SPYCL⊙PS™
SURVEILLANCE SYSTEMS

SPY-PTZWIP2
Pan/Tilt/Zoom Camera
Users Manual

WARNINGS AND CAUTIONS

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECTS THROUGH VENTILATION GRILLS OR OPENINGS ON THE EQUIPMENT.

CAUTION

EXPLANATION OF GRAPHICAL SYMBOLS

The lighting flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user the presence of non-insulated "dangerous voltage" within the product's enclosure that maybe of sufficient magnitude to constitute a risk of electric shock to different persons.

The exclamation point within an equilateral triangle, is intended to alert the user the presence of important operating and maintenance (servicing) instructions in the literature accompanying this product

PRECAUTIONS:

1. Persons without technical qualifications should not attempt to operate this dome device before reading this manual thoroughly.

2. Remove any power to the dome before attempting any operations or adjustments inside the dome cover to avoid potential damage to the mechanism.

3. Inside the dome cover there are precision optical and electrical devices. Heavy pressure, shock and other sudden adjustments or operations should be avoided. Otherwise, you may cause irreparable damage to the product.

4. Please DO NOT remove or disassemble any internal parts of the video camera to avoid normal operation and possibly void the warranty. There are no serviceable parts inside the camera.

5. All electrical connections to the dome should be made in strict accordance with the attached labels and wiring instructions in this manual. Failure to do so may damage the dome beyond repair and void the warranty.

6. For outdoor installation especially in high places or poles, it is highly recommended that the proper lightning arrestors and surge suppressors are installed before the dome is entered into service.

7. Please do not use the product under circumstances where the limits exceed the maximum specified temperature, humidity or power supply specifications.

8. First please set the network data after login. The gateway address is the one to connect the IP camera.

9. IP address should be different from other devices' IP address. Otherwise, video is not available.

IMPORTANT SAFEGUARDS

1. Read these instructions before attempting installation or operation of dome device.

2. Keep these instructions for future reference.

3. Heed all warnings and adhere to electrical specifications follow all instructions.

4. Clean only with non abrasive dry cotton cloth, lint free and approved acrylic cleaners.

5. Should the lens of the camera become dirty, use special lens cleaning cloth and solution to properly clean it.

6. Do not block any ventilation openings. Install in accordance with manufacturer's instructions.

7. Use only attachments or accessories specified by the manufacturer.

8. Verify that the surface you are planning to use for attaching the dome can adequately support the weight of the device and mounting hardware.

9. Protect this device against lighting storms with proper power supplies.

10. Refer all servicing to qualified service personnel. Servicing is required when the device has been damaged in any way, when liquid traces are present, or the presence of loose objects is evident or if the device does not function properly, or has received sever impact or has been dropped accidentally.

11. Indoor dome is for indoor use only and not suitable for outdoor or high humidity locations. Do not use this product under circumstances exceeding specified temperature and humidity ratings.

12. Avoid pointing the camera directly to the sun or other extremely bright objects for prolonged period of time avoiding the risk of permanent damages to the imaging sensor.

13. The attached instructions are for use by qualified personnel only. To reduce the risks of electric shock do not perform any servicing other than contained in the operating instructions unless you are qualified to do so.

14. During usage, user should abide by all electrical safety standards and adhere to electrical specifications for the operation of the dome.

15. Use supplied power supply transformer only.

INDEX

* Indicates the functions with default protocol, it might not function by using other protocols

※ Indicates the optional functions, only with certain mode

1 Product Introduction

1.1 Package Contents

IP IR Speed dome   1pc

Wall mount bracket   1pc

Power supply   1pc

Screws kits   1pc

User manual   1pc

CD (with CMS etc.)   1pc

1.2 Specification

Image Sensor	1/3" CMOS
Preview video resolution	1920×1080 /1280×720
Mini Illumination	0.05Lux/F1.6(Color),0Lux(IR on)
Signal Noise Ratio	>50dB
Focus	Auto/Manual
D/N	IR-Cut
F-Stop	F1.6(color),F2.8(IR on),Auto
Close-up	INF(Color),1000mm(Far)
Horizontal Rotation Range & Speed	Range:360° ,Speed:0.3~200°/s
Tilt Rotation Range & Speed	Range:90° ,Speed:0.5~120°/s
Go to Preset Speed	Horizontal:200°/s,Tilt:120°/s
Guard Tours	4 groups, Max.64 points/Group
Presets	256
Power off Memory	Support
Video output	RJ45 10/100M Ethernet
Mini Delay Time	0.18s
Frame rate	60Hz:30fps(1920×1080/432×240) 60Hz:30fps(1280×720/432×240)
Compressed Image Format	H.264/MPEG-4
Communication Protocol	TCP，UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP
Compressed Image Rate	500Kbps~7Mbps

Power	DC 12V-4A / AC 24V-3A
Back End Record Mode	PDVR, PC, Megapixel HD system card, NVR,IP-SAN
Power Consumption	≤ 20W
Operating Temperature	Indoor: 0°~ +40° Outdoor: -40°~ +60°
Operating Humidity	10~85% Non Condensing
Weight	4~8kg
Protection	IP66,Transient voltage 6000V

1.3 Performance Features

Cloudwatch	PTZ	H.264 Compression	CCD
Voice Interm	BLC	White Balance	AGC
Motion Detection	Support TF Card	Mobile Monitor	Auto Iris
Support Docking	Analog Output	ONVIF	720P 1080P Encoding Resolution

✧ Use high performance 1/3" CMOS, great low light performance.

✧ Support high definition resolution 1280x720P / 1920×1080P.

✧ 10x optical zoom.

✧ IR distance reach up to 50m.

✧ Dual-stream output.

✧ Support ONVIF protocol.

1.4 Function Description

Alarm Linkage

Intelligent dome camera supports 1 output and 1 input. When the dome camera has detected the alarm closed signal, it will run the preset action which can be one of the calling preset points or no action.

Auto-adaptive to Protocol and Module

The dome can auto-adaptive to the multi protocol and most of the module without changing the DIP switch.

3D Allocation

With this function users can move the image of some area to the center of screen according to specified level and vertical coordinates and auto control to zoom according to zoom parameter set. Screen coordinate location and zoom local can be available via the software support.

Pattern

The traces of camera's any running action in every directions of PTZ can be saved, which is called pattern scan. In pattern scan the camera turning to up, down, left and right and zooming in or out can be saved. This function remembers and imitates a process of operator's operation.

This dome camera has 4 path patterns. Each path can record 512 different instructions or the longest 15mins' path operation. Opening any one of the paths can remember automatically the present running trace and scan cyclically according to the recorded trace. This function is not applied for each model.

Zero Alignment

There is a point specified as zero point. When the dome is working, the preset point is not accurate caused by the operator. User can make the dome automatically enable the zero alignment by operational order.

Auto Flip

In the manual scanning mode, when beyond the maximum angle in tilt and if the joystick is held continuing in tilt direction, the dome will automatically rotate 180 degree in horizontal direction to maintain continuity of scanning. So vertical 180° continuous monitoring comes true.

Focus

The auto focus enables the camera to focus automatically to maintain clear image. Under the following conditions camera will not auto focus on the camera target:

(1) Target is not in the center of the screen;

(2) Attempting to view images that are far and near at the same time;

(3) Target is strongly lighted object, such as neon lamp, etc;

(4) Targets are behind the glass covered with water droplets or dust;

(5) Targets are moving quickly;

(6) Monotonous large area targets, such as wall;

(7) Targets are too dark or faint.

BLC (Back Light Compensation)

If the light of background is bright, the target in the picture may appear dark or as a shadow. BLC enhances exposure of the target in the center of the picture. The dome adjusts the iris according to the center of the pictures. 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 target in the sensitive area will be properly exposed.

Iris Control

Factory default is automatic camera aperture, in mode of which camera senses changes in ambient light through moving and adjust automatically lens aperture to make the brightness of output image stable.

Ratio Speed

Intelligent pan and tilt speed is variable depend on the zoom factor. When zooming in, the speed will become slower and when zooming out, the speed will become faster.

360 Scan

Dome 360°clockwise continuously scans the display scene at set speed in horizontal direction under the condition that pitch angle remains the same. In the scanning status, operator can move the joystick to exit from scanning.

Preset

After the dome camera keeps arbitrary PTZ location, it will automatically move to the defined position when preset is called.

Guard Tour Scan

Dome patrol scans according to certain edited preset order.

A-B Scan

The dome operates reciprocating scanning the real scenarios at a certain speed between the set left and right points. The range of left and right points boundary is 20° - 340°.

Power Off Memory

This feature allows the dome to resume its previous preset or status after power is restored. By default setting, the dome support power up memory, which improves the reliability and avoids repeated settings of the parameter.

Park Action

If users don't operate the dome in set time, it will automatically run preset specific mode (pan scan, A-B scan, park action, cruise, preserve action etc.).

Return to PTZ Function

Return dome's pan and tilt and camera zoom value to the control device.

Temperature Inspection Function

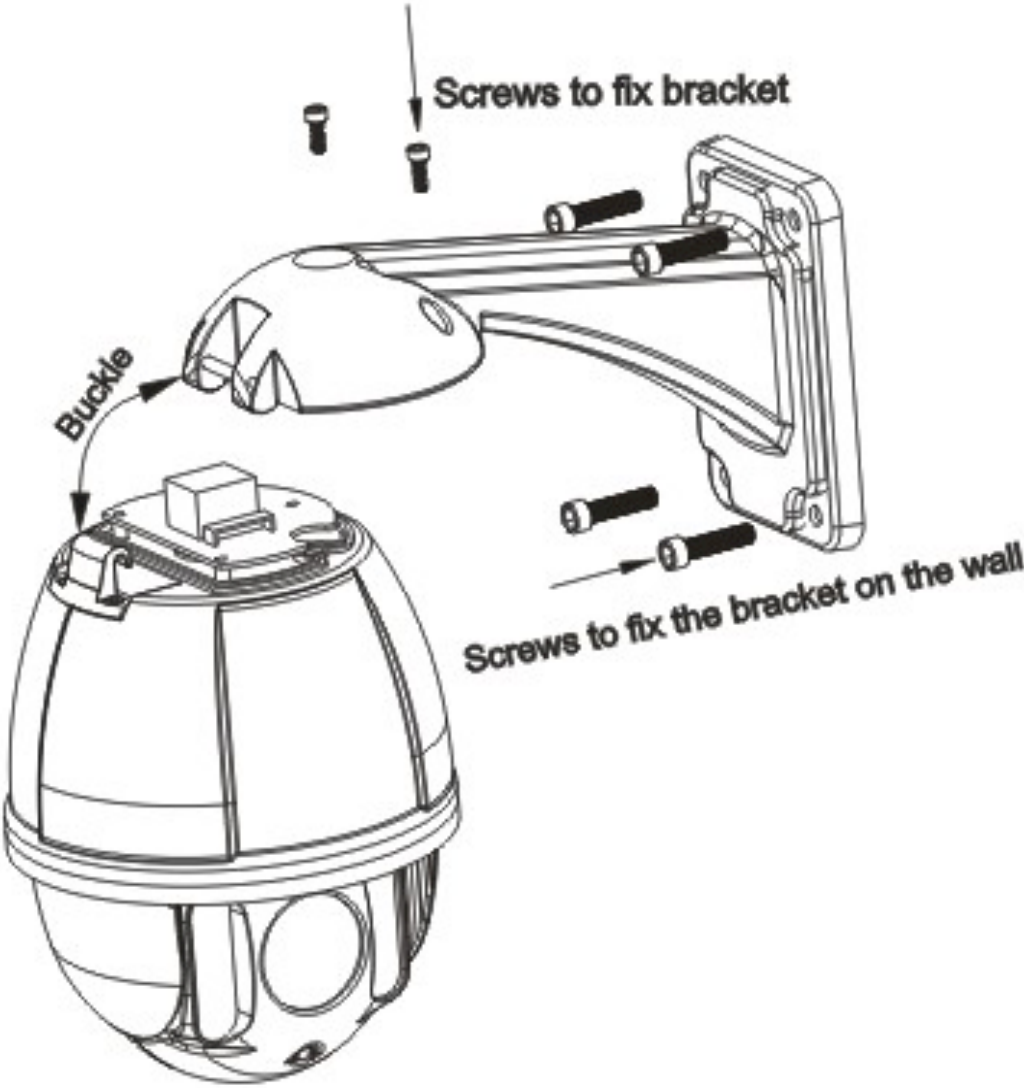It can inspect the inner temperature of dome while dome runs, and be able to manage the temperature well.

2 Installation

2.1 Dimension

Bracket Installation

2.2 Installation

Screws to fix bracket

Buckle

Screws to fix the bracket on the wall
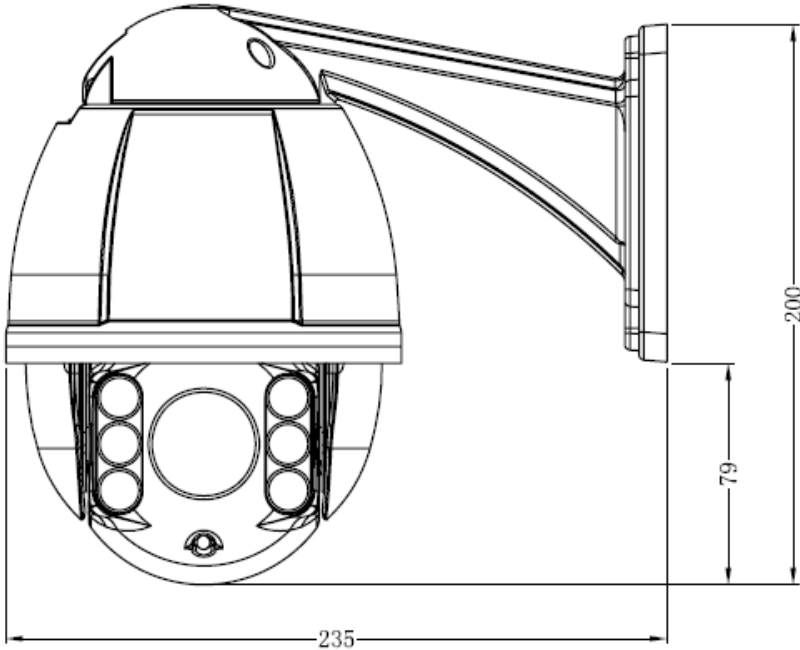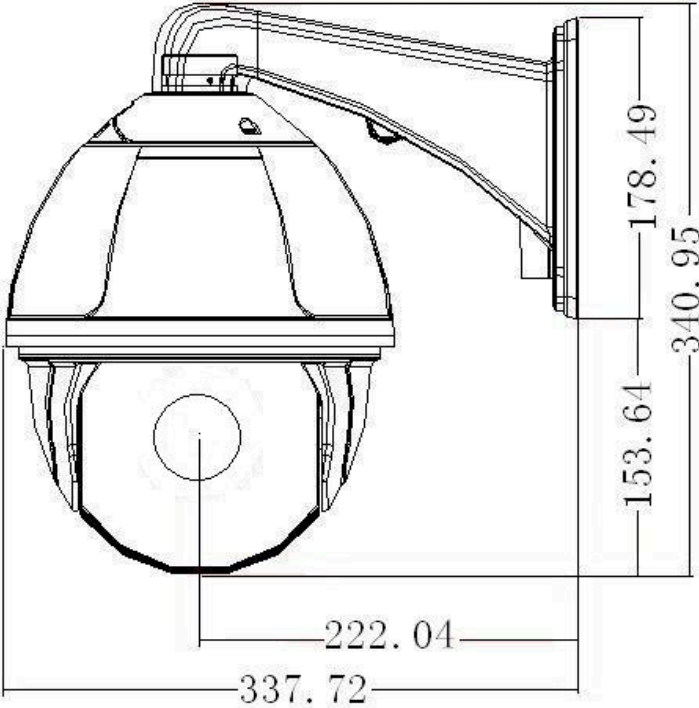
2.2.1 Wall Mounted

Installation conditions:

Wall mounted dome can be used in the hard wall structure whose thickness should be enough to install expansion bolt in indoor and outdoor environment. The wall can bear at least 4 times the weight of the dome. Install wall hanging bracket:

a. As shown in fig 2.3, with the installation holes in the underside of the wall hanging bracket as pattern, draw punched locations and punch.
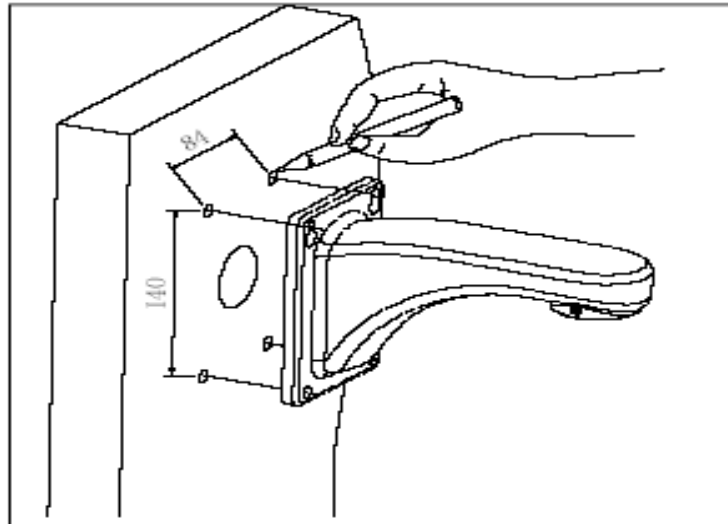
Fig 2.3

b. As shown in fig 2.4, fix the wall hanging bracket on the wall with wire and cable through it.
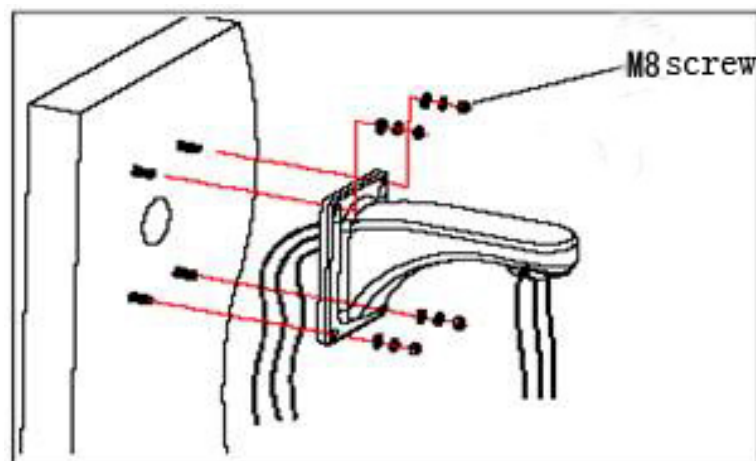
Fig 2.4

2.3 Connection

2.3.1 PTZ Connection Way

Before connecting, please turn off the power and read carefully the instructions of all connected devices.
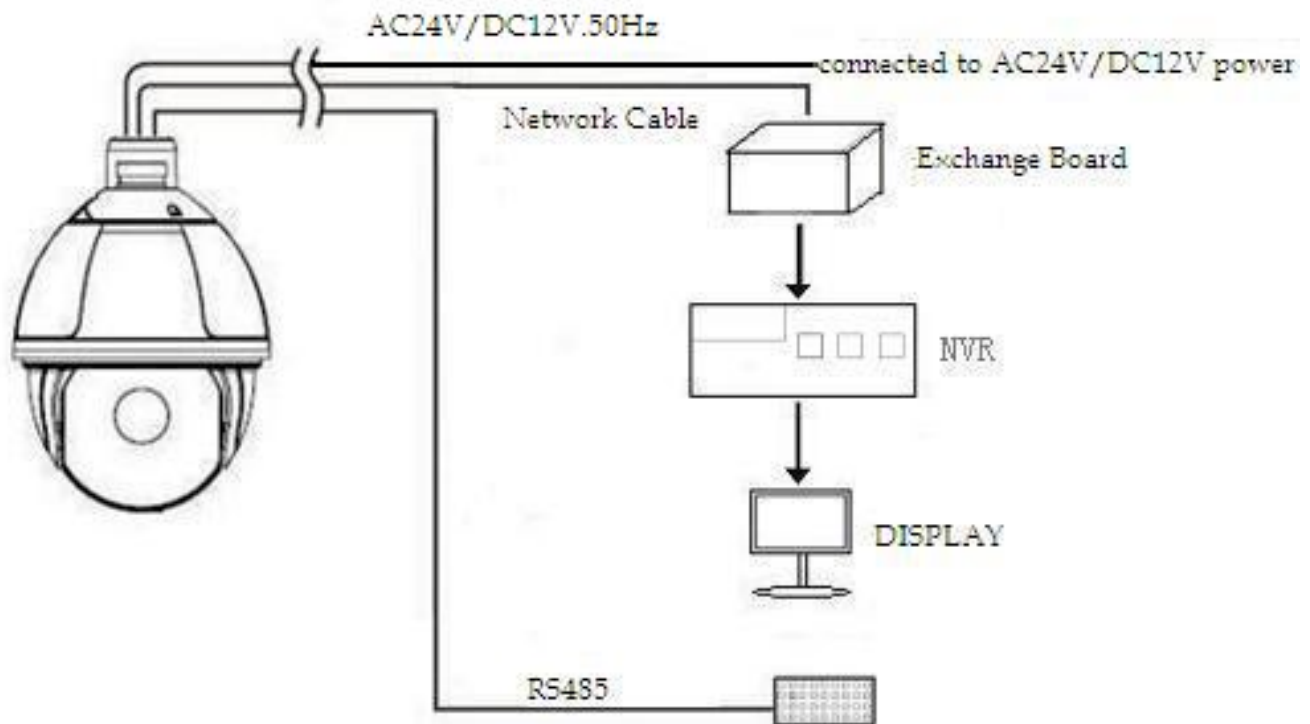
2.3.2 Connecting the Device

The device can be directly connected to the computer and the network;

Please use the cross-over cable when connecting to the computer;

Please use the straight through cable when connecting to the network.

Note: Please check the power cables are solid or not when connecting the power supply.

2.3.3 Setting the IE Browser

User can browse the video through IE, HVMS or other software, while ActiveX is required to

install. Otherwise, video is not available. And, user is supposed to set the IE security level before downloading the plug-in .

1. From menu, click "tool", then choose "Internet options".

2. Then click "Security" as the follows:
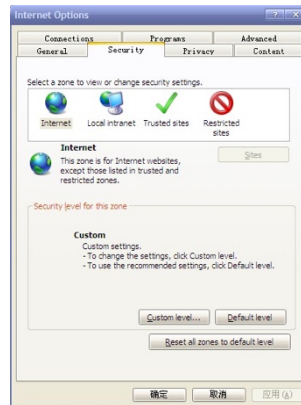
Fig 2.13

3. Choose internet icon, click "Customs level". Then the follow pops up:
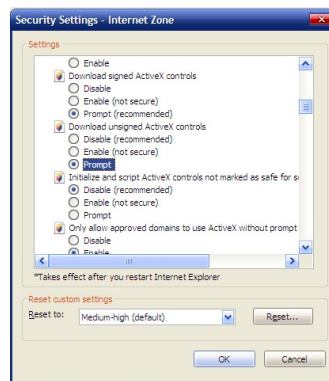
Fig 2.14

4. Change option "Download unsigned ActiveX controls" into "Enable" or "Prompt". User can optionally change "Running ActiveX controls and plug-in" into "Start" to avoid the prompt of running.

2.3.4 Install Video Software

Please take the tips as follows when installing the software of the IP camera:

(1) Download controls

First, please login to the system with IPC's default ID and password as a super user. After that,

you will get the following prompt whether to install ActiveX controls. Please rightly click "loading procedure" if your system is XP.

(2) Install and run controls

 Please click "Run" in the prompt box above, and the controls are to be installed to run. After that, you are able to view the video in real time.

Note:

1. The steps above are not sequential. After operating (1) and (2), if not successful, then please try the website downloading method.

2. If your computer system is Microsoft Windows 2003 and you're unable to view the video after installing the controls, please start the computer's hardware acceleration.

Above all is the preparation work for the video browsing on IE.

2.4 Login IE Interface

When the system starts up for 110 seconds, please open the IE browser, input the IP camera address. The default IP is http://192.168.1.110 (Note: System default subnet mask is 255.255.255.0; default gateway is 192.168.1.110. Please correctly set the local IP address before login and access.)

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

C:\Users\ASUS>ping 192.168.1.110

Pinging 192.168.1.110 with 32 bytes of data:
Reply from 192.168.1.110: bytes=32 time=1ms TTL=64
Reply from 192.168.1.110: bytes=32 time<1ms TTL=64
Reply from 192.168.1.110: bytes=32 time<1ms TTL=64
Reply from 192.168.1.110: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.1.110:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Users\ASUS>
```

The language for login interface is consistent with the operation system.

Fig 2.15

If it is the first time you run the software, please login as a super user. The system default
user name is admin (password is admin); input the correct user name and password, and click
"login". During login, if you would like to reset the username and password, please click
"Cancel" to clear the blank. After login, you will enter the following interface:
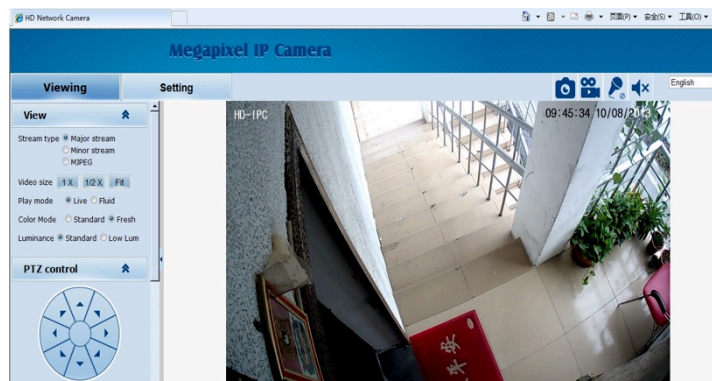
Fig 2.16

The IP Camera supports H.264/MJPEG dual encoding format. After login, you will enter the
real time video interface in the format of H.264 compression. User can click "MJPEG" button,
and enter the real time video in the format of MJPEG . Please refer to picture as following:
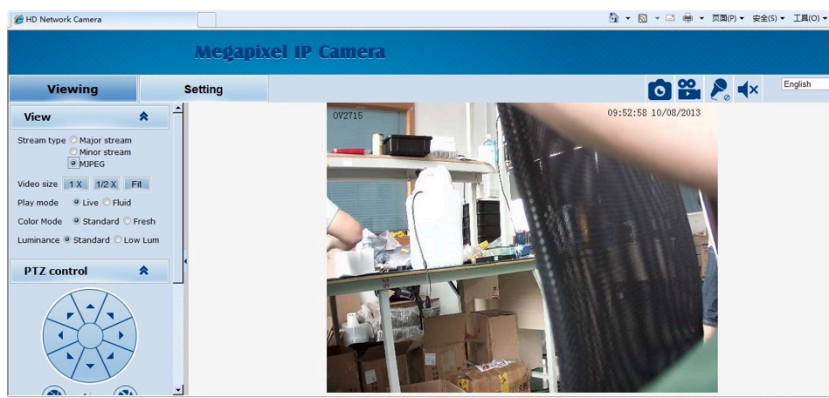
Fig 2.17

2.5 Browser

In the browsing interface, you can set video browse, PTZ control, commonly used shortcuts (like photography, recording, audio input, audio output, Chinese-English conversion, etc.) to get the satisfying video.

2.5.1 Video Browsing

Video Browsing: For camera capture display setting, you can set the video type, video size, play mode, image color and illumination. On the browsing interface, you can click "video browsing" to enter system setting interface. Here is the picture:

Fig 2.18

Set the video in the menu above:

Video Type: H.264 main stream, H.264 deputy stream, MJPEG.

Video Size: screen original size 1*, original size *1/2, adaptive.

Play mode: real time, smooth.

Image Color: standard, vivid

Illumination: Standard, low light

2.5.2 PTZ Control

PTZ control: Adjust the rotation in all directions, set horizontal speed, vertical speed. The picture is as follows:
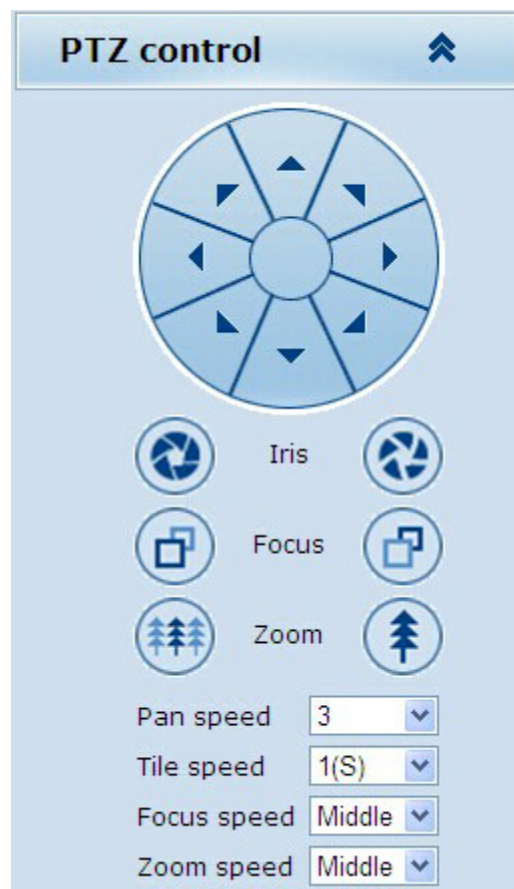
Fig 2.19

PTZ direction: adjust the PTZ's eight directions.
Horizontal speed: 1 — 8 optional
Vertical speed: 1 — 8 optional

2.5.3 PTZ Function

PTZ functions: preset, auto pan, pattern, tour.
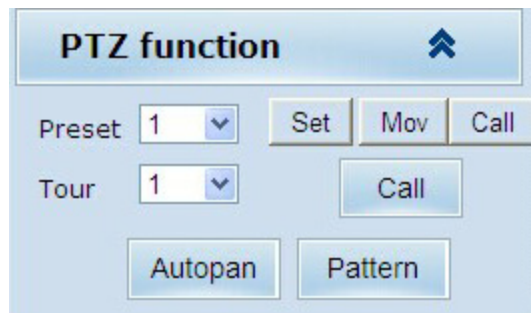
Fig 2.20

2.5.4 Common Shortcuts

Common shortcuts: photograph, record, audio input, audio output, Chinese-English conversion.

Fig 2.21

Frequently set common functions of the IP cameras. The storage path of photographing and recording complies with the one from setting .

The snapshots are stored in the name of IP address and time of the device. For example, the file name is 20140520_221325_125_01_192.168.1.110.jpg, which means the device's IP address is 192.168.1.110 and snapshot's time is at 22:13:25:125 on May 20th 2014.

2.6 Setting

Setting: detailed setting of system, network, IPC, audio & video, PTZ functions, alarm, user, blog.
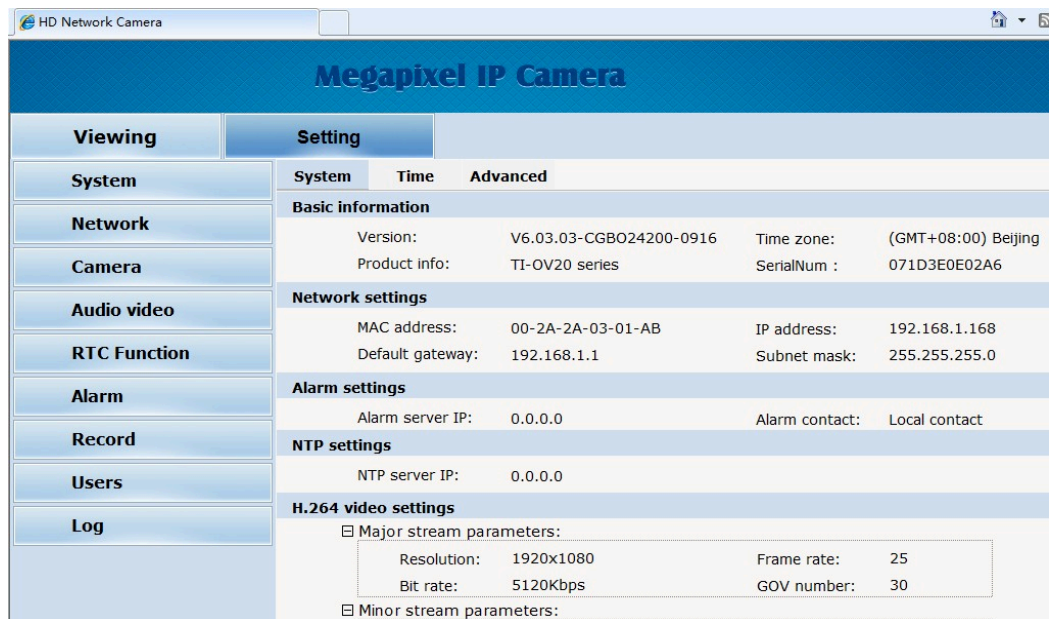
Fig 2.22

2.6.1 System

System: upgrade the system info, time and maintenance.

System info: The initial interface of system setting is the display interface of system info. User can learn more about the setting info, like basic info, network parameter alarm setting, NTP setting, H.264 video parameter setting, MJPEG video parameter setting.
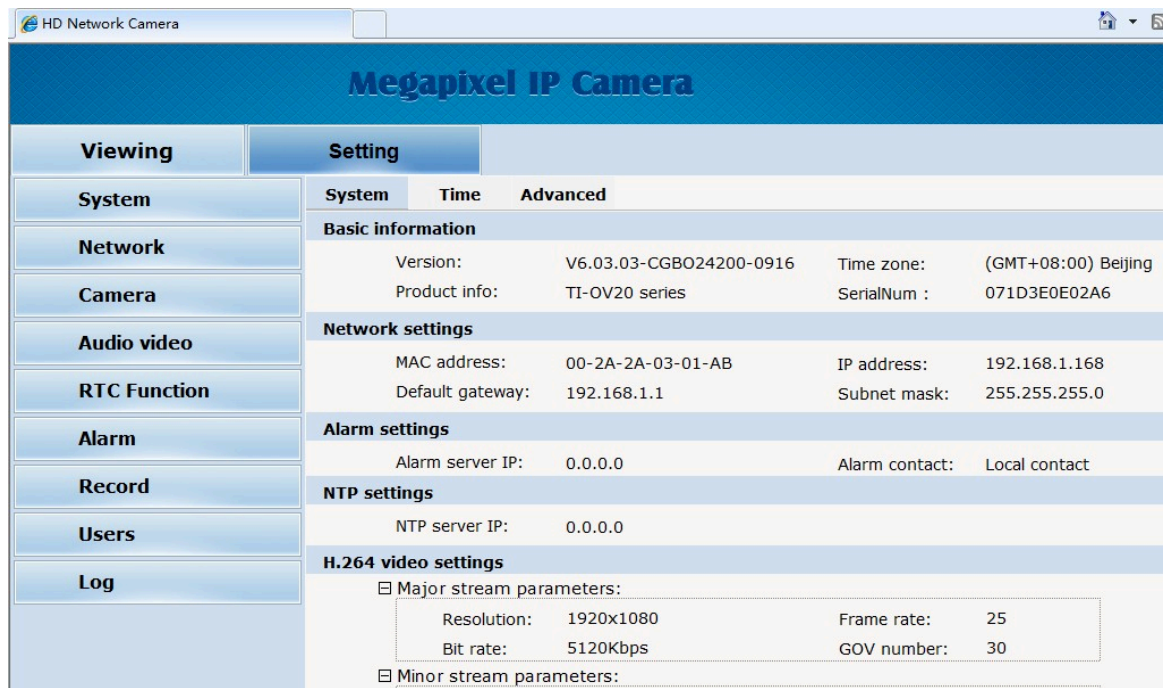
Fig 2.23

Basic Info: The IPC's version number, time zone, product series, serial number.

Network parameter: MAC address, IP address, default gateway, subnet mask.

Alarm setting: Alarm server IP, alarm correlation.

NTP setting: NTP server IP.

H.264 video parameter: main stream/sub stream resolution, frame rate, bit rate, I/P rate.

MJPEG parameter setting: resolution, frame rate.

Time: time zone setting, NTZ setting, real-time synchronization parameter setting.

Fig 2.24

Time zone setting: select your time zone from the drop down list, click "setting" and it's done. 26pcs time zones are optional for setting, range "GMT-12:00~GMT~GMT+13:00". Of all, GMT+08:00 is China Beijing time. The default setting is GMT standard time. If your local time is daylight saving time, please click "automatically adjust clock for daylight saving changes" option. NTP setting: set NTP server IP is the same with the device's IP address. Synchronization time: set the time for synchronization. Synchronization time intervals: every a time period (6--12—24) for time synchronization.

Real-time synchronization: Synchronize the time of the device. You can choose NTP or local synchronization.

The device's time: display existing time.

Local PC time: error correct the system time and local pc time. Click "setting" button to synchronize.

NTP Synchronization: whether to start NTP service. Select to start NTP service, otherwise do not select. If NTP service starts, you can input NTP server address in the IP field, and click "setting" button. After NTP is activated, the system corrects the time with NTP automatically.

Local synchronization: set camera time to synchronize local PC.

Maintenance: contains upgrading the device's software, restoring factory settings and restarting the system.

Fig 2.25

Software upgrade: The IP camera's network service system can enjoy free remote software upgrade, which reduces the cost of system maintenance.

First, user can remotely submit system upgrade request via internet. According to user's submission, we'll send the device's relative edition upgrade for confirmation, and provide the latest software downloading, helping upgrade the IP Camera. User can upgrade the system as the following steps:

Click "Browsing" icon, and select IFU upgrade file and upload it.

Please restart the device after upgrading.

Restore factory setting: The device's network system provides online resetting functions, through which all system settings can be restored to factory default. It is a great convenient to the clients. If you select to keep the IP address, it is the existing address; while if you cancel it, it will be restored to factory default address: 192.168.1.110.

System restart: click "restart" button, the system restarts. The time is around 80 seconds. After that, the webpage is closed.

2.6.2 Network

Network: The device's relevant network parameter setting, including Network、FTP、

SMTP/HTTPS、802.1X、QoS、IGMP、SIP、DDNS、PORT.
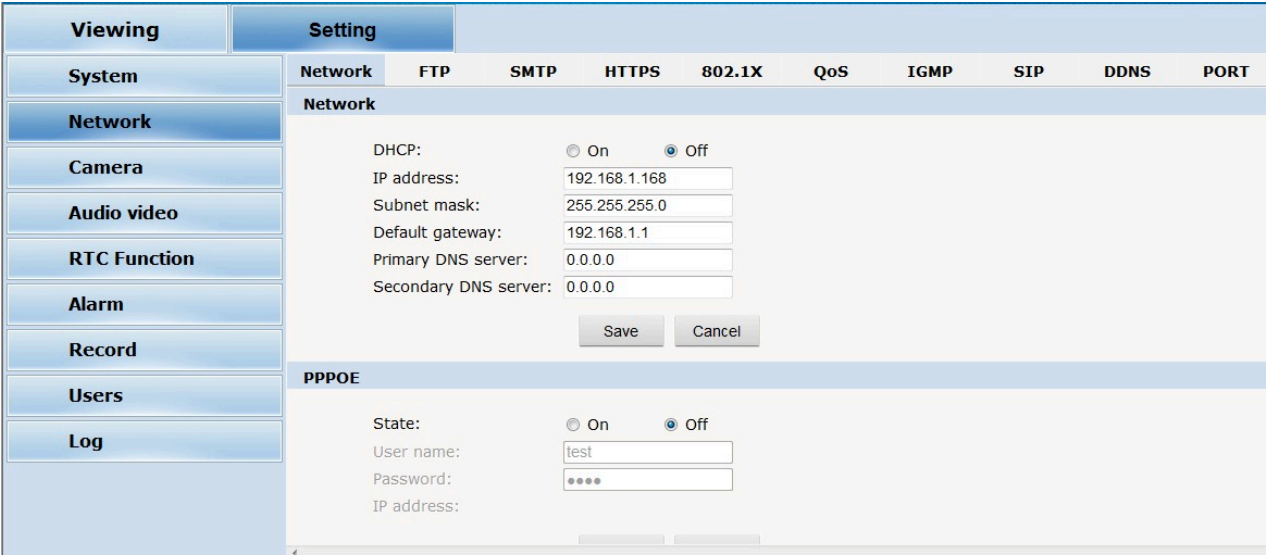
Fig 2.26

Network: setting of the device's network parameter.
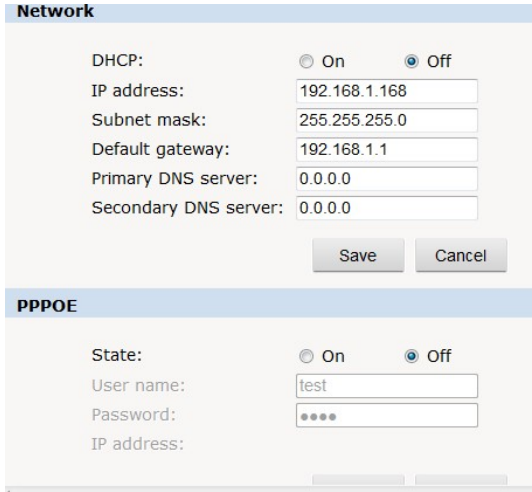
Fig 2.27

DHCP: Dynamic Host Configuration Protocol, one of TCP/IP, mainly allocating dynamic IP address for network clients. Select "on", the camera's IP address and the subnet mask cannot be modified, but automatically allocated by the host. Select "off", you're supposed to set the network data by yourself and make sure the IP address and gateway address on the same segment.

PPPOE: Through a simple bridging device, the POE host can be connected to a remote access concentrator. User name and password are required to input if you select "on".

FTP: FTP (File Transfer Protocol) is application layer protocol, based on transport layer for client's service. FTP is in charge of transferring files. The IP camera supports FTP photo uploading function on alarming. On FTP interface, set the server address, username and password, activate FTP alarm at alarm setting, the FTP photo uploading can be realized.
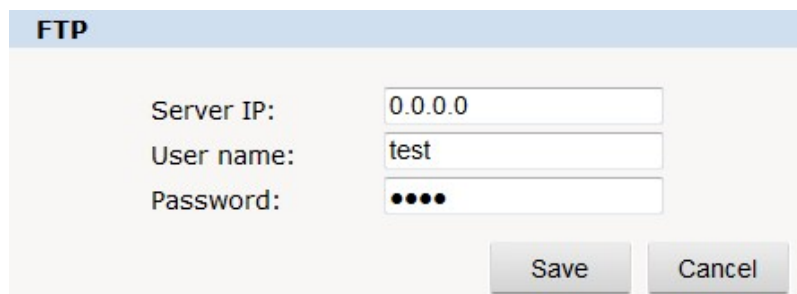
Fig 2.28

SMTP: SMTP belongs to TCP/IP, help to find the next destination for each computer when sending or transiting letters .
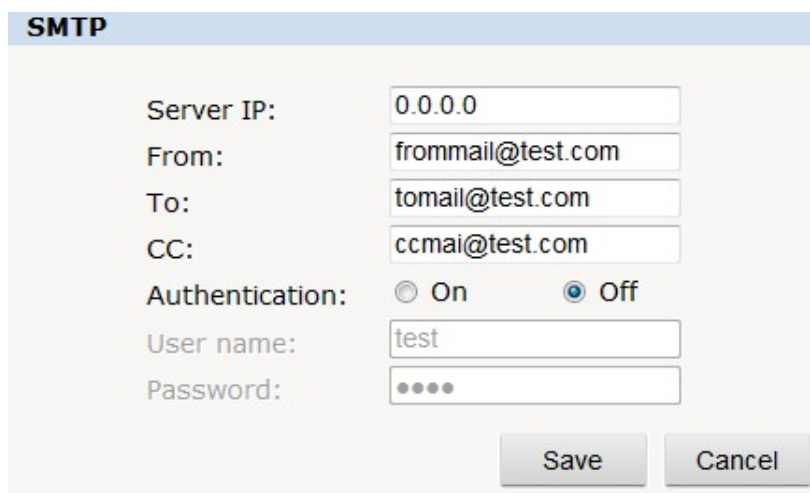
Fig 2.29

✧   Server IP: set up mail server IP.

✧   Sender: set up the email address of the sender.

✧   Authentication: Turn on or off the authentication function via mail server verification.

✧   User name: Sender's name. User can set by itself.

✧ Password: Set sender's password.

✧ TO: Recipient's mail address.

✧ CC: mail's address.

Note: No restrictions for setting username and password.

After setting, please click "set" to effect the setting.

If the user selects "mail" at "Alarm Setting", the system would send emails according to the SMTP setting.
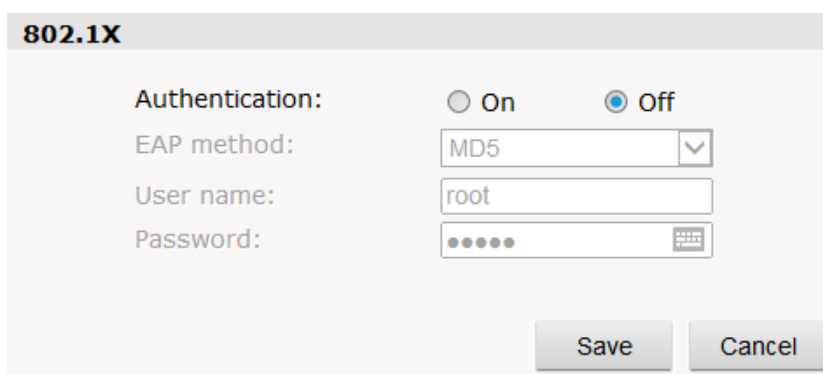
HTTPS: a safe-protection channel, shortly, a secure version of HTTP.

Fig 2.30

802.1X:

Fig 2.31

QoS: Quality of Service, a kind of network secure mechanism, a technology of solving network delay and congestion.

QoS

QoS option: Normal service

Save   Cancel

Fig 2.32
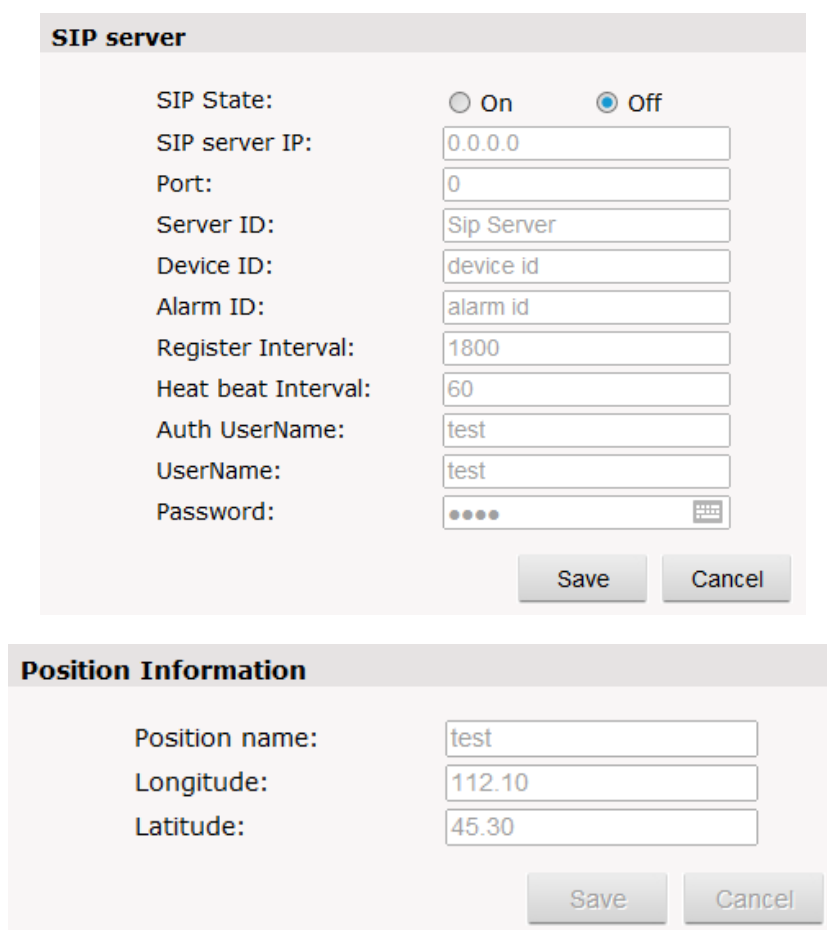
IGMP: It is a multi-cast protocol of internet family, helping IP Host report their membership to the adjacent routers.

IGMP

Stream type: Major Stream

State: ○ On   ⊙ Off

MultiCast IP address: 0.0.0.0

RTP port: 0

Save   Cancel

Fig 2.33
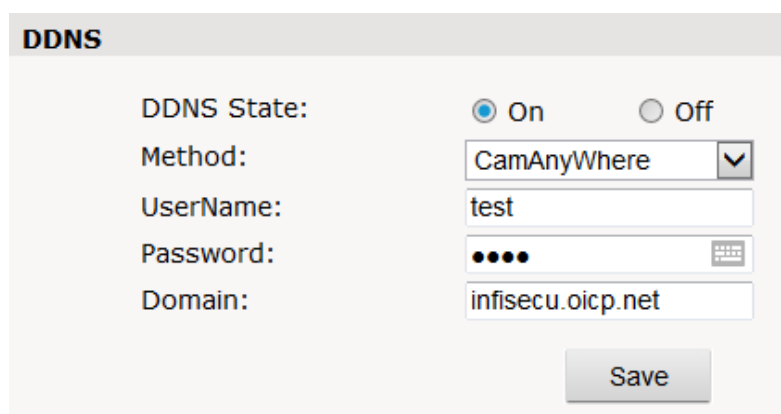
SIP: Session Initiation Protocol is an application layer signal control protocol, creating, modifying and releasing one or multi participants.

SIP server

SIP State:	○ On	◉ Off
SIP server IP:	0.0.0.0	
Port:	0	
Server ID:	Sip Server	
Device ID:	device id	
Alarm ID:	alarm id	
Register Interval:	1800	
Heat beat Interval:	60	
Auth UserName:	test	
UserName:	test	
Password:	••••	

Save   Cancel

Position Information

Position name:	test
Longitude:	112.10
Latitude:	45.30

Save   Cancel

Fig 2.34

DDNS: The user's dynamic IP address is mapped to a fixed domain name resolution service.

When connecting network each time, the client's procedure would pass the host's IP address to the server's procedure which provides DNS service and realize domain name resolution. That is, DDNS captures the changing IP address and corresponds the domain name, which is how other clients communicate.
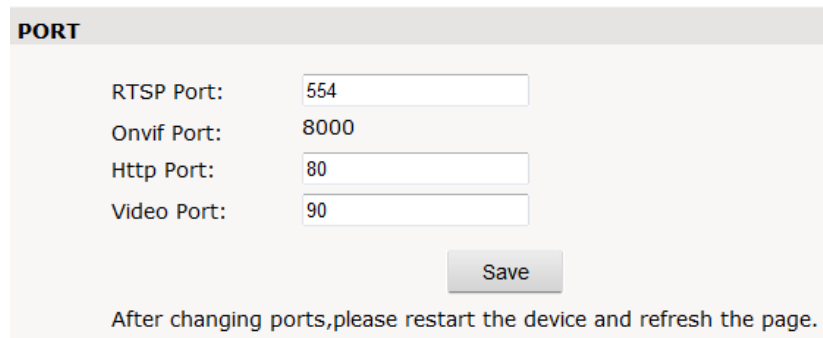
DDNS

DDNS State:	◉ On ○ Off
Method:	CamAnyWhere ▾
UserName:	test
Password:	••••
Domain:	infisecu.oicp.net

Save

Fig 2.35

PORT: an interface, passing data between the computer and other devices (e.g. Printer,

mouse, keyboard, monitors), among network, or other computers in connection.

Fig 2.36

2.6.3 Management Software

This section is very simple, and here is the introduction:

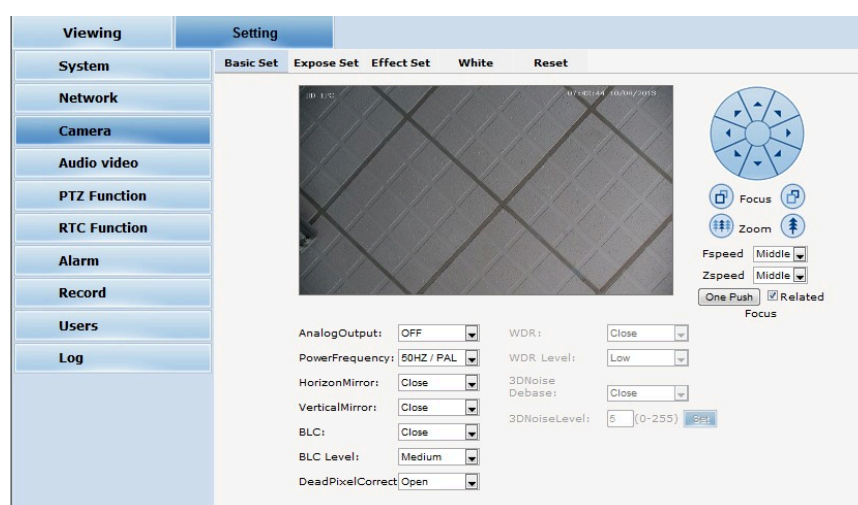Software initial user name is admin, while password is 123456.

After login, you can find "search" button on the top of the interface, and click to search all IP

cameras in the LAN area.

Among all the camera lists found out, tick the ones you want to manage and click "save" on the left upper corner. Then turn off the dialog to enter the interface, and double click the IP camera and you will open the video.

Other relative settings are very simple to set. Please operate by the reference of the interface

prompts.

2.6.4 IP Cameras

IP Cam: setting of the camera parameter, like basic set, expose set, effect set, white and reset.

Fig 2.37

Basic set: on and off setting of camera system, noise, mirror, BLC and other function.
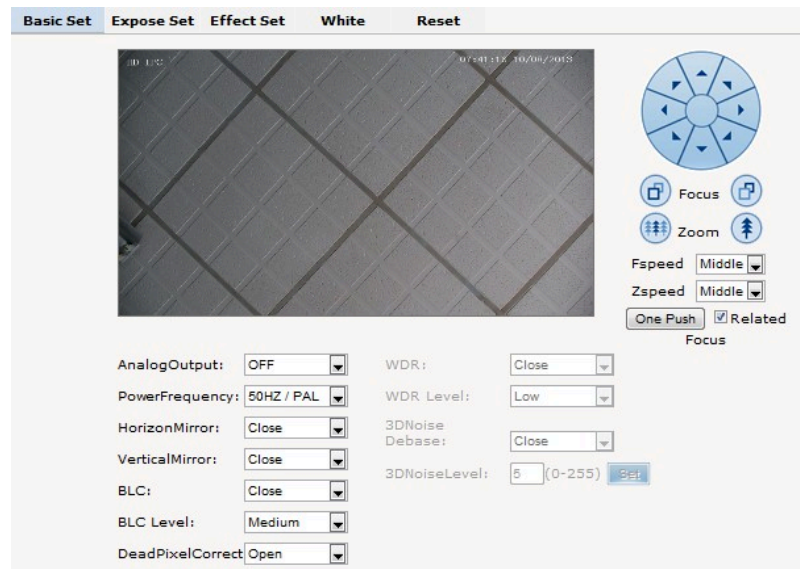

Fig 2.38

Power Frequency: 60HZ domestic use; 50HZ abroad use.

Horizon Mirror: image horizontal mirror display.

Vertical Mirror: image vertical mirror display.

BLC: divided into different zones and each zone expose separately. BLC offers ideal exposure in front of strong back light. There is low, medium and high level optional.

Dead pixel correct: correct the dead pixel.

3D Noise debase: compare the images before and after setting, process and find out the noise positions and use AGC. 3D noise debase function would reduce the weak image signal interference. Expose set: expose mode, Color to Black, Scene select, and AGC setting.
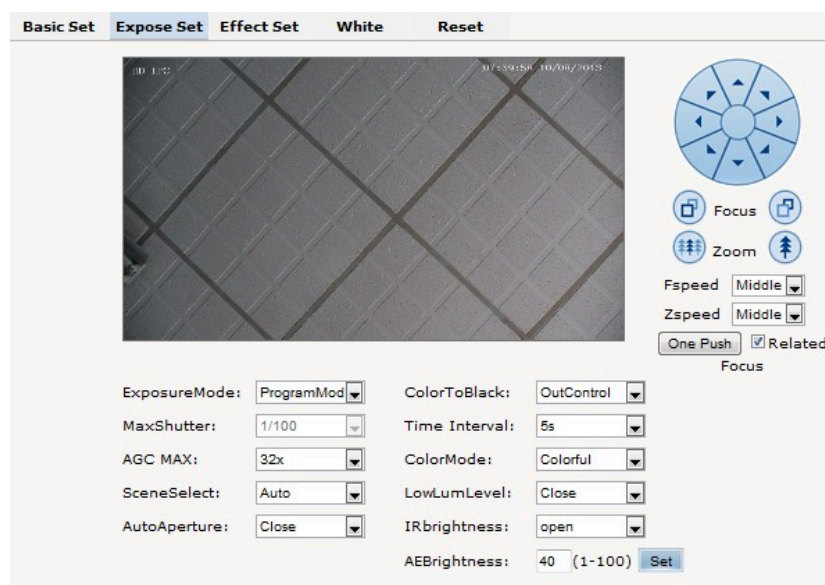

Fig 2.39

Expose set: program mode, for normal video mode; shutter mode, for fast moving objects.

Scene Select: Indoor, eliminate indoor lighting flash; Outdoor, eliminate outdoor overexposure.

Maximum Gain: A kind of control method of automatically adjusting amplifier circuit with signal intensity. The higher the gain is, the brighter the evening image becomes. You can adjust the image according to the real requirement. Higher gain dims the image.

Auto Iris: Auto Iris is the use of the signal feedback to drive the aperture. Adjust the motor quickly and flexibly to expand or shrink the aperture, which actually adjusts the aperture automatically. Bigger aperture at darkness and smaller one at brightness. Color to Black/white: Auto switch, control Color to B/W according to the camera video capture lighting;

External Control Color to B/W control by CDS of IR led.

Fixed Color, fixed B/W, commonly unused.

Effect Set: setting of image sharpness, brightness, contrast, saturation.
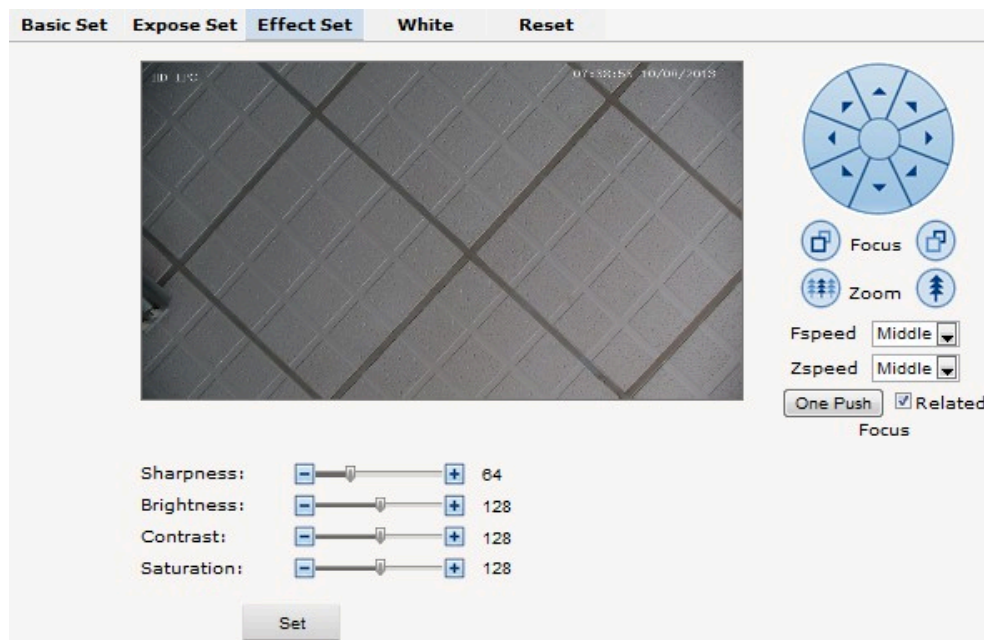

Fig 2.40

Sharpness: also called "resolution", which reflects the image plane clarity and edge sharpness. Adjust the sharpness higher, the contrast details on the plane image become higher and then the image looks much clear. If the sharpness is set too high, white trim lines would appear next to both black lines and you will get distorted glare image.

Brightness: unit projected area of brightness intensity would bring the overall brightness of the image. Over higher brightness would cause the insufficient permeability.

Contrast: It is critical to the image effect. Generally, the higher the contrast is, the more clear vivid the image becomes; small contrast brings grey screen quality.

Saturation: refers to the vividness of the color, also known as the purity of the color. The higher the color content is, while the larger the saturation is; the higher the achromatic color is, while the smaller the saturation is.

White Balance: Balance the white. Regardless of any light, the white objects would return to white color.
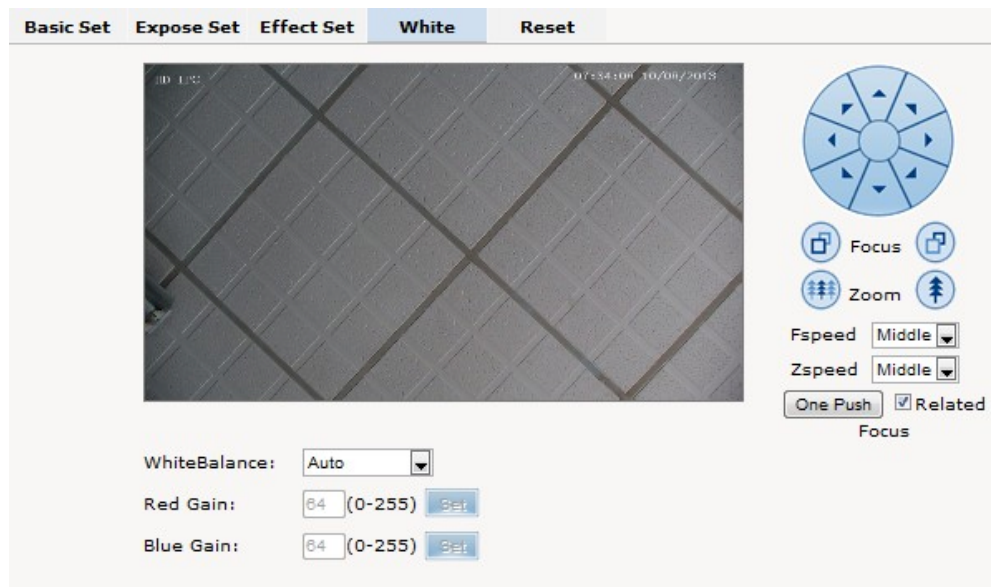

Fig 2.41

White Balance: auto, cloudy, Day (D65), Day (50), Fluorescent Light, Filament Lamp, Sun Up, Manual.

Reset: fix the camera data. Click "Reset" to return to factory default.
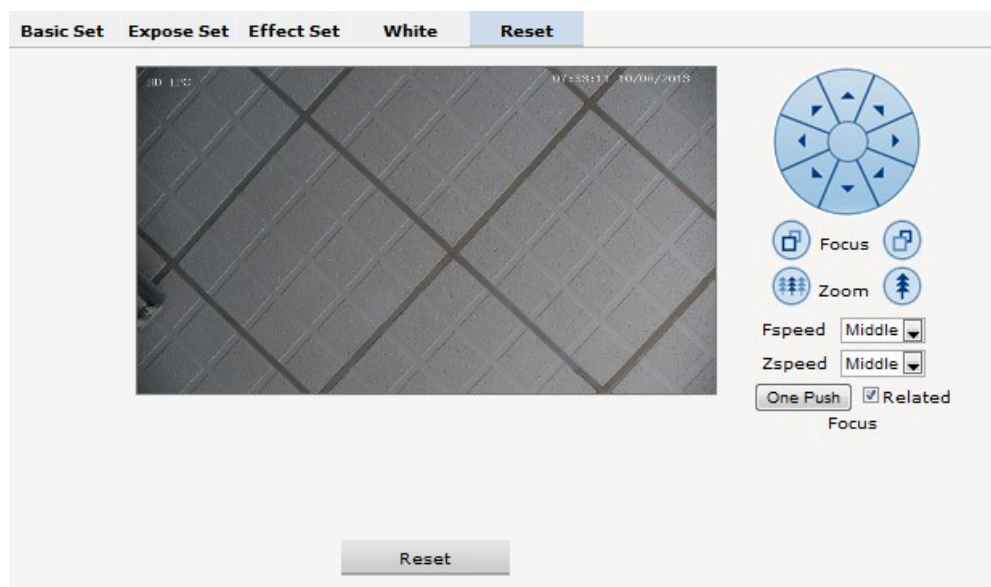

Fig 2.42

2.6.5 Audio & Video

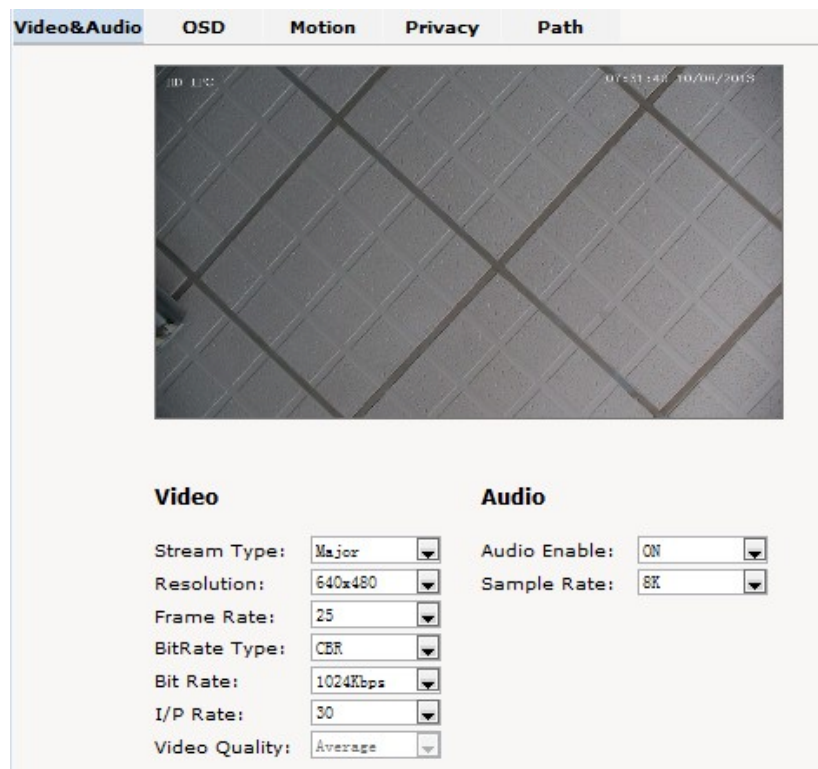**Audio & Video**: setting of camera audio, video, OSD, and path.

Fig 2.43

Stream type: Main Stream, Minor Stream, MJPEG.

Resolution: 1920*1080, 1280*1024, 1280*960, 1280*720, 640*480.

Frame: the number of IP Cam's processing compressed frames. If the number of the frame is set bigger, the image would become more continuity, but it reduces the performance of CPU processing other events. If the frame rate is set smaller, the continuity get worse, but CPU could

process more other events. Recommendation: NTSC system: 30; PAL: 25.

Bit rate type: VBR — constant image quality, normal use when the bandwidth is sufficient.

CBR — image transmission with fixed bandwidth.

Bit rate: 512K, 1024K, 2048K, 3072K, 4096K, 5120K, 6144K. The bit rate is higher, the footprint

is bigger, while the image is better. 720P/2M 1080P/4M are commonly used. I/P rate: the

contrast of I frame and P frame. The bigger the ratio is, the data is smaller. Recommendation: set 15.

Text Overlay: Text, time, date can be displayed on the screen. XY 2 dimension stands for position.
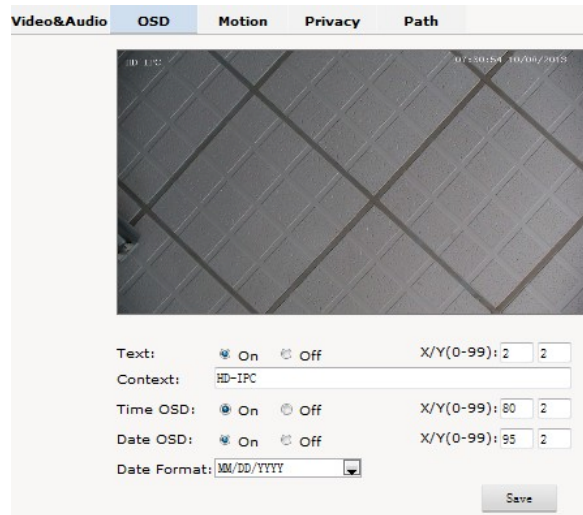

Fig 2.44

OSD setting includes: text OSD, date OSD and time OSD.

Text OSD: set the subject and position. Choose On or Off to display the text or not.

Input the content in the form after the text, where 24 characters can be displayed. X and Y coordinate is based on the zero coordinate on the upper left corner of the image. X and Y coordinate can be set to an integer between 0 to 99.

After setting the text content and coordinate, click display and the following setting. Then the text would appear on the real live video. If you want to cancel it, please tick off the option and choose setting.

Date OSD: set date, position, ON or OFF of the date display.

Time OSD: set the position of time display, ON or OFF of the time display.

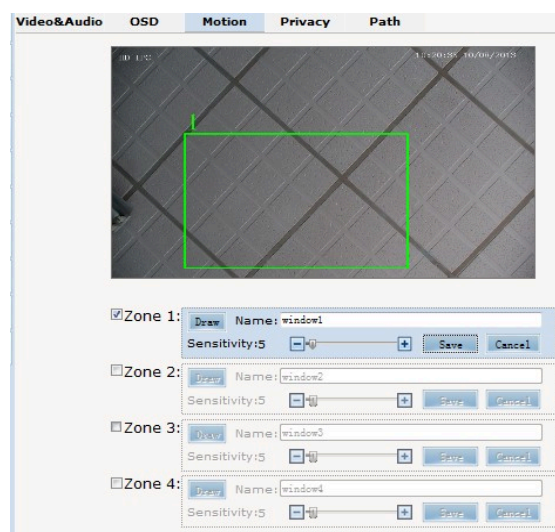**Motion Detection:** commonly used in unmanned video and alarm.

Fig 2.45

【Sensitivity】: Setting motion detection sensitivity. The sensitivity can be set from 1 to 100.

The smaller the number is, the higher the sensitivity is. Recommendation: 15.

【Zone】: You can set 4 motion detection zones. Each of them can be drawn and set with a mouse. When the set zone detects motion, the alarm is triggered and the log is recorded.

【Motion detection switch】: You can set or cancel motion detection alarm.

Note: With detection alarm on and 5 seconds thereafter, the zone begins to detect the motion.

Privacy Zone: setting the privacy zone of the camera. This zone can not move . It is available if PTZ is in a fixed place.
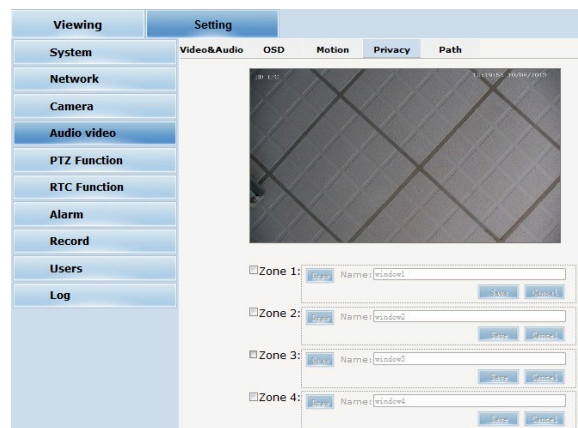

Fig 2.46

IP Cameras support privacy zone function. When a special zone is not allowed to be seen by the operator, you can use this function. Through MASK setting, the specific zone is covered and the operator cannot see the video of the zone.

【Zone】: You can set 4 privacy zones. Each of them can be drawn and set with a mouse.

Select save and the zone is covered. You can set the coordination of the privacy zone as well and click save to effect immediately.

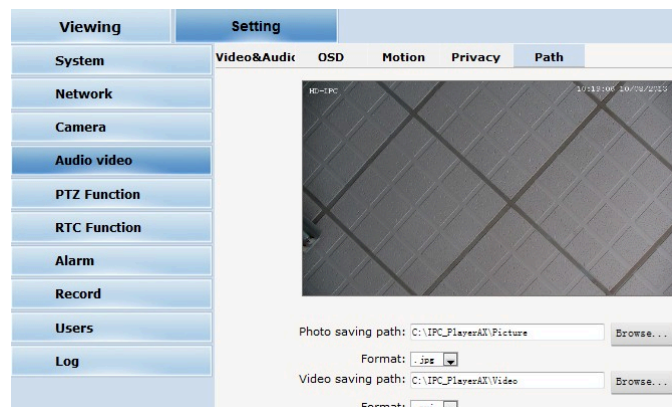Path: storage path of IE recording and snapshot.

Fig 2.47

The default is C drive control folder. Click browse to re-select the storage path. For the type of the file, photos is jpg/bmp and video is avi/ifv.

2.6.6 PTZ Function

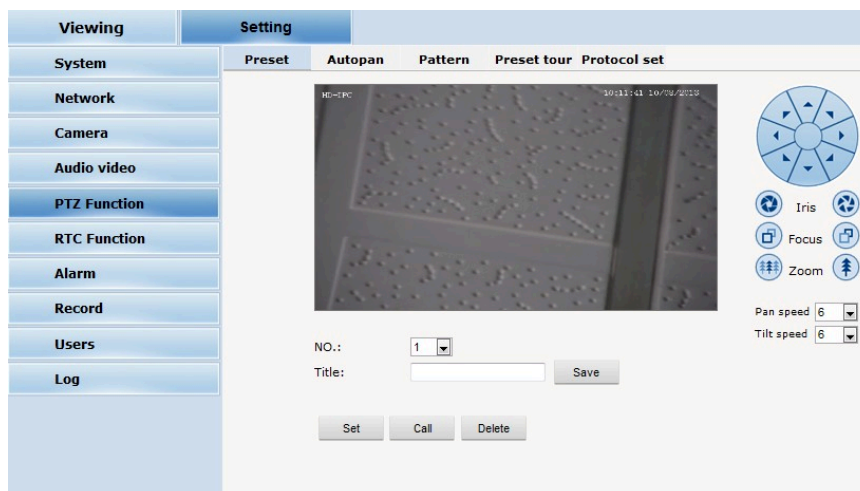PTZ function: preset, auto pan, pattern scanning, home return.

Fig 2.48

Preset: When the PTZ patrols to an important spot and commands a preset, the PTZ would record the location and status to build up the link. When the command is shot, the camera fast patrols to the spot and the camera returns to that memory. The operator obtains the spot fast and easily. 254 preset positions are optional.
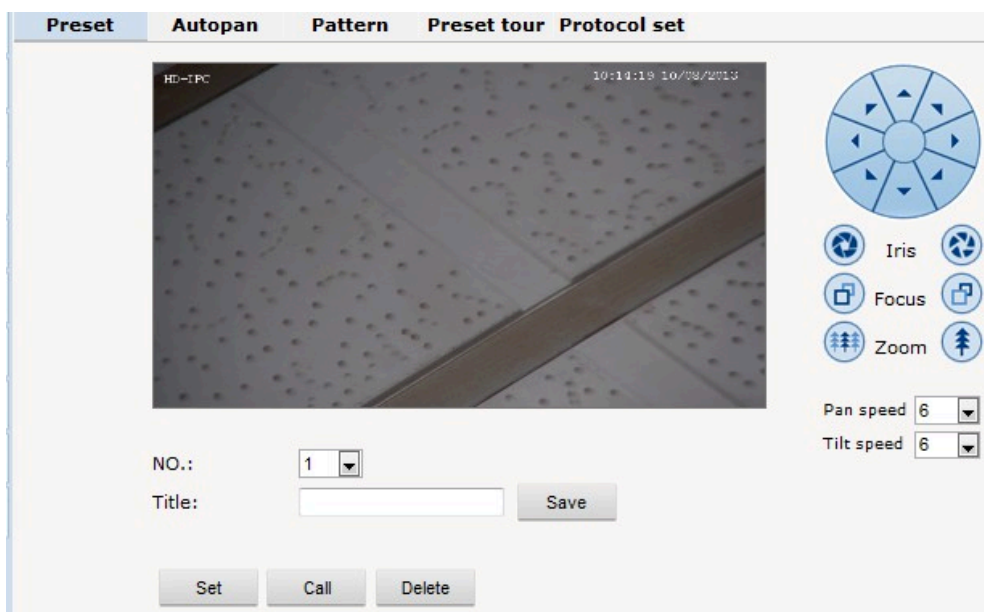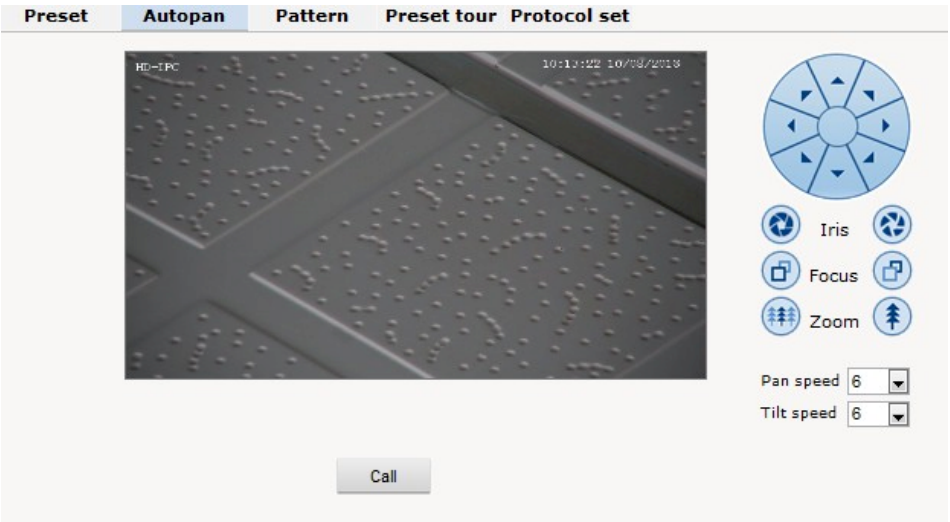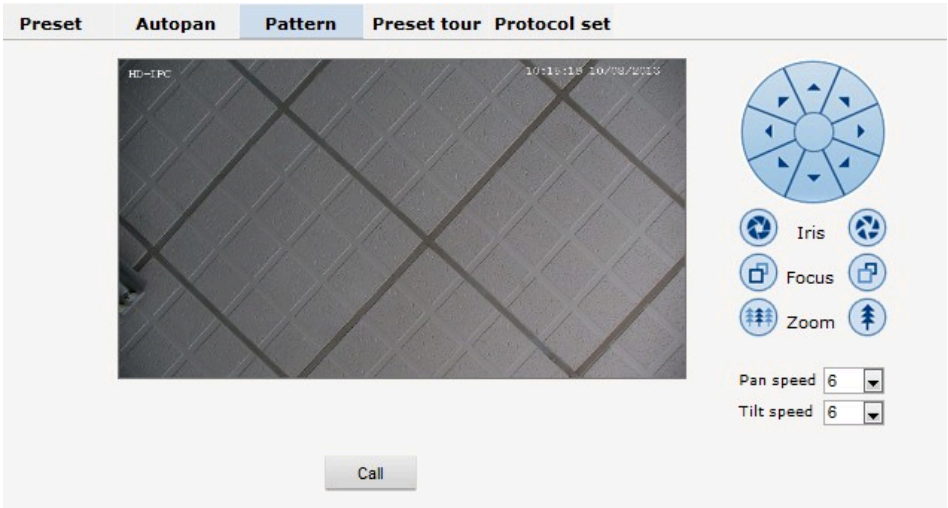

Fig 2.49

Auto pan:

Fig 2.50
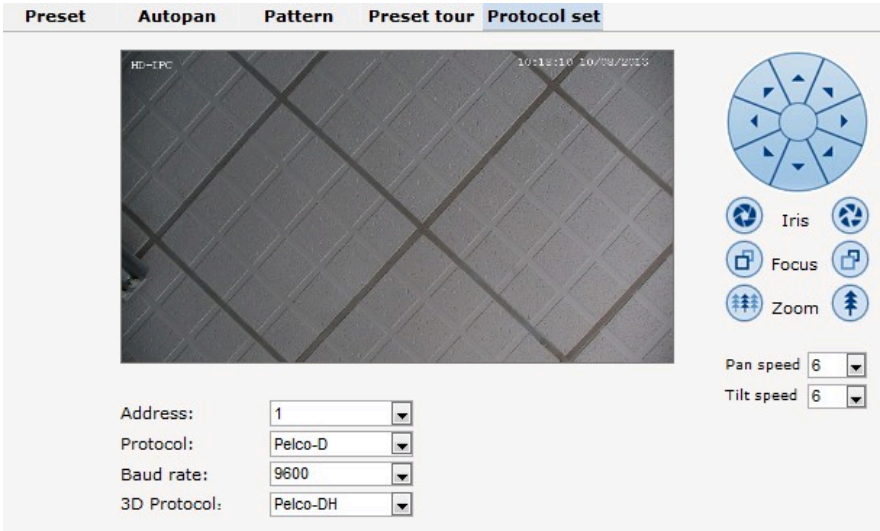
Pattern:

Fig 2.51

Protocol set:

Fig 2.52

2.6.7 Alarm

Alarm: grounded circuit and open circuit for I/O. Set net contact or local contact.

Alarm configuration

I/O In 1:	Grounded circuit
Alarmout contact:	Local contact
Alarm server IP:	0.0.0.0

Save

Alarm out contact

	I/O out 1	Mail	Localsave	FTP	Audio	Select all
I/O In 1	☐	☐	☐	☐	☐	☐
Motion area 1	☐	☐	☐	☐	☐	☐
Motion area 2	☐	☐	☐	☐	☐	☐
Motion area 3	☐	☐	☐	☐	☐	☐
Motion area 4	☐	☐	☐	☐	☐	☐

Save

Fig 2.53

The IP camera supports 2 channel alarm in. User can set grounded or open circuit for each I/O.

Alarm out contact: transmission method of alarm signal.

Local contact: local alarm out. Default local contact.

Net contact: internet transmission.

Note: The function requires the synchronous use of digital video management software, e.g.

HVMS. Choosing net contact, user is supposed to set the alarm IP as HVMS-CMS IP.

Finishing data set of HVMS, the relay switch can be remotely controlled. For more details,

please refer to HVMS manual.

Alarm IP: set the IP address of the alarm.

User can set each channel signal alarm in or alarm method of each motion detection: Alarm in 1 (for net contact, the alarm in 1 is ineffective.), sending emails, FTP uploading, audio and others. The setting takes into effect after clicking setting button.
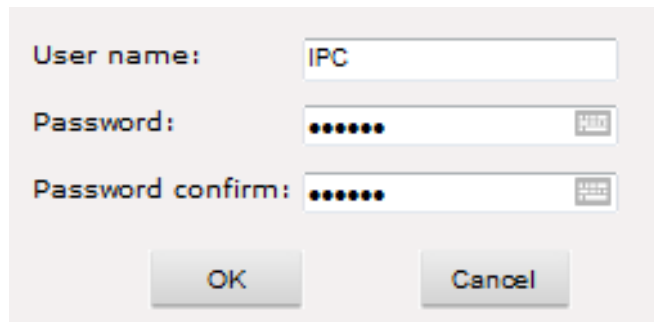
2.6.8 User

User: Administrator's authority to operate the camera.

Add user

Num	User name	Property	Operation
1	admin		

Fig 2.54

Add user: click the image "Add user 👤", you will get thefollowing dialog:

Fig 2.55

Input user name and password.

Fig 2.56

2.6.9 log

Log: recording of each operation

Fig 2.57

3. Function Instruction

3.1 Basic Function

✧ Dome Running

Control joystick or up, down, left and right key in the keyboard.

✧ Zoom

Press ZOOM- button to make the lens farther and minify the scene.

Press ZOOM+ button to make the lens closer and magnify the scene.

✧ Focus

After FOCUS- button is pressed, the object in vicinity will become clearer while the object far away will become ambiguous.

After FOCUS+ button is pressed, the object far away will become clearer while the object in vicinity will be ambiguous.

✧ Iris

Press IRIS- to gradually shrink the iris and decrease the image brightness.

Press IRIS+ to enlarge the iris and increase the image brightness.

✧ Preset Point

Setting preset press button "preset"+"number"+" Enter".

Calling preset press button "call"+" number"+"Enter".

Deleting preset press button "clear"+"number"+" Enter".

Remark: Some preset points are used tentatively for special functions.

3.2 Special Function

The follow presets are predefined as special function, please shot+ preset No+ enter to enable those functions:

PREST	FUNCTION	PRESET	FUNCTION
34	Reset	84	Turn on far light
35	Run Wiper	85	Turn on near light
36	Stop Wiper	91(31)	Call A-B scan
75	Pattern 1	1	Set left point of A-B scan
76	Pattern 2	2	Set right point of A-B scan
77	Pattern 3	96	Guard tour 3
78	Pattern 4	97	Guard tour 2
81(41)	Auto Day/Night	98(38)	Guard tour 1
82(42)	Night Mode	99	Pan scan
83	Day Mode		

Remark: If you are using some other equipment to control IR dome, some special functions probably can't be effective because of the limit of protocol.

Appendix Ⅰ Anti-lightning, Anti-surge

This product is extremely air discharge and lightning protection with TVS tube technology, which can effectively prevent the transient lightning below voltage 3000V, surge and damages caused by other types of pulse signals.

However, necessary protective measures should be made in the premise of ensuring electrical safety for outdoor installation according to the actual situation:

·Signal transmission line must be at least 50 meters far away from the high-voltage equipment or high voltage cable.

· Try to choose outdoor wiring lay down along the roof line.

· Way of sealed steel pipe buried wiring is used in the area which opened, and steel pipe units grounded in one point. Overhead wiring is absolutely prohibited.

· In the strong thunderstorms area or areas with high induced voltage (such as high voltage substations), measure of installation of additional high power lightning protection equipment and lightning rod must be taken.

· Lightning protection and grounding of outdoor devices and lines must take the lightning-protection requirements of buildings into consideration, and comply with the related national standards and industry standards.

· System must be equipotent grounding. Grounding device must meet dual requirements of anti-interference and electrical safety, and should not be shorted or mixed with the adjacent lines in the strong power grid. When system is independently grounded, grounding impedance should be less than 4Ω, and cross-sectional area of grounding conductor must be not less than 25m^2.
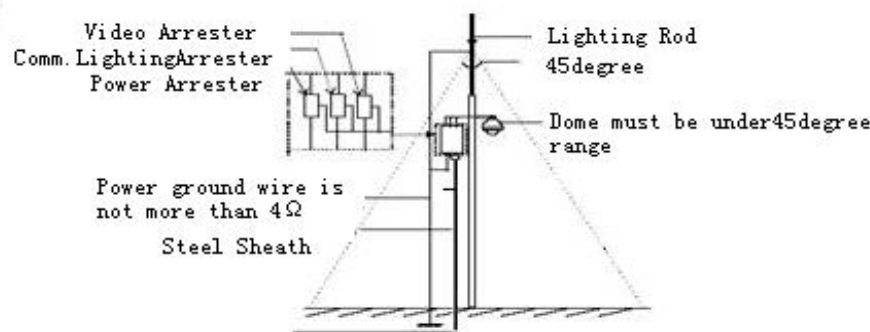
Fig 25

Appendix Ⅱ Clean Transparent Cover

In order to assure a clear image of dome, the under cover of dome should be cleaned regularly.

● Be careful when cleaning and hold the outer ring of under cover by hands to avoid directly

touching with it. Because the acid sweats of finger membrane may corrode the surface coating of under cover. Hard tool scratching the under cover may lead to blurring the images of dome so that affecting image quality.

● Please uses a soft enough dry cloth or other alternatives to wipe internal and external surface.

● If dirt is serious, user can use a mild detergent. Any senior furniture cleaning products can be used to clean the under cover.

Appendix Ⅲ Exception Handling

Issue	Possible Reason	Solution
After power is applied, there is no action (self-test)	Cable harness is improperly connected	Verify that the orientation of the connector input
	Input power voltage is too low	Verify the voltage of the input power
	Power supply does not work	Change a new power supply
	PTZ has not finish self-test	Please wait 90 seconds
Noise after self-testing	Mechanical obstruction	Verify and correct it
	Camera module is not installed correct	Correct
	Low power	Change the correct power supply
Image is no stable.	Low power	Check the power supply or make sure the power input is AC24V / DC12V
	Network cable properly connected.	Verify the connection of the network cable
Image is blurring	Camera is on manual focus	Change to auto focus
	The lens is dusted	Clean the lens
Controlling the dome is not smooth	Power is too low	Change the DC12V Power supply
	Communication distance is too long	Make sure the distance is in the allowed range
No video signal	Wrong installation of plug-in for video	Refer to the installation part, use controls and reset up the plug-in
	IP address fails to ping	Set default as 192.168.110 segment, or revise the IP address
	IP address pings through, but no video	Check whether the video is recorded online or stop the recording
	IP address conflicts with other devices	Set one IP different from others

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