

# **RUFF RIDE THERMAL PTZ**

## **USER MANUAL**



**Portable All-Condition Rugged PTZ Camera**

**(Thermal Imaging Version: PATC-F)**

Thank You for Choosing Our Weather-proof Vehicle PTZ Camera!

When you open the box:

1. Check that the packing and the contents are not visibly damaged. Contact the retailer immediately if any parts are either missing or damaged.
2. Make sure if the contents are all included as per the packing list.
3. Do not attempt to use the device with missing or damaged parts. Send the product back in its original packing if it is damaged.

**[Note]** The information contained in the document is subject to change without notice.

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# Safety Notes --- Important

The following important notes must be followed carefully to run the camera and respective accessories in total safety. The camera and relative accessories are called video system in this section.

- Before installing the camera, please read this manual carefully; when installing please follow instructions of installation indicated in this manual. Please keep this manual for future use.
- The following installation should be performed by qualified service personnel or system installers in accordance with all local rules.
- Before powering on the camera, please check the power voltage carefully. Make sure that you are using the right power source.
- Please put the power cable, video cable and control cable in safe place.
- Do not operate the camera beyond the specified temperature and humidity.
- When transporting, avoid violent shake or force to the camera.
- To prevent electric shock, do not remove screws or covers of the camera. There are no self-serviceable parts inside. Refer to qualified service personnel for servicing.
- Video cable and RS485 cable should be far away from other cables. Shielded and independent wiring is necessary for video and control cables.
- Never aim the lens of the camera at the sun or other extremely bright objects. Otherwise, it may cause damage.
- When cleaning the camera, please use soft cloth. If the camera is very dirty, wipe it off gently with a soft cloth moistened with a weak solution of water and a neutral kitchen detergent. Wring all liquid from the cloth before wiping the camera, then wipe off all remaining dirt with a soft, dry cloth. Use lens cleaning paper to clean the lens.
- Do not move the camera module manually. In doing so would result in malfunction of the camera. Do not hold the camera module when carrying the video camera.
- Make sure the camera is far away from area where radiation, X-rays, strong electric waves, or magnetism is generated.

# About The Product

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## About The Product

PATC-F series thermal imaging system camera is designed for important video surveillance application such as Police, Rescue, Border Patrol, Marine, etc. (fixed and mobile video surveillance application.) It consists of: thermal imaging sensor, HD zoom module, precise PTZ system, optional damping systems. It ensures clear view of details under total dark and/or foggy environment.

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## Features

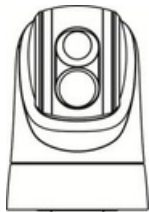
- Color sensor: 1/2.8 inch CMOS, 2.13 mega pixel, 20x optical zoom;
- Un-Cooled thermal imaging sensor, 640x480, 384x288, provide clear view in total darkness;
- Dual output (up to 1080P30) for color and thermal video at the same time;
- Dual H.264 stream output for color and thermal video at the same time;
- Single degree of freedom gyroscope PTZ stability control system;
- With WDR, True D/N;
- Camera address is easily changeable via controller. Baud rate and protocol is self-adaptive;
- 10.8-28V voltage input;
- Auto power-off with low power supply;
- IP67 weatherproof.

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## Packing List

When you open the package, please make sure below items are included. If any item is missing, please contact your supplier.

PTZ Camera(1)



Power Adapter(1)



## Functions

### **Soft Address**

Camera address can be changed via calling specific presets.

### **Baud Rate and Protocol Self-adaptive**

Camera can detect Pelco D and Pelco P protocols and 2400bps, 4800bps, 9600bps and 19200bps baud rate automatically.

### **Set Camera Address, Baud Rate and Protocol**

Every camera needs to have its own address, baud rate and protocol, the camera only responds to the commands sent with the same settings, please refer to DIP settings for more information about setting address, baud rate and protocol.

### **Proportional Pan**

Proportional pan automatically reduces or increases the pan and tilt speeds in proportion to the zooming times. At telephoto zoom settings, the pan and tilt speeds will be slower for a given amount of joystick deflection than at wide zoom settings. This keeps the image from moving too fast on the monitor when there is a large amount of zoom.

### **Auto Flip**

When the camera tilts downward and goes just beyond the vertical angle, the camera rotates 180°. When the camera rotates (flips), the camera starts moving upward as you continue to hold joystick in the down position. Once you let go of the joystick after the dome rotates, joystick control returns to normal operation. The auto-flip feature is useful for following a person who passes directly beneath the camera.

### **Save/Call Preset**

Preset function is that camera saves current horizontal angle and title angle of pan/tilt, zoom and position parameters into memory. When necessary camera calls these parameters and adjusts Pan/Tilt and camera to that position. User can save and call presets easily and promptly by using keyboard controller or other controller. The camera supports up to 256 presets.

### **Zoom control**

User can adjust zoom wide or tele by controller and get desired image.

### **Focus control**

# About The Product

System defaults Auto Focus mode, that is, the lens and camera will automatically adjust the focus to get the best image.

Focus can also be controlled manually from the controller if required. Press Focus Near or Focus Far key to manually focus. Focus can be manual via keyboard or matrix, please refer to control keyboard or matrix operation manual for detailed operation. When adjusting position is set with focus status, it goes back to auto focus.

- The camera will NOT auto focus in the following status. Target is not in the center of image.
- Targets are in near and far at the same time.
- Target is of strong light object. Such as spotlight etc.
- Target is behind the glass with water drop or dust.
- Target moves too fast.
- Large area target such as wall.
- Target is too dark or vague.

## **IRIS Control**

System defaults Auto IRIS. Camera can adjust immediately according to the alteration of background illumination so that a lightness steady image can be achieved.

You may adjust IRIS by controller to get required image brightness, and call back Auto IRIS by controlling the joystick.

## **Back Light Compensation (BLC)**

If a bright backlight presents, the subjects in the picture may appear dark or as a silhouette.

Backlight compensation enhances objects in the center of the picture. The camera uses the center of the picture to adjust the IRIS. If there is a bright light source outside this area, it will wash out to white. The camera will adjust the IRIS so that the object in the sensitive area is properly exposed.

## **Auto White Balance**

Camera can automatically adjust white balance (WB) according to the alteration of background lightness to give a true color image.

## **Auto Cruise**

The preset position is programmed to be recalled in sequence.

**Auto Scan**

Make the camera scan continuously starting from current position.

**Random Scan**

Make the camera scan from current position, pause at specific positions.

**Frame Scan**

Make the camera scan between two set positions.



# RUFF RIDE THERMAL PTZ

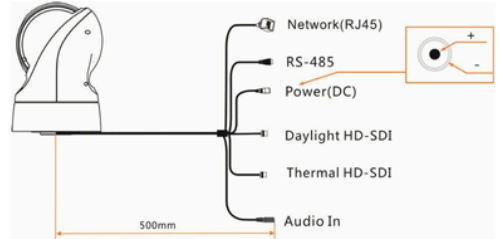


**RUGGEDCAMS**



General	
OSD Language	English
Comm. Interface	RS-485
Address	0-255
Video Output	HD-SDI
Audio Input	One channel in, line input,
Network Interface	10M/100M
Protocol	PELCO-P/PELCO-D (Self-adaptive)
Baud Rate	2400/4800/9600/19200bps (Self-adaptive)
Power Supply	DC10.8-28V
Power Consumption	35W
Work Temperature	-35°C~+55°C
IP Protection	IP67
Dimension	Standard: Φ190(mm)×275(mm)
Weight	Standard: 6.3 (±0.1) kg

**BOTH SDI & IP OUTPUTS AVAILABLE SIMULTANEOUSLY**



Network Protocol	HTTP, HTTPS, RTSP, TCP, UDP, ONVIF
Simultaneous Preview	Max 10 channels
Dual Stream	Support

Thermal Imaging Camera	
Sensor Type	Uncooled Amorphous Silicon FPA
Working Band	8µm~14µm
Resolutions	640 x 480
Sensor Size	17µm
NETD(300K)	≤60MK
FOV	40mm: 15.5°×11.6°
Image Enhancement	Support
Digital Zoom	1X, 2X, 4X
Video Display	White Hot/ Black Hot
Detecting Range	Vehicle :5400m Man :1170m
Recognition Range	Vehicle:1350m Man :290m

PTZ	
Pan Range	360° Continuous
Pan Speed Tilt	Control speed: 0.04°~100°/s; Preset speed: 100°/s
Range Tilt Speed	-15°~90° (Auto Flip)
Preset Preset	Control speed:0.04°~90°/s, adjustable; Preset speed:90°/s
Precision	256 ±0.2°
PTZ Stability	Single Degree of Freedom gyroscope PTZ stability control system (Optional)

Daylight Imaging Camera	
Video Sensor	1/2.8" CMOS, 2.13MP
Effective Pixel	1920(H) x 1080(V)
HD Video (Network)	1080P30, 720P60, 720P30, 1080P25, 720P50, 720P25
HD Video (SDI)	1080P30, 1080I60, 720P60, 720P30, 1080P25, 1080I50, 720P50, 720P25
Optical Zoom	36X
Digital Zoom	12X
Lens	f=4.7mm(wide)-94mm(tele),F1.6-3.5
View Angle	59.5°(wide)-3.3°(tele)
Min Illumination	Color:0.0013Lux, Mono: 0.0008lux
WDR	On/Off
WB	Auto
Focus	Auto / Manual
IRIS	Auto / Manual
S/N Ratio	Not less than 50 dB
BLC	On/Off
DNR	1-5 Steps / Off
Day / Night	Auto / Manual

Network	
Resolution	Max 1920X1080@30fps
Video Compression	H.264
Audio Compression	AAC

## Preparation

This section contains detailed instructions for installing the camera. These instructions assume that the installer has a good knowledge of installation techniques and is capable of adopting safe installation methods.

### Initial Power On Test

To ensure the camera works well after installation, please power on it for an initial test with the following steps:

- Connect the camera with correct power supply;
- Connect control cable, video cable;
- Power on the camera;

The camera will run a calibration procedure on power up and show the following messages.

```
ADDR ESS      : 001
PROTOCOL      : PELCO-D/P
BAUD RATE     : 9600
SOFTWARE      : V1.0.0
```

If the camera fails at initialization, the following message will show on screen.

```
ADDRESS       : 001
PROTOCOL      : PELCO-D/P
BAUD RATE     : 9600
SOFTWARE      : V1.0.0

CAM FAIL
```

Please refer to the following code to check the failures:

PAN FAIL	Failure of pan initialization
TILT FAIL	Failure of tilt initialization
CAM FAIL	Failure of block camera initialization
P/T FAIL	Failure of pan and tilt initializations
T/Z FAIL	Failure of tilt and block camera initializations
P/T/Z FAIL	Failure of pan, tilt and block camera initializations

---

## Check Installation Environment

Please confirm the installed place has enough room to install the camera and its relative accessories, and the installed place must be able to stand four times the weight of the camera.

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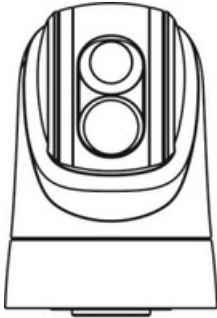
## Keep Package

After unpacking, please keep the packing stuffs in good place, in case the camera needs to be returned, please use its original packing stuffs to send back.

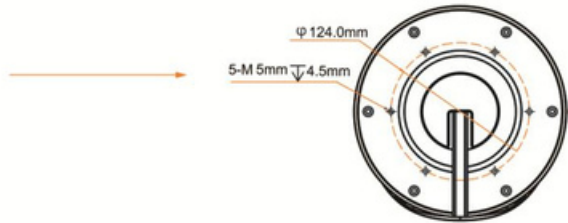
## Dimensions

The PTZ installation type is fixed.

### Fixed Installation



Standard

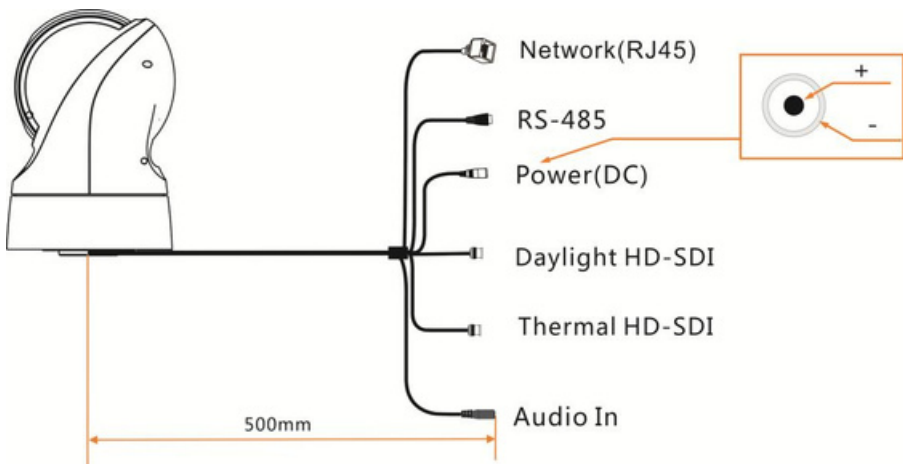


Bottom View

Pic. 1 Dimensions

## Connections

Connect the cable with the correct pins as per following picture.



**BOTH SDI & IP OUTPUTS AVAILABLE SIMULTANEOUSLY**

# Menu Settings

## Menu Settings

### Menu Configuration

#### <VIDEO>

Refer to  
Page 12

FORMAT	1080P30, 1080I60, 720P60, 720P30, 1080P25, 1080I25, 720P50, 720P25
WIDE DYNAMIC	ON, OFF
DNR	1, 2, 3, 4, 5, OFF
FOCUS	MANUAL, AUTO
FREEZE	ON, OFF
DIGI ZOOM	ON, OFF
DIS	OFF
HIGH SENSITIVITY	ON, OFF
EXPOSURE...	

#### <PAN TILT>

Refer to  
page 15

DAY/NIGHT	AUTO, DAY, NIGHT
PRESET...	
CRUISE...	
FRAME SCAN...	
RDNDOM SCAN	4, 5, 6, 7, 8, 9, 10, 11, 12, 13
INTERVAL/S	
POWER UP ACTION	PRESET 1-9, NONE, HOME
PAN/TILT SPEED	1, 2, 3
AUTO FLIP	ON, OFF
PARK ACTION.....	

## <SYSTEM>

Refer to page  
19

ADDRESS	_____	0~255
PROTOCOL	_____	PELCO-D/P
BAUD RATE	_____	9600
VIDEO FORMAT	_____	1080P30
MOUNT MODE	_____	STAND
DISPLAY INFO	_____	ON, OFF
SOFTWARE VER	_____	V1.0.0

## <REBOOT>

Refer to page 20

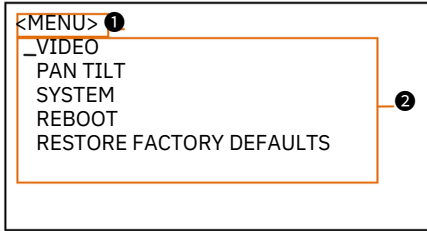
## < RESTORE FACTORY DEFAULTS >

Refer to page 20

## Menu Explanation

### Main Menu

Call preset 95 to enter menu.



#### 1 Menu

It displays currently selected menu options.

#### 2 Menu Operations

It displays options under current menu.

Navigate up or down to choose option, the mark  shows current option has been chosen, press Iris Open button to get into this menu.

- IRIS OPEN can be replaced with NEAR or ZOOM IN; IRIS CLOSE can be replaced with FAR or ZOOM OUT.

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## VIDEO

From Main menu, navigate to VIDEO option, press Iris Open to get into VIDEO menu shown as below:

<VIDEO>	
- FORMAT	1080P25
WIDE DYNAMIC	OFF
DNR	5
FOCUS	AUTO
FREEZE	OFF
DIGI ZOOM	OFF
DIS	OFF
HIGH SENSITIVITY	OFF
EXPOSURE...	

Options	Available Values	Explanation
FORMAT	1080P30,1080I60, 720P60, 720P30, 1080P25, 1080I50, 720P50,720P25	
WIDE DYNAMIC	ON, OFF	Switch wide dynamic mode.
DNR	1, 2, 3, 4, 5, OFF	If camera displays color image, it is suggested to turn off the DNR level, otherwise, the video trails will be generated. The higher the level is, the better is the noise reduction performance, but more video trails will be generated.
FOCUS	AUTO MANUAL	AUTO: Camera is in auto focus mode. MANUAL: Change to Manual focus mode, press Focus Near / Far to adjust focus.
FREEZE	ON, OFF	When the camera is cruising among presets, if FREEZE is on, the image from first preset until the second preset will be frozen, after second preset is reached, the image will resume to normal.
DIGI ZOOM	ON, OFF	Switch digital zoom ON or OFF.
DIS	OFF	Switch digital image stabilization ON or OFF.
HIGH SENSITIVITY	ON, OFF	Adjust the sensitivity of light in low lux.
EXPOSURE...	-	Set Exposure values



## Menu Operations

Navigate up or down to choose option, The mark  $\square$  shows current option has been chosen, use Right control arrow to get into menu, then use Left or Right control arrow to choose from options. If there is no need to change, press Iris Close button to get back to the last menu.

## EXPOSURE

```
<EXPOSURE>
MODE          FULL AUTO
SLOW SHT.LIMIT  OFF
```

Options	Available Values	Explanation
MODE	FULL AUTO MANUAL SHUTTER PRI IRIS PRI	Switch among exposure modes.

**FULL AUTO:** Gain, Shutter Speed and Iris value are adjusted automatically accordingly to working environment.

**SLOW SHT. LIMIT:** this option sits under “Full Auto”, there are On and Off options.

**MANUAL:** manually adjust Gain, Shutter Speed and Iris.

**GAIN Values:** -3, 0, +2, +4, +6, +8, +10, +12, +14, +16, +18, +20, +22, +24, +26, +28.

**SPEED Values:** 1/1, 1/2, 1/3, 1/6, 1/12, 1/25, 1/50, 1/75, 1/100, 1/120, 1/150, 1/215, 1/300, 1/425, 1/600, 1/1000, 1/1250, 1/1750, 1/2500, 1/3500, 1/6000, 1/10000s.

**IRIS Values:** F14, F11, F9.6, F8, F6.8, F5.6, F4.8, F4, F3.4, F2.8, F2.4, F2, F1.6, CLOSE.

**SHUTTER PRI:** Gain and Iris value are adjusted automatically according to working environment; shutter speed value is adjustable manually.

**SPEED Values:** 1/1, 1/2, 1/3, 1/6, 1/12, 1/25, 1/50, 1/75, 1/100, 1/120, 1/150, 1/215, 1/300, 1/425, 1/600, 1/1000, 1/1250, 1/1750, 1/2500, 1/3500, 1/6000, 1/10000s

- When shutter speed is set too fast, to avoid the camera from changing between Color / B/W, suggested to call preset 21 to change to manual D/N mode.

**IRIS PRI:** Gain and shutter speed value are adjusted automatically according to working environment; Iris value is adjustable manually.

**IRIS Values:** F14, F11, F9.6, F8, F6.8, F5.6, F4.8, F4, F3.4, F2.8, F2.4, F2, F1.6, CLOSE

## PAN TILT

PAN/TILT is used to change pan/tilt/zoom value; available options are shown as below:

<PAN TILT>	
DAY/NIGHT	AUTO
PRESET...	
CRUISE...	
FRAME SCAN...	
RDNDOM SCAN INTERVAL/S	6
POWER UP ACTION	NONE
PAN/TILT SPEED	2
AUTO FLIP	ON
PARK ACTION...	

Options	Available Values	Explanation
DAY/NIGHT	AUTO, DAY, NIGHT	“AUTO”: camera changes to color /B/W automatically based on working environment. “DAY / NIGHT”: force the camera to change to color / B/W mode.
PRESET...	-	Preset parameter submenu.
CRUISE...		Limited to preset number 1~20, values used to change switching intervals among presets.
FRAME SCAN...	-	
RDNDOM SCAN INTERVAL/S	4, 5, 6, 7, 8, 9, 10, 11, 12, 13	Used to change scanning intervals.
POWER UP ACTION	PRESET 1~9, NONE, HOME Position	After camera is powered up, if there is no command received, the camera will perform the power up action chosen. HOME position is preset 0.

# Menu Settings

PAN/TILT SPEED	1, 2, 3	Set camera's Pan / Tilt speeds.
AUTO FLIP	ON, OFF	Set auto flip On or Off.
PARK ACION...		When camera is kept idle for a specific period, it will performance the park action.

## PRESET

<PRESET>		
— NUM		1
PAN		
TILT		
ZOOM		
LABEL		
EDIT		NO
DELETE		NO

Options	Available Values	Explanation
NUM	0~255	Preset Number (Expect special commands presets)
PAN		Pan angle of current preset
TILT		Tilt angle of current preset
ZOOM		Zoom times of current preset
LABEL		Description of current preset
EDIT	YES, NO	Edit current preset
DELETE	YES, NO	Delete current preset

### EDIT Operations

Under <PRESET> menu, navigate up or down to choose <EDIT>, use Right control arrow to get into <EDIT> menu, choose <YES>, then move the camera to the right position, adjust zoom and focus values, finally press Iris Open to confirm or Iris Close to cancel.

```
<PRESET EDIT> CLICK IRIS
OPEN CONFIRM CLICK IRIS
CLOSE CANCEL
```

## DELETE Operations

Under <PRESET> menu, navigate up or down to choose <DELETE>, use Right control arrow to get into <DELETE> menu, choose <YES>, press Iris Open to delete preset or Iris Close to cancel operation.

## CRUISE

```
<CRUISE>
-PATH 1
INTERVAL/S 6

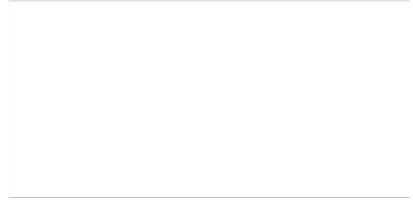
SELECT PRESET TO CRUISE
1 2 3 4 5 7 8 9 10 12
 ^ ^ ^ ^      ^ ^
```

Option	Value	Explanation
PATH	1, 2, 3, 4	Choose from route numbers
INTERVAL/S	4~13s	Set interval among presets when cruising
SELECT PRESET TO CRUISE		Choose presets that need to be joined in a route.

**SELECT PRESET TO CRUISE Operations:** Use Right / Left control arrow to choose the specific preset(s) number, press Iris **OPEN**, the symbol “^” under the number will be disappeared, indicating this preset is not included in the current cruise route. Press Iris **OPEN** again, the symbol will appear, indicating this preset is included in the current cruise route.

## FRAME SCAN

<FRAME SCAN>	
-INTERVAL/S	4
EDIT	NO
DELETE	NO



Options	Available Values	Explanation
INTERVAL/S	4~13S	Set interval of frame scan
EDIT	YES, NO	Edit presets of current frame scan
DELETE	YES, NO	Delete current frame scan

### EDIT Operations

Under <FRAME SCAN> menu, use Right / Left control arrow to move the camera to a required left limit of the frame scan, press Iris Open to confirm; then use Right / Left control arrow to move the camera to a required right limit of the frame scan, press Iris Open to confirm.

<FRAME SCAN EDIT>
CLICK IRIS OPEN CONFIRM LEFT
CLICK IRIS CLOSE CANCEL

- If the two limits within the horizontal 360 degree is in the same zone, in default the camera will choose the shortest zone.

## PARK ACTION

<PARK>	
<input type="checkbox"/> ACTION	NONE
TIME H	0
M	5
S	0

Option	Value	Explanation
ACTION	RANDOM SCAN FRAME SCAN AUTO SCAN NONE HOME PRESET 1~9 CRUISE	
TIME	H 0~23 M 0~59 S 0~59	

## SYSTEM

Under main menu, navigate up or down to choose <SYSTEM> , press Iris Open to get into the menu shown as below:

<SYSTEM>	
— ADDRESS	1
PROTOCOL	PELCO-D/P
BAUD RATE	9600
FORMAT	1080P30
MOUNT MODE	STAND
DISPLAY INFO	ON
SOFTWARE VER	V1.0.0

Options	Available Values	Explanations
ADDRESS	0~255	Suggested to call presets to change camera's address, new address will take into effect after camera is rebooted
PROTOCOL		Displays current protocol, camera supports Pelco P/D protocols, and the camera can detect protocols automatically.
BAUD RATE		Displays current baud rate.
VIDEO FORMAT		Display current video output format
MOUNT MODE	CEILING STAND	Flip the image 180 degrees vertically

# Menu Settings

DISPLAY INFO	ON, OFF	Enable or disable the display information on the image.
SOFTWARE VER		-

---

## REBOOT

Under main menu, navigate up or down to choose <REBOOT> , press Iris Open to get into the menu shown as below:

<REBOOT> CONFIRM REBOOT CLICK IRIS OPEN  CANCEL REBOOT CLICK IRIS CLOSE
--

---

## RESTORE FACTORY DEFAULTS

Under main menu, navigate up or down to choose < RESTORE FACTORY DEFAULTS>, press Iris Open to get into the menu shown as below:

< RESTORE FACTORY DEFAULTS> CLICK IRIS OPEN TO CONFIRM RESTORE FACTORY DEFAULTS  CLICK IRIS CLOSE TO CANCEL
---

**Menu Operations:** Press Iris Open will resume camera's settings to factory default

---

## Network Settings

The camera is ONVIF compliant to be implemented together with your NVR and etc. Detailed implementation tools like SDK and etc will be provided separately.

## Special Control Commands

The camera can be programmed and operated using various quick control commands listed as below.

Preset Number	Function	Default Value
21	Manual switch between color mode and mono mode	-
22	Auto switch between color mode and mono mode	√
23	Turn on/off Wide Dynamic Range (WDR)	Off
24	Turn on/off Hight Sensitivity	Off
25	Turn on/off Back Light Compensation (BLC)	Off
26	Turn on/off Image Flip	Off
27	Turn on/off Digital Noise Reduction (DNR, 1-5steps)	Off
28	Turn on/off image freeze	Off
31	1080I60	√
32	1080I50	
33	1080P30	
34	1080P25	
35	720P30	
36	720P25	
37	720P60	
38	720P50	
39	Turn on/off digital zoom	Off
40	Turn on/off on screen display	On
42	Set Left Boundary Of Frame Scan	-
43	Set Right Boundary Of Frame Scan	-
44	Turn on Gyroscope Stabilization (Optional)	
45	Turn off Gyroscope Stabilization (Optional)	
48	Turn on random scan	-
49	Turn on frame scan between two set presets	-
50	Turn on cruise 1	-
51	Turn on Auto Scan(360° Scan)	-
52	Clear all Presets	-
53	Restore factory default and reboot the camera	-
54	Set thermal palette	White Hot
55	Reboot PTZ	
56	Turn on/off PTZ Sleep Mode	-
57	Turn On/Off Screen Tips / Page Down Of Screen Tips	
58	Choose a camera module (daylight/thermal) to control	-
59	PTZ Speed - Fast	√
60	PTZ speed - Normal	-
61	PTZ speed - Slow	-
62	Decrease the camera Address By -1	-
63	Increase the camera Address By +1	-
64	Enter Menu	-



# Operation

## Operation

As the baud rate and protocol are self-adaptive, the PTZ cameras may not response for seconds on power up. It is recognizing the commands and adapting the setting.

### Digital Noise Reduction

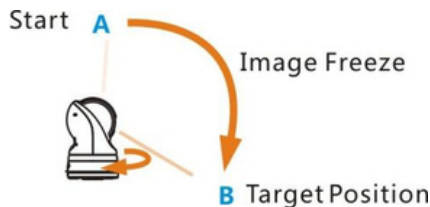
The function is off as default.

When the camera is in color mode, it is recommended to turn off DNR, or there will be video trails.

When the camera is in mono mode, call preset 27 to turn on/off this function. There are 1~5 steps from low to high. The higher the level is, the better the image quality is, but there will be more video trails.

### Image Freeze

Call Preset 28 to turn on/off this function. When it is on, during a regular preset call (see following picture), the video will be frozen at point A till Point B. At Point B, the video will be displayed norm ally.



**Pic. 7: Image Freeze**

### Frame Scan

Call preset 49 to do frame scan. It will not be available when the left limit (call preset 42) or right limit (call preset 43) is not set.

## Soft Address

The camera address can be changed via presets 62 and 63. The new address will take effect after the camera is rebooted.

## Safe Position of Thermal Camera

When the PTZ camera is stand by, call preset 56 and the PTZ camera will tilt to -90Deg and hide the thermal camera to a safe position. The PTZ camera does not respond to any command until preset 56 is called and the thermal camera moves away from the position.

STANDBY NOW  
CALL PRST 56 TO EXIT

# Network setting

## Network Setting

### Network Connection

Use RJ45 Ethernet cable to connect the PTZ into the network

#### LAN

No special setting is needed for LAN environment. The PTZ is Plug-N-Play. Please refer to the following connection and set the camera IP as DHCP or static.



Pic 0-1



Note: The PTZ can be used for video and audio surveillance. Please make sure it's used within law and regulation for privacy and other protection.

## Software Installatoin

### Preparation

#### Hardware

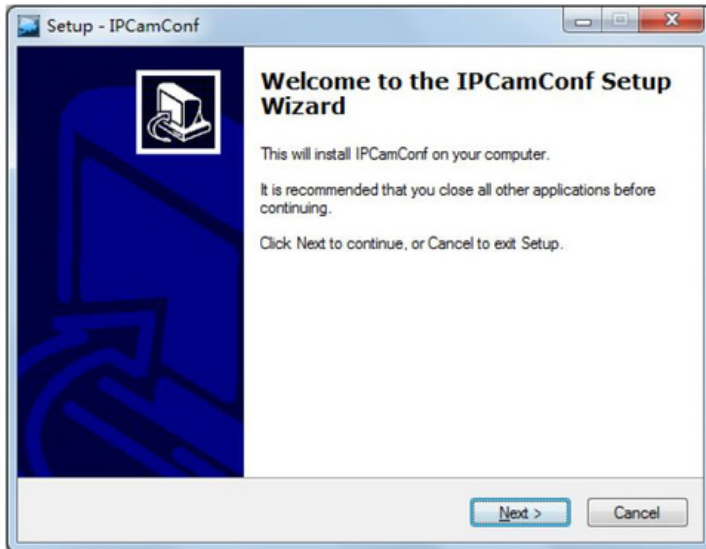
- PC \* 1pc, PIII/1G or above, with Ethernet adapter, speaker.

#### Software

- OS: Windows XP/ Windows 7
- IPCamConf.exe

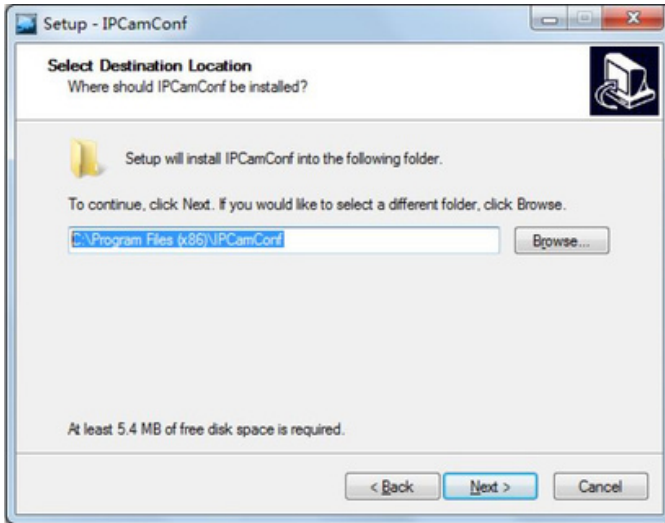
### Installation

Run IPCamConf.exe to start the installation



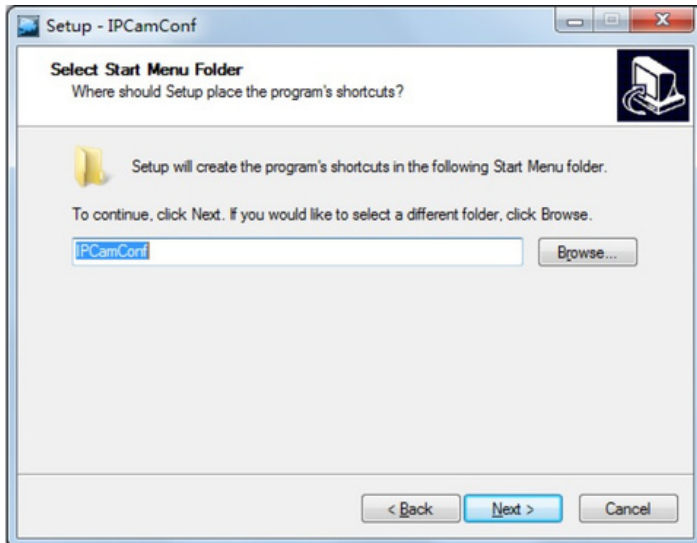
Pic 1-1

Click **Next** to choose an installation directory



Pic 1-2

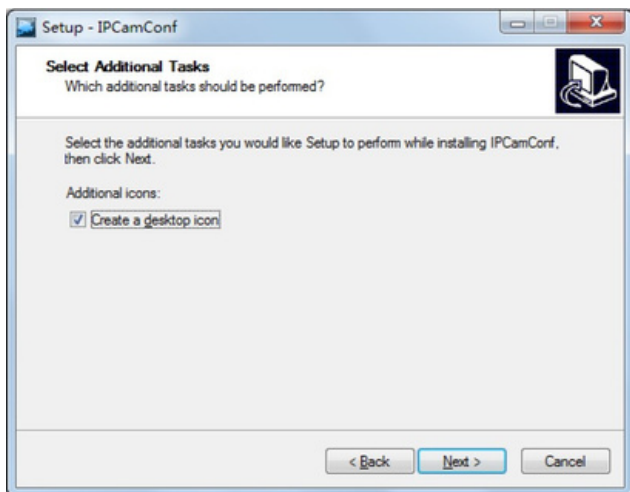
Default directory is C:\Program Files (x86)\IPCamConf. It may differ with different OS.



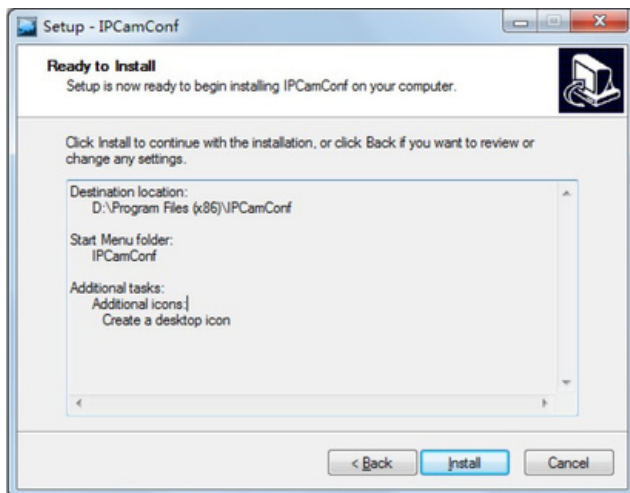
Pic 1-3

Click **Next**

# Network setting

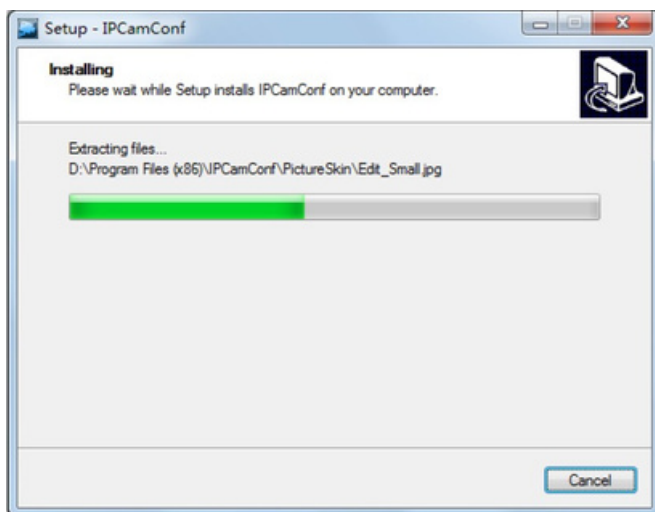


Pic 1-4

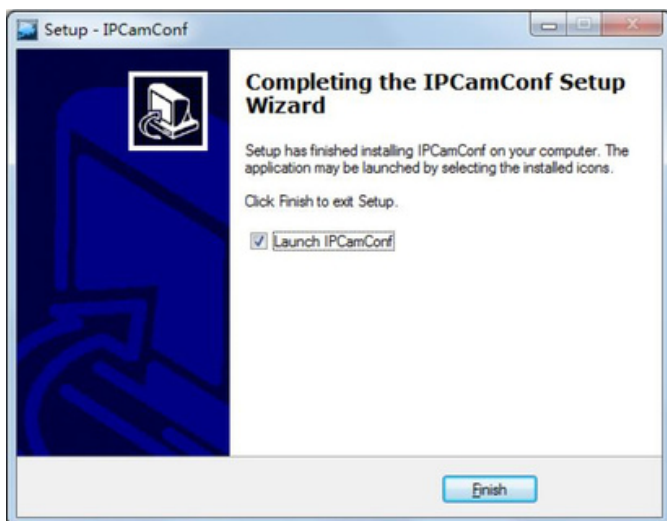


Pic 1-5

Click Install



Pic 1-6



Pic 1-7

# Network setting

## Software Operation

### Main Interface

Start IPCamConf and the main interface shows as follows:



Pic 2-1

There are 5 modules in the main interface: System menu, Camera list, PTZ, View and Camera info.

- System menu: entrance of 5 functions.



Pic 2-2

- Camera list: list all the cameras found;

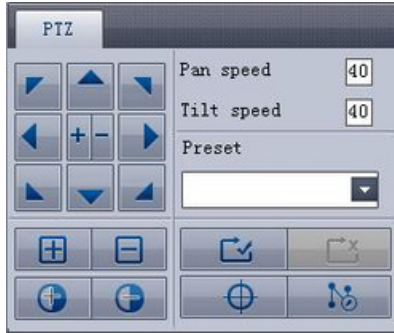


Pic 2-3



# Network setting

- PTZ: PTZ set and control of the current camera when available;



Pic 2-4

- View: view the video, snapshot, audio and SD recorded video clip of the current camera;



Pic 2-5

- Camera info: display ID, IP and firmware version of the current camera;

Device ID:	G4X6R6H2B00PQUY154J5	Type:	PATC-F
IP:	192.168.18.241	Image edition:	1.0.00
		Encode Type:	main.h264

Pic 2-6


## Local Surveillance and Setting


### Video view


IPCamConf will automatically search the cameras in LAN and display them in Camera list.

In Camera list, double click a camera and the video from the camera will be displayed in the view interface. Right click to select main or sub stream to view.

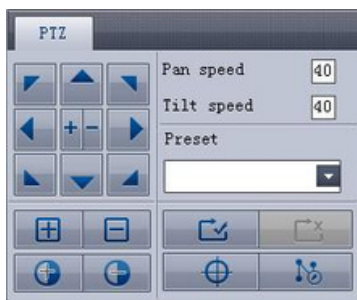
Before each camera name. An icon is used to display the camera status.

: There is a red blinking “S” when the SD card built in the camera is recording the video.

: There is a red static “S” when there is an SD card in the camera but it’s not recording any video.

: There is no “S” and the icon is static when the camera has no built-in SD card.

### PTZ



Pic 2-7

Left area: PTZ control including pan, tilt, zoom, focus, IRIS. A hint will show when the mouse is over the button;

Right-Up area: adjust the pan and tilt speed;

Right-Bottom area: select and manage presets, set, start and stop cruise;

Note: PTZ function is only available to a PTZ camera.

#### 1) Preset setting and management

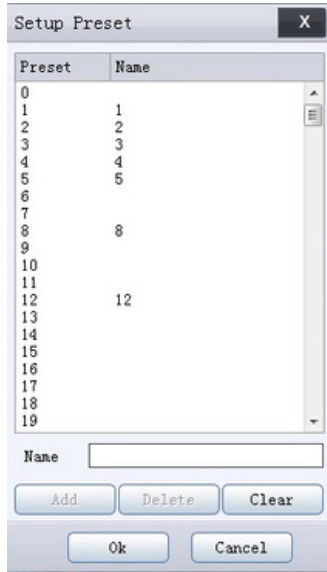
A preset is used to define a location of the camera with certain degrees of pan and tilt, zoom parameters. To define a preset:

● Adjust the pan, tilt and zoom of the camera to the position;

● Click SETUP PRESET;

# Network setting

- Select a preset number and setup a name, save the preset.
- To run the camera to a preset, just select the preset number in the preset list in PTZ interface.





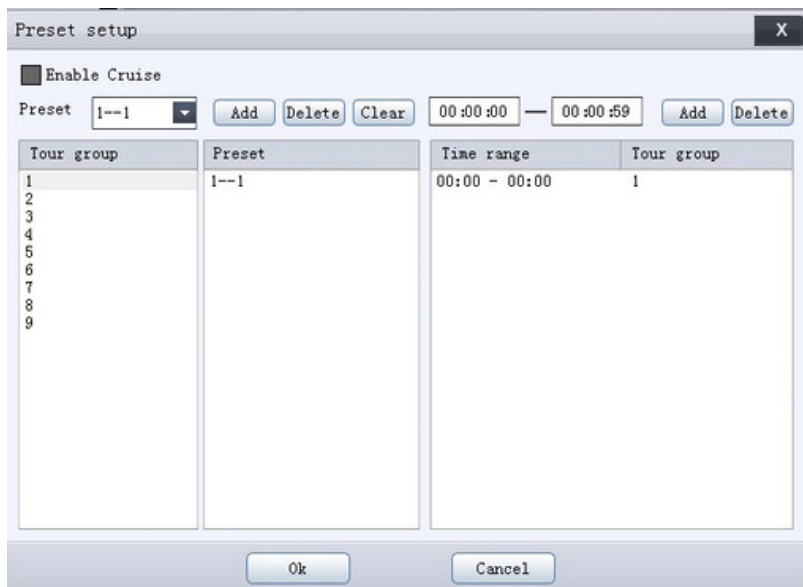
Pic 2-8

## 2) Start/Stop scan:

Scan is to run the camera with a predefined route that consists of presets.

To define a scan:




- Click SCHEME SETUP;
- Select a tour in tour group. Select a number of presets in sequence in preset list and add it into the tour;
- Program the start and end time of the tour;
- Click Enable Cruise to enable the cruise;
- Click  and  to start and stop scan.



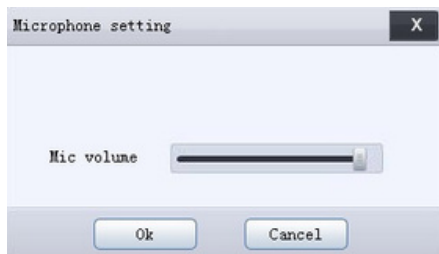
Pic 2-9

### Snapshot and audio management




- Click , to capture a snapshot. Snapshots can be saved and printed.
- Click to  to start or stop speaker, if it's available.
- Click  to set audio in;



Slip the volume icon to increase or decrease mic volume;




Pic 2-10

- Click  to stop recording

## Camera info

Device ID: G4X6R6H2B00PQUY154J5		Type: PATC-F
IP: 192.168.18.241		Image edition: 1.0.00
		Encode Type: main.h264

Pic 2-11

- Device ID: camera's ID. Click  to copy the ID.
- Type: The camera type number
- IP: camera IP address. Click to show more network info of the camera such as IP, mask, gateway etc.

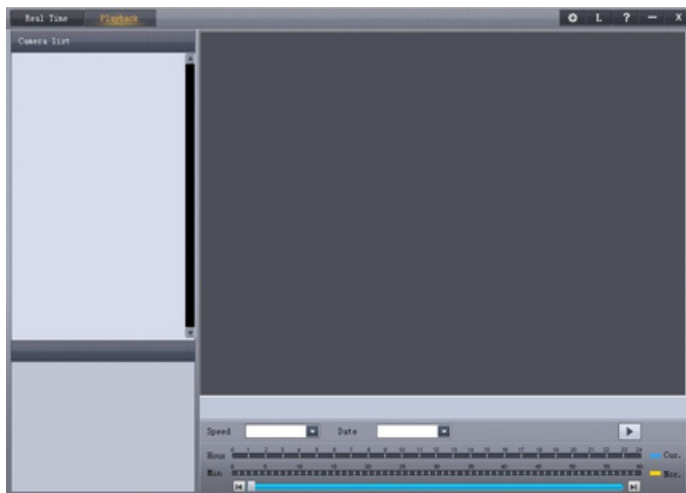


Pic 2-12

- Image Version: camera firmware version.

## Playback

Click playback to start playback. Click Real time to exit.



Pic 2-13

## ● Playback:

Select a camera for playback. Hour, minute and speed can be programmed. Snapshot can be captured and saved.

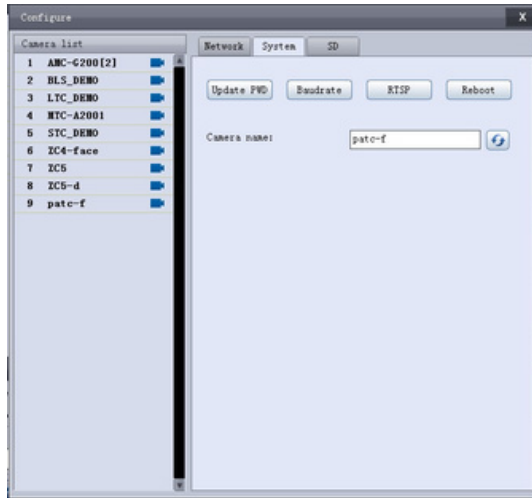


Pic 2-14

## System

Click CONFIGURE and click SYSTEM:

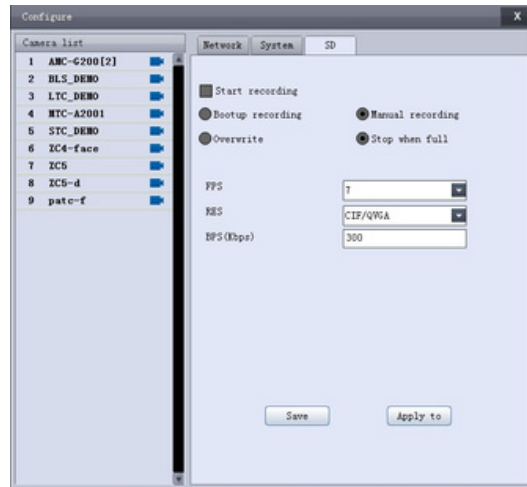
- Password: set password to prevent unauthorized view of the camera video and audio;
- PTZ: when the camera is equipped with external PTZ unit, camera address and baud rate shall be programmed;
- Reboot: reboot the camera;
- Camera name: edit the camera name



Pic 2-15

## SD

Click CONFIGURE and click SD to set SD card recording.



Pic 2-16

1) Start recording: the camera will start recording with the SD card. Other parameters shall be programmed for recording to take effective.

● Bootup recording: the camera will start recording when it's power up and online. Start recording shall be enabled.

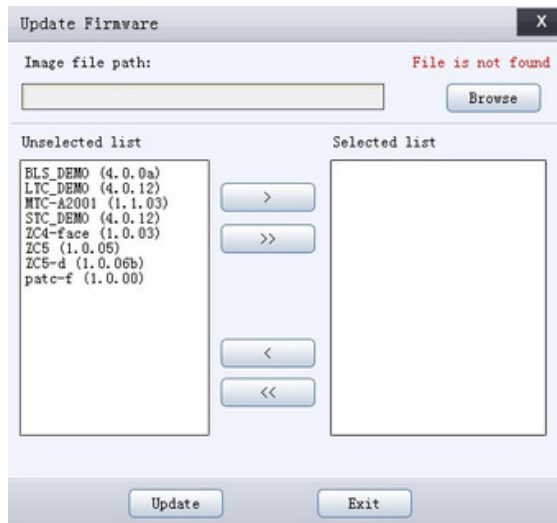
● Overwrite: the new recorded file will overwrite the oldest one when SD is full;

- Stop when full: stop recording when SD card is full;

2) Recording quality: adjust FPS, RES and BPS as per the bandwidth and requirement.

### Update Firmware

Click Browse to choose a firmware file to update. The file can be obtained from the manufacturer or your seller.



Pic 2-17

- Unselected list: the cameras in the list do not need update;

- Selected list: the cameras in the list need update.

- Choose cameras to update: Select camera in unselected list and click



- Remove cameras from update: Select camera in unselected list and click



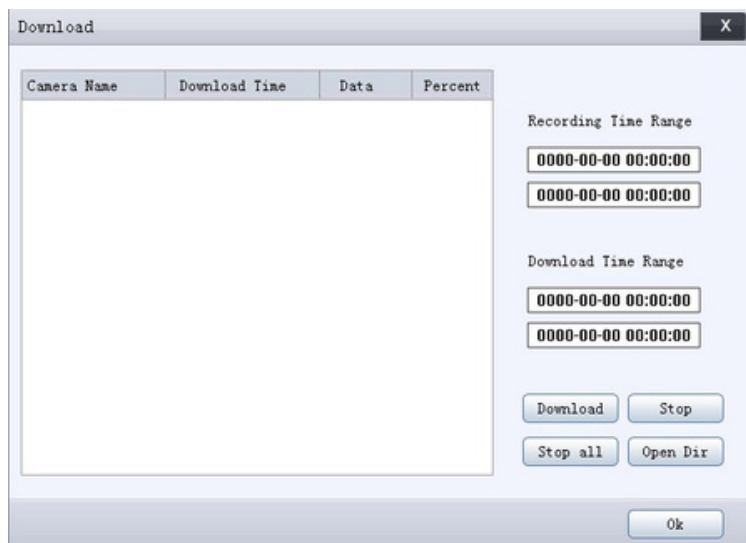
- Click update to start firmware update. Please make sure the camera cannot be powered off during the whole process.

### Download

Click [Download] to download recorded videos in the SD card.



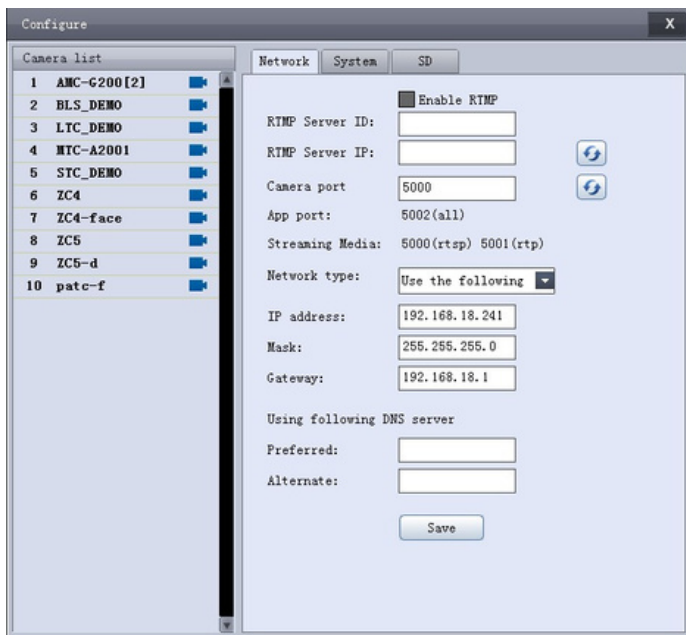
Select a camera and click download. Click STOP to cancel downloading. Click OPEN DIR to view the downloaded file directory.



Pic 2-18

## Configure

Click [CONFIGURE] and click **Network**.



Pic 2-19

- RTMP: not supported;
- Ports: the port to exchange data with the selected camera. It can be predefined (from 3479~7000) or randomly selected. However, it shall be 5000 for RTSP communication;
- Network type: the type of camera IP to be assigned. It can be static (Use the following) or DHCP, based on the actual usage. In case of static IP, the info of IP address, gateway and DNS server (preferred and alternate) shall be provided.

# Trouble Shooting

## Trouble Shooting

Problems	Possible Causes	Solutions
No action when powered on	Power supply failure	Replace power supply
	Wrong connection of the power	Check & reconnect the cables
Abnormal self-test with motor noise	Mechanical failure	Repair Reinstall the camera
	Camera inclined	Replace the power supply
	Inadequate power supply	Check and reconnect the cable
Normal self-test but out of control	Wrong connection of RS485 cable	Check and reset the Switches
	Wrong camera ID set	Check and reset the Switches
	Wong baud rate set	Check and reconnect the cables
Vague image	Bad connection of the video	Replace the power supply
	Inadequate power supply	Restart the camera
Dome camera out of control	Self test error	Check and reconnect the cables
	Wrong connection of RS485 cable	