

# **HD (IR) Vandal Proof Network Dome Camera User's Manual**

**Version 1.0.1**

## **Welcome**

Thank you for purchasing our network camera!

This user's manual is designed to be a reference tool for your system.

Please read the following safeguard and warnings carefully before you use this series product!

Please keep this user's manual well for future reference!

# Important Safeguards and Warnings

## 1 . Electrical safety

All installation and operation here should conform to your local electrical safety codes.

The power shall conform to the requirement in the SELV (Safety Extra Low Voltage) and the Limited power source is rated 12V DC or 24V AC in the IEC60950-1. **Please note: Do not connect these two power supplying sources to the device at the same time; it may result in device damage!**

We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.

We are not liable for any problems caused by unauthorized modification or attempted repair.

## 2 . Transportation security

Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.

## 3 . Installation

Do not apply power to the camera before completing installation.

Please install the proper power cut-off device during the installation connection.

Always follow the instruction guide the manufacturer recommended.

## 4 . Qualified engineers needed

All the examination and repair work should be done by the qualified service engineers.

We are not liable for any problems caused by unauthorized modifications or attempted repair.

## 5 . Environment

This series network camera should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.

Please keep it away from the electromagnetic radiation object and environment.

Please make sure the CCD (CMOS) component is out of the radiation of the laser beam device.

Otherwise it may result in CCD (CMOS) optical component damage.

Please keep the sound ventilation.

Do not allow the water and other liquid falling into the camera.

Thunder-proof device is recommended to be adopted to better prevent thunder.

The grounding holes of the product are recommended to be grounded to further enhance the reliability of the camera.

## 6. Daily Maintenance

Please shut down the device and then unplug the power cable before you begin daily maintenance work.

Do not touch the CCD (CMOS) optic component. You can use the blower to clean the dust on the lens surface.

Always use the dry soft cloth to clean the device. If there is too much dust, please use the water to dilute the mild detergent first and then use it to clean the device. Finally use the dry cloth to clean the device.

Please put the dustproof cap to protect the CCD (CMOS) component when you do not use the camera.

## 7. Accessories

Be sure to use all the accessories recommended by manufacturer.

Before installation, please open the package and check all the components are included.

Contact your local retailer ASAP if something is broken in your package.

Accessory Name	Amount
Network Camera	1
Quick Start Guide	1
CD	1
Installation Accessories Bag	1

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# 1 General Introduction

## 1.1 Overview

This series network camera integrates the traditional camera and network video technology. It adopts audio and video data collection, transmission together. It can connect to the network directly without any auxiliary device.

This series network camera uses standard H.264 video compression technology and G.711a audio compression technology, which maximally guarantee the audio and video quality.

This series network camera enclosure has the strong resistance capacity, which can guarantee the proper work performance under heavy strike. It supports real-time monitor and listening at the same time. It supports analog video output and dual-way bidirectional talk.

It can be used alone or used in a network area. When it is used lonely, you can connect it to the network and then use a network client-end. Due to its multiple functions and various uses, this series network camera is widely used in many environments such office, bank, road monitor and etc.

## 1.2 Features

<b>User Management</b>	<ul style="list-style-type: none"><li>● Different user rights for each group, one user belongs to one group.</li><li>● The user right shall not exceed the group right.</li></ul>
<b>Storage Function</b>	<ul style="list-style-type: none"><li>● Support central server backup function in accordance with your configuration and setup in alarm or schedule setting</li><li>● Support record via Web and the recorded file are storage in the client-end PC.</li><li>● Support built-in SD card.</li><li>● Support local SD card hot swap, support short-time storage when encounter disconnection.</li></ul>
<b>Alarm Function</b>	<ul style="list-style-type: none"><li>● Real-time respond to external local alarm input and video detect as user pre-defined activation setup and exert corresponding message in screen and audio prompt(allow user to pre-record audio file)</li><li>● Real-time video detect: motion detect, camera masking.</li><li>● Can generate an alarm when network abnormal, SD card abnormal event occurred.</li></ul>
<b>Network Monitor</b>	<ul style="list-style-type: none"><li>● Network camera supports one-channel audio/video data transmit to network terminal and then decode. Delay is within 270ms (network bandwidth support needed)</li><li>● Max supports 20 connections.</li><li>● Adopt the following audio and video transmission protocol: HTTP, TCP, UDP, MULTICAST, RTP/RTCP, RTSP and etc.</li><li>● Support web access, widely used in WAN.</li></ul>
<b>Network Management</b>	<ul style="list-style-type: none"><li>● Realize network camera configuration and management via Ethernet.</li><li>● Support device management via web or client-end.</li><li>● Support various network protocols.</li></ul>
<b>Peripheral Equipment</b>	<ul style="list-style-type: none"><li>● Support the on-off alarm device to alarm via the sound or the light.</li></ul>
<b>Power</b>	<ul style="list-style-type: none"><li>● External power adapter DC12V/AC 24V</li><li>● Support PoE.</li></ul>
<b>Assistant Function</b>	<ul style="list-style-type: none"><li>● Log function</li><li>● Support PAL/NTSC</li></ul>

	<ul style="list-style-type: none"> <li>● Support system resource information and running status real-time display.</li> <li>● Day/Night mode auto switch (electromagnetic ICR switch).</li> <li>● Built-in IR light. Support IR night vision (<b>For HDBW Series only</b>).</li> <li>● Backlight compensation: screen auto split to realize backlight compensation to adjust the bright.</li> <li>● Support electronic shutter and gain setup.</li> <li>● Support video watermark function to avoid vicious video modification.</li> </ul>
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### 1.3 Specifications

#### 1.3.1 Performance

Please refer to the following sheet for network camera performance specification.

Model Parameter		IPC-HDB/HDBW3202 Series	IPC-HDB/HDBW3101 Series
System	Main Processor	TI Davinci high performance DSP	
	OS	Embedded LINUX	
	System Resources	Support real-time network, local record, and remote operation at the same time.	
	User Interface	Remote operation interface such as WEB, DSS, PSS	
	System Status	SD card status, bit stream statistics, log, and software version.	
Video Parameter	Image Sensor	1/3-inch CMOS	
	Pixel	1920 (H) *1080 (V)	1280(H)*960(V)
	Day/Night Mode	Support day/night mode switch and electromagnetic IR-CUT at the same time.	
	Auto Iris	DC drive	
	Gain Control	Fixed/Auto	
	White Balance	Manual/Auto	
	BLC	Manual/Auto	
	Electronic Shutter	Manual/Auto PAL: It ranges from 1/3 to 1/10000. NTSC: It ranges from 1/4 to 1/10000.	
	Motorized Focus	Support remote motorized focus function.	
	Video Compression Standard	H264/JPEG/MJPEG	
	Video Frame Rate	PAL: Main stream (1920*1080@25fps) extra stream (704*576@25fps) NTSC: Main stream (1920*1080@30fps) extra stream (704*480@30fps)	PAL: Main stream (1280*960@25fps) Extra stream (704*576@25fps) Main stream (1280*720@25fps) extra stream (704*576@25fps) NTSC: Main stream (1280*960@30fps) extra stream (704*480@30fps) Main stream (1280*720@30fps) extra stream (704*480@30fps)
	Video Bit Rate	H.264: 56Kbps-8192Kbps. It is adjustable MJPEG: 128Kbps-0480Kbps. It is adjustable and bit rate is adjustable. Support customized setup.	
	Video Flip	Support mirror. Support flip function.	

	<b>Snapshot</b>	Max 1f/s snapshot. File extension name is JPEG.	
	<b>Privacy Mask</b>	Supports max 4 privacy mask zones	
	<b>Video Setup</b>	Support parameter setup such as bright, contrast.	
	<b>Video Information</b>	Channel title, time title, motion detect, privacy mask.	
	<b>Lens</b>	3~9mm@F1.2 motorized zoom focus lens	2.8~12mm@F1.4
	<b>Lens Interface</b>	φ14. Lens is the default accessories.	
<b>Audio</b>	<b>Audio Input</b>	1-channel	
	<b>Audio Output</b>	1-channel	
	<b>Bidirectional Talk Input</b>	Reuse the first audio input channel	
	<b>Audio Bit Rate</b>	16kbps 16bit	
	<b>Audio Compression Standard</b>	G.711a/G.711u/PCM	
<b>Video</b>	<b>Motion Detect</b>	396 (18*22) detection zones; sensitivity level ranges from 1 to 6 (The 6 <sup>th</sup> level has the highest sensitivity) Activation event, alarm device, audio/video storage, image snapshot, log, email function and etc.	
	<b>Video Loss</b>	Activation event, alarm device, audio/video storage, image snapshot, log, email function and etc.	
<b>Alarm Input</b>		1-channel input, 1-channel output	
<b>Record and Backup</b>	<b>Record Priority</b>	Manual>External alarm >Video detect>Schedule	
	<b>Local Storage</b>	Support Micro SD card storage	
<b>Network</b>	<b>Wire Network</b>	1-channel wire Ethernet port, 10/100 Base-T Ethernet	
	<b>Network Protocol</b>	HTTP,TCP,ARP,RTSP,RTP,UDP,RTCP,SMTP,FTP,DHCP,DNS,DDNS,PPPOE,IPv4/v6,SNMP,QoS,UPnP,NTP.	
	<b>Remote Operation</b>	Monitor, system setup, log information, maintenance , upgrade and etc	
<b>AUX Interface</b>	<b>Video Output</b>	1-channel analog video output, BNC port, 9-pin port connection	
	<b>Reset</b>	Built-in RESET button	
	<b>IR light</b>	IR distance 10 to 20 meters (For HDBW series product only)	
<b>General Parameter</b>	<b>Power</b>	Support AC24V/DC12V power. PoE	
	<b>Power Consumption</b>	General series: below 5W. IR series: below 7W.	General series: below 3W. IR series: below 5W.
	<b>Working Temperature</b>	-10℃~+60℃	
	<b>Working Humidify</b>	10%~90%	
	<b>Dimensions(m m)</b>	φ151x119	
	<b>Weight</b>	1.25Kg	
	<b>Installation</b>	Support various installation modes	

### 1.3.2 Factory Default Setup

Please refer to the following sheet for factory default setup information.

Function Setup Type		Item		Default setup			
				IPC-HDB/HDBW320 2 Series	IPC-HDB/HDBW31 01 Series		
Camera Setup	Conditions	Brightness		50			
		Contrast		50			
		Hue		50			
		Saturation		50			
		Gain mode		Auto			
		Gain limit		80			
		Exposure mode		Auto			
		Auto iris		Enable			
		Scene mode		Auto			
		Day/night mode		Auto			
		BLC		Off			
		Flip		Disable			
	Video	Video stream	bit	Main stream	Bit stream type	General	
					Encode mode	H.264B	
					Resolution	1080P (1920*1080)	720P (1280*720)
					Frame rate (FPS)	PAL: 25 NTSC:30	
					Bit stream type	CBR	
					Reference bit rate	3584-8192 Kb/S	
					Bit rate	8192	
					I frame interval	50	
					Watermark settings	Enable	
Watermark character					DigitalCCTV		
Extra stream					Enable	Enable	
		Bit stream type	General				
		Encode mode	H.264B				
		Resolution	CIF(352×288/352×240)	CIF(352×288/352×240)			
		Frame rate (FPS)	PAL: 25 NTSC:30				
		Bit rate type	CBR				
		Reference bit rate	192-1024Kb/S				

Function Setup Type		Item			Default setup					
					IPC-HDB/HDBW320 2 Series	IPC-HDB/HDBW31 01 Series				
				Bit rate	640					
				I frame interval	50					
		Snapshot				Snap type	General snap			
						Image size	1080P (1920*1080)	720P (1280*720)		
						Quality	Better			
						Interval	7s			
		Overlay				Privacy mask	Enable			
						Channel title	Enable			
						Time title	Enable			
		Path				Snapshot path	C:\PictureDownload			
	Record path					C:\RecordDownload				
	Audio				Main stream	Enable	Enable			
						Encode mode	G.711A			
					Sub(Extra) stream	Enable	Disable			
						Encode mode	G.711A			
	Network setup	TCP/IP			Host name	IPC				
Ethernet card					Wire(Default)					
Mode					Static					
MAC address					Depends on the device					
IP version					IPV4					
IP address					192.168.1.168					
Subnet mask					255.255.255.0					
Default gateway					192.168.1.1					
Preferred DNS					8.8.8.8					
Alternate DNS					8.8.8.8					
Enable ARP/Ping to set IP address service					Enable					
Connection								Max connection	10	
								TCP port	37777	
		UDP port	37778							

Function Setup Type	Item	Default setup	
		IPC-HDB/HDBW320 2 Series	IPC-HDB/HDBW31 01 Series
		HTTP port	80
		RTSP port	554
	PPPoE	Enable	Disable
		User name	N/A
		Password	N/A
	DDNS	Server type	Disable , CN99 DDNS
		Server IP	none
		Port	80
		Domain name	none
		User name	none
		Password	N/A
		Update period	5m
	IP filter	Trusted sites	Disable
	SMTP (email)	SMTP server	none
		Port	25
		Anonymity	Disable
		User name	anonymity
		Password	N/A
		Sender	none
		Authentication (Encryption mode)	N/A
		Title (Subject)	IPC Message
		Main Receiver	N/A
		Interval	0s
		Health email	Disable , interval=60m
	UPnP	Enable UPnP	Disable
	SNMP	SNMP v1	Disable
		SNMP v2	Disable
		SNMP port	161
		Read community	public
		Write community	private
		Trap address	N/A
		Trap port	162
	Bonjour	Enable	Enable

Function Setup Type	Item		Default setup	
			IPC-HDB/HDBW320 2 Series	IPC-HDB/HDBW31 01 Series
	Multicast	Server name	"Device name+SN". Depends on the device.	
		Multicast address	239.255.42.42	
		Port	36666	
	Auto register	Enable	Disable	
		SN	1	
		Server IP	0.0.0.0	
		Port	7000	
		Sub-device ID	none	
	WIFI	On(Enable)	Enable	
	QoS	Real-time monitor	0	
Command		0		
Event management	Video detect	Motion detect	Enable	Disable
			Anti-dither	5 seconds
			Sensitivity	3
			Record Channel	Enable
			Record Delay	10 seconds
			Relay (Alarm) output	Enable
			Alarm delay	10s
			Send email	Disable
			Activation	N/A
			Address	0
			Snapshot	Disable
			Video (Camera) masking	Enable
	Record Channel	Enable		
	Record Delay	10 seconds		
	Relay out	Enable		
	Record Delay	10 seconds		
	Send email	Disable		
	Activation	Disable		
	Address	0		

Function Setup Type	Item			Default setup	
				IPC-HDB/HDBW320 2 Series	IPC-HDB/HDBW31 01 Series
	Alarm setup	Relay (Alarm) activation	Snapshot	Disable	
			Enable	Disable	
			Relay input	Alarm1	
			Anti-dither	5s	
			Sensor type	NO	
			Record channel	Enable	
			Record delay	10s	
			Relay (Alarm) output	Enable	
			Relay (Alarm) delay	10s	
			Send email	Disable	
			Activation	N/A	
			Address	0	
			Snapshot	Disable	
				Relay output (Alarm)	1
	Abnormality	No SD card	Enable	Disable	
			Relay (Alarm) output	Enable	
			Relay output delay	10s	
			Send email	Disable	
		Capacity warning	Enable	Disable	
			Capacity limit (Space threshold)	10%	
			Relay (Alarm) output	Enable	
			Relay output delay	10s	
			Send email	Disable	
		SD card error	Enable	Disable	
			Relay (Alarm) output	Enable	
			Relay output delay	10s	
			Send email	Disable	

Function Setup Type	Item			Default setup	
				IPC-HDB/HDBW320 2 Series	IPC-HDB/HDBW31 01 Series
		Disconnection	Enable	Disable	
			Record	Enable	
			Record delay	10s	
			Relay (Alarm) output	Enable	
			Relay output delay	10s	
		IP conflict	Enable	Disable	
			Record	Enable	
			Record delay	10s	
			Relay (Alarm) output	Enable	
			Relay output delay	10s	
Storage management	Destination(Storage)	FTP	FTP enable	Disable	
			Server IP	N/A	
			Port	21	
			User name	anonymity	
			Password	N/A	
			Remote storage path	share	
			Emergency storage to local path	Disable	
		Network storage	NAS enable	Disable	
			Mode	NFS	
			Server IP	N/A	
	Port		21		
	User name		N/A		
	Password		N/A		
	Remote storage path		N/A		
Conditions (Record control)		Pack duration	8m		
		Pre-record	5s		
		Disk full	Overwrite		
		Record mode	Auto		
System management	General setup	General setup	Device name	Device factory SN	
			Language	English	

Function Setup Type	Item		Default setup			
			IPC-HDB/HDBW320 2 Series	IPC-HDB/HDBW31 01 Series		
			Video standard	NTSC	NTSC	
		Date and time		Date format	Y-M-D	
				Time format	24H	
				Time zone	GMT+08:00	
				Current time	Sync PC	
				DST	Disable	
				DTS type	Week	
				Start time	00:00:00 of the first Sunday of the month	
				End time	00:00:00 of the second Monday of the month	
				Synchronize with NTP	Disable	
				NTP server	clock.isc.org	
				Port	37	
				Update period	10m	
		Auto maintenance		Auto reboot	Enable	
			Auto delete old files	Disable		

## 2 Structure

### 2.1 Dimensions

You can refer to the following figures for dimension information. The Unit is mm. See Figure 2-1 and Figure 2-2.

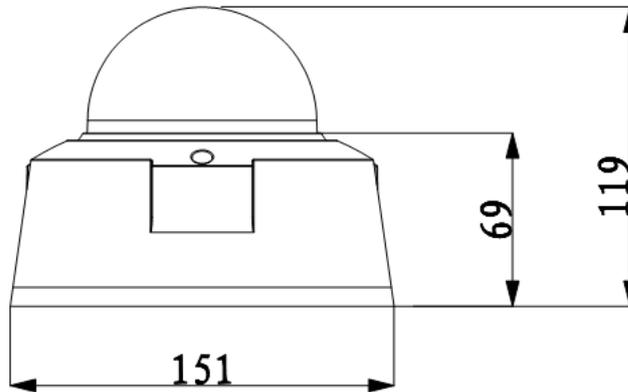


Figure 2-1

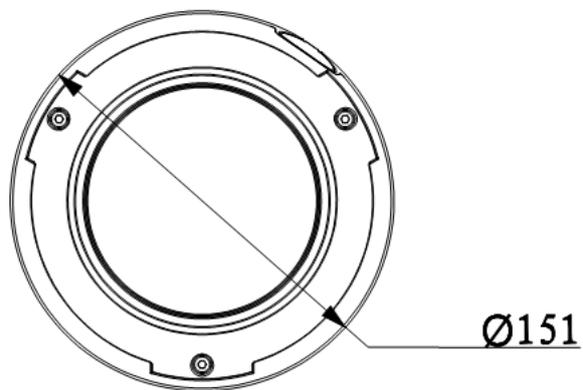


Figure 2-2

### 2.2 Port Description

For the non-IR series product, the interface is shown as in Figure 2-3 and Figure 2-4.

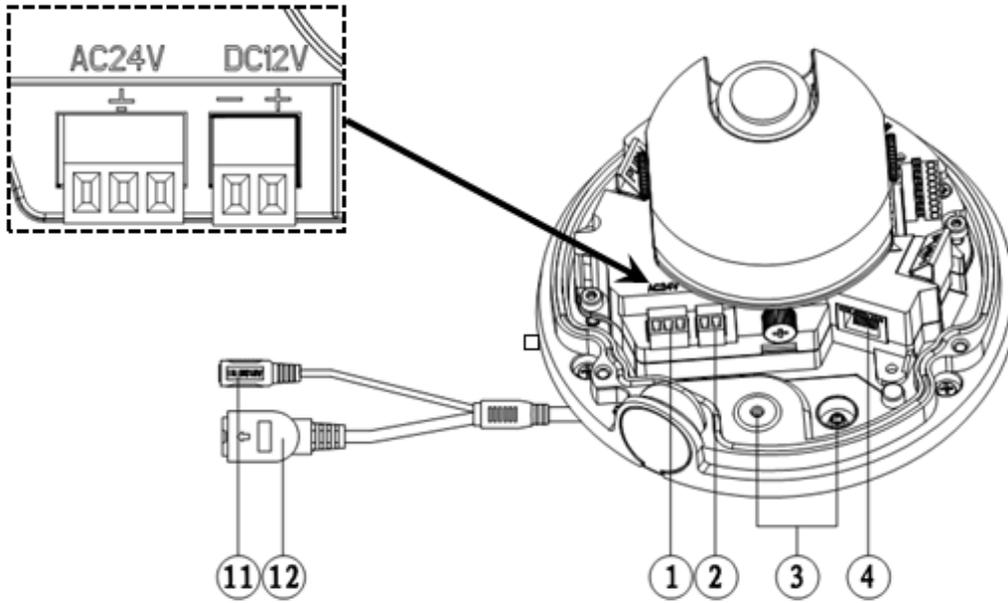


Figure 2-3

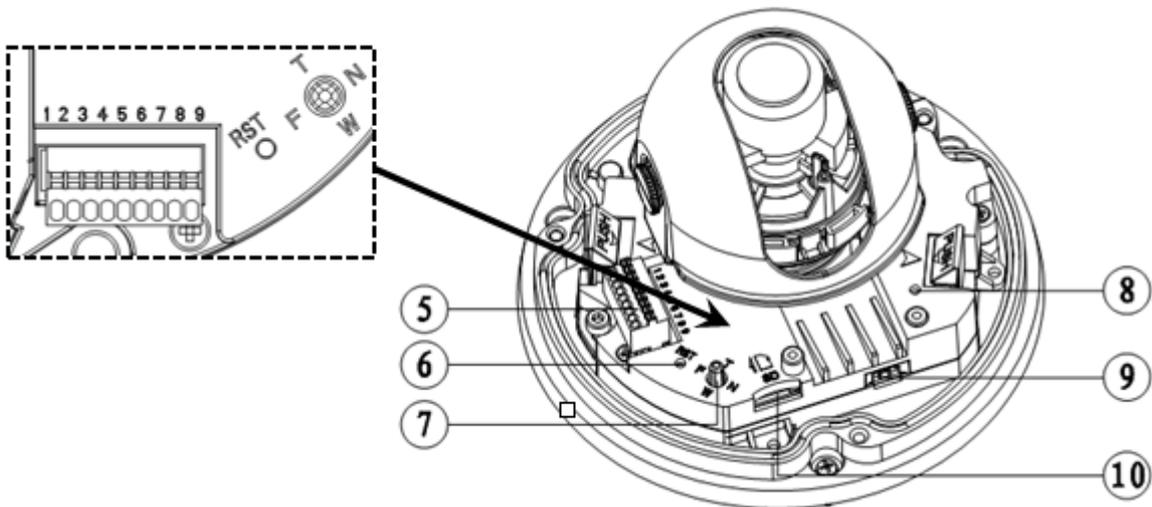


Figure 2-4

For the IR motorized zoom lens series product, the interface is shown as in Figure 2-5 and Figure 2-6.

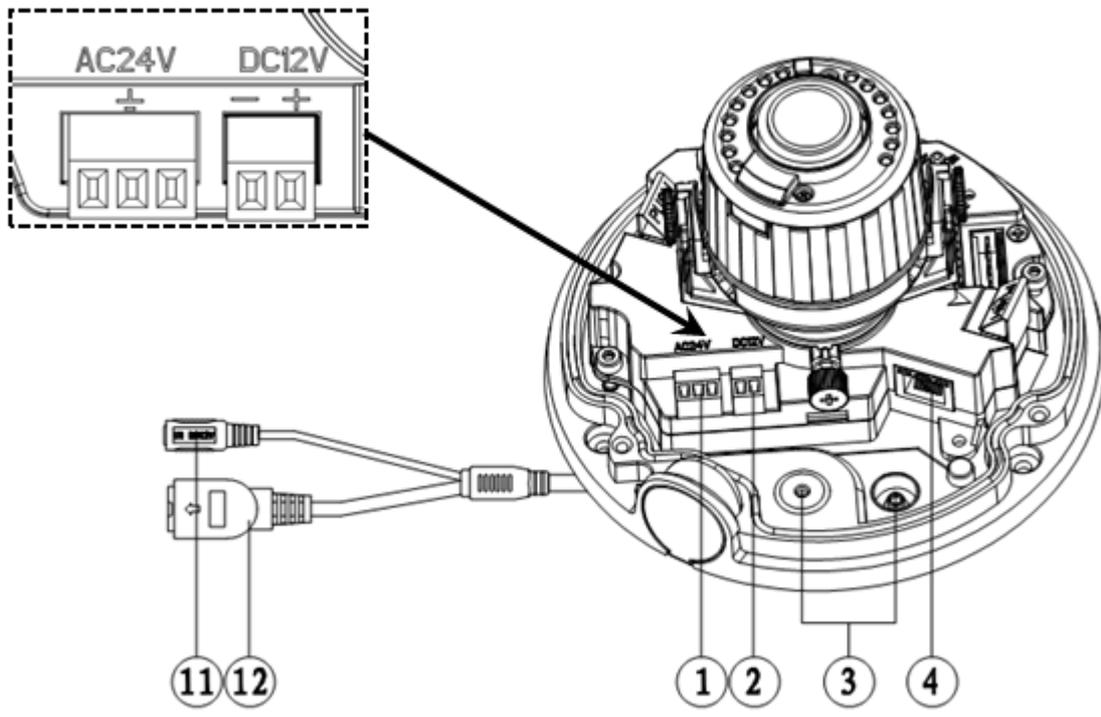


Figure 2-5

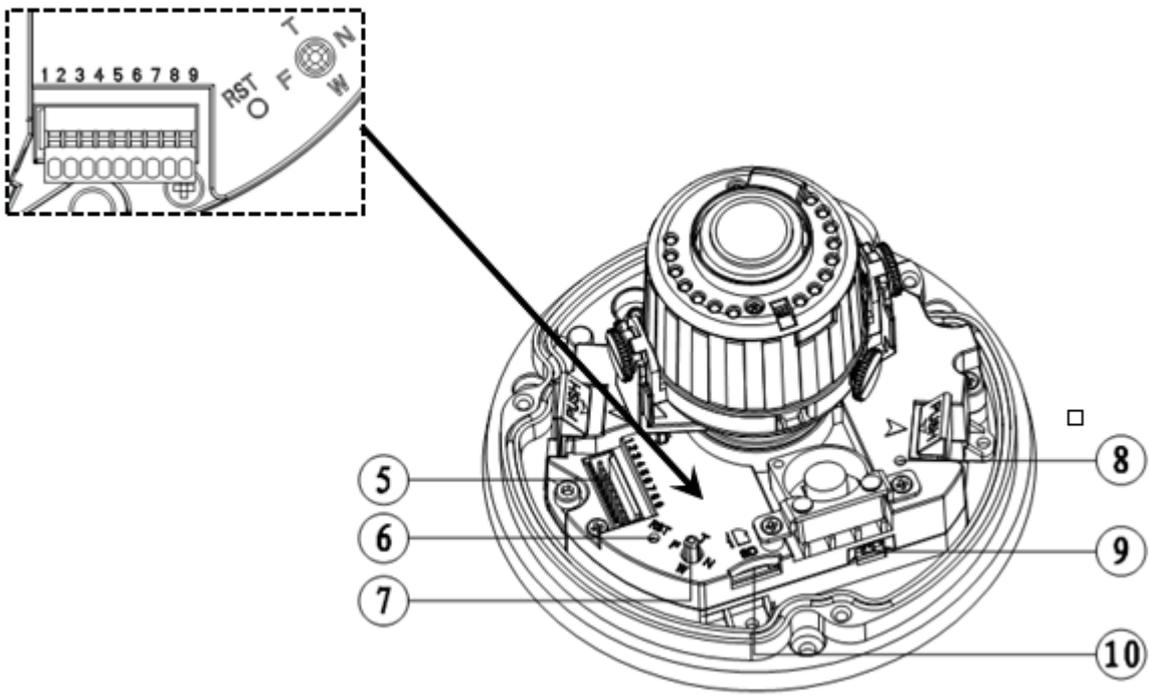


Figure 2-6

For the IR manual zoom lens series product, the interface is shown as in Figure 2-7 and Figure 2-8.

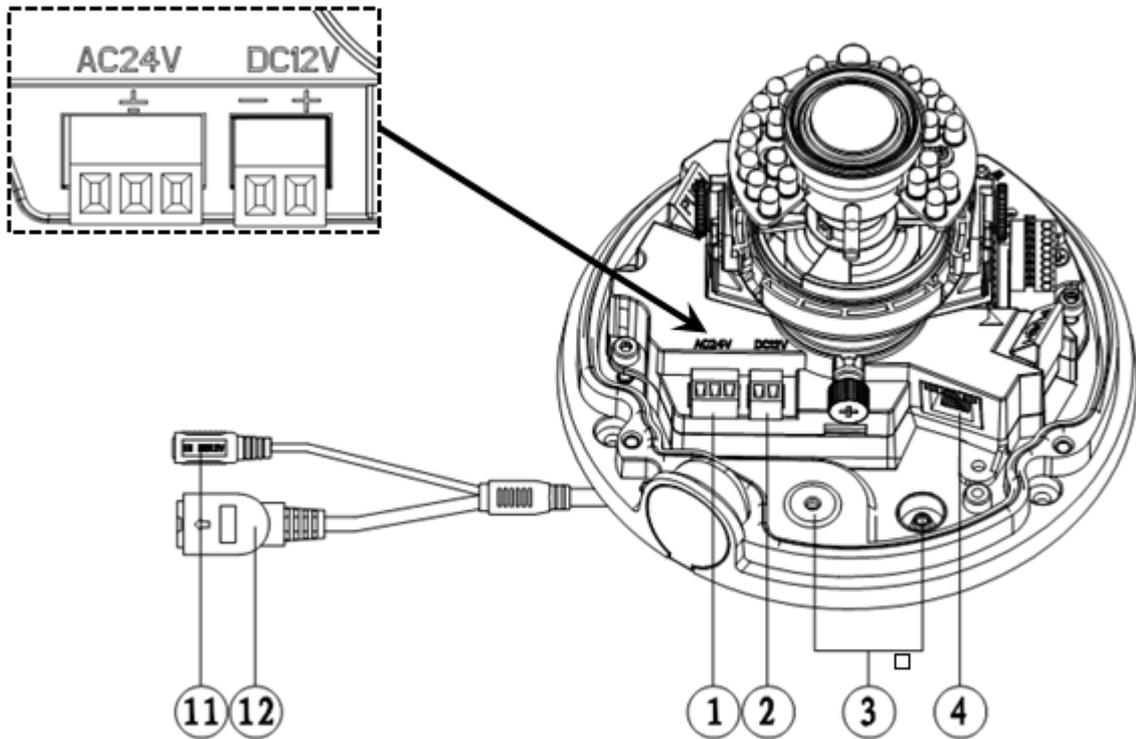


Figure 2-7

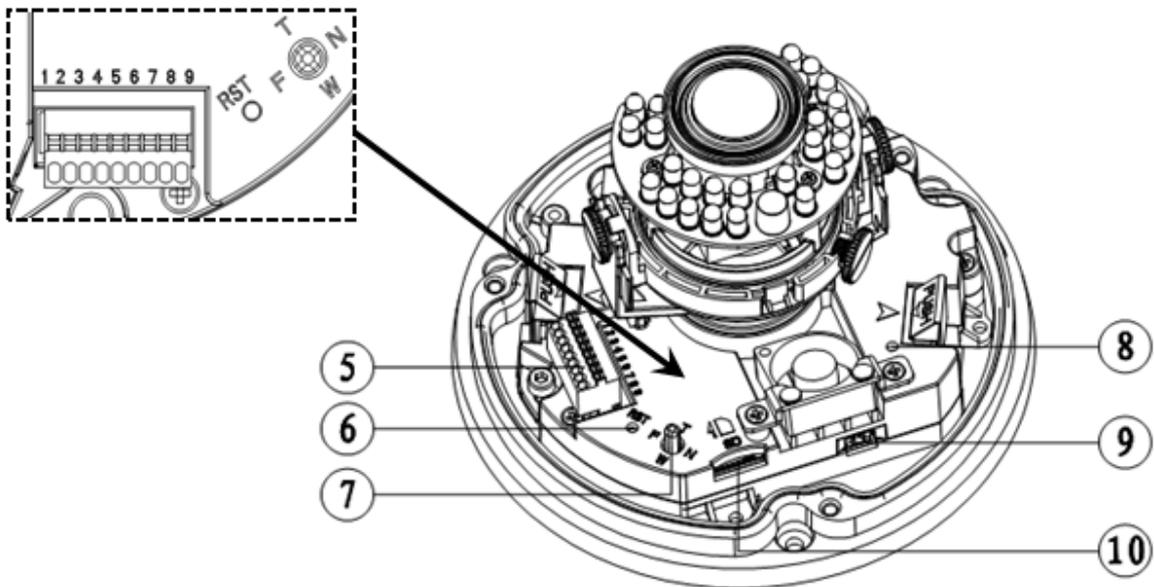


Figure 2-8

Please refer to the following sheet for detailed information.

SN	Definition
1	AC 24V power port. The middle pin is for GND.
2	DC 12V power port. The left is the negative end and the right is the positive end.
3	External cable exit.
4	RJ45 network port.

5	I/O signal port: 1—ALM_NO; 2—ALM_COM; 3—GND; 4—ALM_IN; 5—GND; 6—AUDIO_IN; 7—AUDIO_OUT; 8—GND; 9—VIDEO_OUT.
6	Reset
7	Five menu operation buttons. Push T button up— long focus and push W button down— wide angle. Push the F button left—Near and push the N right—Far. Click the middle button is to enable auto focus. <b>Please note it is for motorized zoom lens only.</b>
8	Status indicator light
9	Fan port
10	Micro-SD card slot
11	12V DC port
12	Network port

## 2.3 Bidirectional talk

### 2.3.1 Device Connection

Before the operation, connect the active pickup to the audio input port of the device. Connect the active speaker to the audio output port of the device. Please make sure the client-end device has the audio input and output function. For example, you need to connect the microphone and then earphone to the PC if you want to implement the bidirectional talk function.

### 2.3.2 Operation

Login the Web and click the bidirectional talk button to enable this function. Click this button again; you can close current bidirectional talk.

## 2.4 Alarm Setup

The alarm interface is shown as in Figure 2-9. Please follow the steps listed below for local alarm input and output connection.

- 1) Connect the alarm input device to the alarm input port (No.3 pin or No.4 pin) of the I/O cable.
- 2) Connect the alarm output device to the alarm output port (No.2 pin) and alarm output public port (No.1 pin). The alarm output port supports NO (normal open) alarm device only.
- 3) Open the Web, go to the Figure 2-9. Please set the alarm input 01 port for the first channel of the I/O cable (No.3 pin). The alarm input 02 is for the 2<sup>nd</sup> channel of I/O cable (No.4 pin). Then you can select the corresponding type (NO/NC.)
- 4) Set the WEB alarm output. The alarm output 01 is for the alarm output port of the device. It is the No.2 pin of the I/O cable.

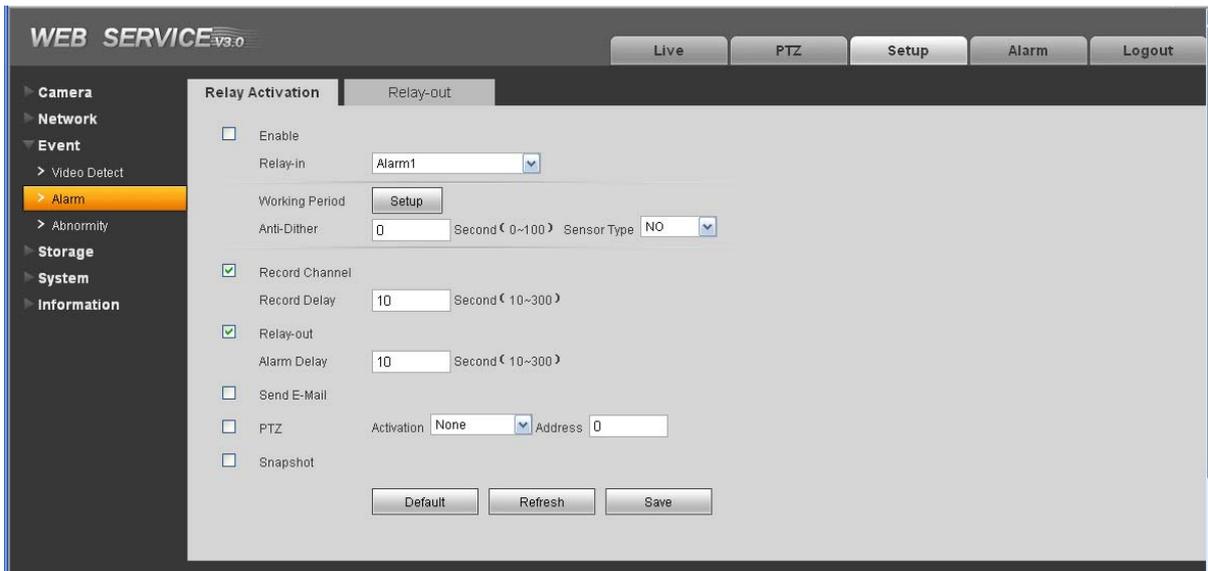


Figure 2-9

Please refer to the following figure for alarm input information. See Figure 2-10.

Alarm input: When the input signal is idle or grounded, the device can collect the different statuses of the alarm input port. When the input signal is connected to the 5V or is idle, the device collects the logic “1”. When the input signal is grounded, the device collects the logic “0”.

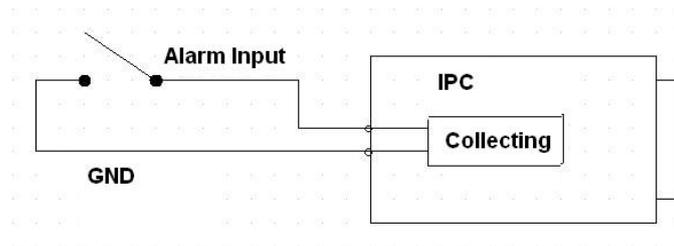


Figure 2-10

Please refer to the following figure for alarm output information. See Figure 2-11.

Port ALARM\_COM and Port ALARM\_NO composes an on-off button to provide the alarm output. If the type is NO, this button is normal open. The button becomes on when there is an alarm output. If the type is NC, this button is normal off. The button becomes off when there is an alarm output.

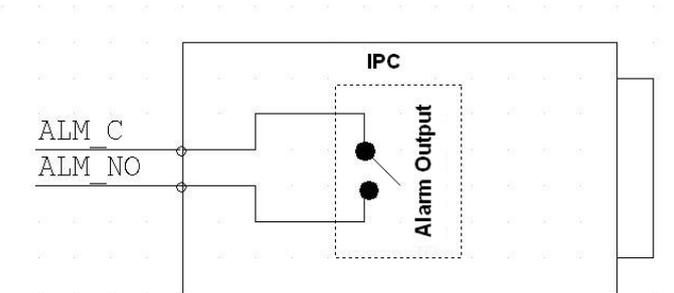


Figure 2-11

### 3 Installation

#### Important

- Before you complete the installation and setup, do not remove the electrostatic attraction film on the transparent enclosure. Otherwise it may result in injury.
- After remove electrostatic attraction film, do not touch dome enclosure in case it may leave stain.

#### 3.1 Device Installation Introduction

Please refer to Figure 3-1 for device installation space information. You can use screws (diameter is less than 4.5mm) to secure the device. You can see there are installation position map and installation screws in the accessories bag for you to install the device conveniently.

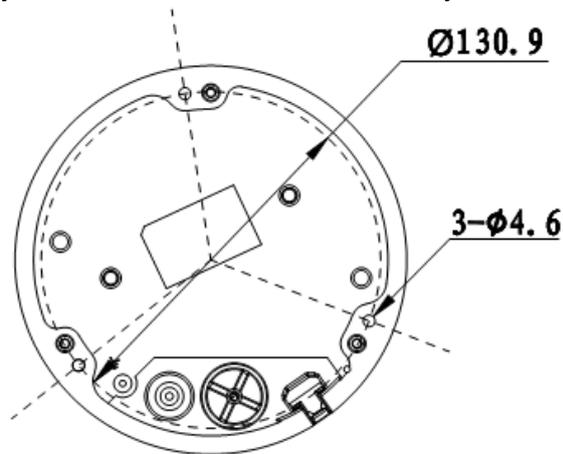


Figure 3-1

#### 3.2 Device Installation Steps

##### 3.2.1 General Installation

The general interface is shown as in Figure 3-2.

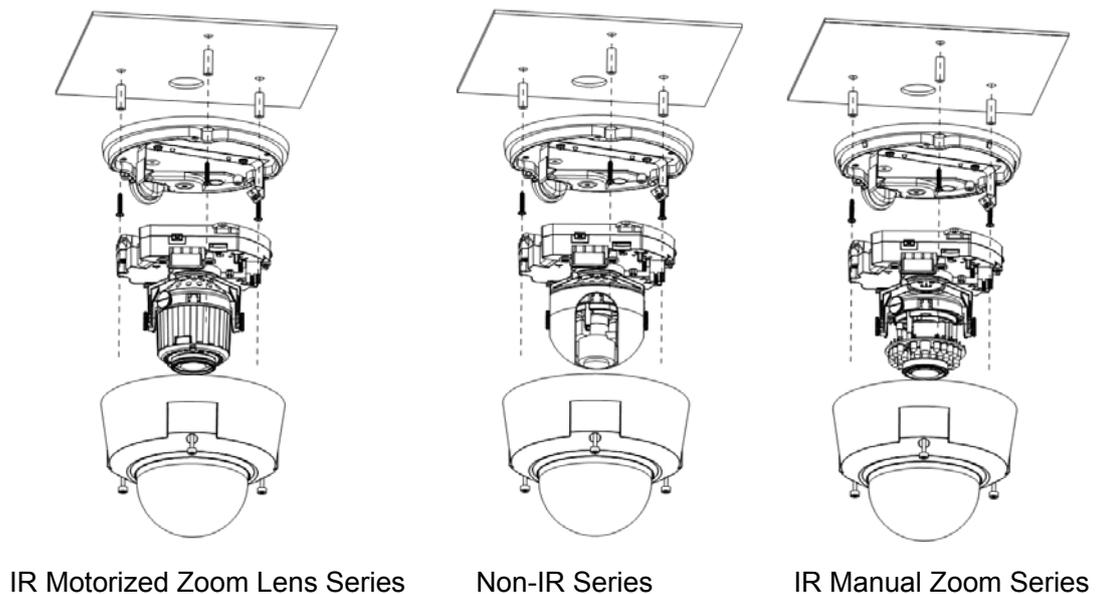


Figure 3-2

### Step 1

Take the installation position map from the accessories bag and then paste it on the installation ceiling or the wall according to the monitor area. Please dig three bottom holes of the plastic expansion bolts according to the map. Take three expansion bolts from the accessories bag and then insert them to the holes you just dug and then fix firmly. If you need to dig a hole to pull through the cable, you need to dig a cable exit hole (The diameter is more than 28mm) on the installation surface according to the installation positioning map.

### Step 2

Use the inner hex wrench from the accessories bag to unfasten the 3 hex screws on the dome camera enclosure to open it.

### Step 3

Please remove the device cable (Provided) network port and the power terminal. Use the inner hex wrench (Provided) to remove the 2 inner hex screws from the dome driver module. Then please follow the prompt on the device to push the metal hook to two sides. Remove the dome driver module from the chassis. See Figure 3-3.

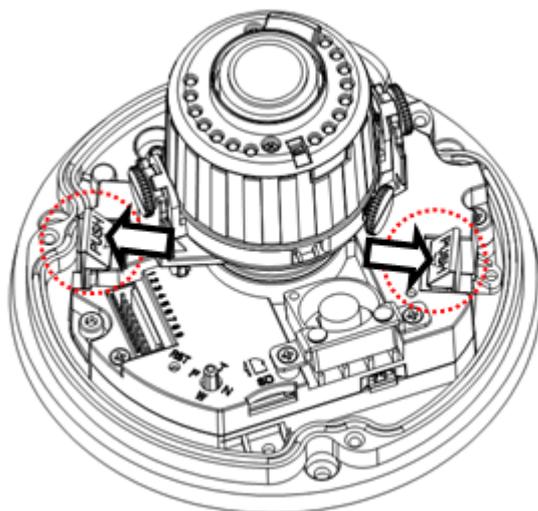


Figure 3-3

### Step 4

Adjust the chassis of the device to the proper position and pull the cable to the cable exit of the installation surface. Line up the holes of the chassis to the three expansion bolt holes you dug in Step 1. Take three ST3.0 self-tapping screws and secure them in the three plastic expansion bolts. Now the chassis is secure on the installation surface.

### Important

Please earth the device GND hole  $\perp$  (GND) to enhance the reliability of the device. The GND port is near the cable exit of the rear panel. The GND screw thread specification is M3-6mm.

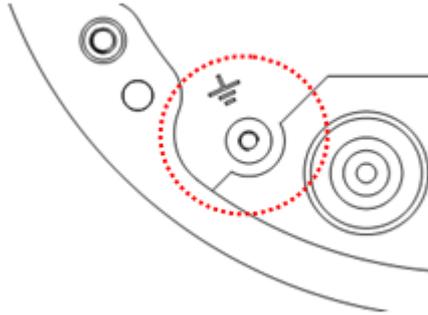


Figure 3-4

**Step 5**

Please refer to the Step 3 to put the driver module back to the metal hooks of the chassis. Then use the inner hex wrench to secure the two inner hex screws to the chassis. Then connect the network cable and the power terminal.

**Step 6**

Adjust the lens to the proper angle according to your monitor requirements.

a) For the IR series product, you can skip current step and go the step b) directly. For the non-IR series product, push the port slightly to remove the decoration enclosure from the black plastic enclosure. See Figure 3-5.

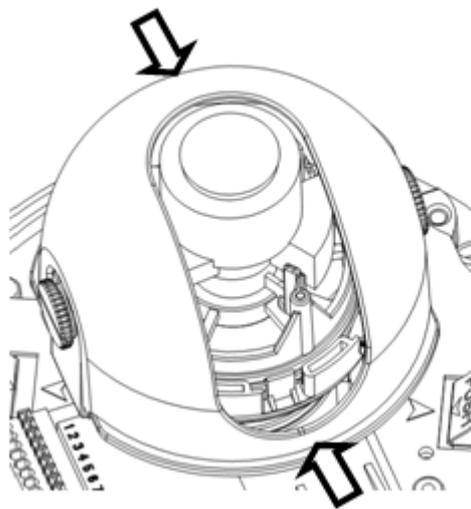


Figure 3-5

b) Lens pan rotation angle setup. Please refer to Figure 3-6 to unfasten the lock screw A and adjust the pan monitor angle to the proper position. Then fix the lock screw A. The pan angle ranges from 0°~+350°.

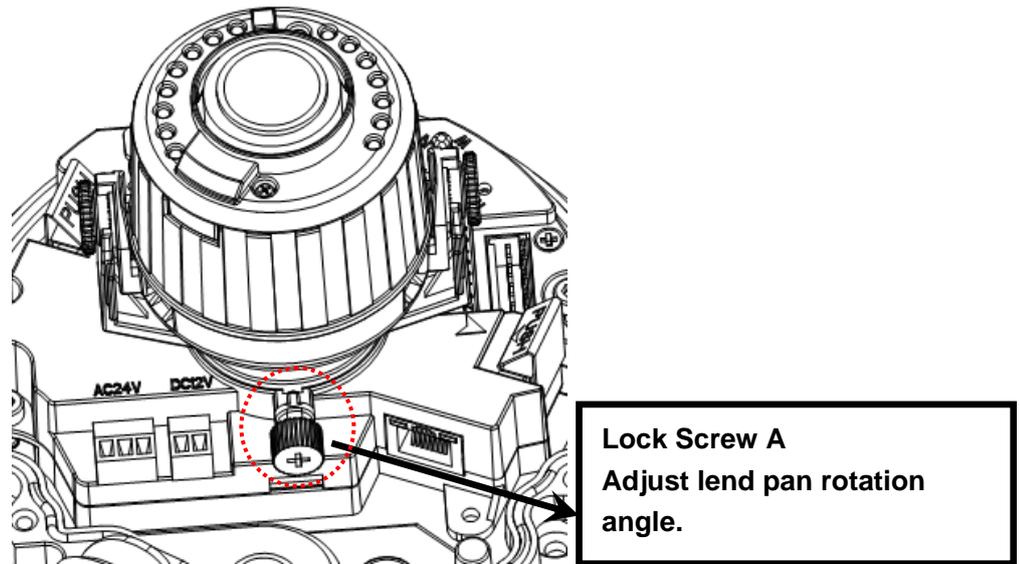


Figure 3-6

c). Lens tilt rotation angle. Please refer to Figure 3-7 to unfasten the lock screw B and lock screw C and adjust the tilt monitor angle to the proper position. Then fix the lock screw B and lock screw C. The tilt angle ranges from  $-23^{\circ}\sim+73^{\circ}$ .

d). Image pan rotation angle setup. Please refer to Figure 3-7 to turn lock screw D to adjust the video pan angle. Then fix the lock screw B and C. The video pan angle ranges from  $0^{\circ}\sim+350^{\circ}$ .

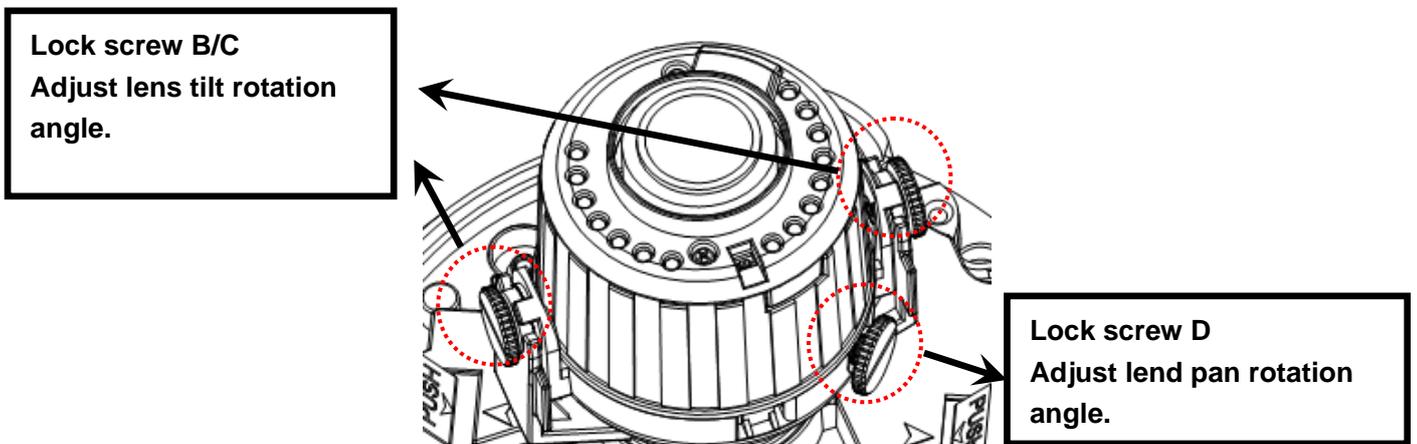


Figure 3-7

e) For the motorized zoom series product, please skip current step. Please refer to chapter 3.2.2 for the lens zoom and focus operation of the manual focus series product.

f) For the IR series product, please skip current step and complete the angle setup directly. For the non-IR series product, please put back the black plastic decoration enclosure to complete the angle setup.

**Important**

Please note Figure 3-6 and Figure 3-7 is based on the IR motorized zoom camera. For the IR manual zoom camera and non-IR series product, the lock screw position and the lens angle adjustment are the same.

### Step 7

Line up the dome camera protection enclosure to the cable exit on the side panel. Put the enclosure back and then use the inner hex wrench to secure the 3 inner hex screws firmly. Now the installation is complete.

### Note

Usually we recommend, after the installation, please take the three white static protection gaskets from the accessories bag and insert them to the screw holes of the protection enclosure. It is to enhance device reliability.

## 3.2.2 Manual Zoom Lens Focus Operation

The manual zoom lens focus interface is shown as in Figure 3-8.

### Step 1

Slightly loosen the adjusting screw E and push the adjust screw E to make it swing. Adjust the lens focus to the proper position according to the displayed video.

### Step 2

Slightly loosen the adjusting screw F and push the adjust screw F to make it swing. Adjust the lens to get the clear video and then fix the adjusting screw firmly.

### Step 3

When you are securing the adjusting screw F, you can see the video may become blur. Please push the adjusting screw E to adjust the video slightly. Please secure the adjust screw E if you get a clear video.

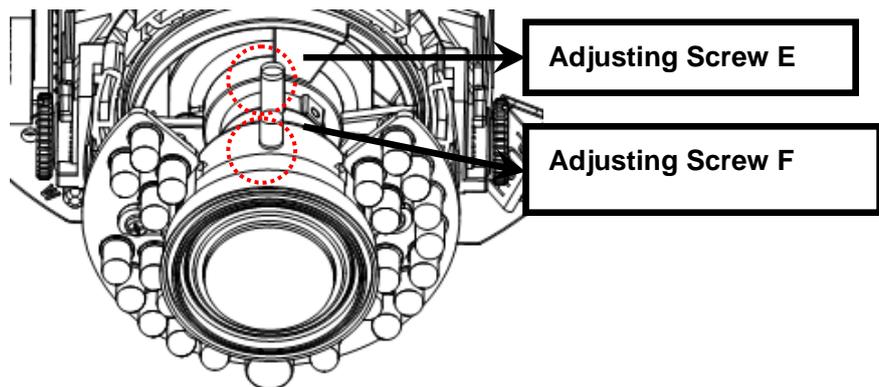


Figure 3-8

## 3.2.3 Side Cable Exit

If you adopt side cable exit when you are installing the device, you need to remove the plastic decoration plug from the side of the chassis. Use the proper tool to dig through the part specified in Figure 3-9 to form a cable exit. Put the plastic decoration plug back to the chassis and then pull the cable through the side panel of the chassis.

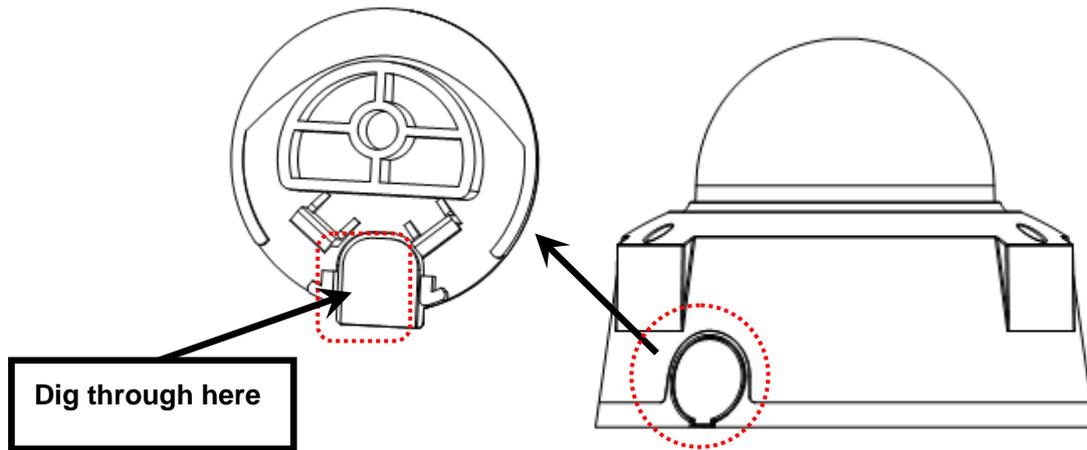


Figure 3-9

For some special user, he may need the metal protection tube to protect when he pulls through the cable from the side cable. There is PG11 screw thread port when you pull through the cable from the side panel. Please remove the plastic decoration plug from the side panel of the chassis and pull through the cable to the tunnel of the PG11 screw thread. Now secure the tunnel in the PG11 screw threaded hole of the device.

### 3.2.4 Cable Connection

The device reserves two cable exits. The pin diameter shall be less than 15mm. One of the cable exits has M22 screw thread and can work with the default combination cable to remove the risk of the dragging and pulling of the cable.

The device has two waterproof airproof plugs (One default position is the cable exit of the chassis of the device and the other is in the accessories bag.). The waterproof airproof plug has two functions. One is to fill in the cable exit and pull through the cable. It supports the cable whose diameter ranges from 4.0~6.0. It is very convenient for you to do the waterproof work when you pull the cable through your own exit. Please refer to the steps listed.

#### Step 1

Take the waterproof airproof plug out, pull the cable (diameter ranges from 4.0 to 6.0) through the waterproof airproof plug. See Figure 3-10.



Figure 3-10

### Step 2

Before you go to the Step 4 in the chapter 3.2.1 installation steps, please pull through cable with the waterproof airproof plug to the device chassis via the installation hole at the bottom of the chassis and then connect the cable pins.

### Step 3

Refer to Step 4 and Step 5 in the chapter 3.2.1 installation steps to install and connect the cable pin to the device and then follow the proper steps to go on the installation.

### Important

**This series product has the power connection pin and I/O connection pin for you to pull through the signal cable.**

## 3.3 SD Installation

### Warning!

**Please unplug the device power cable and then shutdown the device before you install the SD card.**

### Step 1

Please refer to Step2 in chapter 3.2.1 installation steps to open the device protection enclosure.

### Step 2

Please find the “SD” mark inside the device and adjust the SD card direction according to prompt direction. Insert the card to the slot and then install the SD card. See Figure 3-11.

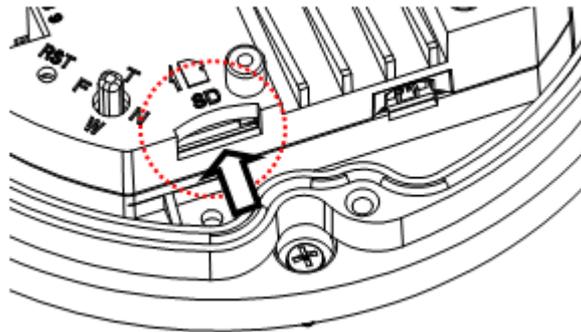


Figure 3-11

### Step 3

Please refer to Step 7 in chapter 3.2.1 to put the device protection enclosure back.



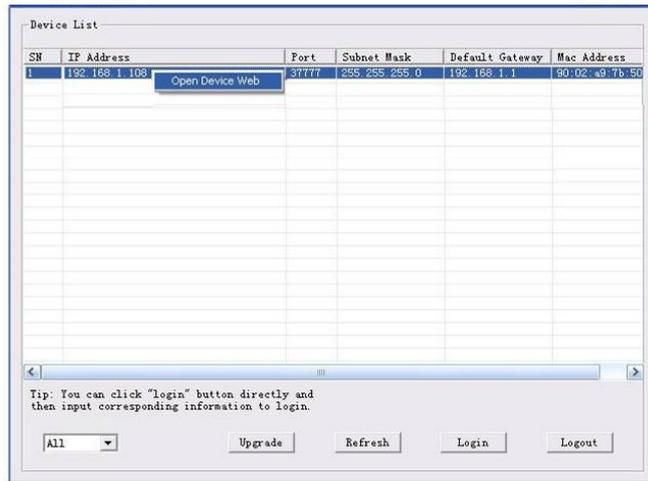


Figure 4-2

Select the “Open Device Web” item; you can go to the corresponding web login interface. See Figure 4-3.

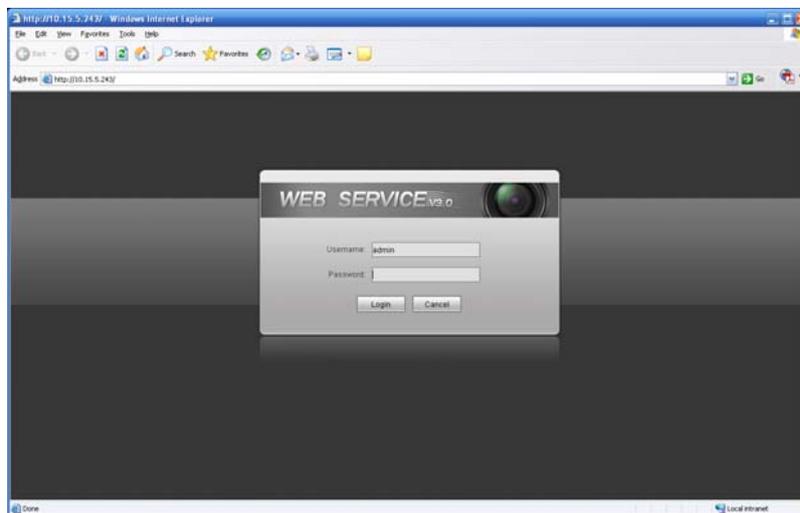


Figure 4-3

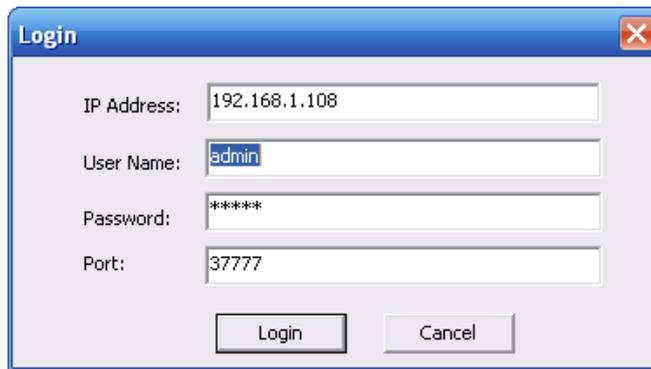
If you want to modify the device IP address without logging in the device web interface, you can go to the configuration tool main interface to set.

In the configuration tool search interface (Figure 4-1), please select a device IP address and then double click it to open the login interface. Or you can select an IP address and then click the Login button to go to the login interface. See Figure 4-4.

In Figure 4-4, you can view device IP address, user name, password and port. Please modify the corresponding information to login.

Please note the port information here shall be identical with the port value you set in TCP port in Web Network interface. Otherwise, you can not login the device.

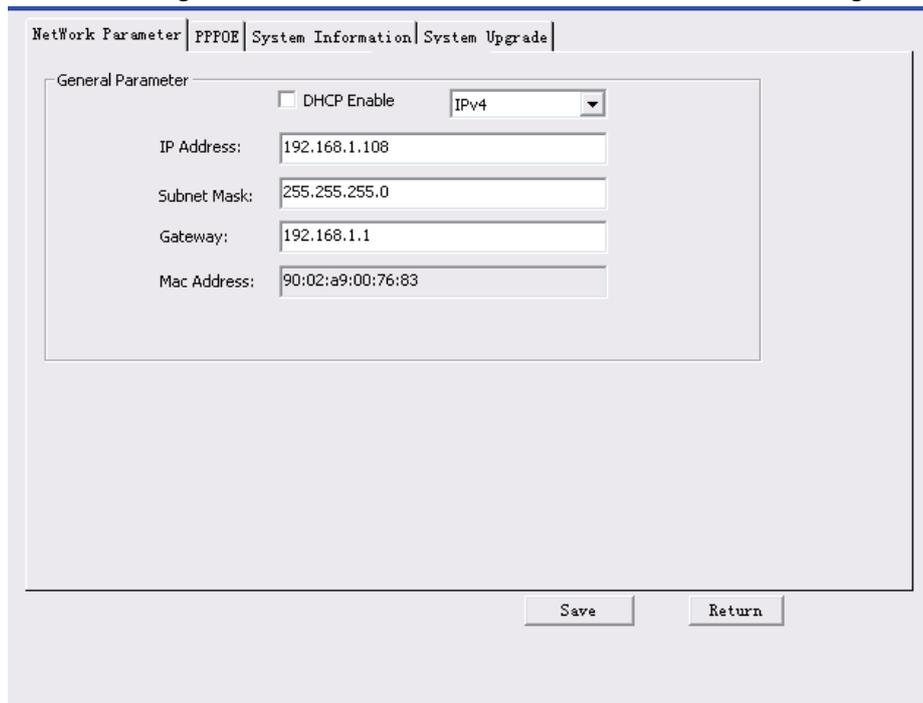
If you are using device background upgrade port 3800 to login, other setups are all invalid.



A login dialog box titled "Login" with a close button in the top right corner. It contains four input fields: "IP Address" with the value "192.168.1.108", "User Name" with the value "admin", "Password" with the value "\*\*\*\*\*", and "Port" with the value "37777". At the bottom, there are two buttons: "Login" and "Cancel".

Figure 4-4

After you logged in, the configuration tool main interface is shown as below. See Figure 4-5.



The main interface of the configuration tool. At the top, there are four tabs: "NetWork Parameter", "PPPOE", "System Information", and "System Upgrade". The "NetWork Parameter" tab is selected. Below the tabs is a "General Parameter" section. It contains a checkbox for "DHCP Enable" which is unchecked, and a dropdown menu for "IPv4" which is set to "IPv4". Below these are four input fields: "IP Address" (192.168.1.108), "Subnet Mask" (255.255.255.0), "Gateway" (192.168.1.1), and "Mac Address" (90:02:a9:00:76:83). At the bottom right, there are two buttons: "Save" and "Return".

Figure 4-5

**For detailed information and operation instruction of the quick configuration tool, please refer to the *Quick Configuration Tool User's Manual* included in the resources CD.**

## 5 Web Operation

These series network camera products support the Web access and management via PC. Web includes several modules: Monitor channel preview, system configuration, alarm and etc.

### 5.1 Network Connection

Please follow the steps listed below for network connection.

- Make sure the network camera has connected to the network properly.
- Please set the IP address, subnet mask and gateway of the PC and the network camera respectively. Network camera default IP address is 192.168.1.108. Subnet mask is 255.255.255.0. Gateway is 192.168.1.1
- Use order ping `***.***.***.***`(\* network camera address) to check connection is OK or not.

### 5.2 Login and Main Interface

Open IE and input network camera address in the address bar.

For example, if your camera IP is 192.168.1.108, then please input `http:// 192.168.1.108` in IE address bar. See Figure 5-1.

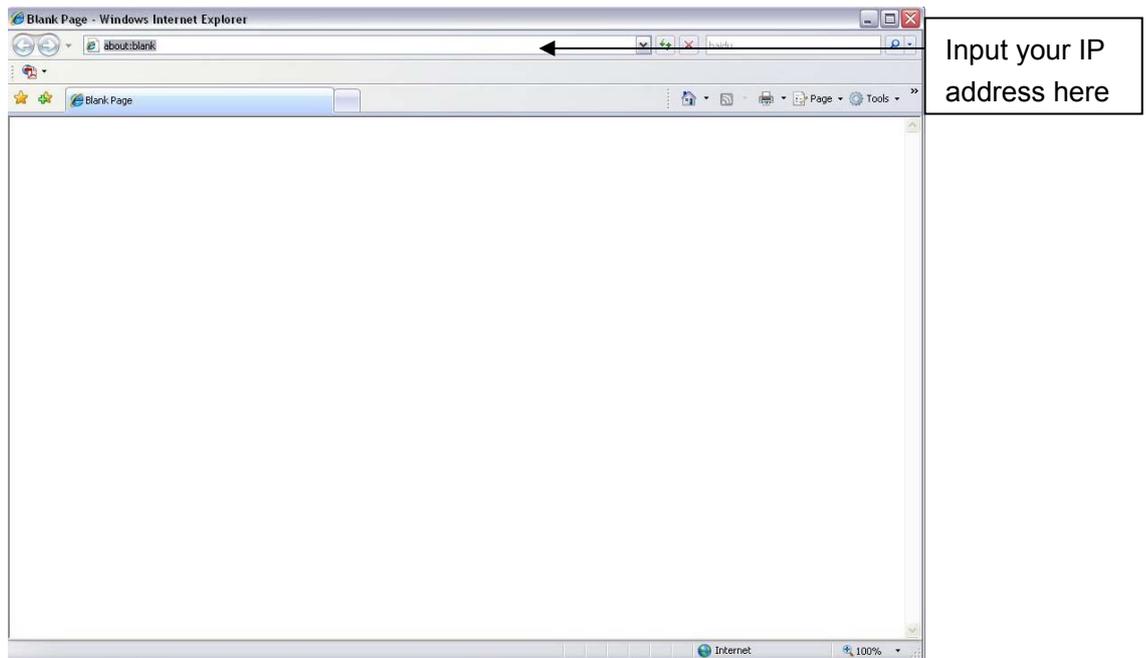


Figure 5-1

The login interface is shown as below. See Figure 5-2.

Please input your user name and password.

Default factory name is admin and password is admin.

**Note: For security reasons, please modify your password after you first login.**

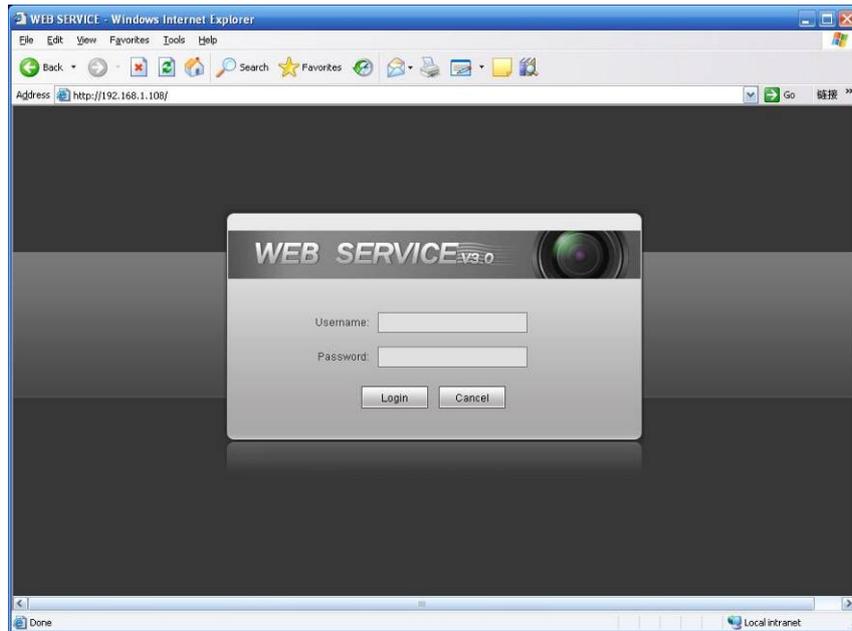


Figure 5-2

If it is your first time to login in, system pops up warning information to ask you whether install control webrec.cab or not after you logged in for one minute. Please click OK button, system can automatically install the control. When system is upgrading, it can overwrite the previous Web too. If you can't download the ActiveX file, please check whether you have installed the plug-in to disable the control download. Or you can lower the IE security level. See Figure 5-3.

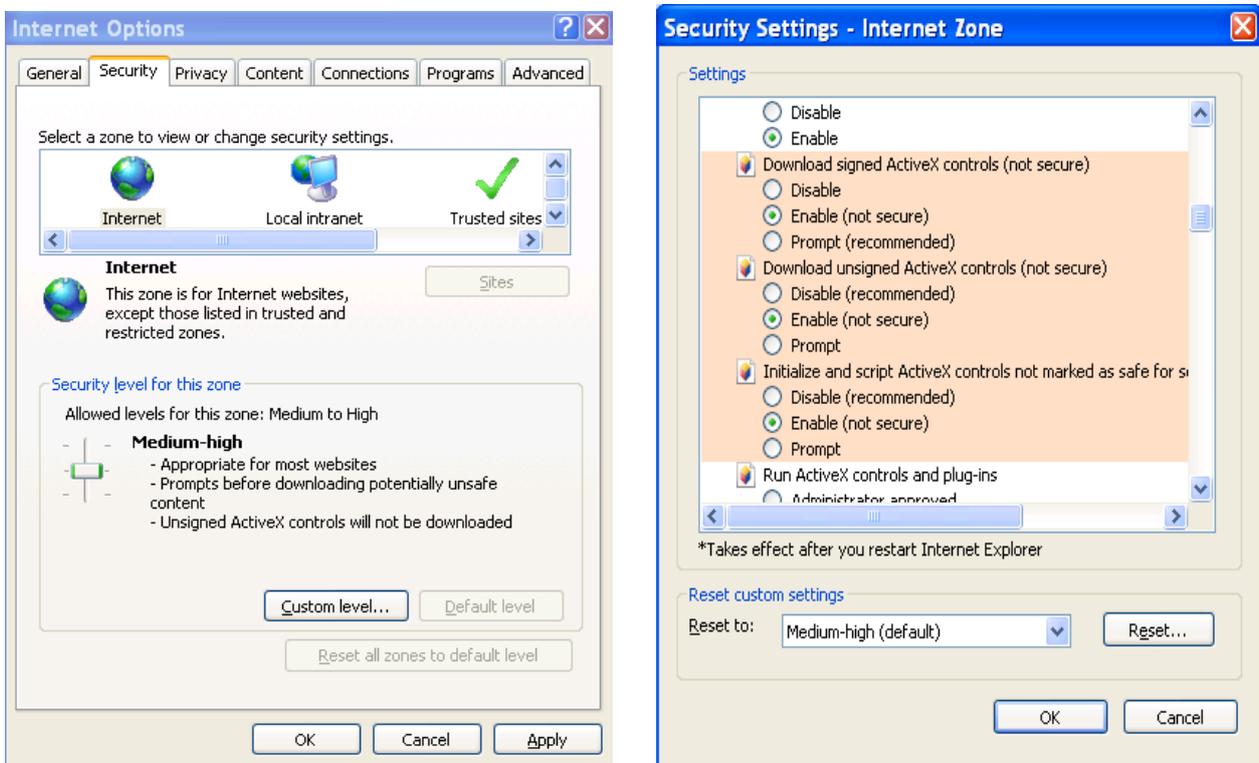


Figure 5-3

After you logged in, you can see the main window. See Figure 5-4.

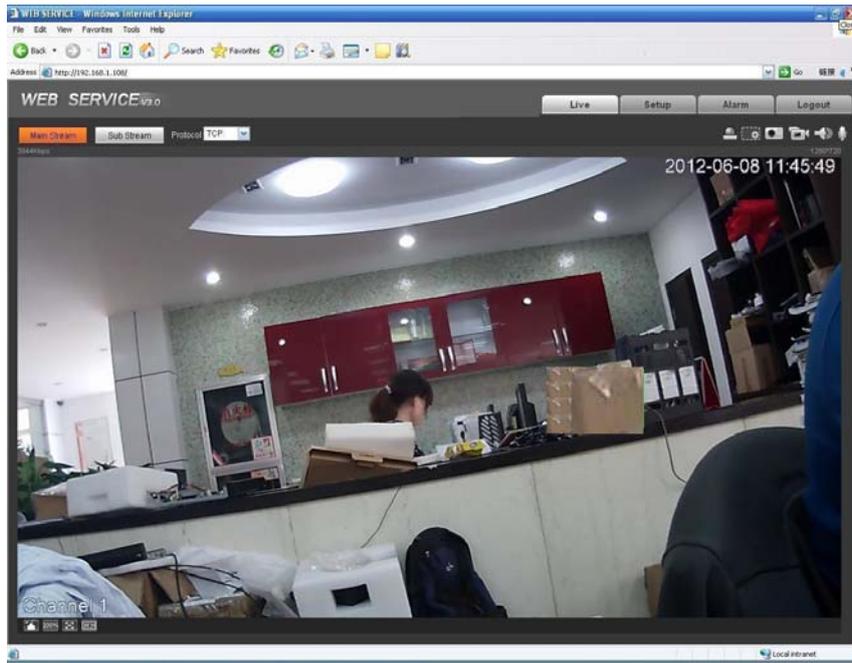


Figure 5-4

Please refer to the Web Operation Manual included in the resource CD for detailed operation instruction.

## 6 FAQ

Bug	
I can not boot up the device.	Please click RESET button for at least five seconds to restore factory default setup.
SD card write times	Do not set the SD card as the storage media to storage the schedule record file. It may damage the SD card duration.
I can not use the disk as the storage media.	When disk information is shown as hibernation or capacity is 0, please format it first (Via Web).
I can not upgrade the device via network.	When network upgrade operation failed, you can use port 3800 to continue upgrade.
Recommended SD card brand	Kingston 4GB, Kingston 1GB, Kingston 16GB, Transcend 16GB, SanDisk 1G, SanDisk 4G. Usually we recommend the 4GB (or higher) or industry-level high speed card in case the slow speed results in data loss.
Audio function	Please use active device for the audio monitor input, otherwise there is no audio in the client-end.
The lightproof ring of the IR device	The lightproof ring of the IR device lens is the necessary component when it works. You can not view the clear video when the IR light is on if you remove the lightproof ring.

## Appendix Toxic or Hazardous Materials or Elements

Component Name	Toxic or Hazardous Materials or Elements					
	Pb	Hg	Cd	Cr VI	PBB	PBDE
Circuit Board Component	○	○	○	○	○	○
Device Construction Material	○	○	○	○	○	○
Wire and Cable	○	○	○	○	○	○
Packing Components	○	○	○	○	○	○
Accessories	○	○	○	○	○	○

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.

X: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard. During the environmental-friendly use period (EFUP) period, the toxic or hazardous substance or elements contained in products will not leak or mutate so that the use of these (substances or elements) will not result in any severe environmental pollution, any bodily injury or damage to any assets. The consumer is not authorized to process such kind of substances or elements, please return to the corresponding local authorities to process according to your local government statutes.

### Note

- **This user's manual is for reference only. Slight difference may be found in user interface.**
- **All the designs and software here are subject to change without prior written notice.**
- **All trademarks and registered trademarks mentioned are the properties of their respective owners.**
- **If there is any uncertainty or controversy, please refer to the final explanation of us.**
- **Please visit our website for more information.**