HD license plate recognition machine user manual

Thanks for using our products and we would like to provide you with the best services. We will continue to improve or update the products or programs described in this manual, so this manual will be updated regularly and the updates will be added to the new version of the manual.

This manual may contain technically inaccurate details or text errors. We greatly appreciate your recommendations and corrections.

Shenzhen Realpark Co., Ltd.

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I. Product Introduction

(I) Brief introduction

FHD vehicle detection integrated camera using a low-power high-performance ARM processor and a 2 megapixel low-light CMOS sensor, it is an intelligent device that integrates vehicle identification, camera, storage, and multi-interface input.

This product is specially designed for the parking lot industry based on embedded intelligent high-definition vehicle identification products, which can be widely used in various parking lot entrances and exits, community entrances and exits, highway entrances and exits.

Figure 1   Integrated Camera Appearance

(II)Functional characteristics

✧ Ultra HD 4 million pixels (1440P);
✧ All-day vehicle capture rate is higher than 99.9%;
✧ All-day license plate recognition rate is higher than 95%;
✧ Support cloud control function for parameter configuration, video preview and remote upgrade;
✧ Adopt video compression technology H.264 for video encoding, and capture frames using JPEG encoding;
✧ Support three detection methods: coil detection, video detection, coil detection + video detection;
✧ Support OSD information overlay function, support video / picture overlay watermark;
✧ Support white list import and export function, can do fuzzy matching on white list;
✧ Support configuration file import backup;

✧ **Support manual key reset, you can restore the initial IP address, user name, password and restore the default factory configuration with one click;**

✧ **Support cloud intercom;**

✧ Support secondary development;

(III) Technical Parameters

Types of	project	parameter
Intelligent Recognition	Vehicle capture rate	≥99.9%
	License plate recognition rate	>95%
Video input	sensor type	4 million pixel star-level CMOS
	Lens and focal length	Zoom 2.8-12mm
	Exposure time	1/100 ~ 1 / 10000s
Video output	Image size	1440P, 1080P, 720P, 4CIF
	Compression standard	Video H.264 / Picture JPEG
	Compressed output bit rate	384Kbps ~ 4Mbps
	Highest frame rate	Main stream 25FPS, substream 25FPS
	Image settings	Adjustable shutter, gain, brightness, etc.
Business functions	Snapshot trigger type	Video, coil, video + coil
	Output information	Large picture of the vehicle, small image of the license plate, license plate number, license plate color
	OSD information overlay	Support, can define time, place, license plate, etc.
	One-click reset	Short press for 2 seconds to restore the default IP, username and password
	White list function	Long press for 10 seconds, restore the default IP, username and password, factory configuration
	Offline charges	Support white list import and export functions
	Voice intercom	Support offline charging function
External interface	The internet	1 RJ45 100M adaptive network interface
	communication	2 RS485 interfaces
	power supply	1 AC voltage interface (90V-270V)
	Enter	2 digital inputs / levels, 2 digital inputs
	Output	2-way switch output interface (relay)
	Reset	1 reset button interface
	USB	1 type A USB interface
	storage	1 TF card interface
	Voice key input	1 voice button input interface
	Voice input	1 voice input interface, support pickup input
	Voice output	1 voice output interface, support 4 Euro 5W speaker output

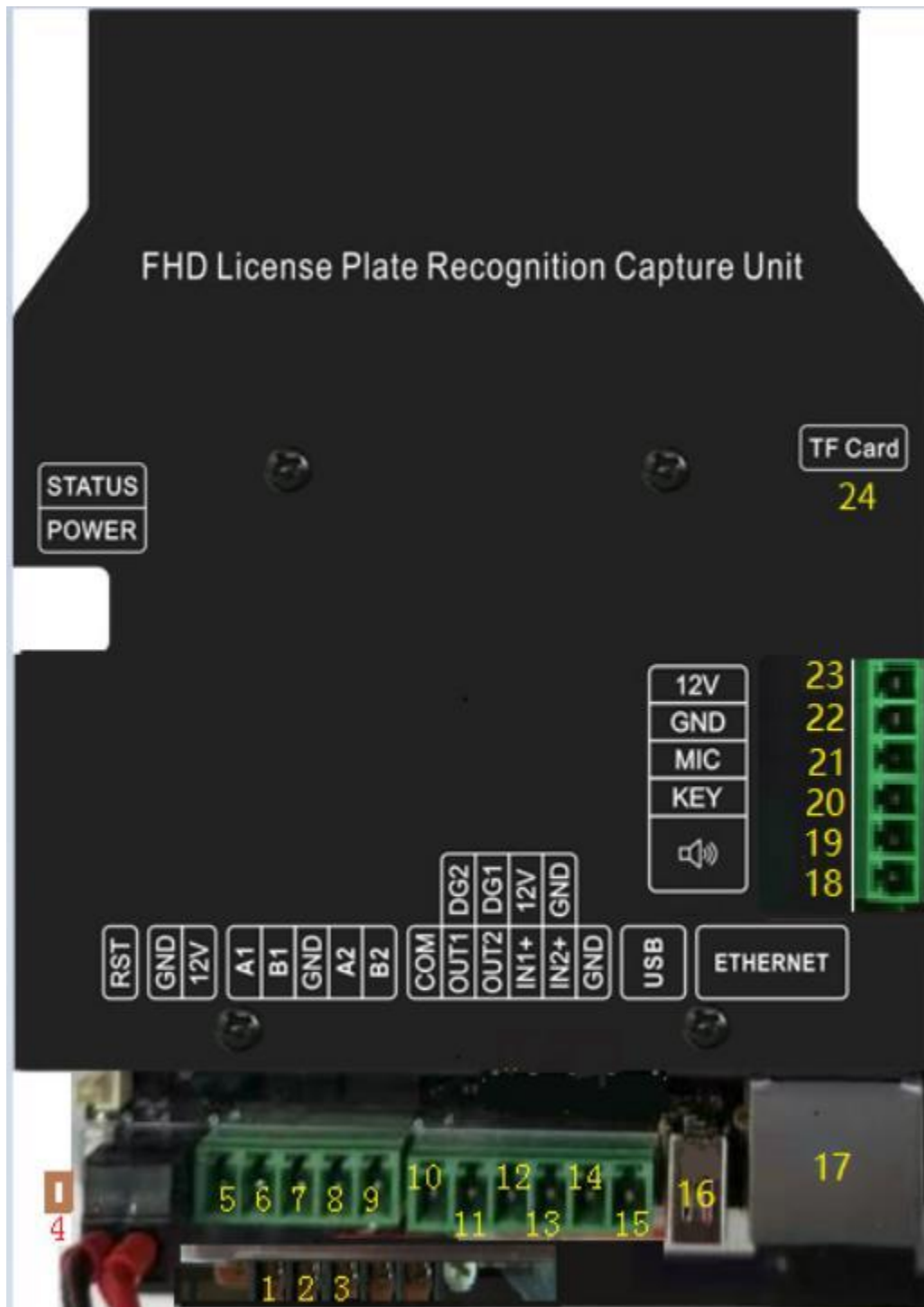| working environment	Total power	<7.5W
	Operating temperature	-30 ~ + 80 degrees
	Working humidity	5% ~ 95% (non-condensing)
	Protection class	IP65
Appearance	Size (mm)	380✕141✕ 108
	Weight (Kg)	1.85

(IV) Product port

Figure 2   Integrated Camera   Interface Sketch

Explanations of interfaces:

Interface number	Interface name	Function description
1、2、3	L, N, ground wire	The input terminal of the switching power supply can input 2 2 0 volts AC, where 1 is L (fire wire), 2 is N (zero line), and 3 is the ground terminal
4	RESET	One-button reset, short press for 2 seconds to restore factory IP and account password, long press for 1 0 seconds to restore all factory settings
5, 6, 7	A1, B1, GND	The first 485 signal communication, generally connected to the display screen in the parking lot scene
8, 9	A2, B2	The second channel 485 signal communication, share the same ground with the first channel
10, 11	COM, OUT1	The first relay output, generally used for opening
10, 12	COM, OUT2	Second relay output, common ground with first output
13, 15	IN1 +, GND	The level signal input when the gate is in place, high level is valid
14, 15	IN2 +, GND	Barrier closing gate level signal input, high level effective
16	USB	U disk can be inserted for importing whitelist
17	ETHERNET	100M Ethernet port
18、19	horn	Speaker output interface, external parameters can be 4 Euro 5 Watt speakers
20、22	Key input, GND	Voice input request button, used to receive voice input instructions. The signal is a digital input. Shorting the key input to GND indicates that there is a voice input.
21、22、23	Pickup, GND, + 12V	+ 12V and GND are used to power external pickups, and the pickup interface is used to receive voice signals from external pickup devices
24	TF card	TF card can be inserted for storing data

II. Webpage configuration introduction

(I) Login configuration

【Login configuration】describes how to log in to camera and the default interface after login.

1.1 Login preparation

Ensure connection of the integrated machine with PC network and line to the login page address via IE browser (for example, http:// 192.168.0.10/).

Figure 3 Main Login Interface of Integrated Camera

When you log in for the first time, you will be prompted "Uninstalled Control Detected". Click to download the control setup package at a selected saving path

After downloading, double click the control setup package for setup.

Figure 4 Client End Software Setup for Integrated Camera

Click "Next ", Finally, click "Complete" .

Note: for the operation system, Windows 7 32-bit is recommended, and IE 8.0, 9.0, 10.0, 11.0 Standard Edition shall be used.

Step 2: See zhe computer desktop, find the configuration tool icon, and double click to run the program

Figure 5 Configuration tool icon

1.2 Simple interface

【Simple Mode】 interface is the main interface after login in the tool, the real-time video and the recognition result data can be viewed and the camera can be configured. It consists of 4 major parts: monitored scene, common function buttons, configuration area and capture result display.
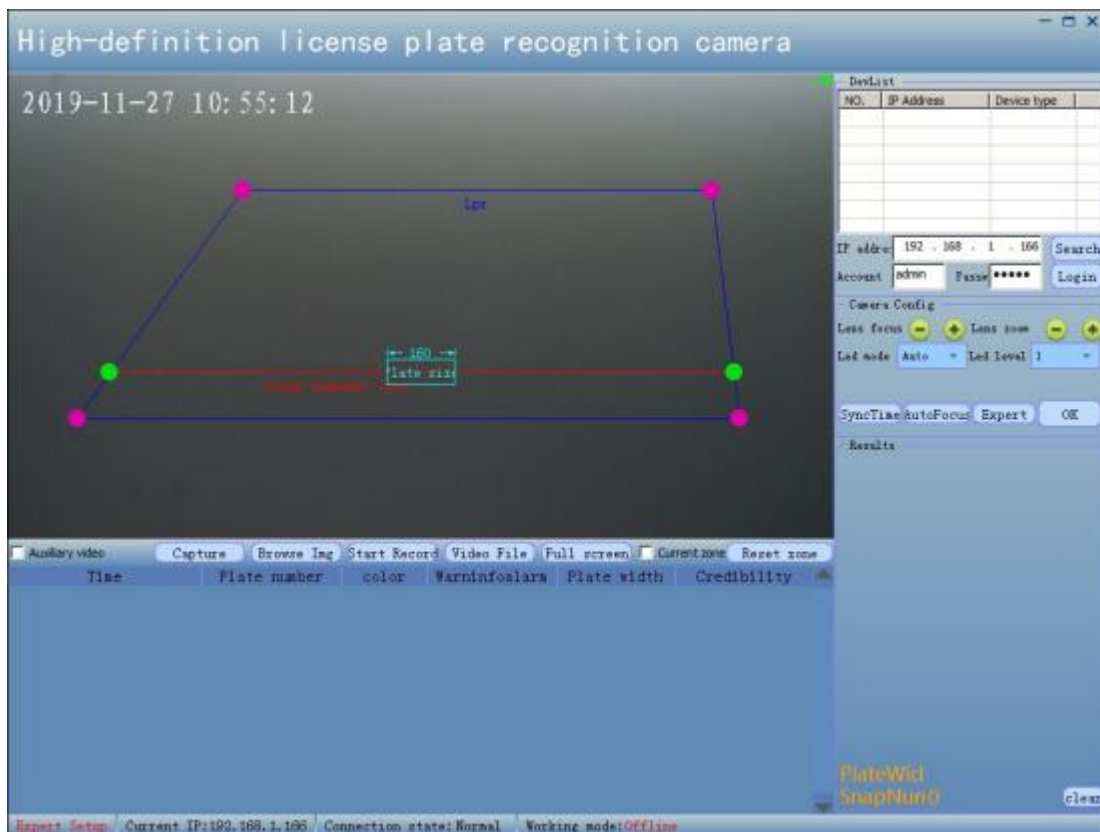
Figure 6 Default Interface of the Integrated Camera Client Software

1.2.1 Log in machine

Step1：click search button
Step2：In DevList click the row in the table to select the machine you want
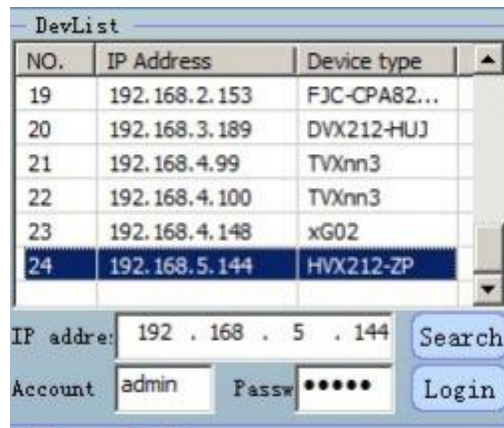
Figure 7 Search& Select camera

Step3：click Login button

1.2.2 Monitored scene

In the field of view, you can set the license plate identification area (blue quadrilateral frame) and the capture line (red or green line), as well as a test tool (cyan box) for measuring the size of the license plate. See Figure 9 below:
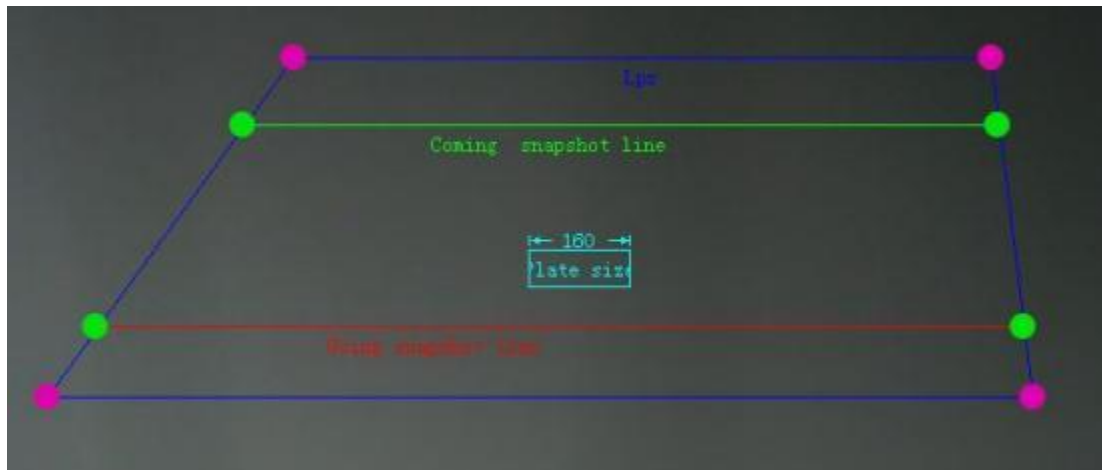

Figure 8 Monitor Interface in the Simple Interface

The license plate recognition area means that the license plate in this area frame will be recognized (not equal to being captured); you can change the shape by dragging the four points (red) around, or you can use the mouse to press and hold the middle of the recognition area to drag the entire recognition area; after modification, you need to click "**OK**" in the function module to save;

The capture line means that after the license plate in the recognition area is stably tracked, the license plate will be captured if the vehicle touches the capture line. There are two capture lines, incoming capture line and going capture line. You can adjust the position by moving the green points at both ends of the capture line. After modification, you need to click "**OK**" in the function module to save. Generally only the incoming capture line is enabled;

The license plate size measurement tool can be dragged by pressing mouse and holding the

middle of the frame. The tool is generally dragged to the license plate at the position to be captured, and the left and right edge lines of the frame can be changed so that it just covers the license plate. The frame is composed of［110~240］pixels and the default setting is "200" （In fact，the best value is based on different license plate types） . It is recommended that the single layer license plate at the capture place is composed of 200 pixels. It can be achieved through adjusting the capture position or zoom adjustment (for zoom lens).

Note 1: on the upper right corner of the surveillance scene, the connection quality of the video is shown. Green (three grids) indicates excellent quality; yellow (two grids) indicates normal quality, but it can be used normally. Red (one grid) indicates poor video quality, and there may be stuck and mosaic, etc. If it is red, you need to check the computer performance, network cable quality or network configuration.

1.2.3 Common function button

There are some common function shortcut keys below the monitored scene.
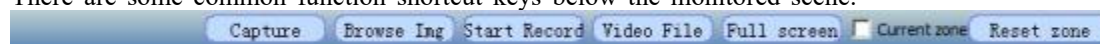

Figure 9 Common Function Button Area

There are 6 buttons in this area.

Manual capture: click this button for forced capture of the next picture.

Browsing capture: click this button to skip to the capture pictures saving directory.

Start picture recording: click this button to start picture recording by the camera; the default time for recording one segment is 15 minutes, and upon completion of a segment, this button will automatically change to be "stop recording" . Click "stop recording" button to stop the recording.

Browse video: click this button to skip to the video storage directory.

Full screen: click this button and the monitored scene is expanded to cover the entire computer screen (double click the monitored scene, it can be expanded to cover the full screen); double click the screen again after full screen will return to the initial state.

Current recognition area: when this option is ticked, the current recognition area will always be displayed in the video; if the current recognition area is dragged but "OK" is not clicked, two recognition areas will be displayed in the monitored scene.

Reset the recognition area: after clicking this button, the recognition area will be restored to the factory setting status.

1.2.4 Configuration area

You can set the camera IP, search IP, lens zoom, lens focus, fill light mode, fill light level, default province, default city and other parameters.
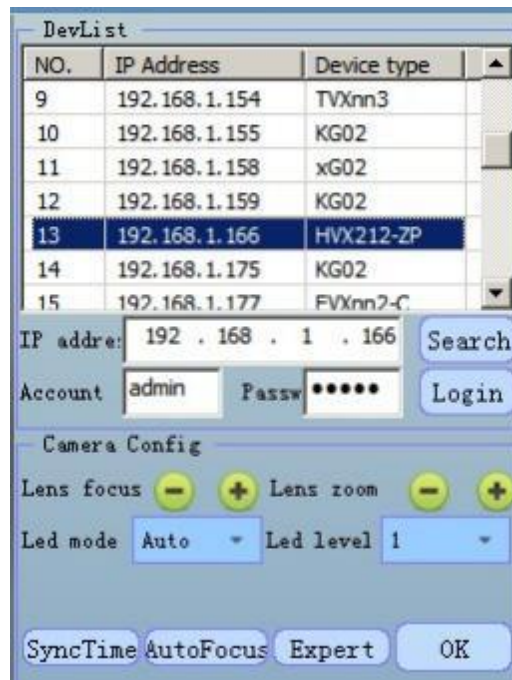
Figure 10 Configuration Area on Simplified Interface

➤ **IP address:** factory default IP: 192. 168.0. 10 (to be modified based on the site demand).

➤ **Search IP:** all IP addresses, device name and software version information in the same LAN may be searched;

➤ **Lens zoom:** click , the license plate will become smaller; click , the license plate will become larger (applicable for zoom lens);

➤ **Lens focus:** if the video picture is not clear, click or to make adjustment (applicable for zoom lens);

➤ **Auto focus:** click button and the camera will automatically adjust the focus to make the picture to be clearer (applicable for zoom lens);

➤ **Led mode**: there are three modes, including forced start-up mode, forced closing mode and automatic mode.

➤ **Led level**: level 1, 2, 3, 4, 5, 6 and 7;1 is the darkest and 7 is the brightest, the default setting is "1'.

➤ **Time synchronization:** click button and the time is synchronized to the current PC time;

➤ **Expert mode:** click button and automatically switch to expert mode; you can set the camera parameters more deeply;

1.2.5 Result area

Figure 11 shows the capture results on simplified interface

Note: some device information is displayed at the bottom of the simplified interface. The "current working status" will indicate whether the camera is connected to the upper PC software; if "Offline" is displayed, it indicates the camera is offline, and if "Online" is displayed, it means that the camera is connected with upper PC software. The difference between various working states is very large and it needs special attentions.
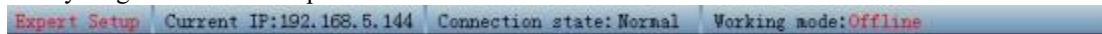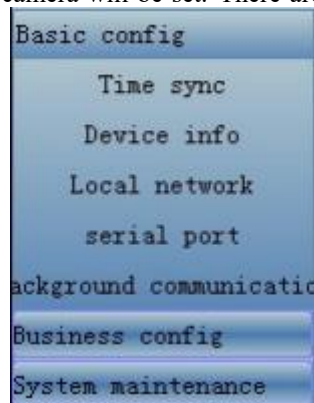

Figure 12 Status Display on Simplified Interface

(II)   Basic operation settings

On the interface of【Basic Settings】, the basic information and linkage operation functions of the camera will be set. There are 5 items.

2.1 Time synchronization

☺ Note:

1. The options in the figure take effect only when synchronizing with PC. After other options are configured, the left key of the mouse shall be clicked to make the configuration take effect.

2. The NTP server can only match time with the camera when the NTP is enabled and the NTP server is normal with NTP service port configuration to be correct.

➢ **Time and date setting:** choose the date and time format and click "OK" button to save after setting; it will be reflected in the camera video and picture.

➢ **NTP server address:** tick "NTP enabled", fill in the enabled NTP server address and NTP service port and click "OK". The camera video and picture time will be the same as the server time, and the time and date settings will also be consistent with the server time.

➢ **System time:** click the "Sync PC" button on the right and the time will be synchronized to the current PC time.

➢ **Time zone:** choose the time zone. The default setting is "Dongba Zone". You may choose a different time zone and click setting; the time and date settings and camera video and picture time will be changed to the time of the corresponding time zone.

2.2 Equipment information

Here, the **district number, project name, equipment number, entrance and exit name, entrance and exit number and orientation** are set. They shall be filled according to the actual needs of the project.

2.3 Native network

➢ **MAC address:** the network card MAC is displayed and it can't be modified;

➢ **IP address:** default setting: 192.168.0.10

➢ **Subnet mask: default setting:** 255.255.255.0

➢ **Default gateway:** default setting: 192.168.0.1

➢ **DNS:** DNS server address, default setting: 192.168.0.1

Note: if you forget the IP, you can press the reset button to restore.

2.4 Serial port communication

```
Serial port(RS485)
┌─ RS485  A1 B1 ──────────────┐  ┌─ RS485  A2 B2 ──────────────┐
│                             │  │                             │
│  Baud rate   9600        ▼  │  │  Baud rate   9600        ▼  │
│                             │  │                             │
│  Baud rate   8           ▼  │  │  Data bits   8           ▼  │
│                             │  │                             │
│  Stop bits   1           ▼  │  │  Stop bits   1           ▼  │
│                             │  │                             │
│  Check out   No Check    ▼  │  │  Check out   No Check    ▼  │
│                             │  │                             │
│  Function  Screen control ▼ │  │  Function  Transmit Control ▼│
└─────────────────────────────┘  └─────────────────────────────┘
              ┌────── OK ──────┐
```

➢ **Baud rate:** multiple baud rates are available, default setting: 9600;

➢ **Data bit:** default setting: 8;

➢ **Stop bit:** default setting: 1

➢ **Parity:** odd parity, even parity or no parity, default setting: no parity;

➢ **Function:** "Screen control" and "Transmit Control" are optional. Generally speaking, the displayed contents are controlled by camera in the screen display control mode (offline); Transmit Control means the camera only provide channels and the displayed contents are controlled by the upper computer (online).

Note 1: the device has 2 RS485 ports, any one of which can be connected to the display screen and attention shall be paid to the order of A and B line.

Note 2: the parameters of serial communication shall be chosen according to the actually used screen display control panel; click "skip to screen display configuration" to turn directly to the "screen display configuration" interface.

2.5 Backend communication

This method requires the user to set up an HTTP server and configure the address of the HTTP server to the camera. When the camera has a recognition result (or other content that needs to be pushed), an HTTP command is sent to the specified address.

1. http server settings

The server that receives the http push, the configuration includes the address ip address, port number, and timeout setting. Please configure according to the situation of the server you are setting up.

2．License plate recognition result push

After the license plate recognition result is turned on, if there is a license plate recognition result, the message will be sent to the address http:// 192.168.0.100/cgi-bin/plateresult.cgi according to the configuration in the figure. The data format is JSON format.

After the alarm is sent to send the picture, json will contain the image data.

3．Port trigger information push

When turned on, json format data is pushed when there is a change in the car detector input.

4．Serial data push

Push the data received by the serial port, json format data

5．Multiple push settings

This setting is for the setting that can be retransmitted when the first transmission of the data is unsuccessful.
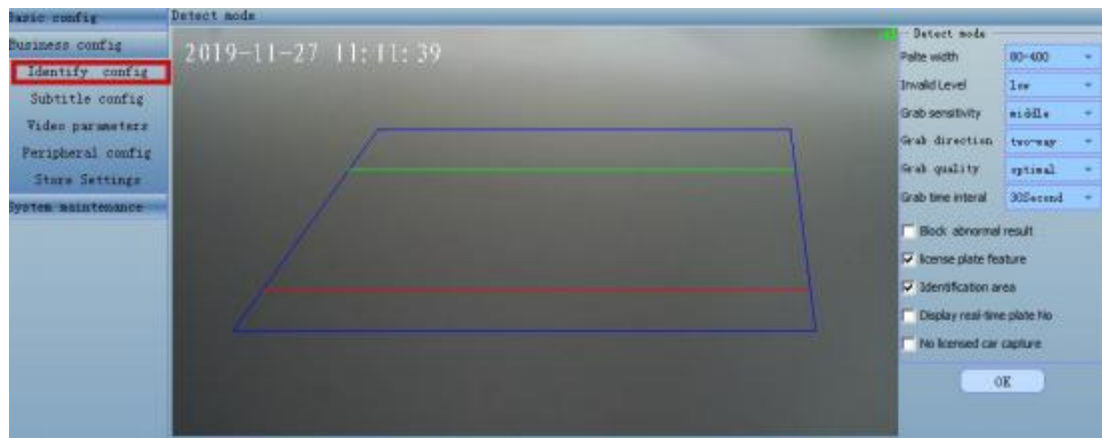
6．Remote maintenance settings

Module for communication with（an already established）cloud platform

(III) Business configuration

The business functions of the camera are set on the【Business Configuration】 interface. There are 5 items.

## 3.1 Identify configuration

- ➢ **Plate width:** three options available: 80 ~200, 160 ~ 400, 80 ~ 400; the default setting is 80~400.

- ➢ **Invalid level:** three levels available; the default setting is "low"; the fake license plates, such as 11111, can be shielded.

- ➢ **Grab sensitivity:** three levels available; the default setting is "middle";

- ➢ **Grab direction:** come direction, go away direction and two-way directions available; in the video, if the license plate is tracked from the top to the bottom, it means it is a vehicle in come direction; if the license plate is tracked from the bottom to the top, it means it is a vehicle in go away direction; generally, it is set to be come direction.

- ➢ **Grab quality:** The default is the optimal, the same license plate repeat capture interval has 7 files to choose from, the default is 30 seconds; the highest is the same license plate can be repeatedly captured, no time interval limit (requires identification area).

- ➢ **Grab time interval:** when set grab quality to"optimal"; there are 7 levels available for repeat capture of the same license plate.

- ➢ **Block abnormal result:** if ticked, the abnormal license plate will not reported.

- ➢ **License Plate feature :** if ticked, the characters in the license plate for armed policed vehicle will be displayed; it is recommended not to tick.

- ➢ **Identification::** if ticked, display the identification area in the PC software, if it is not ticked, it will not display

- ➢ **Display real-time plate No:** if ticked, the real-time recognized license plate will be displayed on the lower left corner of the video.

- ➢ **No licensed car capture:** if ticked, the vehicle/car without license plate will be recognized and captured through video. The generated picture is as follows (no license plate shown through the picture name).
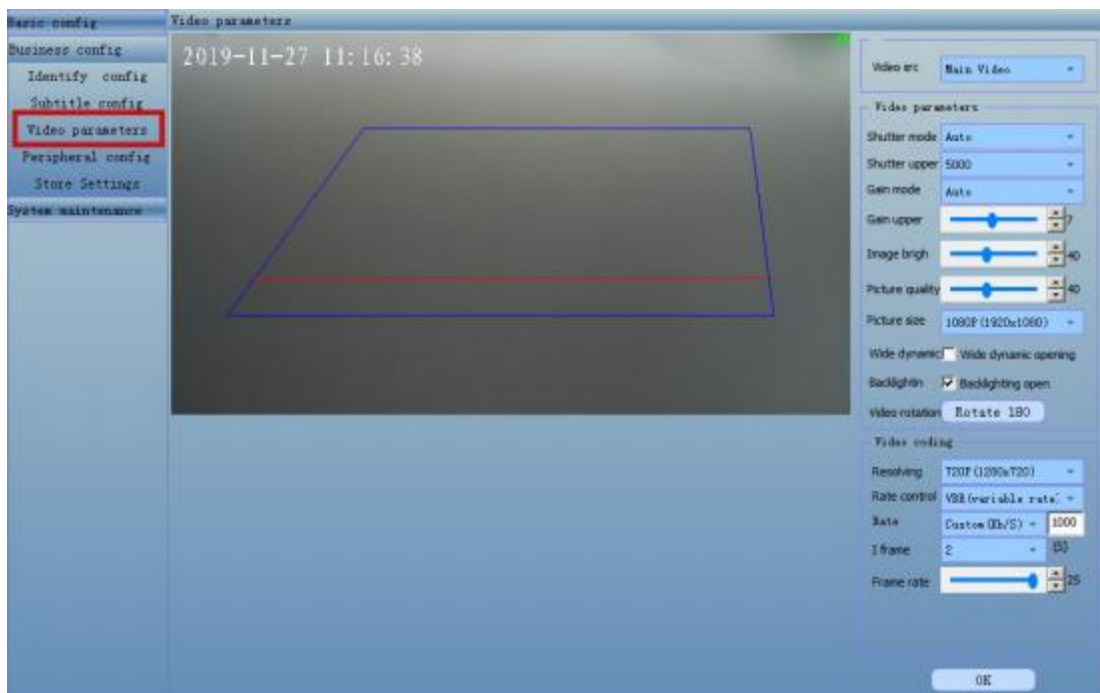

3.2 Subtitle configuration
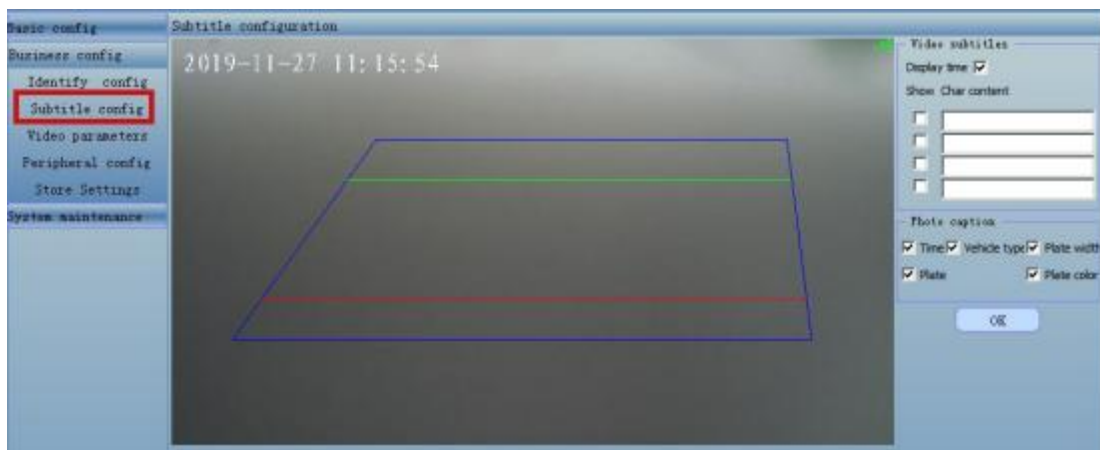
- ➢ **Display time:** if ticked, the date and time will be displayed on the video.

- ➢ **Display subtitles:** after entering the subtitles and ticking, the entered subtitles will appear on the video; you can enter four subtitles; you can drag the subtitles to change the display position during the setting process.

3.3 Video parameters

➢ **Shutter mode:** choose automatic or manual mode; the default setting is "automatic" .

➢ **Shutter upper limit:** the upper limit of the setting range is $20\text{\textasciitilde}10000$ us; the default setting is "5000" .

➢ **Gain mode:** choose automatic or manual mode; the default setting is "automatic" .

➢ **Gain upper limit:** the range is $0\text{\textasciitilde}15$; the default setting is "7"; press the up and down button on the right side to increase or decrease by "1" each time.

➢ **Image brightness:** the range is $0\text{\textasciitilde}100$; the default setting is "40"; press the up and down button on the right side to increase or decrease by "1" each time.

➢ **Picture quality:** the range is $0\text{\textasciitilde}100$; the default setting is "40"; press the up and down button on the right side to increase or decrease by "1" each time.

➢ **Picture size:** the size of picture can be set; the default setting is "1080P" .

➢ **Backlightin:** the default setting is "on"; the capture effect can be automatically adjusted according to the brightness of the license plate.

➢ **Video rotation:** the image can be rotated by $180°$ if applied in special conditions.

➢ **Video type:** choose primary or secondary video; the default setting is "primary video encoding" .

➢ **Resolution:** the resolution can be set; the default setting is "720P" . If the computer configuration is low, you can change it to be lower. It is recommended to choose "4CIF" .

➢ **Bit rate control:** you may choose "fixed rate" or "variable rate"; the default setting is "variable rate" .

➢ **Bit rate**: the default setting is "1000 kb/s; if there are obvious jumps on the screen, it is recommended to modify into "2000" but the computer configuration must be relatively high (Core I3 or above); if the picture is stuck, you can change the bid rate to be "500" .

➤ **Interframe interval:** generally it is 2 seconds; if there are obvious jumps on the screen, you can choose "1".

➤ **Frame rate**: the number of frames per second can be chosen; the default setting is "25".

3.4 Peripheral configuration
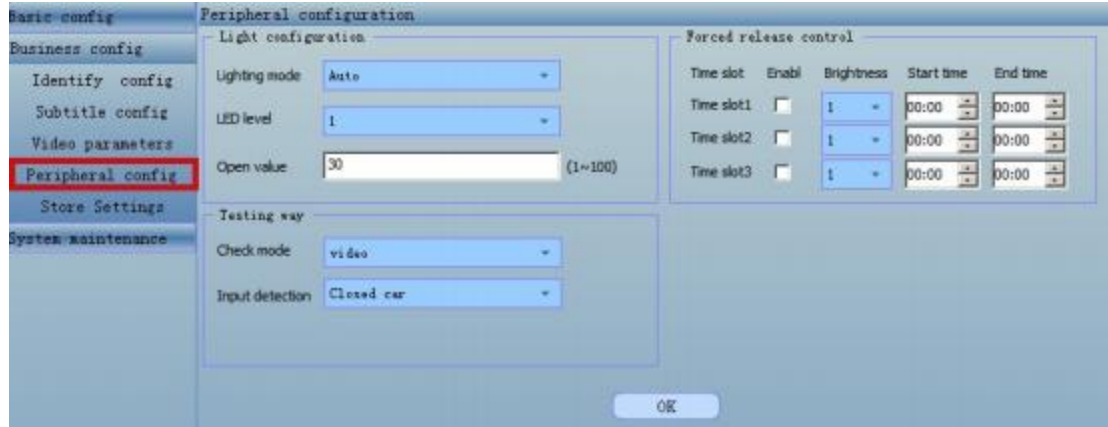
➤ **Fill light mode:** there are three modes, including forced start-up mode, forced closing mode and automatic mode.

➤ **Fill light level:** level 1, 2, 3, 4, 5, 6 and 7; the default setting is "1'.

➤ **Brightness threshold:** set the threshold for light on and off in the automatic mode. The default setting is "30". The larger the number is, the earlier the light will be on in the evening, but it shall not exceed 40.

➤ **LED forced switch control:** the brightness and intensity of the fill light can be set by segments; three segments can be set at the maximum. This fill light setting is prioritized to the automatic setting.

➤ **Detection method:** you can choose from three detection modes, including video detection, coil detection and detection by coil plus video.

➤ **Coil detection:** valid electrical signals can be defined; when the software receives the set electrical signal, it can trigger the coil to capture images. The default setting is "Closed car". it means when the coil give a close signal ,then the camera will capture a picture and identify some chars, license plate no,licence plate color etc..
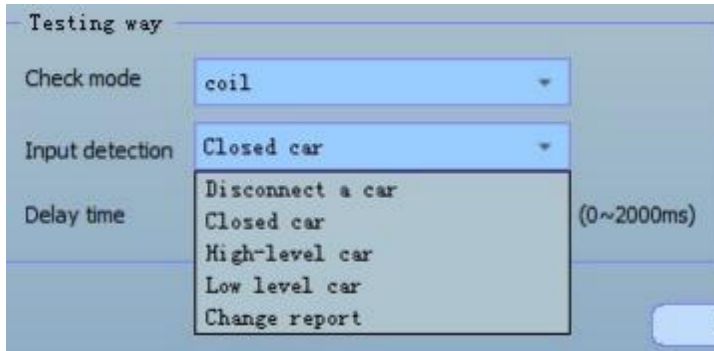
➢ **Delayed time:** the delayed time for image capture after detecting the valid coil signal can be set; it is "0ms" at least and "2000ms" at the maximum. The default setting is "100ms" .
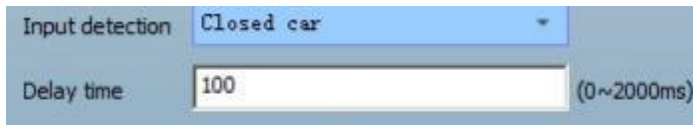
Note 1: the capture rate of the coil can basically reach 100%. Because the video recognition is stream like, the recognition result of the video is better than that of the coil. The "coil + video" combines the advantages of both, so "coil + video" detection method is better than a separate video or coil.

Note 2: when the detection mode is set to be "coil + video", the vehicle will be recognized in both video detection mode and coil detection mode, but the image will be generated according to a certain rules, and usually only one image will be generated.

3.5 Storage setting

➢ **Storage mark:** if ticked, data can be saved in the memory card (TF card) and the data can be exported from the memory card.

➢ **Writing strategy when the disk is full:** choose "overwrite " and then the new data will gradually overwrite the earliest data; if choosing "stop writing", new data will not be written.

➢ **Formatting:** tick to format the memory card.

Note: it is recommended to use Sandisk Class4 8G TF card.

➤ **FTP directory:** click to view the data saved in the storage card.

In the "image", the captured images are saved; in the "log", the operation logs of the camera are saved; in the "event", the offline data is saved. The relevant folder may be chosen for unloading.

➤ **Local storage directory:** choose to modify the saving path; after modifying the saving path, the manually captured images directory, manual video directory, vehicle capture directory will also be changed accordingly; choose to directly save the directories.

➤ **Manually captured images directory:** choose to directly open the folders where the manually captured images are saved.

➤ **Manual video directory:** choose to directly open the folder where the manual videos are saved.

➤ **Vehicle capture directory:** choose to directly open the folder where the images captured automatically by the camera are saved.
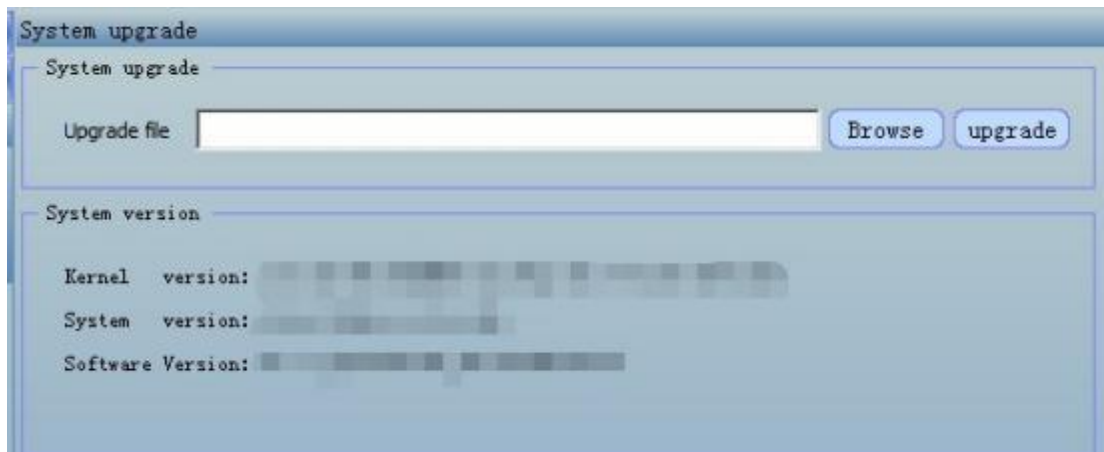
(IV) System maintenance

【System Maintenance】 mainly involves three items, i.e. equipment upgrade, operation data and automatic restart.
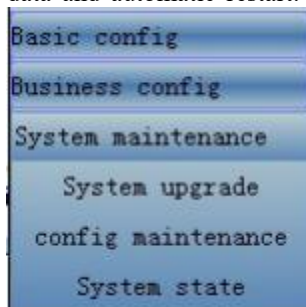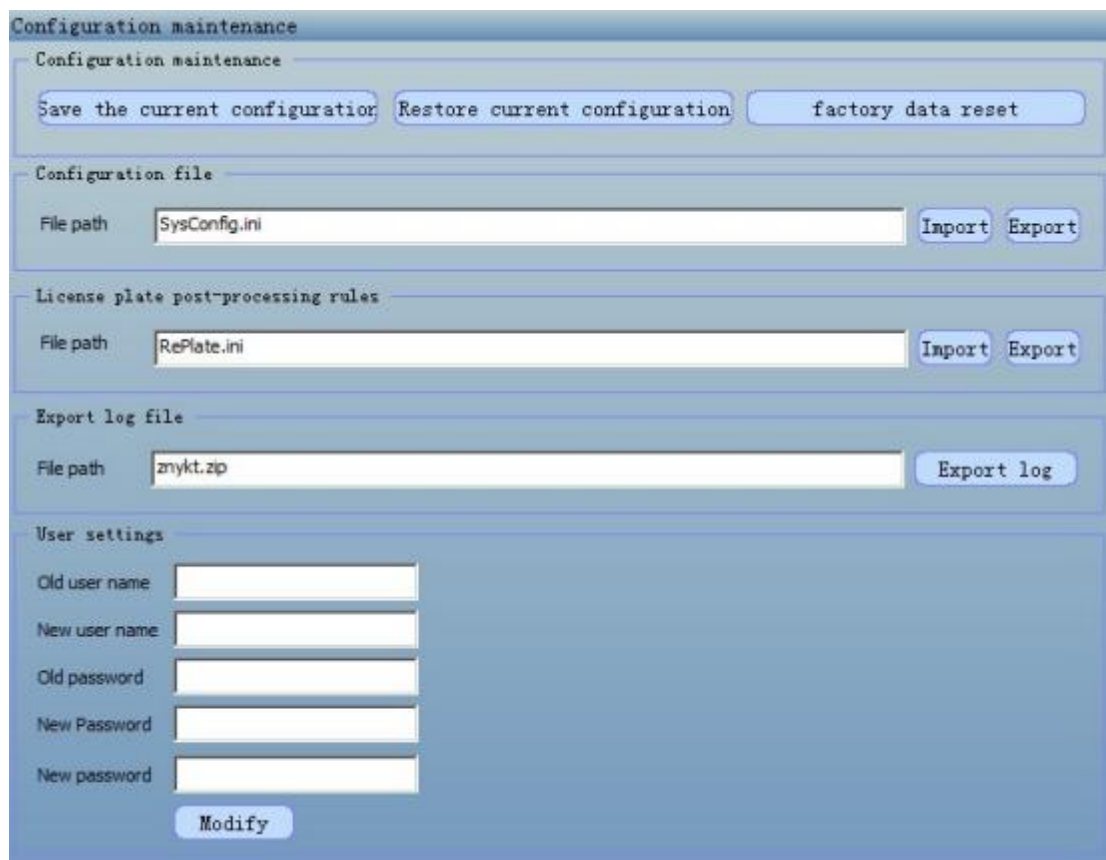
4.1 System update

- ➢ **Browse:** find the files to be updated; it is generally with a suffix of "bin" .

- ➢ **Update:** click the upgrade button.

Note 1: check the version number shown below the system version after update. It indicates the update is successfully completed if the version is as expected.

4.2 Configuration maintenance

- ➢ **Save the current configuration:** Click Save the current configuration to save the current basic configuration and business configuration.

➢ **Restore the current configuration:** click `Restore current configuration` to restore the basic configuration and business configuration saved last time.

➢ **Restore the factory settings:** click `factory data reset` and partial system settings will be restored to the factory settings, including the following parameters in several sub-pages; the basic configuration of the device and the business configuration are restored to the factory settings without changing the network configuration of the camera.

➢ **Configuration files import:** browse and select configuration files and click `Import` to load the configuration files in; the loaded configuration files will not change the network configuration.

➢ **Configuration files export:** click `Export` to export the configuration files and select a path to save the files.

Note: the configuration files refer to the configurations in the system. They may be exported, saved for backup. After changing some configurations, you can also import the original configuration files to restore the original configurations.

➢ **License plate post-treatment rule:** an ini file may be imported to modify the license plate with recognition error, and the recognition result generated is the modified data.

➢ **Log files export:** the camera operation log may be loaded out.

➢ **Modification of user name and password:** the user name and password may be defined by user.

4.3 System status

➢ **System version:** the kernel version, file system version and business software version of the current system equipment is displayed.

➢ **Auto restart of system:** check at the "auto restart" and set the time for automatic restart every day, Click "OK" and the system will be automatically restarted once every day.

➢ **Time:** the time of restart.

➢ **Week:** one day in a week may be selected; auto restart every day may also be selected.

➢ **Log level:** select the needed log level and the default setting is "least". If analyzing the system operation state, "maximum" shall be selected at the log level.

➢ **System restart:** click System restart and the system will immeidately restart and your may log in to the system after several minutes.

➢ **Linkage information:** the IP address and port number of the computer connected with the camera is represented.

(V) Capture results

capture pictures and statistic all result may be viewed and pictures may be downloaded.
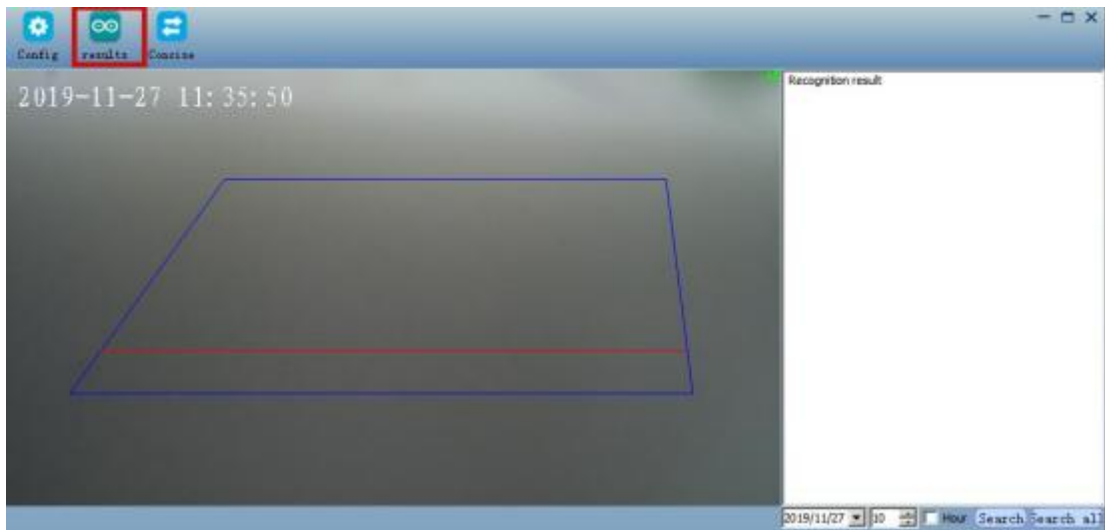
➢ **Search:** the images saved in the computer may be searched according to the selected date; all images for a certain day and certain hour are displayed in a folder. If you check the box in front of "Hour", you can search images captured at a certain hour in a certain day.

➢ **Search all:** all images captured and saved in the computer will be searched and displayed.

Note 1: check the license plate images captured; the captured images can be found in the folder for the corresponding time and click the image, it will be enlarged.

Note 2: select image or image folder and click to download ; the folder may be downloaded to the local computer , and the license plate files may be arranged in ascending or descending order.

III. Answers to common questions

1.Default IP, user name and password of camera

Factory default settings:
IP: 192.168.0.10
User name: admin
Password: admin

2.What shall we do next if the IP address is forgotten?

You shall reset the hardware.

Operation method: open the cover of the device and find the "one button reset" on the screen print of the cover. There is a black button next to it. Press this button for more than 2 seconds to restore the default IP, user name and password. This operation takes effect immediately and the device will not restart.

3.What shall we do if the device can't display properly?

There are several situations that may cause the device's failure to display properly:

1) The device is not powered on normally.
2) The network cable of the device is not connected, or the contact is poor.
3) The IP address of the device and the IP address of the PC are not in an same address segment.
4) The number of connected devices exceeds 3.
5) There is an IP conflict.
6) Please make sure that IE8.0 browser and above are used. Using 360 browser is better.

4.Failure to recognize the vehicle by the machine

1) In order to ensure the best recognition, please ensure that the camera side angle is less than 30 degrees and the camera is as far as possible parallel to the lane; the license plate image shall be clear at 110~200 pixels.
2) Check **Camera WEB->Service configuration->Peripheral configuration->Detection mode** and confirm whether the coil detection/ video detection setting is correct; if setting "coil capture" mode, but the camera has no vehicle detector access, no images will be captured;
3) If no images are captured only at night, it is likely that the shutter setting is too high and the shutter setting shall not exceed 5000; it may also be caused by poor fill light.

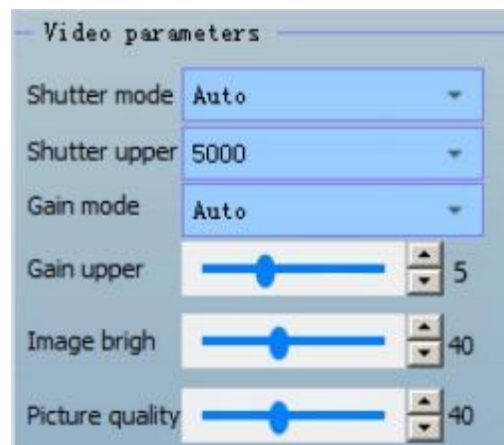## 5.Time difference in entrance and exit images

Resolutions:

1. Check the camera's basic settings -> time synchronization. It is recommended that the cameras at all entrances and exits in the same system shall be configured with the same time with the backend server.

6.Dark image

Resolutions:

1. Log in to **camera WEB->Service configuration->Video parameters** to check if the settings of camera shutter, gain and brightness parameters are correct.

2. Enhance fill light.