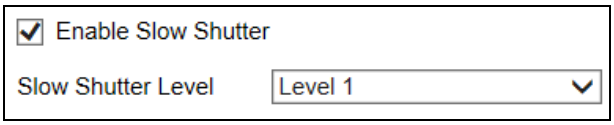


Figure 6-49 Slow Shutter Configuration

3. (Optional) Click **Capture Test** to test the effect.

6.8.3 Configure Picture Parameters

Purpose:

You can configure the Picture parameters.

Steps:

1. Go to **Configuration > Device Configuration > Image Parameters > Picture**.

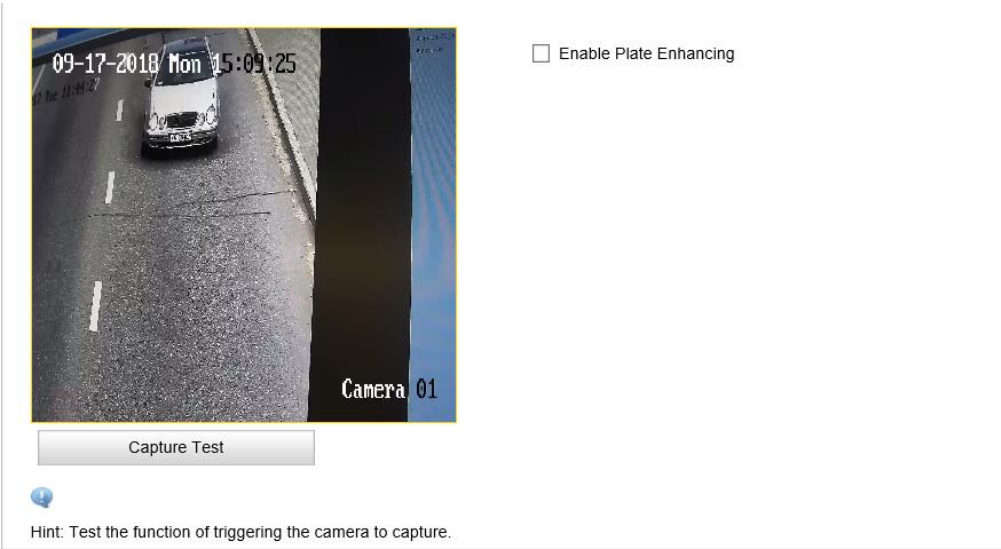


Figure 6-50 Picture Parameters

2. Click Capture Test, and full-screen monitoring will pop out. You can click **Open Folder** to choose the file.
3. （Optional）Check **Enable Plate Enhancing**, you can choose Plate Lighting Level ranged from 0 to 100.

6.8.4 Configure ICR

Purpose:

ICR adopts mechanical IR filter to filter IR in the day to guarantee the image effect, and to remove the IR filter at night to guarantee full-spectrum rays can get through the capture unit.

Steps:

1. Go to **Configuration > Device Configuration > Image Parameters > ICR.**
2. Select the **ICR Mode**.
   - **Do not switch**: Do not enable ICR.
   - **Auto-switch**: Adjust the **Threshold**.

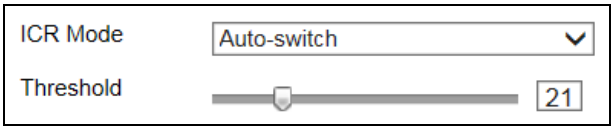


Figure 6-51 ICR Mode-Auto-switch

   - **Manual Switch**: Select the **Day/Night Mode**. When the night mode is selected, the scene will become black/white.

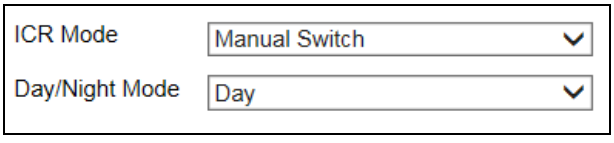


Figure 6-52 ICR Mode-Manual Switch

- **Scheduled Switch**: Configure the **Day/Night Mode**, **Start Time**, and **End Time**.

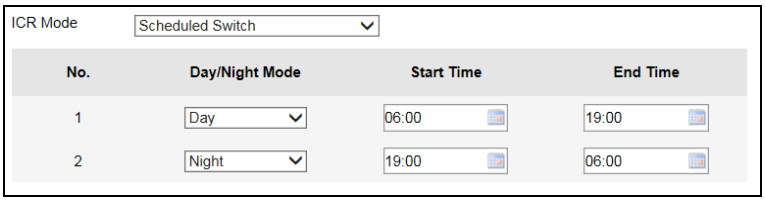


Figure 6-53 ICR Mode- Scheduled Switch

3. Click **Save** to save the settings.

6.9 Configure Entrances and Exits

6.9.1 Configure Entrance and Exit

Purpose:

You can configure the control mode, relay, vehicle management mode, vehicle information management, and remote barrier gate control for the entrance and exit.

Steps:

1. Go to **Configuration** > **Device Configuration** > **Entrances and Exits** > **Entrance and Exit**.

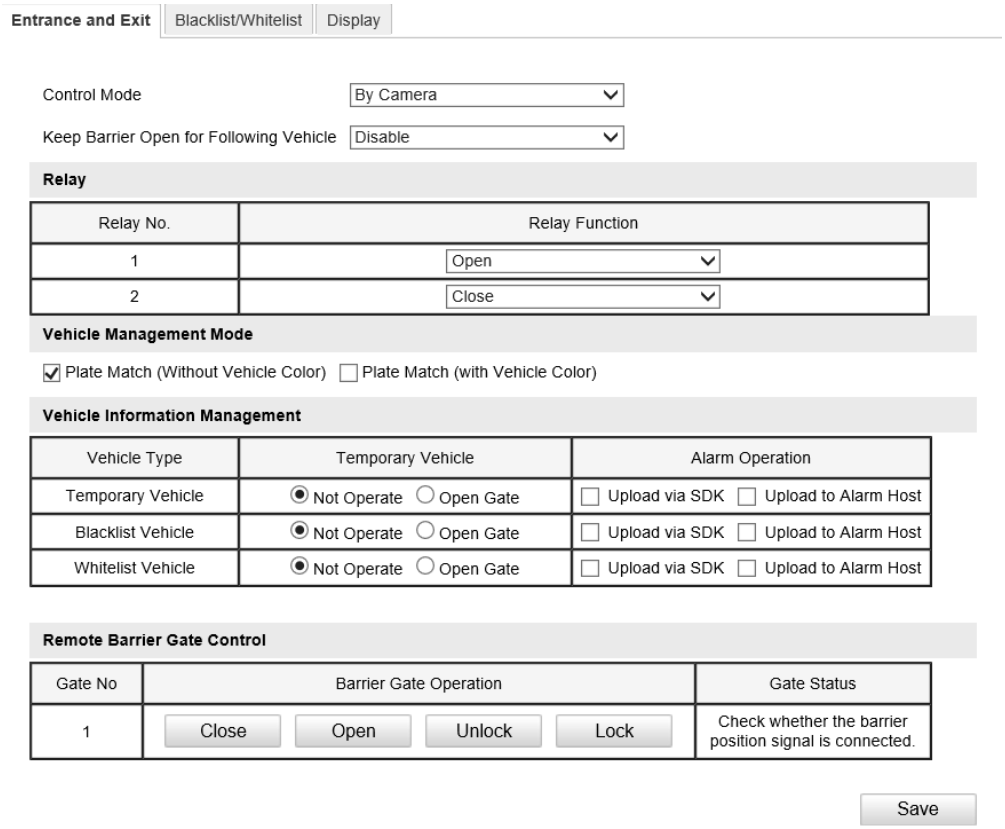


Figure 6-54 Entrance and Exit Configuration

2. Select the **Control Mode**.
   By Camera and **By Platform** are selectable. If you select **By Platform**, you need to configure the rules in **Vehicle Information Management**.
3. Select to enable or disable keeping barrier open for following vehicle.
4. Configure the relay function to control the barrier gate.
   You can select **Open**, **Close**, or **N/A** for the relay function.
5. Configure **Vehicle Management Mode**.
   Check **Plate Match (Without Vehicle Color)** or **Plate Match (with Vehicle Color)**.
6. Configure **Vehicle Information Management**. You can configure the barrier gate operation rules and alarm operations for vehicle of different types.
   1) Select the **Temporary Vehicle**. **Not Operate** and **Open Gate** are selectable.
   2) Select the **Alarm Operation**. **Upload via SDK** and **Upload to Alarm Host** are selectable.
7. Configure the **Remote Barrier Gate Control**.
   1) Click **Close**, **Open**, **Unlock**, or **Lock** to control the barrier gate.
   2) View the **Gate Status**.
8. Click **Save** to save the settings.

6.9.2 Configure Whitelist and Blacklist

Purpose:
You can configure the vehicle whitelist and blacklist, and import, add, edit, delete, or search the list.
Before you start:
Make sure the TF card is installed for the capture unit and can work normally.

NOTE

The whitelist and blacklist function can be used normally only after the TF card is installed and works normally, or selecting the 8 GB model device.
Steps:
1. Go to **Configuration** > **Device Configuration** > **Entrances and Exits** > **Blacklist/Whitelist**.

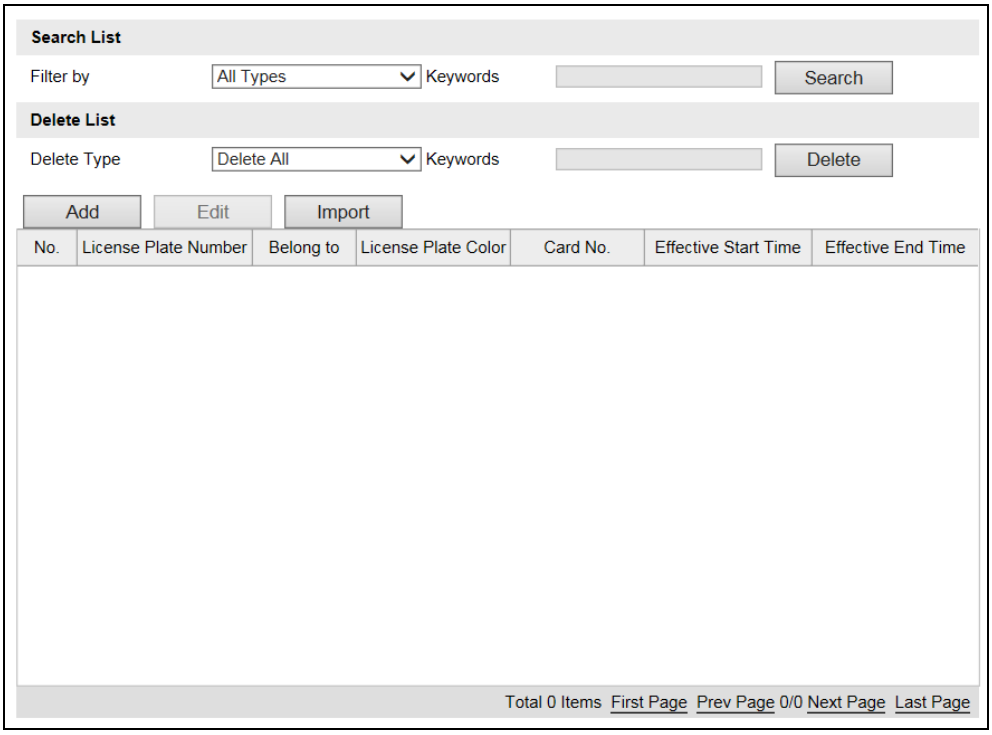


Figure 6-55 Whitelist and Blacklist Configuration

2. Import whitelist and blacklist to the capture unit.
   1) Click **Import** and the window pops up as below.

Figure 6-56 Import Whitelist and Blacklist

   2) Click **Download Template** to download the list template as below.

	A	B	C	D	E	F
1	License Plate Number	License Plate Color	Belong to	Card No.	Effective Start Time	Effective End Time
2	A12345	Blue	Blacklist	abc5555	0000-00-00T00:00:00Z	0000-00-00T00:00:00Z
3	B12345	Yellow	Whitelist	abc5556	2014-01-01T01:01:01Z	2014-02-01T01:01:02Z

Figure 6-57 List Template

   3) Edit the whitelist and blacklist information according to the template and save it locally.

NOTE

You must edit the whitelist and blacklist information according to the template, or the import will fail.

   4) Click ... to select the file directory of the saved list.
   5) Click **Import** to import the list to the capture unit.

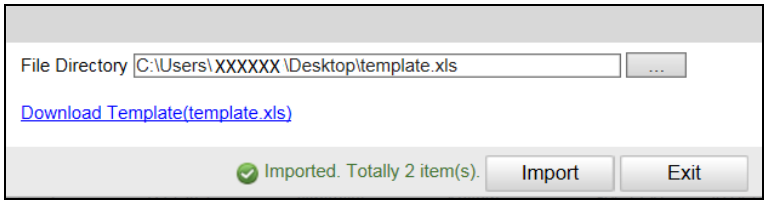
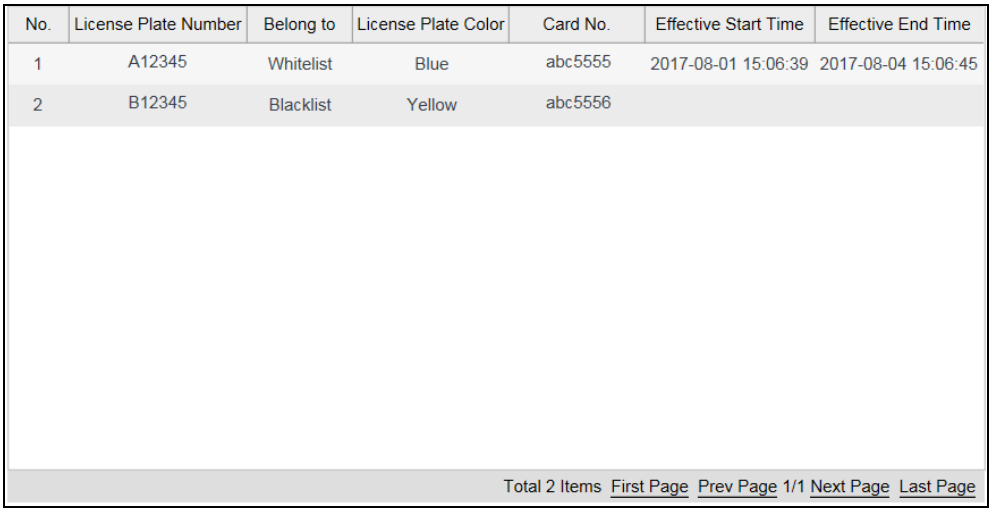


Figure 6-58 Import Completed

6) Click **Exit** to return to the Whitelist and Blacklist Configuration page, and you can view the imported vehicle information.



No.	License Plate Number	Belong to	License Plate Color	Card No.	Effective Start Time	Effective End Time
1	A12345	Whitelist	Blue	abc5555	2017-08-01 15:06:39	2017-08-04 15:06:45
2	B12345	Blacklist	Yellow	abc5556		

Figure 6-59 Imported Vehicle Information

3. Add whitelist or blacklist vehicle information to the capture unit.
   1) Click **Add** and the window pops up as below.

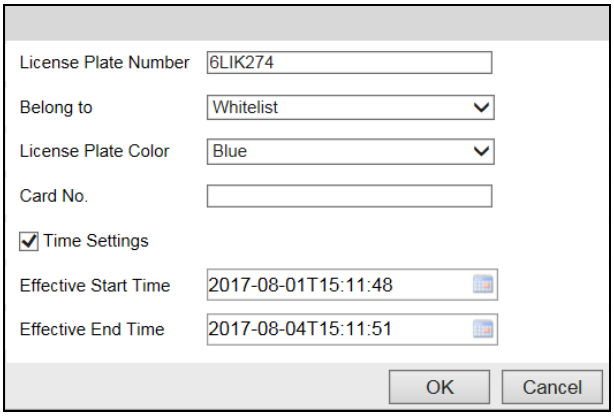


Figure 6-60 Add Whitelist/Blacklist Vehicle Information

   2) Edit the vehicle information and time.
   3) Click **OK** to add it and it will be listed on the table.
4. Edit the added whitelist/blacklist vehicle information.
   1) Select an item from the table and click **Edit**.

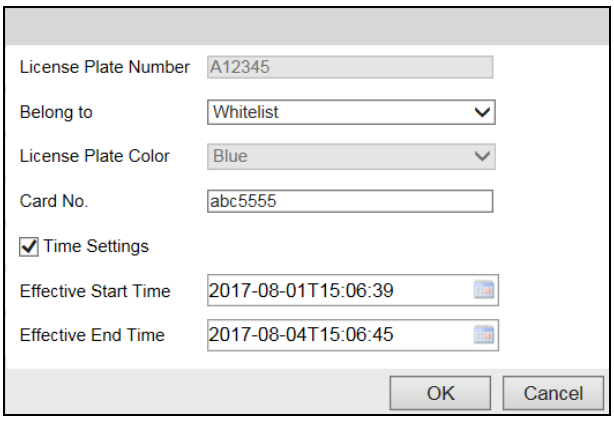


Figure 6-61 Edit Whitelist/Blacklist Vehicle Information

2) Edit the information.
3) Click **OK** to save the settings.

5. Search the whitelist/blacklist vehicle information.
   1) Configure the search condition and keywords.
      - **License Plate No.**: Enter the complete license plate number in the **Keywords** text field.
      - **Card No.**: Enter the complete card No. in the **Keywords** text field.
      - **Belong to:** Select **Whitelist** or **Blacklist** as the keyword.
   2) Click **Search** to search the vehicle information and the search result will be listed on the table.

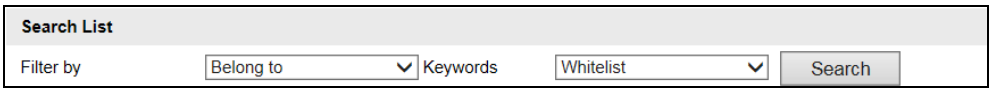


Figure 6-62 Search Vehicle Information

6. Delete the whitelist/blacklist vehicle information.
   1) Configure the type and keywords.
      - **License Plate Number**: Enter the complete license plate number in the **Keywords** text field.
      - **Card No.**: Enter the complete card No. in the **Keywords** text field.
      - **License Plate Color:** Select the color from the **Keywords** drop-down list.
      - **License Plate Number and Color**: Enter the **License Plate No.** and select the **License Plate Color**.

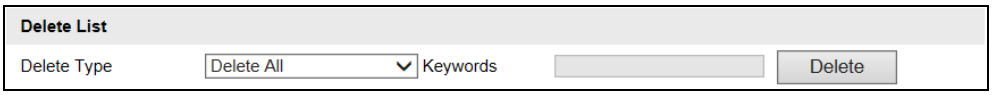


Figure 6-63 Delete Vehicle Information

   2) Click **Delete** to delete the whitelist/blacklist vehicle information.

6.9.3 Configure Display

Purpose:
You can configure the LED display of the capture unit.

NOTE

The LED display function can only take effect when adopting the Hikvision IS-TVL224-4-5EY series LED display.

Steps:

1. Go to **Configuration** > **Device Configuration** > **Entrances and Exits** > **Display**.

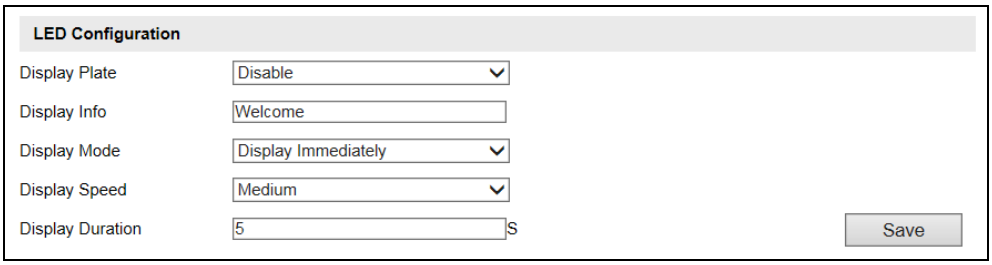


Figure 6-64 LED Display Configuration

2. Configure the parameters below.
   - **Display Plate**: Enable or disable to display plate on the LED display.
   - **Display Info**: Enter the information to display on the LED display.
     Online display content: The platform or client sends the display content, such as the free parking space(s), charging information, etc.
     Offline greetings: You can configure greetings such as Welcome if the device is offline.
     Offline company information: You can configure the company information such as Hikvision if the device is offline.
   - **Display Mode**: Select the display mode. **Leftward**, **Rightward**, and **Display Immediately** are selectable.
   - **Display Speed**: Select the display speed of the content. **Fast**, **Medium**, and **Slow** are selectable.
   - **Display Duration**: Enter the duration ranging from 0 to 60s.
3. Click **Save** to save the settings.

6.10 User Management

Go to **Configuration > Device Configuration > User Management**.

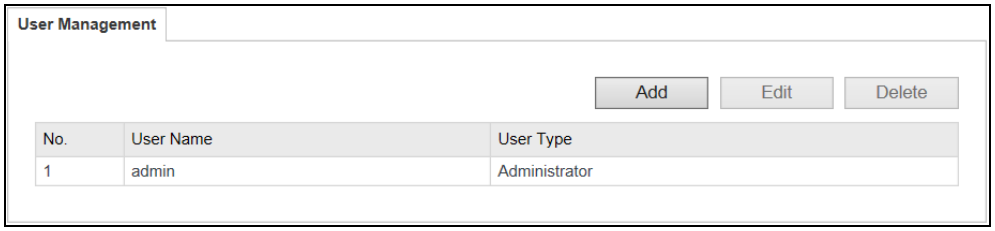


Figure 6-65 User Management

- **Adding a User Account**

Steps:

1. Click **Add** to add a user account.

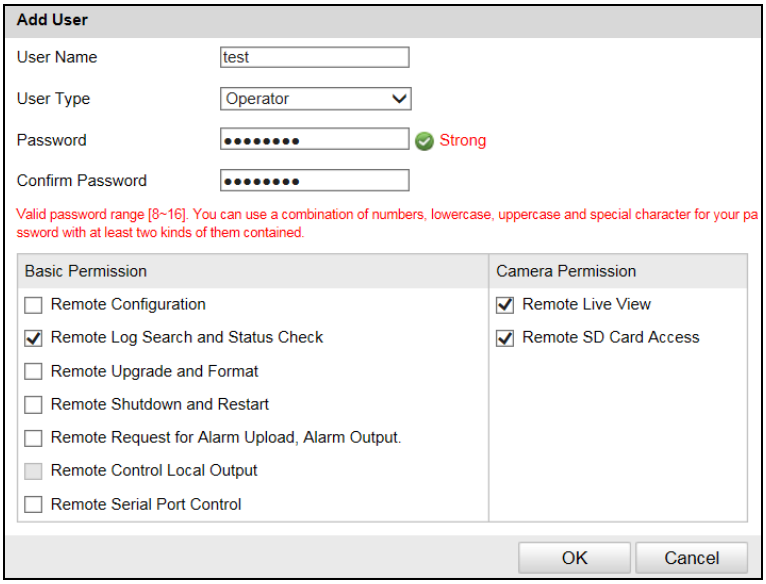


Figure 6-66 Add a User

2. Configure the user parameters.
3. Click **OK** to save the settings.

WARNING

STRONG PASSWORD RECOMMENDED–We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: 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.

- **Editing a User Account**

Steps:

1. Select a user.
2. Click **Edit** to edit the user parameters.

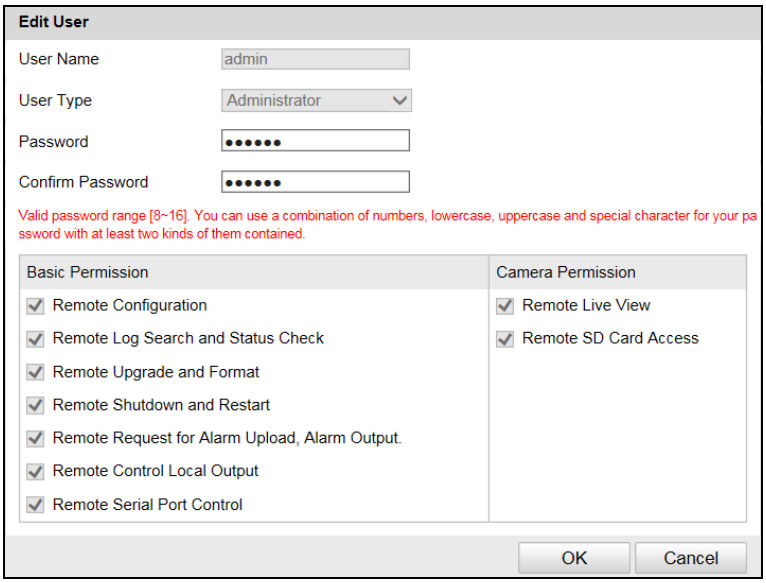


Figure 6-67 Edit the Admin

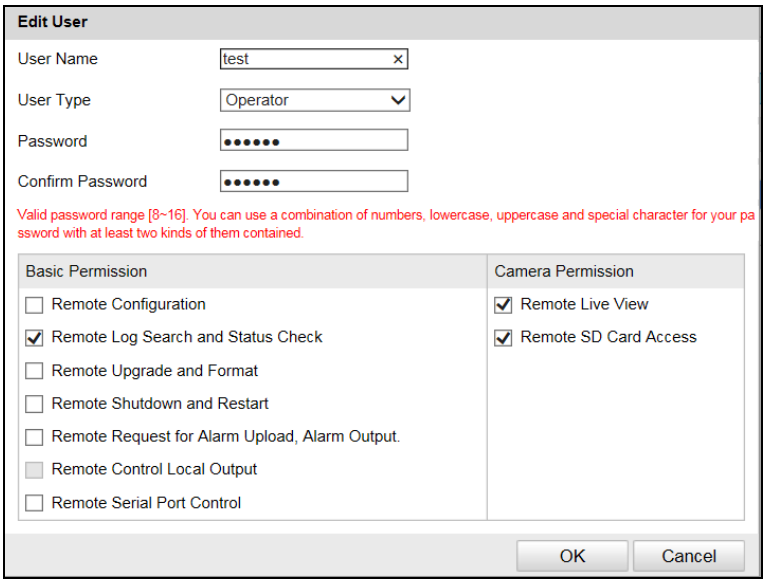


Figure 6-68 Edit the Operator

3. Click **OK** to save the settings.

NOTE

You need to verify the password before editing user.

- **Deleting a User Account**

Steps:

1. Select the user you want to delete and click **Delete**.
2. Click **OK** on the pop-up dialogue box to delete the user.

NOTE

You cannot delete the admin account.

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