
HD IR Speed Dome User's Manual

Version 1.0.1

Table of Contents

1	FEATURES AND FUNCTIONS.....	1
1.1	General Introduction.....	1
1.2	Features.....	1
1.2.1	Zoom Speed Limit.....	1
1.2.2	OSD.....	1
1.2.3	Preset Setup and Call.....	1
1.2.4	Auto Scan.....	1
1.2.5	Auto Touring.....	1
1.2.6	Auto Pattern.....	1
1.2.7	Privacy Masking.....	1
1.2.8	Auto Flip.....	1
1.2.9	Self-diagnosis.....	1
1.2.10	Day/Night Mode (B/W & Color Mode).....	2
1.2.11	Auto Focus.....	2
1.2.12	Backlight Compensation.....	2
1.2.13	Pan Tilt and Zoom.....	2
1.2.14	3D Intelligent Positioning.....	2
1.2.15	Idle Status.....	2
1.2.16	Image Stabilizer/Flip.....	2
2	QUICK CONFIGURATION TOOL.....	3
2.1	Overview.....	3
2.2	Operation.....	3
3	WEB OPERATION.....	6
3.1	Network Connection.....	6
3.2	Login and Logout.....	6

4	CABLE CONNECTION	9
4.1	Combination Cable Connection.....	9
4.2	System Layout	10
4.2.1	System Connection	10
4.2.2	Alarm Connection	10
5	FAQ.....	11
5.1	Daily Maintenance	11
5.2	Problems and Solutions	11
6	APPENDIX I LIGHTNING PROOF AND SURGE PROTECTION	12
7	APPENDIX 2 TOXIC OR HAZARDOUS MATERIALS OR ELEMENTS	13

Welcome

Thank you for purchasing our product!

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

Here you can find information about this speed dome features and functions, as well as a detailed menu tree.

Please keep it well for future reference!

Before installation and operation, please read the following safeguards and warnings carefully!

Important Safeguards and Warnings

1 . Electrical safety

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

- No heavy stress, violent vibration or water splash are allowed during transportation, storage and installation.
- Please use the original packing material (or the material of the same quality) when you ship it back to the manufacturer.

3 . Installation

- Do not apply power to the product before completing installation.
- Do not put object on the product.

4. Qualification Requirement

- The device has to be installed and repaired by professional licensed technician and installation personnel.

5. Dismantling

- Don't remove screws or protection cover; there are no parts inside the SD for users to repair by themselves.

6 . Environment

- This series product 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 keep the sound ventilation.
- Do not allow the water and other liquid falling into the device. This series product complies with the IP66 standard specified in the Degrees of Protection Provided by Enclosure.
- Please make sure the CCD (CMOS) component is out of the radiation of the IR beam device. Otherwise it may result in CCD (CMOS) optical component damage.
- Usually we recommend thunder-proof device to prevent thunder strike.
- The GND port of the product shall be grounded to further enhance the reliability of the device.

7. Daily Maintenance

- Current series product has no power button. Please unplug all corresponding power cables before your begin installation or daily maintenance work.

-
- Please keep the dustproof cap back to protect the CCD or CMOS part if the device does not work for a long time.
 - Do not touch CCD (CMOS) component. You can use the blower to clean the dust on the surface of the device. You can use the dry cloth with some alcohol or mild detergent to clear if necessary.
 - Do not use the volatility solvent such as the benzene or thinner, or detergent with strong abrasibility. It may result in lens damage or it may adversely affect the device performance.
 - 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.

8. About Accessories

Always use all the accessories recommended by manufacturer.

Before installation, please open the package and check that all the components are included in the package:

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

1 Features and Functions

1.1 General Introduction

This series HD IR speed dome product is an integrated high intelligent speed dome. It adopts new configuration design and is easy for the project construction. This is a digital and intelligent product of vivid video. The installation is convenient.

Comparing with the previous series product, this series HD IR speed dome has added some new features. It supports intelligent analysis function, and the PTZ rotation speed can automatically adjust according to the zoom rate of the lens. It supports various languages, real-time clock function and protocol auto recognition. It supports 360° continuously pan, 110° tilt(-20°-90°) and 180° auto flip. It can realize no blind spot monitor.

1.2 Features

This series speed dome has the following features:

1.2.1 Zoom Speed Limit

The IR HD intelligent speed Dome adopts auto match technology between focal length and rotation speed. The pan and tilt speed of the speed dome change according to the zoom rate of the device. The movement speed becomes slower when the zoom speed increases, and the movement speed becomes higher when the zoom speed decreases.

1.2.2 OSD

It can display the called preset and preset ID, speed dome title, speed dome system temperature, speed dome location coordinates when touring via menu setting.

1.2.3 Preset Setup and Call

Preset function is to save the address information (such as PTZ pan/tilt, focus and etc) to the memory so that you can quickly adjust the dome and PTZ to the correct position.

1.2.4 Auto Scan

Camera scans back and forth regularly in a horizontal field. Here you need to set left and right limit and scan speed.

1.2.5 Auto Touring

Add addresses into a routine in a desired order and then set time and stop duration for each address. The dome will begin an auto touring between these addresses.

1.2.6 Auto Pattern

Memorize dome operation such as pan, tilt, and zoom to repeat. You can call it to repeat the previous operation.

1.2.7 Privacy Masking

Privacy masking is a user-defined, four-sided area that cannot be viewed by you. The masking area will move with pan and tilt functions and automatically adjust in size as the lens zooms.

1.2.8 Auto Flip

As long as you continue to hold the keyboard joystick in the down position, the dome rotates 180 degrees and repositions itself for uninterrupted viewing of any subjects that passes directly beneath the dome.

1.2.9 Self-diagnosis

There is a self diagnosis procedure when dome boots up.

- Tilt and vertical engine check

-
- Camera diagnostics (mainly zoom function diagnosis)
 - Display dome information.

1.2.10 Day/Night Mode (B/W & Color Mode)

Auto/manual switches in low illumination. There are several modes such as photoresistor, auto, manual and etc. This function needs the speed dome driver (camera) supported.

1.2.11 Auto Focus

Support camera auto focus function.

1.2.12 Backlight Compensation

Balance the brightest and darkest sections of a scene to produce a more vivid picture.

1.2.13 Pan Tilt and Zoom

Supports zoom in and zoom out during tilt and pan movement.

You can still get vivid image even you set auto focus and auto iris during this period.

1.2.14 3D Intelligent Positioning

Support 3D intelligent positioning function. The speed dome can auto track to the specified zone.

1.2.15 Idle Status

When there is no available order for specified duration, you can use menu to set dome idle status.

1.2.16 Image Stabilizer/Flip

You can enable image stabilizer function and flip in the menu.

When there is vibration, this IS function can guarantee video stability and when flip, you can view video more clearly.

This function needs speed dome driver (camera) supported.

2 Quick Configuration Tool

2.1 Overview

Quick configuration tool can search current IP address, modify IP address. At the same time, you can use it to upgrade the device.

Please note the tool only applies to the IP addresses in the same segment.

2.2 Operation

Double click the “ConfigTools.exe” icon, you can see an interface is shown as in Figure 2-1.

In the device list interface, you can view device IP address, port number, subnet mask, default gateway, MAC address and etc.

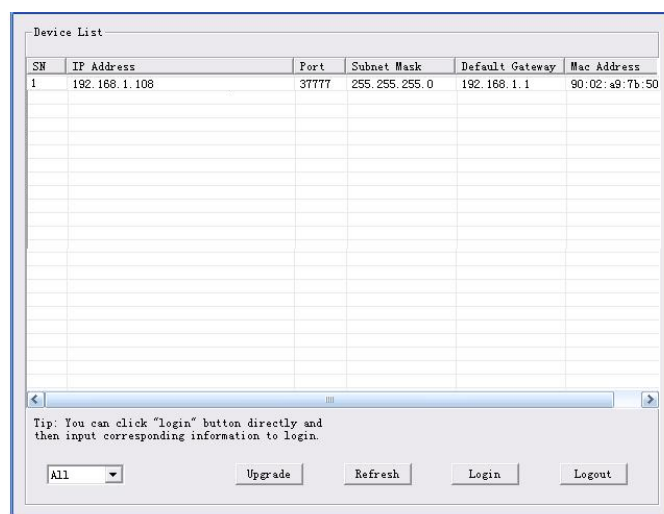


Figure 2-1

Select one IP address and then right click mouse, you can see an interface is shown as in Figure 2-2.

Note:

You can set the IP address, subnet mask and gateway for the network camera and PC. Please note network camera IP address and PC IP address shall be in the same network segment if there is no router. Network camera default IP address is 192.168.1.108. If there is a router, please set the corresponding gateway and subnet mask.

The factory default user name is **admin** and password is **admin**. For security reasons, please modify your password after you first login.

For detailed WEB operation, please refer to the Web Operation Manual in the resource CD.

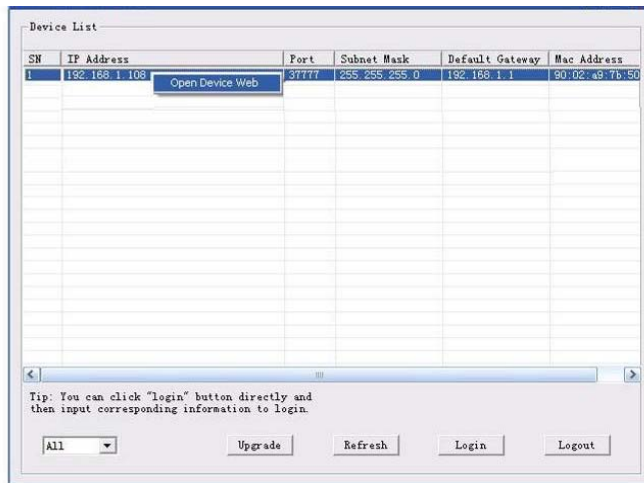


Figure 2-2

Select the “Open Device Web” item; you can go to the corresponding web login interface. See Figure 2-3.



Figure 2-3

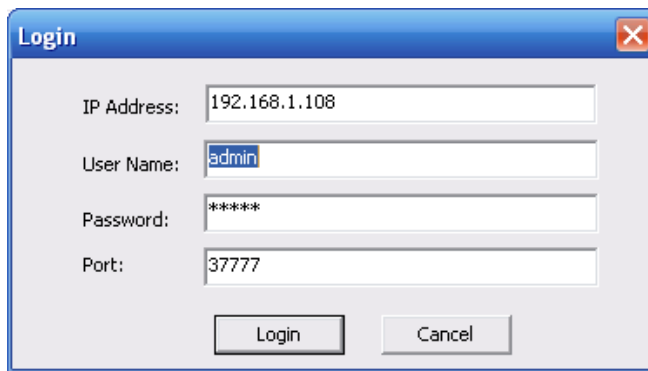
If you want to modify the device IP address without logging in the device web interface, you can go to the configuration tool main interface to set.

In the configuration tool search interface (Figure 2-1), 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 2-4.

In Figure 2-4, 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 cannot login the device.

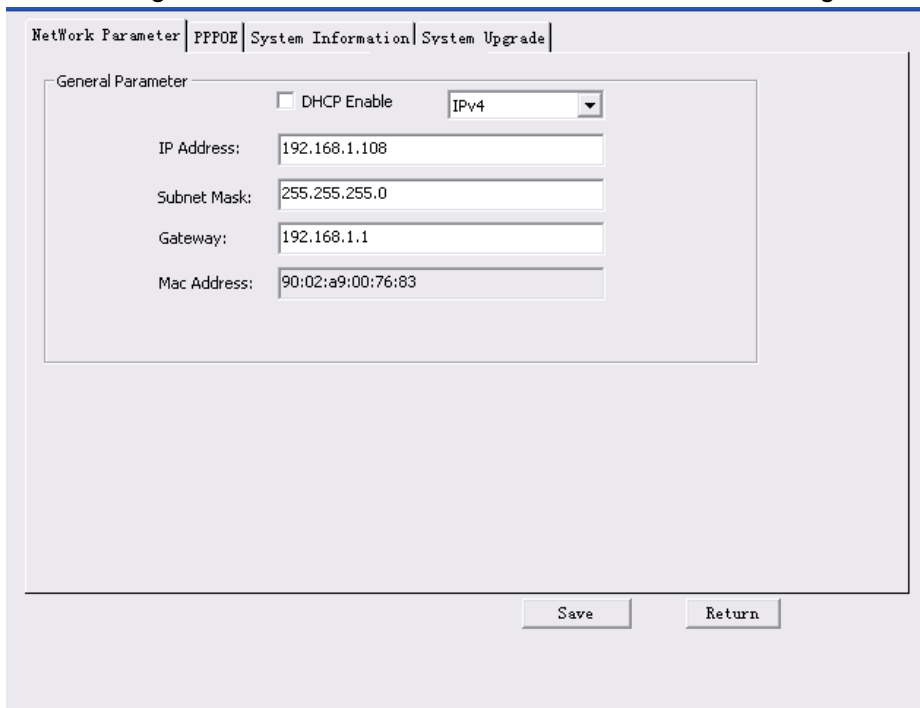
If you are using device background upgrade port 3800 to login, other setups are all invalid.



A login dialog box titled "Login" with a close button (X) 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 2-4

After you logged in, the configuration tool main interface is shown as below. See Figure 2-5.



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 2-5

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.

3 Web Operation

This series speed dome product supports the Web access and management via PC. Web includes several modules: live view, PTZ, setup, alarm, logout and etc.

Speed dome factory default setup:

- IP address: 192.168.1.108.
- User name: admin
- Password: admin

3.1 Network Connection

Please follow the steps listed below for network connection.

- Make sure the speed dome has connected to the network properly.
- Speed dome IP address and PC IP address shall be in the same network segment. Speed dome default IP address is 192.168.1.108. If there is router, please set the corresponding gateway and subnet mask.
- Use order ping `***.***.***.*** (* speed dome address)` to check connection is OK or not.

3.2 Login and Logout

Open IE and input speed dome address in the address bar.

For example, if your speed dome IP is 192.168.1.108, then please input `http:// 192.168.1.108` in IE address bar. See Figure 3-1.

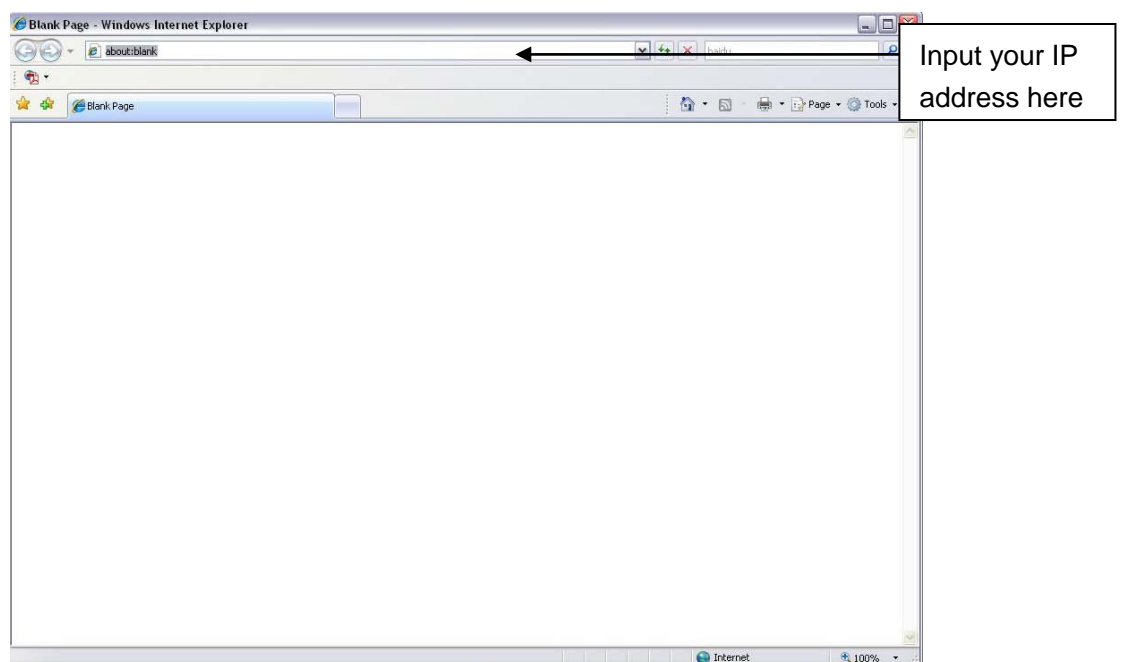


Figure 3-1

System pops up warning information to ask you whether install control webrec.cab or not. 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 3-2.

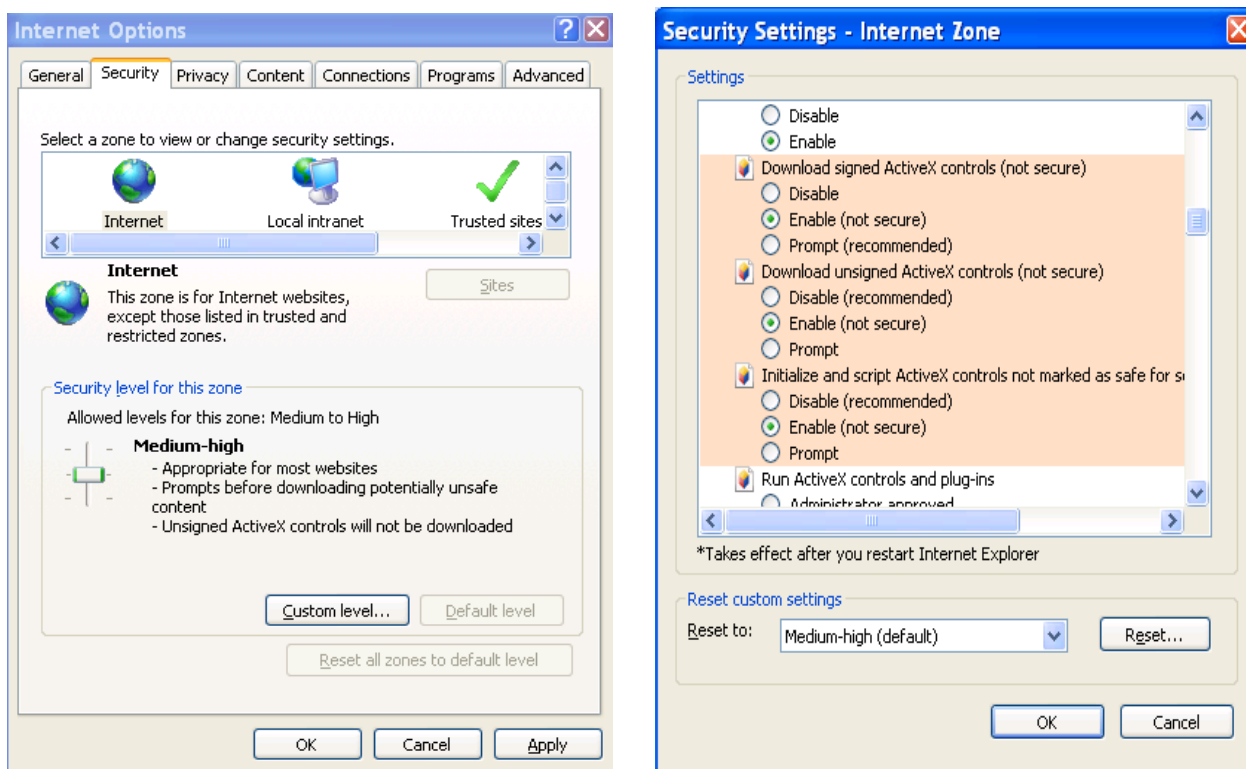


Figure 3-2

After installation, the interface is shown as below. See Figure 3-3.

Please input your user name and password.

Default factory name is **admin** and password is **admin**.

Select the network connection type.

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

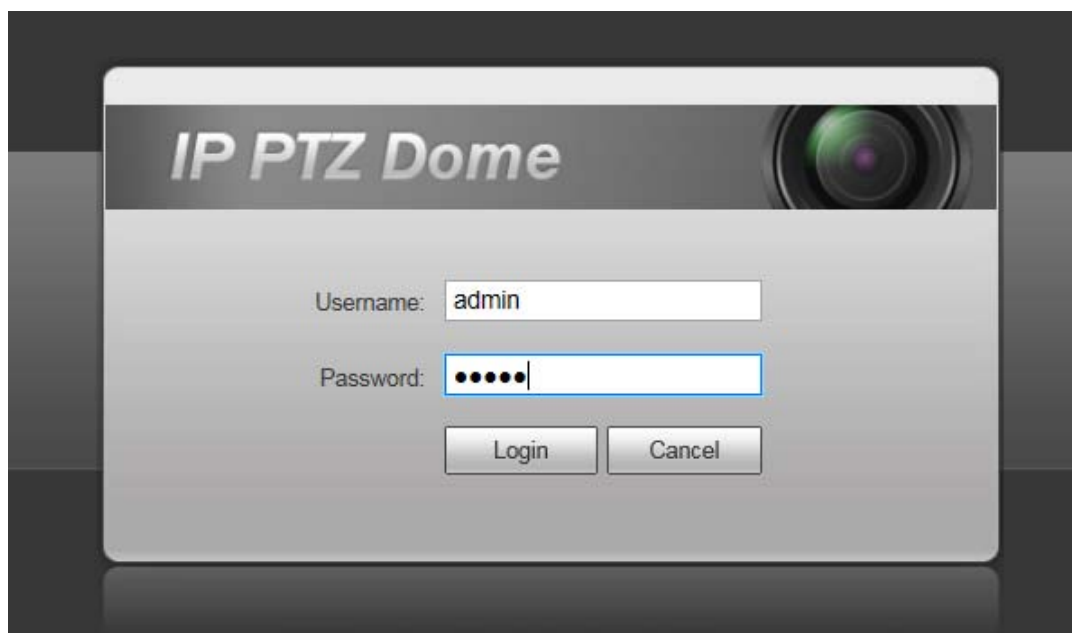


Figure 3-3

After you logged in, you can see the main window. See Figure 3-4.

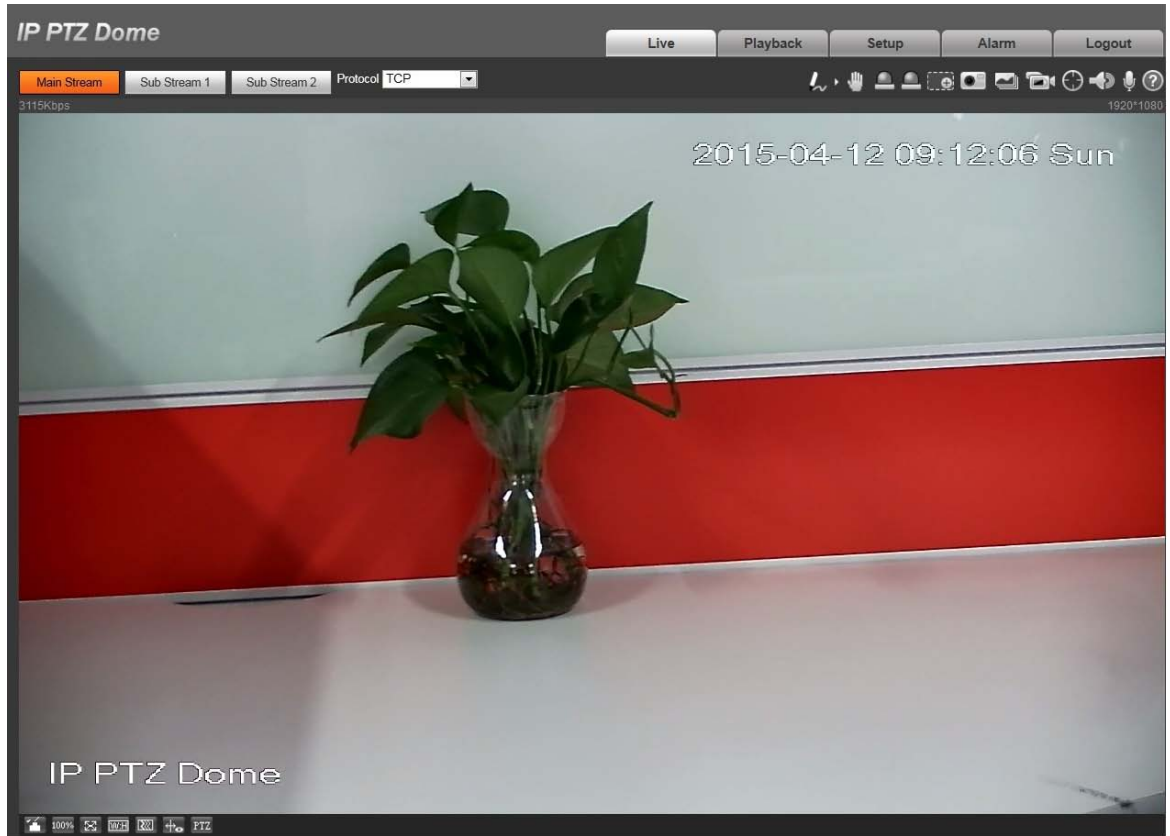


Figure 3-4

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

4 Cable Connection

4.1 Combination Cable Connection

The speed dome combination cable includes network cable, audio/video cable connection port, RS485 connection port, alarm input and output port. Please refer to the label for detailed information.

- **Please note the IE6 does not support alarm upload function. Please use IE7 or higher version.**
- **If it is your first time to boot up the WEB on the Windows 7 OS, please right click the Internet Explorer icon on the desktop and then select “Run as Administrator”.**
- **Slight difference may be found in the port amount since some functions are optional.**
- **Recommended models of PoE Switch**

8-Ch: S1000-8TP

1-Ch: PFT1200

Name		Function
POWER GND		Power port. Connect to the power cable. GND: ground end.
485A 485B		RS485 remote control.
AUDIO	OUT	Audio output port.
	GND	Ground port.
	IN	Audio input port.
VIDEO	GND	Ground port.
	OUT	Video output port.
RJ 45		Network port. Connect to network cable and HI-PoE
ALARM IN		<ul style="list-style-type: none"> ● Seven alarm input channels. It is to receive relay signal from the external alarm source. You can go to dome menu to activate specified preset or patter. ● When the activation mode is NO (normal open), dome alarms when there is low voltage. High voltage will not activate the alarm. ● When the activation mode is NC (normal close), dome alarms when there is high voltage. Low voltage will not activate the alarm. <p>Note:</p> <ul style="list-style-type: none"> ● Dome alarm input message is ground mode. ● Dome alarm input signal are two modes: normal open and normal close. ● The default setup: 7-channel alarm input.
	GND	Alarm input ground end.

ALARM OUT	2	<ul style="list-style-type: none"> Two alarm output channels. When there is an alarm from current channel, system activates relay or not. Alarm output relay default setup is NO. <p>Note:</p> <p>The default setup: 1-channel alarm output, 2-channel alarm output optional.</p>
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4.2 System Layout

4.2.1 System Connection

Please refer to Figure 4-1 for system connection information.

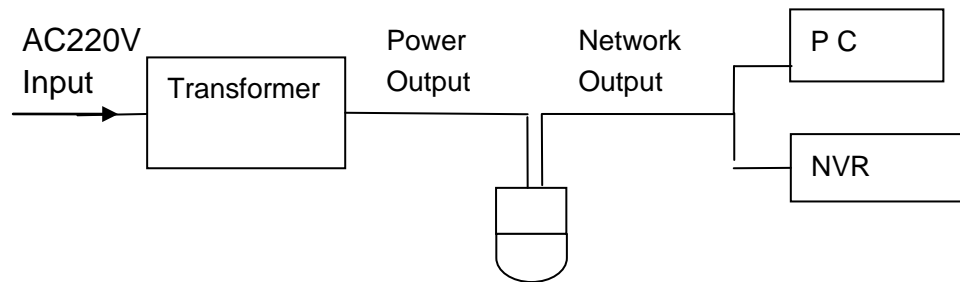


Figure 4-1

4.2.2 Alarm Connection

Please refer to Figure 4-2 for alarm connection information.

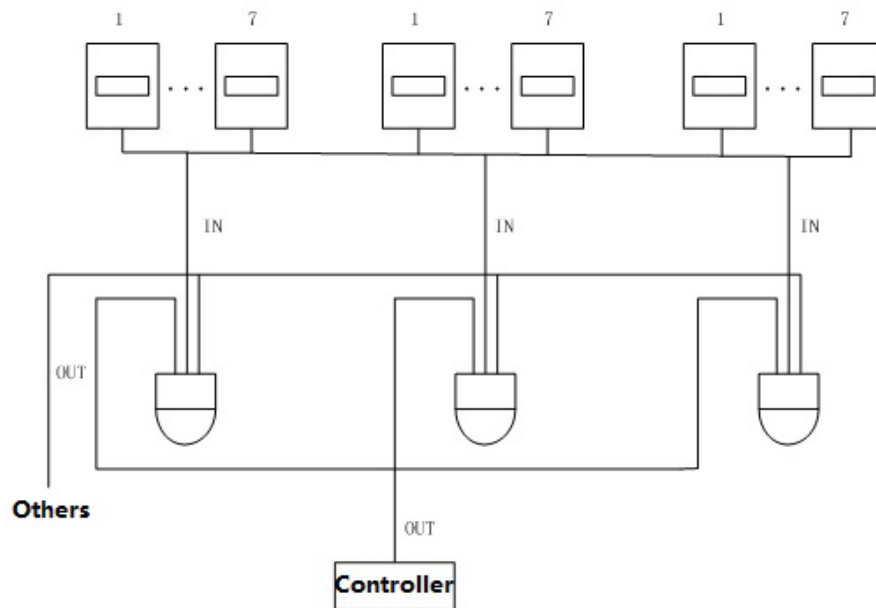


Figure 4-2

5 FAQ

5.1 Daily Maintenance

Please clean dome cover regularly to get vivid image.

Handle the cover with care. Use water to wash. Don't use cloth to clean.

Note:

The sweat from your hand may erode plating surface, your nail may scrape dome cover resulting in blur image.

5.2 Problems and Solutions

SYMPTOM	CAUSE	SOLUTION
1) No self-diagnosis, no video signal when I connect dome to power.	Red LED is not on. <ul style="list-style-type: none">● Your power supplying does not apply to the power. Or connection is too loose.● Power off or transformer problem.	<ul style="list-style-type: none">● Check power is connected or properly earthed.● Check power supply condition or check transformer.
	Red LED light on the power board is on <ul style="list-style-type: none">● Power supplying is low● Something wrong with power board.	<ul style="list-style-type: none">● Use multimeter to check dome load.● Please contact retailer to replace power board.
2) No self diagnosis. There is a noise	Power supplying is inadequate.	Replace power supplying.
	Mechanical malfunction.	Need electrical engineer help.
3) Video signal is not successive	Circuit connection is too loose.	Connect tightly.
	Video switch or power problem	Need electrical engineer help.
4) Video is not clear.	Focus is in manual mode.	Control manually.
	Dome cover is dirty.	Wash dome cover
5) During camera switch, there is a tilt movement in the monitor.	Camera power is not in the same Phase.	When several domes are connected to one transformer, please connect the transformer output cable to the domes' same side.

6 Appendix I Lightning Proof and Surge Protection

This series speed dome adopts TVS lightning protection technology. It can effectively prevent damages from various pulse signals below 1500W, such as sudden lighting and surge. While maintaining your local electrical safety code, you still need to take necessary precaution measures when installing the speed dome in the outdoor environment.

- The distance between the signal transmission cable and high-voltage device (or high-voltage cable) shall be at least 50 meters.
- Outdoor cable layout shall go under the penthouse if possible.
- For vast land, please use sealing steel tube under the land to implement cable layout and connects one point to the earth. Open floor cable layout is forbidden.
- In area of strong thunderstorm hit or near high sensitive voltage (such as near high-voltage transformer substation), you need to install additional high-power thunder protection device or lightning rod.
- The thunder protection and earth of the outdoor device and cable shall be considered in the building whole thunder protection and conform to your local national or industry standard.
- System shall adopt equal-potential wiring. The earth device shall meet anti-jamming and at the same time conforms to your local electrical safety code. The earth device shall not short circuit to N (neutral) line of high voltage power grid or mixed with other wires. When connect the system to the earth alone, the earth resistance shall not be more than $4\ \Omega$ and earth cable cross-sectional area shall below $25\ \text{mm}^2$. See Figure 6-1.

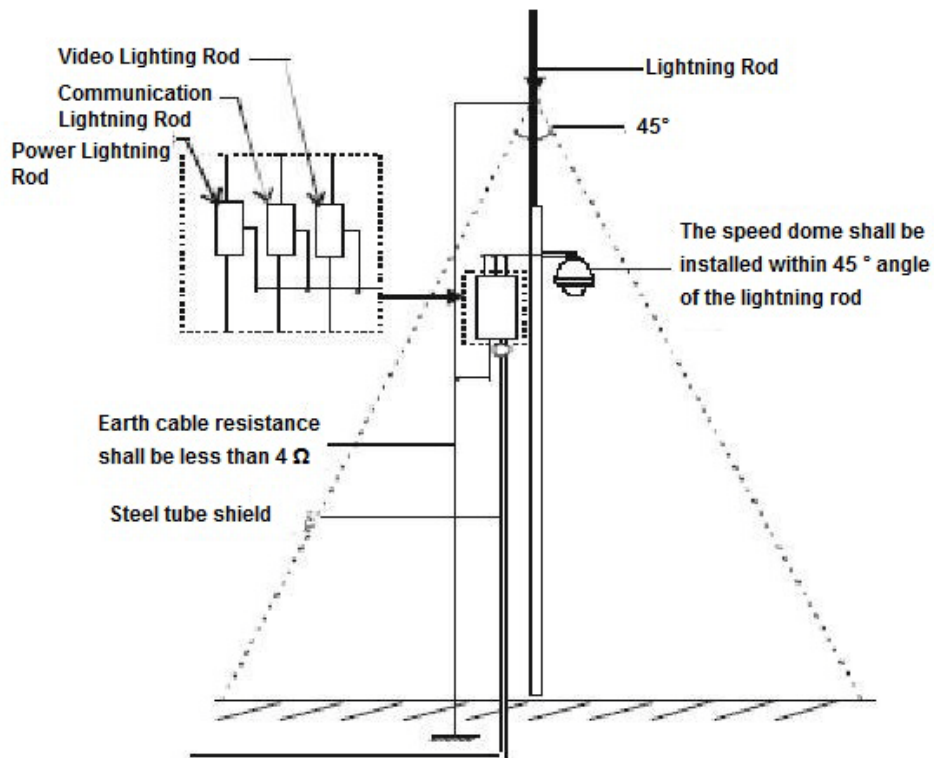


Figure 6-1

7 Appendix 2 Toxic or Hazardous Materials or Elements

Component Name	Toxic or Hazardous Materials or Elements					
	Pb	Hg	Cd	Cr VI	PBB	PBDE
Sheet Metal	○	○	○	○	○	○
Plastic Parts	○	○	○	○	○	○
PCB	○	○	○	○	○	○
Housing	○	○	○	○	○	○
Camera Driver	○	○	○	○	○	○
Bearing	○	○	○	○	○	○
Connection Cable	○	○	○	○	○	○
Motor (If possible)	○	○	○	○	○	○
Power (If possible)	○	○	○	○	○	○
Bracket (If possible)	○	○	○	○	○	○
Accessories	○	○	○	○	○	○

Note

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 manual is for reference only. Slight difference may be found in the user interface.**
- **All the designs and software here are subject to change without prior written notice.**
- **All trademarks and registered trademarks 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 or contact your local service engineer for more information.**