

Installation and operation manual

Graphic User Interface (GUI) for IP Speed Dome



#### Cautions

- Please use the specified power supply to connect.
- Do not attempt to disassemble the camera; in order to prevent electric shock, do not remove screws or covers.
- There are no user-serviceable parts inside. Please contact the nearest service center as soon as possible if there is any failure.
- Avoid from incorrect operation, shock vibration, heavy pressing which can cause damage to product.
- Do not use corrosive detergent to clean main body of the camera. If necessary, please use soft dry cloth to wipe dirt; for hard contamination, use neutral detergent. Any cleanser for high grade furniture is applicable.
- Avoid aiming the camera directly towards extremely bright objects, such as, sun, as this may damage the image sensor.
- Please follow the instructions to install the camera. Do not reverse the camera, or the reversing image will be received.
- Do not operate it incase temperature, humidity and power supply are beyond the limited stipulations.
- Keep away from heat sources such as radiators, heat registers, stove, etc.
- Do not expose the product to the direct airflow from an air conditioner.
- This is product instructions not quality warranty. We may reserve the rights of amending the typographical errors, inconsistencies with the latest version, software upgrades and product improvements, interpretation and modification. These changes will be published in the latest version without special notification.
- When this product is in use, the relevant contents of Microsoft, Apple and Google will be involved in. The pictures and screenshots in this manual are only used to explain the usage of our product. The ownerships of trademarks, logos and other intellectual properties related to Microsoft, Apple and Google belong to the above-mentioned companies.
- All pictures and examples used in the manual are for reference only.

# **ELVOX** CCTV



# Graphic User Interface (GUI) for IP Speed Dome

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### 1 Introduction

This Speed Dome IP-camera is designed for high performance CCTV solutions. Its digital flip technology makes omnidirectional and non-blind-spot monitoring into reality. It utilizes most advanced technologies, such as video encoding and decoding technology, complies with the TCP/IP protocol, SoC (System on chip), etc to ensure this system more stable and reliable.

Complete manuals and CVM CCTV Manager, Iptool e Diskcalculator software are available to download in the Product info sheet section of www.vimar.com website.

### Main characteristics:

- CMOS progressive scan
- HD network video output
- H.265/H.264 image compression format
- TCP/IP, DHCP, DDNS, NTP, RTSP, SMTP, FTP, PPPoE
- SD card local storage, network remote storage
- Web GUI menu
- Support selected area amplification and PTZ function
- IIntelligent Analytics: Line Crossing (human/vehicle classification), region intrusion/entrance/exiting (human/vehicle classification), Target Counting, face detection, auto-tracking, etc. (For all these smart functions, depending on models).

### 2 IE Remote Access

You may connect IP-Cam via LAN or WAN. Here only take IE browser for example. The details are as follows:

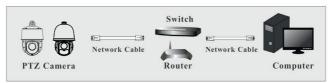
### 2.1 LAN

In LAN, there are two ways to access IP-Cam:

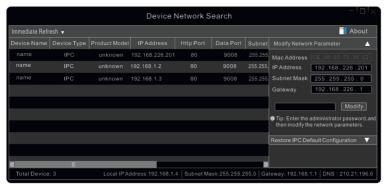
- 1. access through IP-Tool;
- 2. directly access through IE browser.

### 2.1.1 Access through IP-Tool

Network connection:

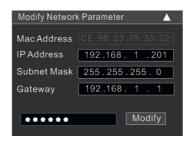


- 1 Make sure the PC and IP-Cam are connected to the LAN and the IP-Tool is installed in the PC from the CD.
- 2 Double click the IP-Tool icon on the desktop to run this software as shown below:



3 - Modify the IP address. The default IP address of this camera is 192.168.226.201. Click the information of the camera listed in the above table to show the network information on the right hand. Modify the IP address and gateway of the camera and make sure its network address is in the same local network segment as the computer's. Please modify the IP address of your device according to the practical situation.





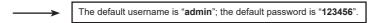
For example, the IP address of your computer is 192.168.1.4. So the IP address of the camera shall be changed to 192.168.1.X. After modification, please input the password of the administrator and click "Modify" button to modify the setting.



4 - Double click the IP address and then the system will pop up the IE browser to connect IP-CAM. IE browser will auto download the Active X control. After downloading, a login window will pop up as shown below.



Input the username and password to log in.





The system will prompt the above-mentioned textbox to ask you to change the default password. It is strongly recommended to change the default password for account security. If "Do not show again" is checked, the textbox will not appear next time.

# 2.1.2 Directly Access through IE

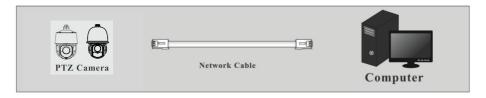
The default network settings are as shown below:

IP address: 192.168.226.201 Subnet Mask: 255.255.255.0 Gateway: 192.168.226.1

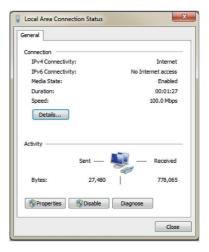
HTTP: 80 Data port: 9008

You may use the above default settings when you log in the camera for the first time. You may directly connect the camera to the computer through network cable.

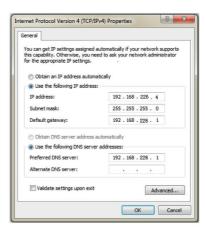




1 - Set the IP address of the PC and make sure the network segment should be as the same as the default settings of the IP camera. Open the network and share center. Click "Local Area Connection" to pop up the following window.



Select "Properties" and then select internet protocol according to the actual situation (for example: IPV4). Next, click "Properties" button to set the network of the PC.





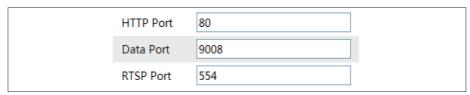
- 2 Open the IE browser and input the default address of IP-CAM and confirm. The IE browser will download Active X control automatically.
- 3 After downloading Active X control, the login dialog box will pop up.
- 4 Input the default username and password and then enter to view.

# 2.2 WAN

> Access through the router or virtual server



Make sure the camera is well connected via LAN and then log in the camera via LAN and go to Config → Network Config → Port menu to set the port number.

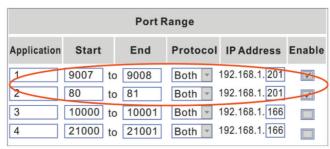


2 - Go to Config → Network Config → TCP/IPv4 menu to modify the IP address.

IP Config		
Obtain an IP address automatically		
IP Address	192.168.1.201	
Subnet Mask	255.255.255.0	
Gateway	192.168.1.1	
Obtain DNS server address automatically		
<b>○</b> Use the following DNS server		
Preferred DNS Server	8.8.6.6	
Alternate DNS Server	8.8.8.8	

3 - Go to the router's management interface through IE browser to forward the IP address and port of the camera in the "Virtual Server".



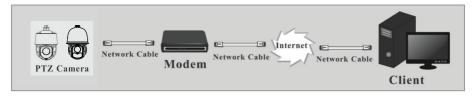


**Router Setup** 

4 - Open the IE browser and input its WAN IP and http port to access.

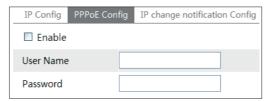
# > Access through PPPoE dial-up

Network connection



You may access the camera through PPPoE auto dial-up. The setting steps are as follow:

- 1 Go to Config Network Config Port menu to set the port number.
- 2 Go to Config Network Config TCP/IPv4 menu. Check "PPPoE" and then input the user name and password which you can get from your internet service provider.

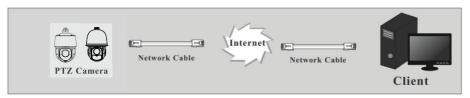


- 3 Go to Config → Network Config → DDNS Config menu. Before you configure the DDNS, please apply for a domain name first. Please refer to 5.5.4 DDNS Configuration for detail information.
- 4 Open the IE browser and input the domain name and http port to access.



# > Access through static IP

Network connection.

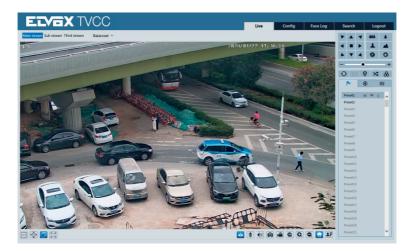


The setting steps are as follow:

- 1 Go to Config → Network Config → Port menu to set the port number.
  2 Go to Config → Network Config → IP Address menu to set the IP address. Check "Use the following IP address" and then input the static IP address and other parameters.
- 3 -Open the IE browser and input its WAN IP and http port to access.

# 3 Remote Preview

After you log in, you will see the following window.





The descriptions of the icon on the remote preview interface:

Icon	Description	Icon	Description
$\boxed{\times 1}$	Original size	<b>&amp;</b>	Color abnormal indicator
1:1	Fit correct scale	•	Abnormal clarity indicator
	Auto (fill the window)	8	Scene change indicator
	Full screen		Line crossing indicator
<b>&amp;</b>	Start/stop live view	((0))	Sensor alarm indicator (only some models support)
	Start/stop two-way audio	8	Intrusion indicator
<b>1</b>	Enable/disable audio	东	Motion alarm indicator
Ō	Snapshot	1	Region entrance indicator
	Start/stop local recording	•	Region exiting indicator
Q	Zoom in		Face detection indicator
	Zoom out	<u>~</u>	Target counting indicator
	PTZ control		SD card recording indicator
<b>2</b> F	Face Detection		

Click PTZ extended button to unfold PTZ control panel. In remote preview interface, you can view the image from every direction by controlling PTZ panel.



The descriptions of the control panel are as follows:

Icon	Description	Icon	Description
	Click it to rotate dome diagonally up-left	4	Click it to rotate dome diagonally up-right
	Click it to rotate the dome upwards		Click it to stop rotating the dome
•	Click it to rotate the dome towards left	•	Click it to rotate the dome towards right
	Click it to rotate the dome doagonally down-left	4	Click it to rotate the dome doagonally down-right
•	Click it to rotate the dome diagonally down-left	+	Drag the scroll bar to adjust rotating speed of the some
***	Click it to zoom out the live image	*	Click it to zoom in the live image
	Focus -	1	Focus +
*	Iris -	<b>**</b>	Iris +
O	Auto scan		Wiper (if available)
<b>©</b>	Light (if available)	*	Random scan
&	Group scan		Preset
	Cruise	$\approx$	Track

Select preset and click to call the preset. Select and set the preset and then click to save the position of the preset. Select the set preset and click to delete it. Select cruise and click to start cruise.



# 4 Menu Setup

On the PTZ control panel of IE remote preview interface, call Preset 95 and click . This will take you to see the following main menu setup.

ATTENTION: All the following menus and sub-menus may vary depending on the camera model. Refer to the menu of your PTZ model.

- 1 SYSTEM INFORMATION
- SYSTEM SETUP
- 3 CAMERA SETUP
- DOME FUNCTION
- DISPLAY SETUP
- LOAD DEFAULT
- EXIT
- The menu setup can be displayed when the visualization of the live is set to main stream.

After you go to the main menu interface, you can select the menu by clicking the direction button (



: To select menu by moving up and down.



To return to the menu on the left.

To confirm to enter sub-menu or to select the menu on the right.

# 4.1 System Information

Select System Setup by clicking or button and then click button to go to System Information menu as shown below.

> - SOFTWARE: 5.0.1.0 FIRMWARE: V4.5.15 CAMERA: xxxx DATE: 2020-04-22 35°C TEMP: RETURN **EXIT**

You can check the software and firmware version, camera, system temperature, date, dome ID, dome protocol and baud rate here.

### 4.2 System Setup

Select System Setup by clicking or button and then click button to enter System Setup as shown below:

> 1 AUTO PT FLIP: 2 LANGUAGE SETUP: 3 RS485 SETUP:

5 TITLE SETUP:

- 6 NEXT PAGE
- 7 RETURN
- 0 EXIT

1 NORTH SETUP

2 NEW PASSWORD

CHANGE PASSWORD

OFF

3 AUTO EXIT TIME:

4 RETURN

0 EXIT



# 4.2.1 Auto PT Flip

Select Auto PT Flip and then click to set up the menu on the right; click or button to select On/Off. If "On"

is selected, please click button to return to the menu on the left and click button to select Exit. Now, you will see the remote preview interface. (The ways to go to sub-menu, return or exit to the main menu in the following settings are similar to the above-mentioned steps. The following contents will not introduce it in details).

After you exit the main menu, press and hold will button to let the speed dome move to the bottom so that the dome will auto flip.

### 4.2.2 Date Setup

Go to System Setup --> RS485 Setup as below:

1 DATE: 2015-07-21 2 TIME: 14:27:06

3 STORE

4 RETURN

0 EXIT

- 1 Set the date and time by clicking the direction button.
- 2 Select STORE to save the setting.

### 4.2.3 Title Setup

Go to System Setup — Title Setup as below:

- 1 DOME TITLE:
  - name - - - -
- 2 STORE
- 3 RETURN
- 0 EXIT



#### 4.2.4 North setup

Go to System Setup -> North Setup, the following screen will open: PICTURE BELOW

- 1- choose the position by clicking on the direction buttons.
- 2- Select STORE to save the position.
- 1 STORE
- 2 RETURN
- 3 FXIT

Press iris- to switch menu mode and PTZ mode

### 4.2.5 New Password and Change Password

- New Password

1 ENTER PASSWORD: -----2 CONFIRM PASSWORD 3 CONFIRM 4 RETURN 0 EXIT

Enter the password by clicking or button.





- > Numbers from 0 to 9 are available. The password should be 6 characters.
- > Empty password is invalid when you set the new password.
- > Password needs to be input when you log in next time.
- Change Password

1 ENTER OLD PASSWORD: 2 ENTER NEW PASSWORD 3 CONFIRM NEW PASSWORD 4 RETURN 0 EXIT

- > Enter the current password and then input the new password twice. (Please refer to "New Password" for details.)
- > Inputting empty new password means to delete the current password.

# 4.2.6 Auto Exit Time

Go to System Setup -> Next Page -> Auto Exit Time. You may set the time to exit the menu automatically as required.

### 4.3 Camera Setup

After you go to camera setup menu, you will see the following menu.

- 1 CAMERA CONTROL
- 2 IMAGE SETUP
- **3 LENS SETUP**
- **4 DAY NIGHT SETUP**
- 5 PAL/NTSC: PAL
- 6 RETURN
- 0 EXIT



### 4.3.1 Camera Control

After you select Camera Control, you will see the following menu.

1 BLC: OFF
2 HLC: OFF
- HLC LEVEL: 20
3 3D NR: LOW
4 COLOR LEVEL: 07
5 NEXT PAGE
6 RETURN
0 EXIT

1 SHARPNESS: 04
- WDR: OFF
- GAMMA: DEFAU
2 CAM DEFOG: 1
- VE: OFF
- HIGH SENSI: OFF
3 RETURN
0 EXIT

(BLC): When the background light is so stronger that the foreground is dark, the brightness of the whole image will improve thereby enhancing the visibility of the foreground image if the BLC function is enabled.

(HLC): If enabled, the darker part of image will be lightened, while the highlight part will be suppressed.

(3D-NR): Reduce the noise of the brightness and chroma of the image in low illumination condition.

(Color Level): Adjust the saturation of the image.

(Sharpness): Set the image definition.

(WDR): If WDR is ON, it will help the speed dome provide clear images even under back light circumstances. When there are both very bright and very dark areas simultaneously in the field of view, WDR will balance the brightness level of the whole image and provide clear images with details.

(Gamma): Measurement of the contrast of an image.

(CAM Defog): Improves image quality.

### 4.3.2 Image Setup

Select Image Setup to go to the following sub-menu.

1 AE SETUP
2 WB SETUP
3 AGC: 11
4 IMAGE FLIP: OFF
- HR: ON
5 RETURN
0 EXIT

### - AE Setup

Go to AE Setup menu as shown below:

1 AE MODE: AUTO
- BRIGHTNESS: 10
- SHUTTER: 06
- IRIS: 13
2 RETURN
0 EXIT

(AE MODE): Auto, Bright, Shutter, IRIS and Manual are optional.

(Brightness): Range from 0 (darkest)~20(brightness). It is available only when bright mode is selected.

(Shutter): The lower the value of camera shutter is, the brighter the image is. It is available only when the shutter or manual mode is selected.

(IRIS): The higher the value of the camera IRIS is, the more the light gets. It is available only when the camera is IRIS or Manual mode.



#### WB Setup

Go to WB Setup menu as shown below:

1 WB MODE: AUTO
- MWB RED GAIN: 10

- MWB RED GAIN: 10 - MWB BLUE GAIN: 10

2 RETURN

0 EXIT

**(WB Mode):** White Balance Mode. There are two options you can choose including auto and manual. You can select the mode according to different lighting condition.

(MWB Red Gain): The operation is effective in manual mode.

(MWB Blue Gain): The operation is effective in manual mode.

#### - AGC

The larger the number is, the higher the brightness and the more the noises of the image are.

### - Image Flip

- MIRR: Turn over the image left or right.
- FLIP: Turn over the image up or down.
- ROTA: Turn over the image up, down, left or right.

### 4.3.3 Lens Setup

Go to Camera Setup — Lens Setup menu as shown below:

1 FOCUS LIMIT: 1M

2 ZOOM MAG DISP: ON

3 ZOOM SPEED: 4

4 DZOOM:

- LEN INITIALIZE

5 RETURN

0 EXIT

### - Focus Limit

Set the nearest distance of focus.

### - Zoom MAG DISP

If "ON" is selected, you will see the zoom magnification in the live image

### - Zoom Speed

Adjust zoom speed. The range is from 1 to 8.

#### - DZoom

After enabling digital zoom mode, digital zoom will be increased on the basis of optical zoom.

#### - Len Initialize

After enabling "Len Initialize", the camera lens will restore to factory default.



### 4.3.4 Day & Night Setup

Day & Night Mode includes three modes: Auto, Night, Day and Time.

1 DAY NIGHT MODE: AUTO - DAY TIME: 07:00 - NIGHT TIME: 19:00 2 IR SENSITIVITY: 3 RETURN 0 EXIT

- Auto: Camera will automatically switch the mode between day and night as per the ambient illumination.
- Night:The camera will be night mode at all time. You'd better use this mode at night.
- Day: The camera will be day mode at all time. You'd better use this mode in daytime.
- Time: Camera will regularly switch the mode between day and night according to the set day and night time. Day & Night Mode will be disabled if enabling this function.

### - IR Sensitivity

Set the level of the IR sensitivity. The higher the value is, the more the sensitivity is.

### 4.3.5 Video Format

PAL or NTSC is optional.

#### 4.4 Dome Function

Go to Dome Function menu as shown below:

- 1 PRESET SETUP
- 2 CRUISE SETUP
- 3 GROUP SETUP
- 4 TASK SETUP
- 5 TRACE SETUP
- 6 NEXT PAGE
- 7 RETURN
- 0 EXIT

- 1 ALARM SETUP
- 2 HOME POSITION
- WIPER SETUP
- 3 RETURN
- 0 EXIT

001

# 4.4.1 Preset Setup

This function is used to memorize the specific position of pan, tilt, zoom and focus, giving much convenience for quick return to this position by calling preset.

1 - Selecting the preset setup menu brings up the following menu.

- 1 PRESET NO:
- 2 EDIT CUR PRESET
- 3 DEL CUR PRESET
- 4 DEL ALL PRESET
- 5 RETURN
- 0 EXIT
- 2- Select the preset number.
- 3- Go to Edit CUR Preset interface as below:



PRESET NO: 1

I TITLE: Z-----

2 SAVE CUR PRESET

Press iris- to switch menu mode and PTZ mode

4- Press iris – to switch menu mode and PTZ mode. And then set the position of the preset by clicking the direction buttons.

5- Set the title by clicking or button.

6- Save the setting.

### 4.4.2 Cruise Setup

Go to Dome Function --> Cruise Setup menu as below:

1 CRUISE NO:

2 EDIT CUR CRUISE

3 RUN CUR CRUISE . . .

4 DEL ALL CRUISE

5 RETURN

0 EXIT

In this interface, by programming presets in cruise list in advance, the system will keep calling those presets at the set time in sequence when executing cruise command so that non-stop monitoring between multiple important positions can be achieved. Setting steps are as follows:

1 - Select the cruise number.

2 - Edit the current cruise. This camera supports 8 cruises and 16 presets for each cruise. Go to "Edit Cur Cruise" menu as shown below:

PRESET NO/TIME (SEC)

01: 001/005 02: 002/005 03: 003/005 04: 004/005 05: 005/005 06: 006/005 07: 007/005 08: 008/005

A: NEXT PAGE
B: STORE
C: CANCEL

Set the preset and time. The preset ranges from 001 to 255 and the dwell time is from 05s to 240s.

- 3 Run the current cruise. The camera will automatically keep running according to the cruise you set until new command is received. The corresponding operating information will display on the screen when the camera is running.
- 4 Select STORE to save the setting.



### 4.4.3 Grouping Setup

Go to Dome Function - Grouping Setup as below:

- 1 EDIT GROUPING
- 2 RUN GROUPING . . .
- 3 DEL GROUPING
- 4 RETURN
- 0 EXIT

Go to "Edit Grouping" menu as shown below.

01: CRU1 02: CRU2 03: CRU3 04: CRU4 05: CRU5 06: CRU6 07: CRU7 08: CRU8 A: STORE B: CANCEL

8 cruises can be set in a group. CRU 1 stands for Cruise 1, CRU 2 stands for Cruise 2 and so on. "Run Grouping" means to run the cruises in order.

### 4.4.4 Task Setup

Go to Dome Function - Task Setup menu as shown below:

- 1 TASK: OFF
- 2 TASK SETTING
- 3 DELETE TASK
- 4 RETURN
- 0 EXIT

By dividing 24 hours into several periods and appointing different commands for each period, the camera system will automatically execute the commands according to the set time if there is no operation. Setting Steps:

- 1- Enable the task.
- 2- Set the task.

FORMAT: TIME/FUNC/NO

1 00:00 - - 00:00 NON: 00

2 00:00 - - 00:00 NON: 00

3 00:00 - - 00:00 NON: 00

4 00:00 - - 00:00 NON: 00

A: NEXT PAGE

B: STORE

C: CANCEL

Time Format: Start Time – End Time. The tasks will be automatically executed in chronological order. Task Type: RSC, ASC, PRE, CRU, TRA.

 $\longrightarrow$ 

Note: The home position function will be disabled if enabling task setting.



### 4.4.5 Track Setup

Go to Dome Function -> Track Setup menu as shown below:

1 TRACK NO:

2 TRACK SETTING

3 RUN CUR TRACK . . .

4 DEL CUR TRACK

5 RETURN

0 EXIT

This function is used to memorize the operation to PTZ, zoom and focus so that repeating operation progress can be realized by running track. Setting Steps:

- 1 Choose the track number.
- 2 Edit the track. Enter the track setting menu. Click "Iris --" to start recording track. Control the dome movement by direction buttons and then save the setting. Each track can record up to 180s. If the time exceeds 180s, the system will automatically save the operation data and return to the previous menu. In addition, 360 commands can be recorded for each track at most. If exceeding 360 commands, the system will automatically save the first 360 commands and then exit the current menu. The recording time is related to the operating frequency. The more frequent the operation is, the shorter the memory time is.
- 3 Select "RUN CUR TRACK..." to perform the command.

### 4.4.6 Alarm Setup

Go to Dome Function -> Alarm Setup as shown below:

1 ALARM IN NO:

2 EDIT CUR ALARM IN

4 RETURN

0 EXIT

### Setting Steps:

- 1 Select Alarm In No.
- 2 Go to "EDIT CUR ALARM IN" menu as shown below.

1 ALARM IN CON: N.O

2 ALARM IN MODE: ON

3 ALARM CALL: PRE50

4 OUTPUT ENABLE: OFF

5 RETURN

0 EXIT

(ALARM IN CON):Set the alarm input type to be Normally Opened (N.O.) or Normally Closed (N.C.) according to the sensor type.

(ALARM IN MODE): ON, OFF and TIME are optional.

(ALARM CALL): Call the preset you need. When the first alarm input happens, the camera will automatically switch to this preset to monitor.

(OUTPUT ENABLE): Select it ON. When alarm input occurs, the camera will output alarm information.

**Note:** If the dome is on the menu state on an alarm, any command is negative. The camera must have an alarm in / out connector.



#### 4.4.7 Home Position

Go to System Setup --- Home Position menu as shown below:

1 HOME: **OFF** 2 HOME SET: **PRE 70** 007

3 DELAY TIME (SEC):

4 RETURN 0 EXIT

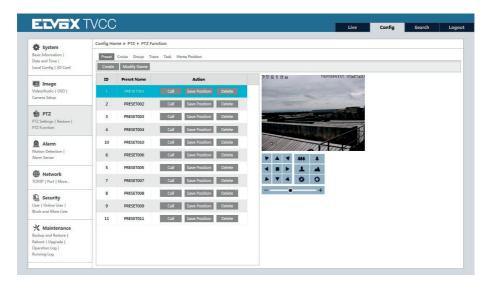
### The setting steps:

1 - Enable the home position function and select the preset which should be set in advance.

2 - Then select delay time (range from 007s to 180s) and exit the menu.

When the stand-by time of the dome camera exceeds the delay time, the camera will automatically execute the command to monitor the selected preset.

ATTENTION: All the functions described above can also be configured from the WEB interface on the PTZ Function screen in the picture below.



### 4.5 Display Setup

You can enable title display and time display if you need. (Some models may support temperature display or system display).

> 1 TITLE DISP: ON 2 TIME DISPLAY: ON **OFF** - TEMP DISPLAY: **OFF** DIRECTION: **OFF** PRE TITLE: ON SYSTEM: 3 RETURN 0 EXIT



# 4.6 Load Default

There are three menus, including master reset, master clear and system reboot.

(Master Reset): Restore the camera state and active menu to factory default but do not clear those parameters such as preset, cruise.

(Master Clear): Restore the camera to factory default.

(System Reboot): Reboot the camera.

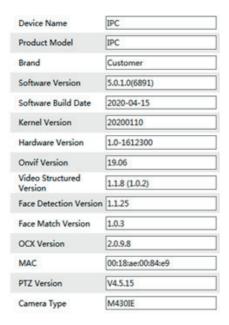
# **5 Remote Configuration**

# 5.1 System Configuration

The "System configuration" includes four sub-menus: Basic Information, Date and Time, Local Config and SD Card.

#### 5.1.1 Basic Information

In the Basic Information interface, you can check the relative information of the device.



### 5.1.2 Date and Time Configuration

Go to Config -> System -> Date and Time. Please refer to the following interface.



You can select the time zone and DST as required.



Click "Date and Time" to set the time mode.



### 5.1.3 Local Config

Go to Config System Local Config. You can set the storage path of the captured pictures and video records. It is also possible to enable or disable the display of bitrate in recorded files.



Also, here you can enable or disable "Local Smart Snapshot Storage". If enabled, captured images triggered by intelligent events (such as line crossing detection, region intrusion, etc.) will be saved to your local PC.

### 5.1.4 SD Card

Go to Config → System → SD Card.



In the above interface, you can check the capacity, used capacity, remaining capacity and state of the SD card. The first time you used the SD card, you should click "Format" to format SD card".

**Snapshot Quota:** Set the capacity proportion of captured pictures on the SD card. **Video Quota:** Set the capacity proportion of record files on the SD card.

 $\longrightarrow$ 

**Note:** Using of SD card function should be coordinated with alarm. When alarm is triggered, the system will automatically snap picture and save the picture into SD card.



### - Schedule Recording Settings

1. Go to Config → System → Storage → Record to go to the interface as shown below.



2. Set record stream, pre-record time, cycle writing.

Pre Record Time: Set the time to record before the actual recording begins.

3. Set schedule recording. Check "Enable Schedule Record" and set the schedule.



### Weekly schedule

Set the alarm time from Monday to Sunday for a single week. Each day is divided in one hour increments. Green means scheduled. Blank means unscheduled.

"Add": Add the schedule for a special day. Drag the mouse to set the time on the timeline.

"Erase": Delete the schedule. Drag the mouse to erase the time on the timeline.

Manual Input: Click it for a specific day to enter specific start and end times. This adds more granularities (minutes).

### Day schedule

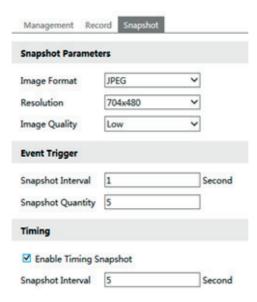
Set the alarm time for alarm a special day, such as a holiday.

Note: Holiday schedule takes priority over weekly schedule.

# - Snapshot Settings

Go to Config → System → Storage → Snapshot to go to the interface as shown below.





Set the format, resolution and quality of the image saved on the SD card and the snapshot interval and quantity and the timing snapshot here.

**Snapshot Quantity**: The number you set here is the maximum quantity of snapshots. The actual quantity of snapshots may be less than this number. Supposing the occurrence time of an alarm event is less than the time of capturing pictures, the actual quantity of snapshots is less than the set quantity of snapshots.

**Timing Snapshot**: Enable timing snapshot first and then set the snapshot interval and schedule. The setup steps of schedule are the same as the schedule recording (See Schedule Recording).



# 5.2 Image Configuration

Image Configuration includes others submenus: Settings camera parameters, Video/Audio, OSD Configuration e Video Mask.

# 5.2.1 Camera parameters

Many parameters of the camera can be set in above sub-menu, such as Color, Level, HLC, Sharpness, Wide Dynamic, 3D DNR, GAMMA, Fog, White Balance, Day Night Mode, Focus, Zoom and so on.





Brightness: set the brightness level of the camera's image.

Contrast: set the color difference between the brightest and darkest parts.

**Hue:** set the total color degree of the image.

Saturation: set the degree of color purity. The purer the color is, the brighter the image is.

Sharpness: set the resolution level of the image plane and the sharpness level of the image edge.

**Noise Reduction:** decrease the noise and make the image more thorough. Increasing the value will make the noise reduction effect better but it will reduce the image resolution.

### **Backlight Compensation:**

- Off: close the backlight compensation function. It is the default mode.

### - HWDR

As to the WDR scene, WDR will help the camera provide clear images when there are both very bright and very dark areas simultaneously in the field of the view by lowering the brightness of the highlight area and increasing the brightness of the lowlight area. High, middle and low can be selected.

There will be some record lost in a few seconds during mode changing from non-WDR to WDR mode.

- HLC: lower the brightness of the whole image by suppressing the brightness of the image's highlight area and reducing the size of the halo area.
- BLC: if enabled, the auto exposure will activate according to the scene so that the object of the image in the darkest area will be seen clearly.

#### Antiflicker:

- Off: close the anti-flicker function.
- **50Hz:** make sure the horizontal stripes will not appear in the image while the device is adjusting the exposure automatically according to the brightness of the scene.
- **60Hz:** make sure the horizontal stripes will not appear in the image while the device is adjusting the exposure automatically according to the brightness of the scene.

White Balance: adjust the color temperature according to the environment automatically.

Frequency: 50Hz and 60Hz can be optional.

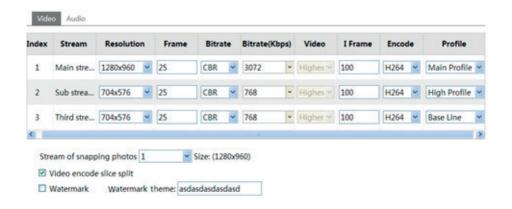
**Day/night Mode:** please choose the mode as needed. **Sensitivity:** high, middle and low can be selected.

Infrared Mode: you may choose "ON", "OFF" and "Auto" as required. Exposure Mode: you may choose "Auto" or "Manual" as required.



#### 5.2.2 Video Stream

The following interface will be displayed by clicking Config → Image → Video/Audio.



In this interface, you can set the resolution, frame rate, bitrate type, video quality and so on subject to the actual network condition.

To set the audio encoding and audio type, please select the audio tab.



Three video streams can be adjustable.

Resolution: The higher the resolution is, the clearer the image is.

Frame rate: The higher the frame rate is, the more fluency the video is. However, more storage room will be taken up. Bitrate type: Including CBR and VBR. CBR means that no matter how changeable the video resources are, the compression bitrate keeps constant. This will not only facilitate the image quality better in a constant bitrate but also help to calculate the capacity of the recording. VBR means that the compression bitrate can be adjustable according to the change of the video resources. This will help to optimize the network bandwidth.

Video Quality: When VBR is selected, you need to choose image quality. The higher the image quality you choose, the more bitrate will be required.

Bitrate: Please choose it according to the actual network situation.

I Frame interval: It is recommended to use the default value. If the value is over high, the read speed of the group of pictures will be slow resulting in the quality loss of the video.

Video encoding profile: Baseline and main profile are optional. Baseline profile is mainly used in interactive application with low complexity and delay. Main profile is mainly used for higher coding requirement.

Sending Snapshot: Please select it according to the actual situation.

**Video encode slice split:** If enabled, you may get more fluency image even though using the low-performance PC. **Watermark:** If selected, you can input the watermark theme. You may check the watermark when playing back the local record in the search interface. lest the record files is tampered.

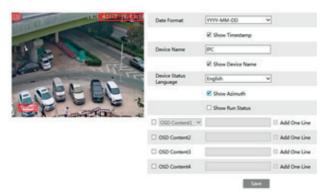
Audio Encoding: G.711A and G.711U are selectable.

Audio In Type: MIC and LIN are selectable.



### 5.2.3 OSD Configuration

Go to Image -> OSD interface as shown below.



Set time stamp, device name, device status language, OSD content and picture overlap here. After enabling the corresponding display and entering the content, drag them to change their position. Then click "Save" to save the settings.

Show Azimuth: Show the PTZ moving direction on the live view interface.

Show Run Status: Show the PTZ control status on the live view interface. For example, if the preset 2 is called, "PRE:002" will be shown on the live view interface.

Picture Overlap Settings:

Check "OSD Content1", choose "Picture Overlay" and click "Browse" to select the overlap picture. Then click "Upload" to upload the overlap picture. The pixel of the image shall not exceed 200\*200, or it cannot be uploaded.

# 5.2.4 Video Mask

Go to Image -> Video Mask interface as shown below. A maximum of 4 zones can be set up.

Only some models support this function. If your PTZ camera doesn't support it, please skip the following instructions. To set up video mask:

- 1. Enable video mask.
- 2. Click direction buttons to change the area you want to mask.
- 3. Click "Draw Area" and then drag the mouse to draw the video mask area.
- 4. Click "Add" to add the mask area.



To delete mask area:

- 1. Select the mask area in the mask area list.
- 2. Click "Delete" to delete this mask area.



# 5.3 PTZ Configuration

### 5.3.1 PTZ and Password Setting

- PTZ Setting

Go to Config → PTZ → Setting. This will let you see the following submenu.



In this submenu, PTZ title, date, auto PTZ flip, language, menu keeping time can be set.

Password Setting
 If the password is set, you must input the password every time you go to the menu of the PTZ by calling preset NO.

 95. Go to Config → PTZ → Setting → Others. You can set the password of the PTZ menu.



### 5.3.2 Load Default

It includes the function of reset, clear and restart. Please refer to Chapter 4.6 for more details.

### 5.3.3 Dome Function

Dome function includes preset setup, cruise setup, group setup, track setup, task setup, alarm setup, home position setup and wiper setup. Please refer to Chapter 4.4 Dome Function for more details.



# 5.4 Alarm Configuration

Alarm configuration includes four submenus: Motion Detection, Alarm In, Alarm Out and Alarm Server.

### 5.4.1 Motion Detection

To set motion detection:

1 - Go to Config → Alarm → Motion Detection to set alarm trigger.



Check "Enable Alarm" check box to activate motion based alarm, choose alarm holding time and set alarm trigger options.

Alarm Out: If selected, this would trigger the external relay output on detecting a motion based alarm.

Trigger Snap: If selected, the system will snap images on an alarm and save them in SD card.

Trigger SD Recording: If selected, video will be recorded on an SD card on motion detection.

**Trigger Email:** If the email and attach picture checkbox is checked (Email address shall be set first in the Mail config interface), the triggered snap pictures and event will be sent into those addresses.

**Trigger FTP:** If "Uploading picture" is checked, the triggered snap pictures will be sent into FTP server address. Please refer to FTP configuration chapter for more details.

2 - Set motion detection area and sensitivity. Click "Area and Sensitivity" tab to see the following sub-menu.

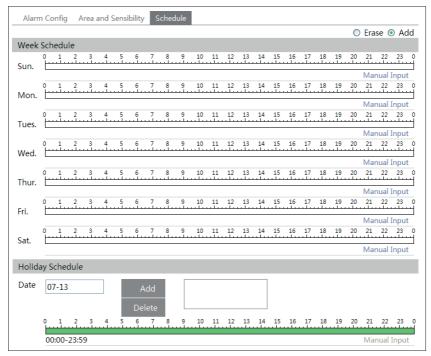




Move the "Sensitivity" scroll bar to set up the motion track sensitivity. Check "Add", click "Draw" button and move mouse to select the motion detection area; Select "Erase" and move the mouse to clear motion detection area.

After that, click "Save" to save the settings.

3 - Set the schedule of the motion detection. Click "Schedule" tab to set the schedule of the motion detection.



### Week schedule

Set the alarm time from Monday to Sunday for alarm everyday in one week. The lengthwise means one day of a week; the rank means 24 hours of a day. Green means selected area. Blank means unselected area. "Add": Add the schedule for a special day. "Erase": Delete holiday schedule.

### Day schedule

Set alarm time for alarm in some time of a special day, such as holiday.

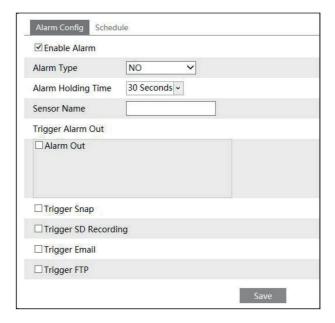
- Select a date at the "Date" pull down list, press "Add" button to add that date to the list box on the right side and then move the scroll bar to set the schedule of that day.
- Select a date in the list box on the right side, and press "Delete" to remove the schedule on that day. Press the "Save" button to save the settings.

Note: Holiday schedule is prior to Week schedule.



#### 5.4.2 Alarm In

To set sensor alarm (alarm in):

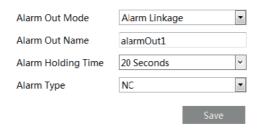


- 1 Enable alarm and set the alarm type, alarm holding time and sensor name.
- 2 Set alarm trigger options. The setting steps are the same with that of motion detection. Please refer to motion detection chapter for details.
- 3 Click "Save" button to save the settings.
- 4 Set the schedule of the sensor alarm. The setting steps of the schedule are the same with that of motion detection. Please refer to motion detection chapter for details.



#### 5.4.3 Alarm Out

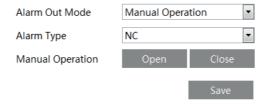
This function is only available for some models. Go to Config → Alarm → Alarm Out.



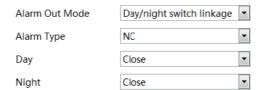
Alarm Out Mode: Alarm linkage, manual operation, day/night switch linkage and timing are optional.

**Alarm Linkage**: Having selected this mode, select alarm out name, alarm holding time at the "Alarm Holding Time" pull down list box and alarm type.

Manual Operation: Having selected this mode, select the alarm type and click "Open" to trigger the alarm out immediately; click "Close" to stop alarm.



**Day/Night Switch Linkage**: Having selected this mode, select the alarm type and then choose to open or close alarm out when the camera switches to day mode or night mode.



**Timing**: Select the alarm type. Then click "Add" and drag the mouse on the timeline to set the schedule of alarm out; click "Erase" and drag the mouse on the timeline to erase the set time schedule. After this schedule is saved, the alarm out will be triggered in the specified time.





### 5.4.4 Alarm Server

Go to "Alarm configuration" -> "Alarm Server" interface as shown below.

Server Address	
Port	0

You may input the alarm server address and port. When the alarm happens, the camera will automatically transfer the alarm event to the alarm server. If the alarm server is not used, there is no need for you to configure here.



#### 5.4.5 Smart Tracking

The tracking option is available for line crossing detection, region entrance and exiting and intrusion detection. Smart Tracking: When people or vehicle cross the alarm line or intrude or exit the predefined area, the PTZ camera will automatically track them and the target image will be automatically zoomed in and centered on the screen until the target disappears on the screen. After that, the PTZ camera will return to the tracking start position.



Tracking Mode: PTZ Auto Tracking Priority or Manual PTZ Control Priority can be optional.

PTZ Tracking Priority: if this mode is selected, in smart tracking mode, you cannot control PTZ by clicking the buttons on the PTZ control panel in the live view interface.

**Manual PTZ Control Priority**: if this mode is selected, in smart tracking mode, you can control PTZ by clicking the buttons on the PTZ control panel in the live view interface and then the camera will immediately stop the tracking action. After you finish controlling PTZ for 5 seconds, the PTZ camera will return to the start tracking position and wait for the object to appear.

**Still time:** If it is enabled and the time is set, when the target stops or hides behind an obstacle, or the target tracking is complete and there is no target appearing in the detection area during the set time, the PTZ camera will return to the tracking start position. Of course, during this time, if there are targets moving, the PTZ will continue tracking. If it is not enabled, when the target stops or there is no target appearing in the detection area for 5 seconds, the PTZ camera will return to the start tracking position.

#### How to set smart tracking:

- 1. Click Config --> Alarm --> Smart Tracking to go to the smart tracking interface. Select the tracking mode and set the still time as needed.
- 2. Click Config Event. Select the event as needed. For example intrusion, enable the intrusion detection, select detection target and then check "Trigger Track". After that click "Save" to save the settings.
- 3. Set the alarm area and lock the PTZ.

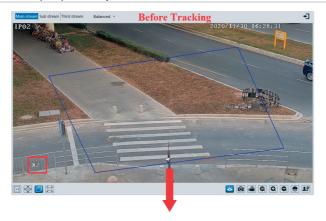


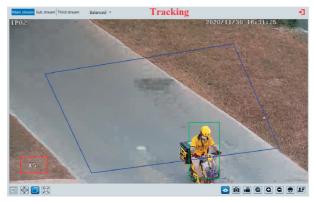
Using the PTZ control buttons (area (1)) sets appropriate field of view and then draw the detection area and save the setting. After that, click the "Lock" button to save the current PTZ position as the start tracking position). Now, the "Lock" button changes its function to "Unlock".

**Note**: Clicking the "Unlock" button suspends object tracking until you click the "Lock" button. If you want to change the start tracking position, you can click "Unlock" button to enable PTZ control. After that, please remember to lock the PTZ, or object tracking will not take effect.

4. Go back to the live view interface to view smart tracking.









#### 5.4.6 Line Crossing Detection

Line Crossing: Alarms will be triggered if the target crosses the pre-defined alarm lines.

Go to Config - Event - Line Crossing interface as shown below.



#### - Detection Configuration:

1. Enable line crossing detection and select the snapshot type and the detection target.

Save Panoramic Picture: If it is enabled, the detected panoramic pictures will be captured and saved to the SD card when the targets cross the alarm line.

Save Target Cutout: If it is enabled, the detected target cutout pictures will be captured and saved to the SD card when the targets cross the alarm line.

**Note**: To save snapshots to the local PC, please enable "Local Smart Snapshot Storage" in the local config interface first. To save snapshots to the SD card, please install an SD card first.

#### **Detection Target:**

Human: Select it and then alarms will be triggered if someone crosses the pre-defined alarm lines.

**Motor Vehicle**: Select it and then alarms will be triggered if a vehicle with four or more wheels (eg. a car, bus or truck) crosses the pre-defined alarm lines.

**Motorcycle/Bicycle**: Select it and then alarms will be triggered if a non-motor vehicle (eg. a motorcycle or bicycle) crosses the pre-defined alarm lines.

The three types of objects can be selected simultaneously. Please select the detection objects as needed. If no object/target is selected, alarms will not be triggered even if line crossing detection is enabled.

- 2. Set the alarm holding time.
- 3. Set alarm trigger options.

Alarm Out: If selected, this would trigger an external relay output that is connected to the camera on detecting a target crossing the alarm line.

**Trigger Track**: if enabled, the PTZ camera will automatically track the target that crosses the alarm line and the target's image will be automatically zoomed in and centered on the screen until the target disappears on the screen. After that, the PTZ camera will return to the pre-defined detection area.

**Trigger SD Snap:** If selected, the system will capture images when a target crosses the alarm line and save the images on an SD card.

**Trigger SD Recording:** If selected, video will be recorded on an SD card when a target crosses the alarm line **Trigger Email**: If "Trigger Email" and "Attach Picture" are checked (email address must be set first in the Email configuration interface), the captured pictures and triggered event will be sent into those addresses.

**Trigger FTP**: If "Trigger FTP" is checked, the captured pictures will be sent into FTP server address. Please refer to FTP configuration chapter for more details.

4. Click "Save" button to save the settings.

#### - Area Configuration

1. Click the "Area and Sensitivity" tab to go to the interface as shown below.





2. Set the alarm line number and direction. Up to 4 lines can be added. Multiple lines cannot be added simultaneously

**Direction**: A<->B, A->B and A<-B optional. This indicates the direction of someone or a vehicle crossing over the alarm line.

A<->B: Alarms will be triggered when someone or a vehicle crosses over the alarm line from B to A or from A to B.

A->B: Alarms will be triggered when someone or a vehicle crosses over the alarm line from A to B.

A<-B: Alarms will be triggered when someone or a vehicle crosses over the alarm line from B to A.

3. Set the detection area by clicking the buttons of area (1) and then click "Lock" to lock the area.

Note: The PTZ will not be controlled if you click "Lock" here. Click "Unlock" and then click the buttons of area (1) to move the PTZ camera. Clicking the "Unlock" button suspends object tracking until you click the "Lock" button.

4. Click the "Draw Area" button and then drag the mouse to draw a line in the image. Click the "Stop Draw" button to stop drawing. Click the "Clear" button to delete the lines. Click the "Save" button to save the settings.

#### - Schedule Configuration

Set the schedule of the line crossing alarm. The setup steps of the schedule are the same as the Motion detection setup schedule.

### 5.4.7 Intrusion

Intrusion: Alarms will be triggered if the target intrudes into the pre-defined areas. Go to Config → Event → Intrusion interface as shown below.



#### - Detection Configuration

Enable intrusion detection, select the snapshot type and the detection target and set the alarm holding time and alarm trigger options. The detection setup steps are the same as line crossing detection. Please refer to the detection configuration of line crossing detection for details.

#### - Area Configuration

1. Click the "Area" tab to go to the interface as shown below.





- 2. Set the alarm area number on the right side. Up to 4 alarm areas can be added.
- 3. Set the detection area by clicking the buttons of area (1) and then click "Lock" to lock the area.

**Note**: The PTZ will not be controlled if you click "Lock" here. Click "Unlock" and then click the buttons of area  $\Box$  to move the PTZ camera. Clicking the "Unlock" button suspends object tracking until you click the "Lock" button.

4. Click the "Draw Area" button and then click around the area where you want to set as the alarm area in the image on the left side (the alarm area should be a closed area). Click the "Stop Draw" button to stop drawing. Click the "Clear" button to delete the alarm area. Click the "Save" button to save the settings.

After that, the camera will automatically return to this detection area after auto human /vehicle tracking.

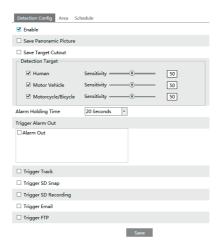
#### - Schedule Configuration

Set the schedule of the intrusion detection. The setup steps of the schedule are the same as schedule recording setup (See <u>Schedule Recording</u>).

#### 5.4.8 Region Entrance

Region Entrance: Alarms will be triggered if the target enters the pre-defined areas.

Go to Config - Event - Region Entrance interface as shown below.



- 1. Enable region entrance detection and select the snapshot type and the detection target.
- 2. Set the alarm holding time.
- Set alarm trigger options. The setup steps are the same as motion detection. Please refer to motion detection chapter for details.
- 4. Set the alarm area of the region entrance detection.



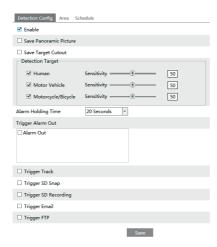


5. Set the schedule of Region Entrance detection.

For more information, see the "Analysis video" manual.

#### 5.4.9 Region Exiting

**Region Exiting**: Alarms will be triggered if the target exits from the pre-defined areas. Go to Config → Event → Region Exiting interface as shown below.



- 1. Enable region exiting detection, select the snapshot type and the detection target and set the alarm holding time and alarm trigger options. The detection setup steps are the same as line crossing detection. Please refer to the detection configuration of line crossing detection for details.
- 2. Set the area of region entrance detection. The area setup steps are the same as intrusion detection. Please refer to the area configuration of intrusion detection for details.



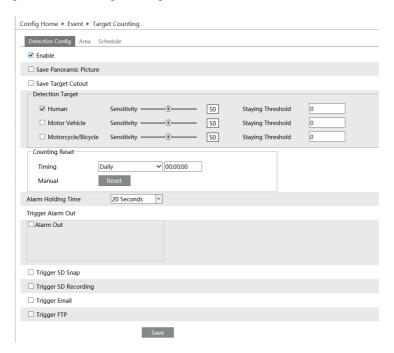
3. Set the schedule of the region exiting detection. The setup steps of the schedule are the same as schedule recording setup (See <u>Schedule Recording</u>).



#### 5.4.10 Target Counting

This function is to calculate the number of the people or vehicles crossing the alarm line through detecting, tracking and counting the shapes of the people or vehicles.

Go to Config → Event → Target Counting as shown below.



2. Enable target counting and select the snapshot type and the detection target.

For more information, see the "Video Analysis" manual.

#### 5.4.11 Face Comparison

The setting steps are as follows.

Go to Config → Event → Face Comparison interface.



2. Enable the face detection function.

Save Source Information: if checked, the whole picture will be saved to the SD card when detecting a face. Save Face Information: if checked, the captured face picture will be saved to the SD card when detecting a face.

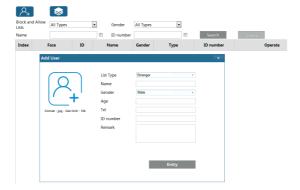


Note: To save images to the local PC, please enable the local smart snapshot storage first (Config → System → Local Config). To save images to the SD card, please install an SD card and enable "Trigger Snap" first.

- 3. Set alarm holding time and alarm trigger options.
- 4. Set alarm detection area. Click "Draw Area" and drag the border lines of the rectangle to modify its size. Move the rectangle to change its position. Click "Stop Draw" to stop drawing the area. Click "Clear" to clear the area. Then set the detectable face size by defining the maximum value and the minimum value (The default size range of a single face image occupies from 3% to 50% of the entire image).



5. Face database management: click "Face Database Management" tab. This will enter the following interface.



There are four ways to add face pictures.

(1) Adding face pictures one by one

Click to pop up an adding user box. Then click to select a face picture saved on the local PC. Please select the picture according to the specified format and size limit. After that, fill out the relevant information of the face picture and click "Entry" to add.

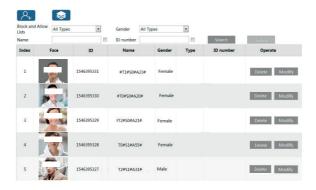
(2) Adding multiple face pictures at a time

Click and then add multiple face pictures once according to the prompted rules.

- (3) Add face pictures by using face album management tool
- (4) Add the captured picture in the live mode (See Add captured face pictures to the face database).

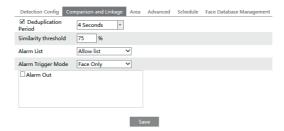
After adding face pictures, you can search them by name, gender, ID number and so on.





Click "Modify" to change people information and click "Delete" to delete this face picture.

6. Set face comparison trigger options. Click "Comparison and Linkage" to go to the following interface.



Deduplication Period: In the set period, delete the repeated comparison results.

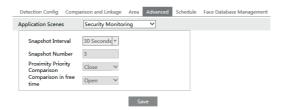
Similarity threshold: When the similarity of the captured face picture and the face picture added into the face database exceeds the similarity threshold, alarms will be triggered.

**Alarm List**: Select an alarm list. For example, if "Stranger" is selected, the system will automatically search the matched face picture from "Stranger" list/group when detecting a face and both face pictures will appear on the left in the face comparison interface.

Alarm Trigger Mode: Face only mode. When the captured face picture is matched successfully, alarms will be triggered.

Alarm Output: if enabled, this will trigger alarm output when the captured face is matched successfully.

- 7. Set the schedule of the face detection and comparison. The setup steps of the schedule are the same as schedule recording setup (See <a href="Schedule Recording">Schedule Recording</a>).
- 8. Advanced configuration.



Application Scenes: "Access control", "security monitoring" or "customize" can be selected.

Snapshot Interval: If 5 seconds is selected, the camera will capture the same target once every 5 seconds during its continuous tracking period.

**Snapshot Number**: If the snapshot number is enabled and set (eg. 3), the camera will capture the same target once every 5 seconds and it will capture this target 3 times at most during its continuous tracking period. If the snapshot number is disabled, the camera will capture the same target once every 5 seconds until the target disappears in the detected area.



#### - Face Match View

After all face comparison settings are set successfully, enter the live view interface. Click to view the captured face pictures and face comparison information.



Area (1): captured face pictures; area (2): face comparison area

### - View the comparison details

In area (2), click the compared face picture to bring up the following window. In this interface, you can view the detailed comparison information.



# - Add captured face pictures to the face database

Click a captured picture in area (1). This will bring a face picture adding box.



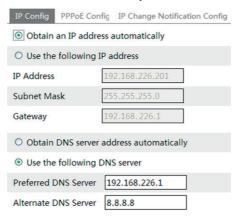
Fill out the relevant information and click "Entry" to add this face picture.



#### 5.5 Network Configuration

#### 5.5.1 TCP/IPv4

Go to Config → Network → TCP/IPv4. There are two ways for network connection.



- Use IP address. There are two options for IP setup: obtain an IP address auto by DHCP protocol and use the following IP address. Please choose one of options for your requirements.
- Use PPPoE: Enter the user name and password from your ISP.



You can choose either way of the network connection. If you use PPPoE to connect internet, you will get a dynamic WAN IP address. This IP address will change frequently. You may use the function of IP change notification.



Trigger Email: when the IP address of the device is changed, a new IP address will be sent to the appointed mailbox automatically

Trigger FTP: when the IP address of the device is changed, a new IP address will be sent to FTP server.

#### 5.5.2 Port

Go to Config → Network → Port. HTTP port, Data port and RTSP port can be set.



HTTP Port	80
Data Port	9008
RTSP Port	554

HTTP Port: The default HTTP port is 80. It can be changed to any port which is not occupied.

Data Port: The default data port is 9008. Please change it as required.

RTSP Port: The default port is 554. Please change it as required.

#### 5.5.3 Central Server

This function is mainly used for connecting network video management system.

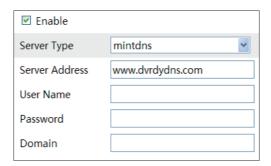


- 1 Check "Enable".
- 2 Check the IP address and port of the transfer media server in the CVM ELVOX. Then enable the auto report in the CVM ELVOX when adding a new device in the CVM ELVOX. Next, input the remaining information of the device. After that, the system will auto allot a device ID. Please check it in the CVM ELVOX.
- 3. Input the above-mentioned server address, server port and device ID in the responding boxes. Click "Save" button to save the settings.

#### 5.5.4 DDNS Configuration

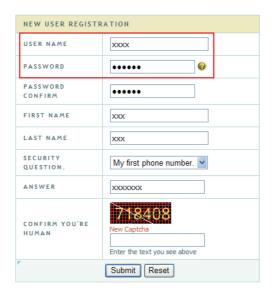
If your camera is set to use PPPoE as its default network connection, DDNS should be set for network access. Before you set the DDNS, please make sure you have registered a domain name on the DDNS server.

1- Go to Config → Network → DDNS.



2- Apply for a domain name. Take www. dvrdyndns.com for example. Input www.dvrdydns.com in the IE address bar to visit its website. Then click "Registration" button to register as shown below.





#### Create domain name.



After you successfully request your domain name, you will see your domain in the list.



3. Input the username, password, domain you apply for in the DDNS configuration interface. 4. Click "Save" button to save the settings.



#### 5 5 5 SNMP

To get camera status, parameters and alarm information and remotely manage the camera, you can set the SNMP function. Before using the SNMP, please download the SNMP software and set the parameters of the SNMP, such as SNMP port, trap address.

1 - Go to Config → Network → SNMP.



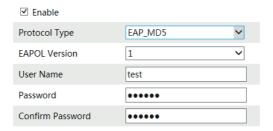
- 2 Check the corresponding version checkbox (Enable SNMPv1, Enable SNMPv2, Enable SNMPv3) according to the version of the SNMP software you download.
- 3 Set the "Read SNMP Community", "Write SNMP Community", "Trap Address", "Trap Port" and so on. Please make sure the settings are the same as that of your SNMP software.

**Note:** Please use the different version in accordance with the security level you required. The higher the version is, the higher the level of the security is.



#### 5.5.6 802.1x

If it is enabled, the camera's data can be protected. When the camera is connected to the network protected by the IEE802.1x, user authentication is needed.



To use this function, the camera shall be connected to a switch supporting 802.1x protocol.

The switch can be reckoned as an authentication system to identify the device in a local network. If the camera connected to the network interface of the switch has passed the authentication of the switch, it can be accessed via the local network.

Protocol type and EAPOL version: Please use the default settings.

User name and password: The user name and password must be the same with the user name and password applied for and registered in the authentication server.



#### 5.5.7 RTSP

Go to Config  $\longrightarrow$  Network  $\longrightarrow$  RTSP.

Port	554				
Address	rtsp://IP or domain name:port/profile1				
	rtsp://IP or domain name:port/profile2	2			
	rtsp://IP or domain name:port/profile3	1			
Multicast add	ress				
Main stream	239.0.0.0	50554	☐ Automatic start		
Sub stream	239.0.0.1	51554	Automatic start		
Third stream	239.0.0.2	52554	☐ Automatic start		
Audio	239.0.0.3	53554	☐ Automatic start		

Select "Enable" to enable the RTSP function.

Port: Access port of the streaming media. The default number is 554.

RTSP Address: The RTSP address (unicast) format that can be used to play the stream in a media player.

#### Multicast Address

Main stream: The address format is "rtsp://IP address: rtsp port/profile1?transportmode=mcast".

Sub stream: The address format is "rtsp://IP address: rtsp port/profile2?transportmode=mcast".

Third stream: The address format is "rtsp://IP address: rtsp port/profile3?transportmode=mcast".

Audio: Having entered the main/sub stream in a VLC player, the video and audio will play automatically.

If "Allow anonymous login..." is checked, there is no need to enter the username and password to view the video.

If "auto start" is enabled, the multicast received data should be added into a VLC player to play the video.

#### Note:

- 1 This camera support local play through a VLC player. Enter the RTSP address (unicast or multicast, eg. rtsp://192.168.226.201:554/profile1?transportmode=mcast) in a VLC player to realize the simultaneous play with the web client.
- 2 The IP address mentioned above cannot be the address of IPv6.
- 3 Avoid the use of the same multicast address in the same local network.
- 4 When playing the video through the multicast streams in a VLC player, please pay attention to the mode of the VLC player. If it is set to TCP mode, the video cannot be played.
- 5 If the coding format of the video of the main stream is MJPEG, the video may be disordered at some resolutions.



#### 5.5.8 UPnP

If you enable this function, you can quickly access the camera via LAN and you don't need to configure the port mapping when the camera is connected to the WAN via the router.

Go to Config Network UPnP: Select "Enable UPNP" and then input friendly name.



After you enable it and set the UPnP name, you will see the UPnP name by clicking "Network" on the desktop of your computer which is in the same local area network. Then double click this name to access the camera quickly.

#### 5.5.9 E-mail

If you need to trigger E-mail when an alarm happens or IP address is changed, please set the E-mail here first. Go to Config → Network → Email.

Sender	
Sender Address	
User Name	
Password	
SMTP Address	
Secure Connection	Unnecessary
SMTP Port	25 Use default
☐ Send Pictures	
	Test Account Setting
Receiver	
Receiver Address	
Clear	Delete Add



Sender Address: sender's e-mail address;

User name and password: sender's user name and password;

SMTP Address: The SMTP IP address or host name. Select the secure connection type at the Secure Connection pull down list according to user' actual needs;

SMTP Port: The SMTP port.

Send Pictures:

Check it if you want to send emails with attached alarm images. Click "Test Account Settings" to test the effectiveness of the account. Receiver email address: receiver's e-mail address:

### 5.5.10 FTP Setting

After you set the FTP server, the captured pictures on an alarm will be uploaded to the FTP server. Go to Config  $\longrightarrow$  Network  $\longrightarrow$  FTP.



### To Add FTP

Server Name: The name of the FTP.

Server Address: The IP address or domain name of the FTP.

Upload Path: The path of uploading the files.

Port: The port of the FTP.

Use Name and Password: The username and password are used to login the FTP.



#### 5.5.11 HTTPS

HTTPs provides authentication of the web site and protects user privacy. Go to Config → Network → HTTPS as shown below.

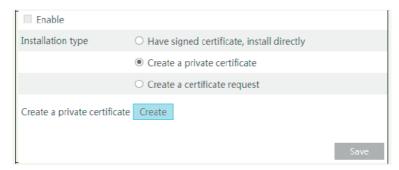


There is a certificate installed by default as shown above. Enable this function and save it. Then the device can be accessed by entering https://IP: https port via the web browser (eg. https://192.168.226.201:443).

A private certificate can be created if users don't want to use the default one. Click "Delete" to cancel the default certificate. Then the following interface will be displayed.



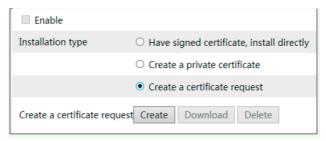
- \* If there is a signed certificate, click "Browse" to select it and then click "Install" to install it.
- \* Click "Create a private certificate" to enter the following creation interface.





Click the "Create" button to create a private certificate. Enter the country (only two letters available), domain (IP address / device domain), validity date, password, province / state, region and so on. Then click "OK" to save the settings.

\* If you want to initiate a request instead, click "Create a certificate request" to access the following interface.



Click the "Create" button to create a private certificate. Enter the country (only two letters available), domain (camera's IP address/domain), validity date, password, province/state, region and so on. Then click "OK" to save the settings.

\* Click "Create a certificate request" to enter the following interface.



### 5.6 Security Configuration

#### 5.6.1 User Configuration

Go to Config → Security.



#### Add user:

1 - Click "Add" button to pop up the following textbox.



- 2 Input user name in "User Name" textbox.
- 3 Input letters or numbers in "Password" and "Confirm Password" textbox.

It is recommended to set a high level password that shall be composed of numbers, special characters, upper or lower case letters for your account security. Max length 15 characters.

4 - Choose the use type.

Administrator has all permissions. Normal user can only view the live video. Advanced user has the same permissions as an Administrator except for; user, backup settings, factory reset, and upgrading the firmware.

5 - Input the MAC address of the PC in "Binding MAC address" textbox.

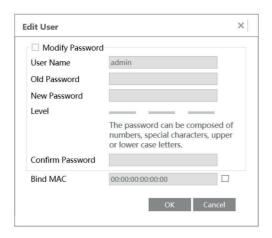
After binding physical address to the device, you can access the device on this PC only. If the MAC address was "00:00:00:00:00" which means it can be connected to any computers.

6 - Click "OK" button and then the new added user will display in the user list.



#### Modify user:

- 1 Select the user you need to modify password and physical address in the user configuration list box.
- 2 The "Edit user" dialog box pops up by clicking "Modify" button.



- 3 Input old password of this user in the "Password" text box.
- 4 Input new password in the "New password" and "Confirm Password" text box.
- 5 Input computer's MAC address as required.
- 6 Click "OK" button to modify user's password.

Note: To change the access level of a user, the user must be deleted and added again with the new access level.

#### Delete user:

- 1 Select the user you want to delete in the user configuration list box.
- 2 Click "Delete" button to delete the user.

Note: The default super administrator cannot be deleted.

#### 5.6.2 Online User

Go to Config — Security — Online Video User. You can view the user who is viewing the live video. An administrator user can kick out all the other users (including other administrators).





#### 5.6.3 Block and Allow List

Go to Config → Security → Block and Allow Lists.



### Setting steps are as follows:

Check "Enable IP address filtering" check box.

Select "Block the following IP address", input IP address in the IP address list box and click "Add" button. The operation step of "Allow the following IP address" and MAC address filter settings are the same with "Block the following IP address".

After you set the IP address or MAC address, the system will block or allow the user using the added IP address or MAC address to access the device.

#### 5.6.4 Security Management

Go to Config -> Security -> Security Management as shown below.



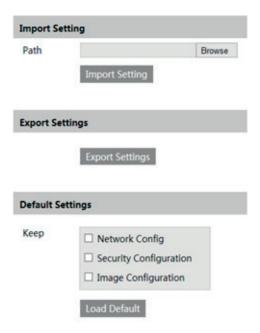
In order to prevent against malicious password unlocking, "locking once illegal login" function can be enabled here. If this function is enabled, login failure after trying six times will make the login interface locked. The camera can be logged in again after a half hour or after the camera reboots.



#### 5.7 Maintenance

### 5.7.1 Backup & Restore

Go to Config → Maintenance → Backup & Restore.



### - Import & Export Setting:

You can import or export the setting information from PC or to device.

- 1 Click "Browse" to select save path for import or export information on PC.
- 2 Click "Import Setting" or "Export Setting" button.

### - Default Setting

Click the "Load Default" button to restore all system settings to the default factory settings except those you want to keep..



### 5.7.2 Reboot Device

Go to Config → Maintenance Reboot.

Click "Reboot" button to reboot the device.

# 5.7.3 Upgrade

Go to Config → Maintenance → Upgrade. In this interface, you can upgrade the system.



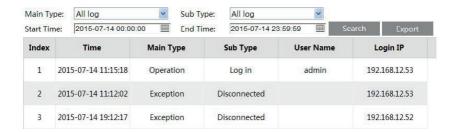
- 1 Click "Browse" button to select the save path of the upgrade file
- 2 Click "Upgrade" button to start upgrading the application program.
- 3 The device will restart automatically

Caution! You can't disconnect to PC or close the device during upgrade.

#### 5.7.4 Operation Log

To query and export log

1 - Go to Config --> Maintenance --> Operation Log.



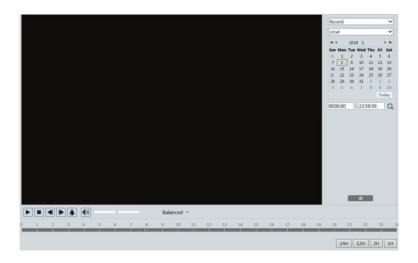
- 2 Select the main type, sub type, start and end time.
- 3 Click "Search" to view the operation log.
- 4 Click "Export" to export the operation log.



# 6 Search

### 6.1 Video Search

Click Search to go to the interface as shown below. Videos were recorded locally to the PC can be played in this interface.



- 1 Choose "Record"--"Local".
- 2 Set search time: Select the date and choose the start and end time.
- 3 Click " " to search the images.
- 4 Double click on a file name in the list to start playback.



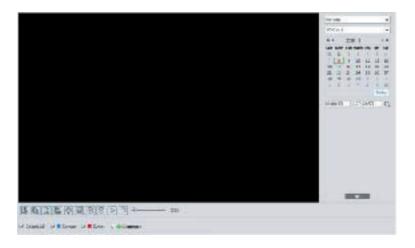


The descriptions of the buttons are shown as follows.

Button	Description	
	Play button. After pausing the video, click this button to continue playing	
	Pause button	
	Stop button	
<b>(</b>	Speed down	
	Speed up	
	The status icon of playing	
	Full screen. Click it to display full screen. Double click to exit full screen	
	Volume	
٥	Open/close watermark	

# 6.2 Image Search

Click Search to go to the interface as shown below. Images that are saved on the SD card can be found here.





- 1 Set time: Select date and choose the start and end time. 2 Choose "Picture"—"SD Card".

- 3 Click " Q " (Search) button to search the picture.
  4 Dou<u>ble click a</u> filename or select a filename to view captured pictures.
- 5 Clic to return to the previous interface.

The descriptions of the icons are as follows.

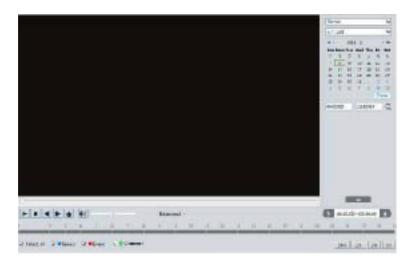
Item	Button	Description	
1	[⊗]	Close: Select certain picture and click this button to close this picture	
2		Close all: Click this button to close all pictures viewing	
3	[ w	Save: Click this button to select the save path of the picture file on the PC for saving the current picture	
4	<b>₽</b>	Save all: Click this button to select the save path of the figure files on PC for saving all pictures	
5	<u>▶[1:1</u> ◀	Proper size: The picture will fit on screen by clicking this button	
6	×1	Actual size: Click this button to display the actual size of the picture as required	
7	$\oplus$	Zoom in: Click this button to amplify the picture	
8	Q	Zoom out: Click this button to zoom out the picture	
9	$\triangleright$	Slide show photos: Click this button to play the picture in slide show mode	
10		Stop show: Click this button to stop slide show	
11	0.5S	Play speed: Play speed of the slide show	



#### 6.3 SD card video search

Click Search — Video — SD Card Recording to go to the interface as shown below. You can search the record saved in the SD card.

- 1 Choose "Record"—"SD Card".
- 2 Set search time: Select the date and choose the start and end time.
- 3 Click " Q " to search the images.



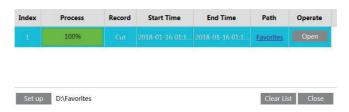
- 4. Select the alarm events at the bottom of the interface.
- 5. Select mix stream (video and audio stream) or video stream as needed.
- 6. Double click on a file name in the list to start playback.





The time table can be shown in 24H/12H/2H/1H format by clicking the corresponding buttons. Video clip and downloading

- 1 Search the video files according to the above mentioned steps.
- 2 Select the start time by clicking on the time table.
- 3. Click to set the start time and then this button turns blue (134).
- 4. Select the end time by clicking on the time table. Then click 12 to set the end time.
- 5. Click to download the video file in the PC.



Click "Set up" to set the storage directory of the video files.

Click "Open" to play the video.

Click "Clear List" to clear the downloading list.

Click "Close" to close the downloading window.



### 7 FAQ

#### 1 - Q: I forget the password. How can I do?

Reset the system to the factory default setting or contact the dealer.

Default IP: 192.168.226.201 User name: admin Password: 123456

#### 2 - Q: The devices can't connect through IE browser. Why?

- 1 Network is not connected well. Please check the connection and make sure it is connected well.
- 2 IP is not available. Reset the valid IP.
- 3 Web port number has been revised: contact administrator to get the correct port number.
- 4 Exclude the above reasons. Restore the default setting by IP-Tool.

Note: The default IP: 192.168.226.201, mask number: 255.255.255.0

### 3 - Q: IP tool cannot search devices. How can I do?

It may be caused by the anti-virus software in your computer. Please exit it and try to search device again.

#### 4 - Q:IE cannot download ActiveX control. How can I do?

IE browser blocks ActiveX. Please do setup following below.

1 - Open Internet Explorer, select Tools---Internet Options



- 2 Select Security-----Custom Level....Refer to Fig 4-1.
- 3 Enable all the sub options under "ActiveX controls and plug-ins". Refer to Fig 4-2.

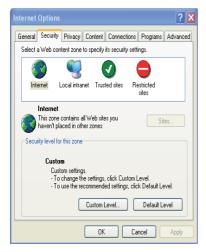




Fig 4-1 Fig 4-2

4 - Then click OK to finish setup.

Other plug-ins or anti-virus blocks ActiveX. Please uninstall or close them.



### 5 - Q:Why does the device fail to sound?

The audio input device is not connected. Please connect and try again. The audio function is not enabled at the corresponding channel. Please check AUDIO item to enable this function.

# **Appendix: Preset Description**

Call Preset	Call NO.90 Preset	Run track 1
	Call NO.91 Preset	Run cruise 1
	Call NO.92 Preset	Run cruise 2
	Call NO.93 Preset	Run cruise 3
	Call NO.94 Preset	Run cruise 4
	Call NO.95 Preset	OSD menu
	Call NO.97 Preset	Enable random scan
	Call NO.99 Preset	Enable P-P SCAN
	Call NO.100 Preset	Wiper ON (if available)
	Call No.101 Preset	Wiper OFF (if available)
Set Preset	Set NO. 91 Preset	Set random scan; task auto call the beginning point
	Set NO. 92 Preset	Set left border of P-PSCAN
	Set NO. 93 Preset	Set right border of P-PSCAN
	Set NO.94 Preset three times	Set the boundary value of the near and middle infrared light
	Set NO.95 Preset three times	Set the boundary value of the middle and far infrared light





