Full D1 480TVL IP Indoor Fixed Dome w/ Audio

(with DC12V / PoE)

Ver. 061031

Quick Installation Guide

0 PRECAUTIONS

1. **Read these instructions**
   All the safety and operating instructions should be read before the product is operated.
2. **Heed all warnings**
   All warnings on the product and in the instruction manual should be adhered to.

The symbol indicates the following items, please carefully read the description next to each symbol.

   a. Failure to follow the safety instruction given may directly endanger people, cause damage to the system or to other equipment.
   b. The requirements to make this device work, including hardware, computer settings, network settings, and operation procedures.
   c. The tips to make using this device easier, more convenient and more efficient.

3. **Servicing**
   Do not attempt to service this video product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Trademarks

All names used in this manual for hardware and software are probably registered trademarks of respective companies.

Liability

Every care has been taken during writing this manual. Please inform your local office if you find any inaccuracies or omissions. We cannot be held responsible for any typographical or technical errors and reserve the right to make changes to the product and manuals without prior notice.

FCC/CE Regulation

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses,

and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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1 INTRODUCTION

1.1 Package Contents

IP Fixed Dome
(DC12V / PoE)

Power Adaptor (Option)

Product CD

Accessory

1.2 Features and Benefits

The IP Indoor Fixed Dome is a cutting-edge digital video transmission device. It can compress and transmit real time images with outstanding images quality (D1, 720x480) at reasonable bandwidth through a standard TCP/IP network. That is because it is Ethernet (LAN and WAN) ready and has the powerful ARM9 SoC and the MPEG-4 compression ASIC inside. In addition, with these powerful hardware platform, excellent SDK support and powerful respective apparatuses (e.g. the transcoder), this IP Indoor Fixed Dome is your best choice building up either conventional IP surveillance system or intelligent IP surveillance system.

- **Real-time MPEG-4 Compression**

  With hardware MPEG-4 compression chip inside, the composite video inputs can be efficiently compressed into MPEG-4 bit stream without any delay. The ASIC base compression engine can support not only CIF, but also FULL D1 image resolution.

- **QoS Enabled Video Streaming**

  For real-time video streaming requirements, the IP Indoor Fixed Dome implemented the 802.1pQ features inside the SoC as the streaming engine to make sure the video streaming package is forwarded faster than normal TCP/UDP packet.

- **Automatic Frame Rate Control**

  The IP Indoor Fixed Dome supports automatic/manual streaming frame rate control, especially for multiple clients' concurrent access the same video stream in different network bandwidth.

- **Digital Time Code Embedded**

  The "Digital Time Code Embedded" function is to embed the recording time in the MPEG bit stream. Therefore, each image frame has its respective time when it was recorded. It is very useful when users want to find the video at an exact time or between a certain time intervals.

- **Build-in LAN and WAN (Low Latency PPPoE Supported) Ports**

  The IP Indoor Fixed Dome provides two terminal blocks. One is WAN and the other is LAN. The WAN port connects to the internet and LAN port connects to the local network. Since the internet's bandwidth is very critical, the WAN port is equipped with a low latency PPPoE

(Point-to-Point over Ethernet) which has excellent transmission speed and enables the IP Indoor Fixed Dome to connect to an ADSL or a cable modem.

- **DDNS Supported**

  The IP Indoor Fixed Dome supports DDNS (Dynamic Domain Name Server); users can set the IP Indoor Fixed Dome at a virtual domain name (such as cam1.Taipei.xxx) at dynamic IP. Everyone can use the virtual domain name to view the video anywhere that has the access to the internet.

- **Build-in Hardware Motion Detection**

  No more external motion sensors are required. Each IP Indoor Fixed Dome can be set up to three detection areas. By tuning the object size and sensitivity, it is very reliable to fit into your environment. Besides, hardware motion detection delivers better sensitivity and responds faster than software motion detection.

- **Bundle Powerful Surveillance Software**

  To extend the capabilities of the IP Indoor Fixed Dome, a powerful surveillance program is included in the package and is very free to use. Users can easily utilize the existing PC to be a digital video recorder. Schedule recording and manual recording keep every important image recorded in the local hard disk. Reliable and accurate motion detection with instant warning makes you responsive in every condition. Quick and simple search and playback function lets you easily find the images you want.

- **Software Development Kit Support**

  The IP Indoor Fixed Dome can be integrated or controlled by user's application program through the Streaming Library or ActiveX control. With its high level programming interface, software developer's time and efforts to is highly reduced.

1.3 Safety Instructions

- **Don’t use the power supply with other voltages**

  This device is likely to be damaged or damage other equipments / personnel, if you use a power supply with different voltage than the one included with this device. All warranty of this product will be voided in the situations above.

- **Don’t open the housing of the product**

- **Cleaning**

  Disconnect this video product from the power supply before cleaning.

- **Attachments**

  Do not use attachments not recommended by the video product manufacturer as they may cause hazards.

- **Water and Moisture**

  Do not use this video product near water, for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool and the like.

- **Don’t use accessories not recommended by the manufacturer**
- **Only install this device and the power supply in a dry place protected from weather**
- **Servicing**

  Do not attempt to service this video product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

- **Damage Requiring service**

  Disconnect this video product from the power supply immediately and refer servicing to qualified service personnel under the following conditions.

  1. When the power-supply cord or plug is damaged.

  2. If liquid has been spilled, or objects have fallen into the video product.

  3. If the video product has been exposed to rain or water directly.

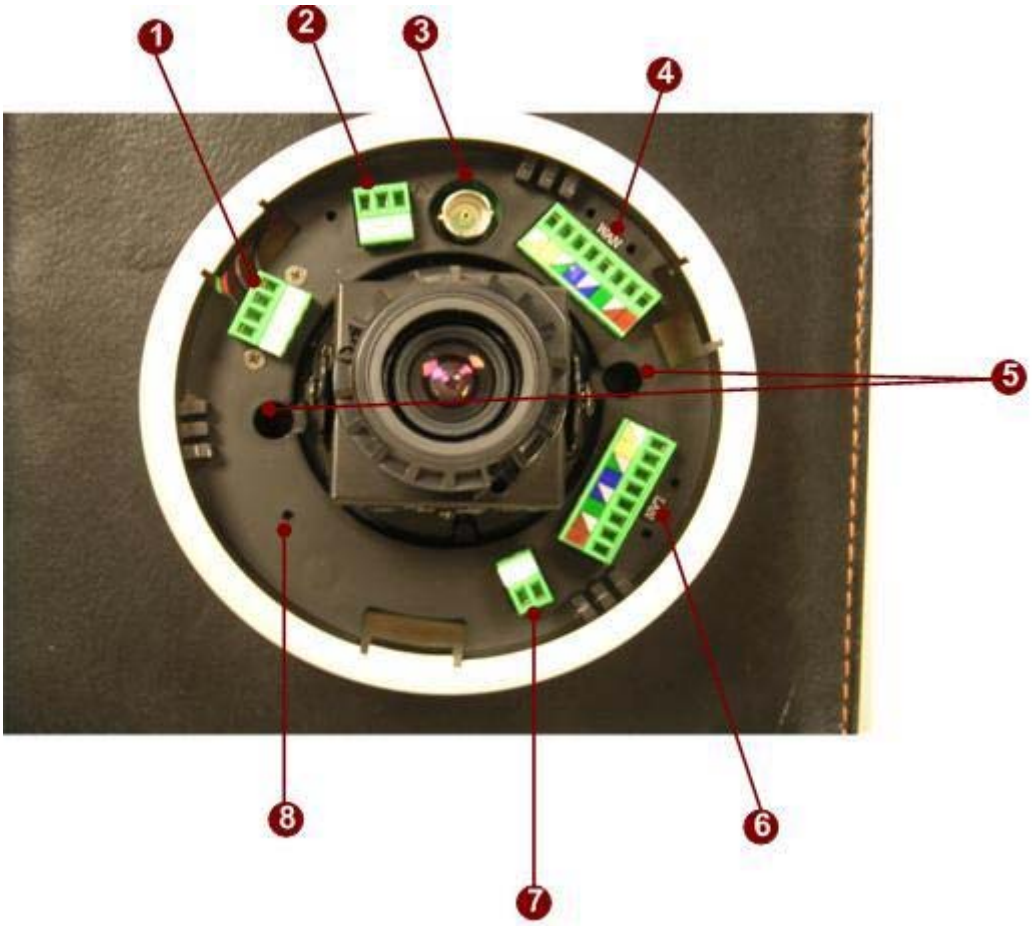
  4. If the video product does not operate normally by following the

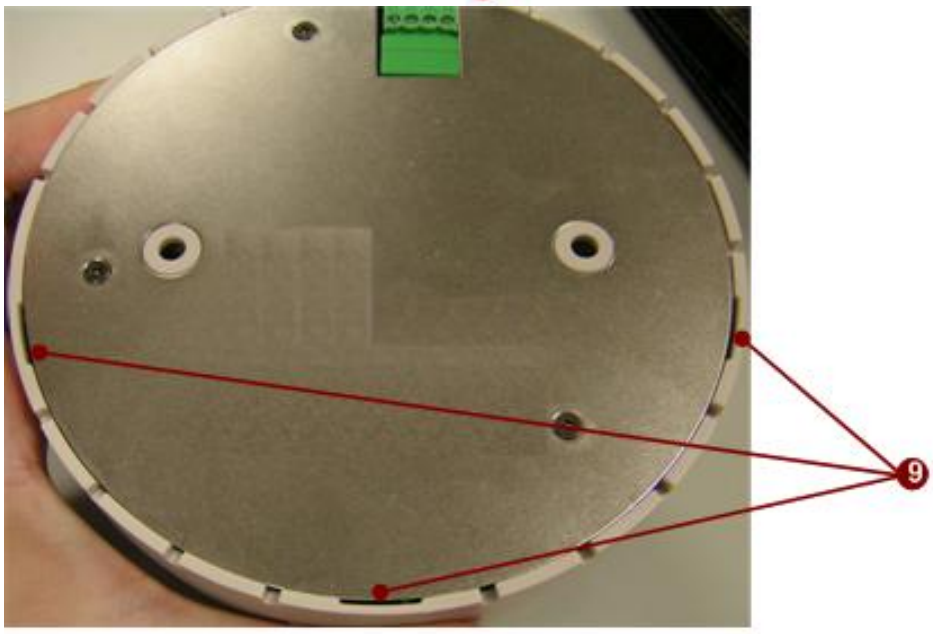
operating Instructions in this manual. Adjust only those controls that are covered by the instruction manual as an improper adjustment. Other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.

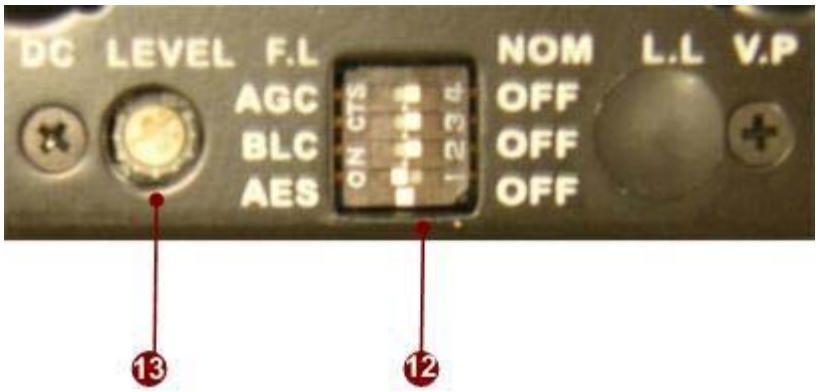
- **Safety Check**

  Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks to determine that the video product is in proper operating condition.

1.4 Physical Description







1. DI/O

PIN	NAME	DESCRIPTION
1	GND	Ground Pin
2	DI	Digital Input
3	GND	Ground Pin
4	DO	Digital Output

DI: To Trigger Logic Level 0: 0~0.4V; Normal Logic Level 1: 3.3~30V

DO: To Trigger Logic Level 0: 0.1~0.6V; Normal Logic Level1: 2.4~5V

2. Power Input

Please use DC12V power Input. Please follow the description on the connector to connect to power.

PIN	NAME	DESCRIPTION
1	12V	Power Input
2	GND	Ground Pin

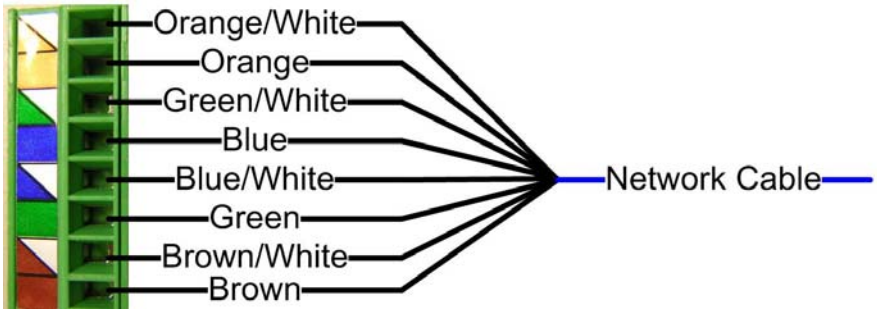
3. Analog Video Output

The IP Indoor Fixed Dome supports one channel analog video output.

4. WAN port

The IP Camera connects to the WAN (wide area network) via a standard terminal block. Supporting NWAY, this IP camera can auto detect the speed of local network segment (10Base-T/100Base-TX Ethernet). The WAN port is for FTTH and can connect to an xDSL or cable modem.

The Network connector is Terminal block instead of RJ-45 port, please based on the label color on the connector to connect.



NOTE: Please be careful while you do cabling arrangement for network cable. It might cause the network to fail (some lines of cable might be broken).

With PoE built-in product, you can power the IP camera via WAN port, LAN port or DC input. You can power the IP camera with multiple power inputs at the same time. If you do, the IP

camera will get the power from the first power input plugged into it.

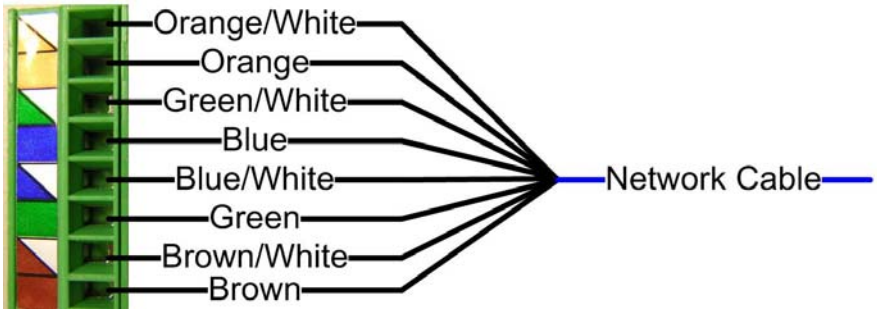
NOTE: You may find a support package for help you getting familiar with PoE. Please visit our web site, and get the support document TS-00040.

5. Screw Holes

These screw holes are used to fasten the IP fixed dome.

6. LAN port

The IP Camera connects to the LAN (local area network) via a standard terminal block. Supporting NWAY, this IP camera can auto detect the speed of local network segment (10Base-T/100Base-TX Ethernet).



NOTE: Please be careful while you do cabling arrangement for network cable. It might cause the network to fail (some lines of cable might be broken).

With PoE built-in product, you can power the IP camera via WAN port, LAN port or DC input. You can power the IP camera with multiple power inputs at the same time. If you do, the IP camera will get the power from the first power input plugged into it.

NOTE: You may find a support package for help you getting familiar with PoE. Please visit our web site, and get the support document TS-00040.

7. Audio Input

PIN	NAME	DESCRIPTION
1	GND	Ground Pin
2	MIC	MIC signal

8. Reset Button

Step 1: Switch off IP camera by disconnecting the power cable

Step 2: Using a suitable pointed object, press and continue to hold the Reset Button depressed. While continuing to hold the reset button depressed, reconnect the power cable.

Step 3: Keep holding the reset button depressed around 6 seconds, release the reset button. The unit will start up with factory default settings

9. Cable Exit

These cable exits are used for cables to go through. Please cut it with tools.

10. Zoom Lever

Move this lever to adjust the optical zoom. After adjusting, rotate it clockwise to fix it.

11. Focus Lever

Move this lever to adjust the Focus. After adjusting, rotate it clockwise to fix it.

12. CCD Functions DIP-switch

Item	Description	ON	OFF
F.L.	Flickerless	Default	
AGC	Auto Gain Control	Default	
BLC	Backlight Compensation		Default
AES	Auto Electric Shutter	Default	

- **Auto Electronic Shutter Speed Mode**

  AES On: 1/50 (60) sec. ~ 1/100,000 sec;

  AES Off: 1/50 (60) sec.
- **Back Light Compensation**

  ON/OFF (Switchable)
- **Flickless**

  ON/OFF (Switchable)
- **Automatic Gain Control**

  ON/OFF (Switchable)

13. <u>Video DC level Adjustment</u>

Rotate it adjust the overall lighting for this camera.

2 Installation Procedure

There are three types of installation of this IP fixed dome.

	Surface mount	Flush mount	Wall mount
Pictures			
Optional Bracket required		•	•

The mounting procedure can be divided into two parts,
1st: Connect the IP Fixed Dome
2nd: Mount the IP Fixed Dome

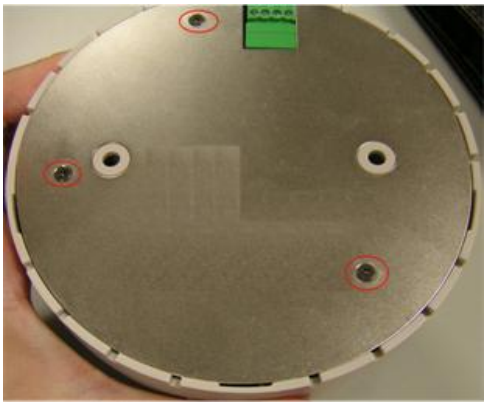
2.1 Connect the IP Fixed Dome

2.1.1 Remove the cover

Please remove the dome cover first.

2.1.2 Open the dome bottom

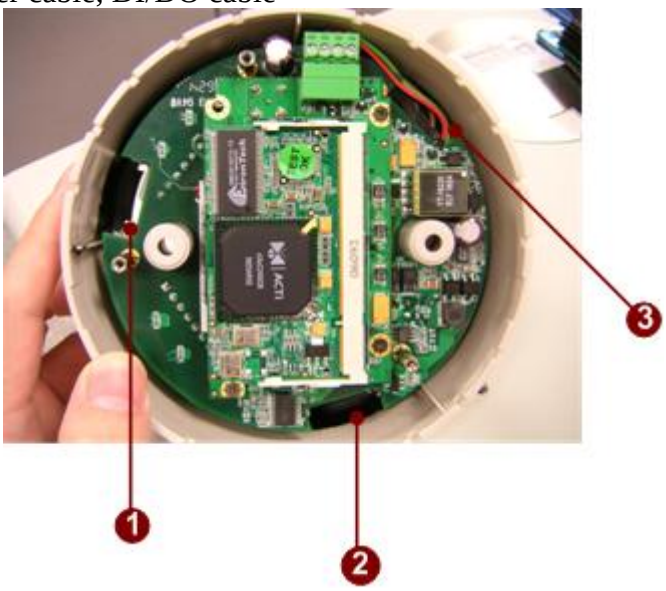
Release these 3 screws to open the dome bottom.



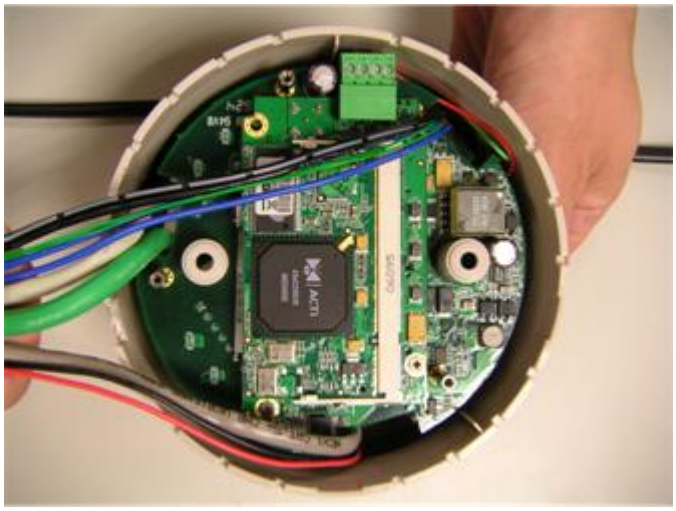
2.1.3 Insert the cable

You have to insert the cable from dome bottom to the dome front to connect to connectors. There are three holes at the dome bottom for you to insert cable. Please follow for Please inset the cable as below.

Hole1: WAN cable, Analog Video cable
Hole2: LAN cable, Audio cable
Hole3: Power cable, DI/DO cable



For example,



2.1.4 Connect the cables to connectors

Please follow the instruction at Chapter 2 for how to connect to each connector.

2.1.5 Select a cable exit and cut

There are three cable exits for cable to run out the IP fixed dome. Please elect according to your installation and use appropriate tool to cut.

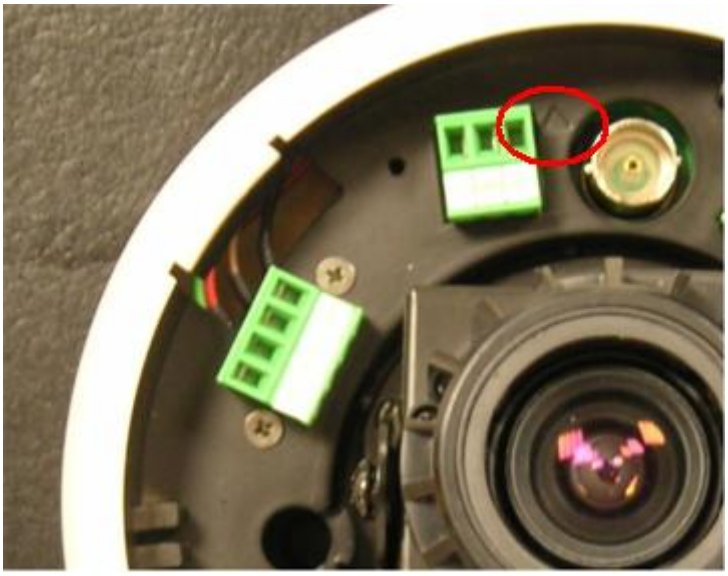
2.1.6 Fasten the dome bottom back

Reverse what you do in 2.1.2 to fasten the dome bottom.

2.2 Mount the IP Fixed dome (Surface)

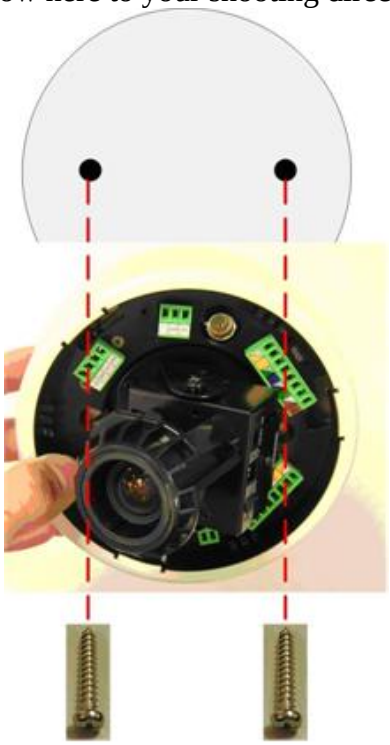
2.2.1 Place the camera on the surface and aim to your shooting direction

Please aim the arrow here to your shooting direction.



2.2.2 Fasten the camera with 2 screws

Please aim the arrow here to your shooting direction.



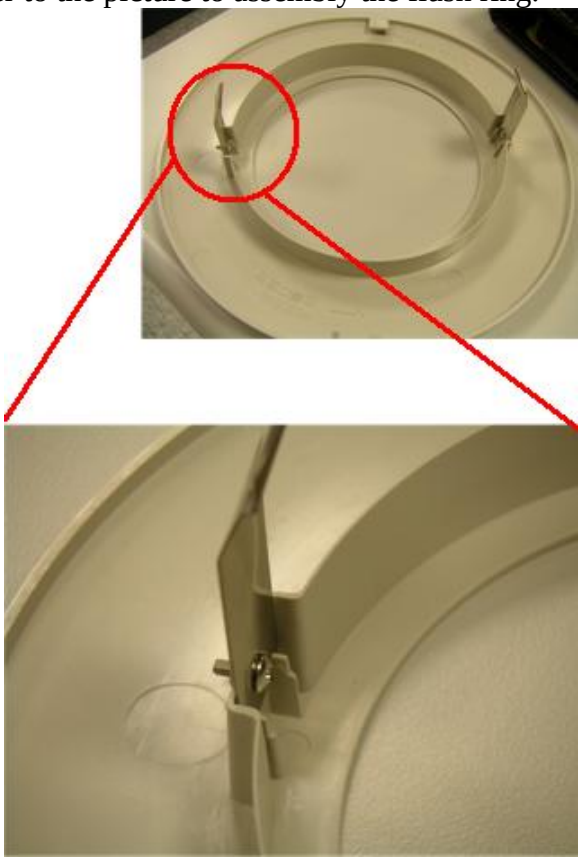
2.3 Mount the IP Fixed dome (Flush)

2.3.1 Flush Bracket Contents

1. Flush Bracket
2. Flush Ring
3. Accessory

2.3.2 Assembly the Flush Ring

Please refer to the picture to assembly the flush ring.



2.3.3 Fasten Dome to Flush Bracket

Please refer to the picture to assembly the flush ring.

2.3.4 Cut a hole on the ceiling

The hole for flush bracket should be Ø173mm.

2.3.5 Insert the Flush Bracket into the hole

If you cannot inset the bracket, you might need to rotate the screws counterclockwise to release the clip. After you insert the Flush Bracket, rotate the screws clockwise to fasten the Flush Bracket to the ceiling.

2.3.6 Fix the Flush ring

Insert the flush ring to the Dome camera and turn the flush ring clockwise to fix it onto the flush bracket.

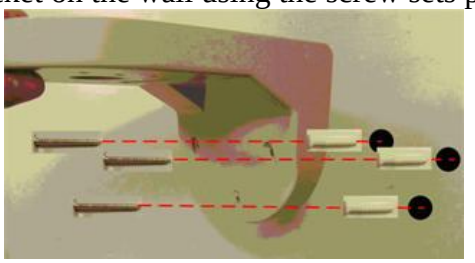
2.4 Mount the IP Fixed dome (Wall)

2.4.1 Wall Mount Bracket contents

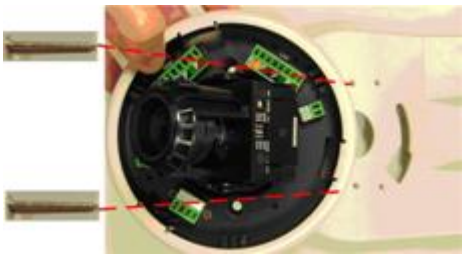
1. Wall Bracket
2. Accessory

2.4.2 Mount Bracket on the wall

Mount the bracket on the wall using the screw sets provided.



2.4.3 Mount Camera to the Bracket



3 Adjust the camera

3.1 Adjust zoom and focus

Please adjust the camera direction first. Then Move the focus and the zoom lever at the Chapter 1 to adjust the zoom and the focus. Fix the zoom and focus after adjusting.

3.2 Adjust CCD functions

Refer to Chapter 1 for what can be adjusted and how to adjust.

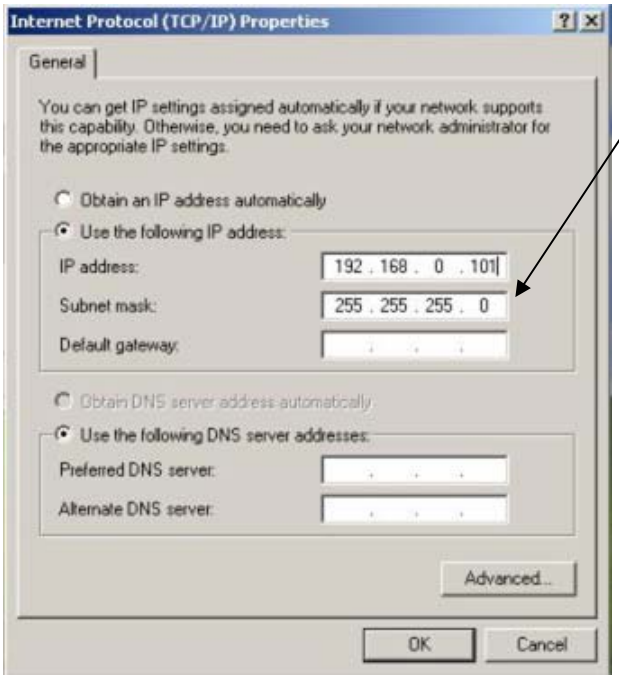
4 Quick Tour

This section guides you with a quick tour on IP indoor fixed dome.

4.1 Configure the IP High Speed Dome

4.1.1 Make sure network environment

Default IP of IP indoor fixed dome is 192.168.0.100. Please make sure IP indoor fixed dome and your PC are on the same network segment before running the installation.

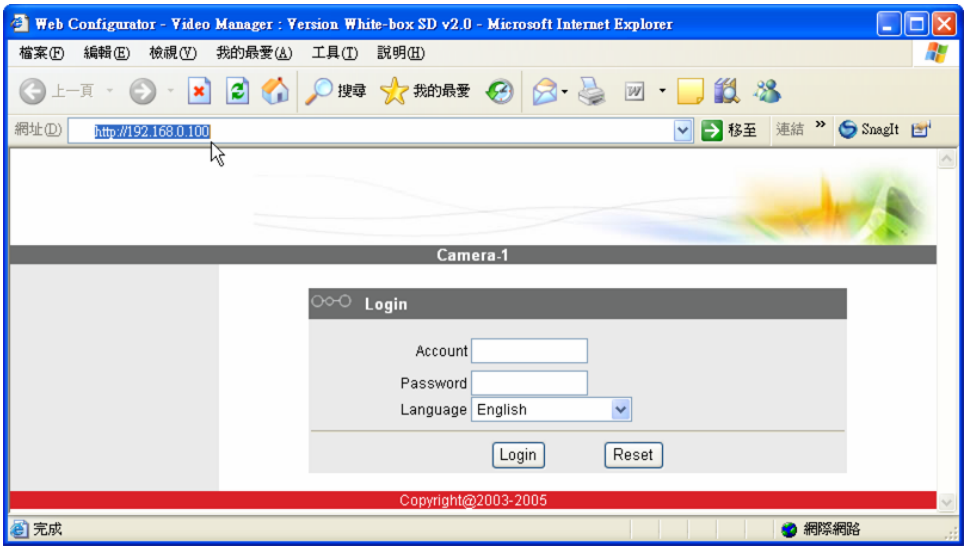


Please set the settings as below.

IP address: 192.168. 0.xxx
Subnet mask: 255.255.255. 0

(**NOTE**: xxx should be a number from 1 to 254, but 100 is excepted.)

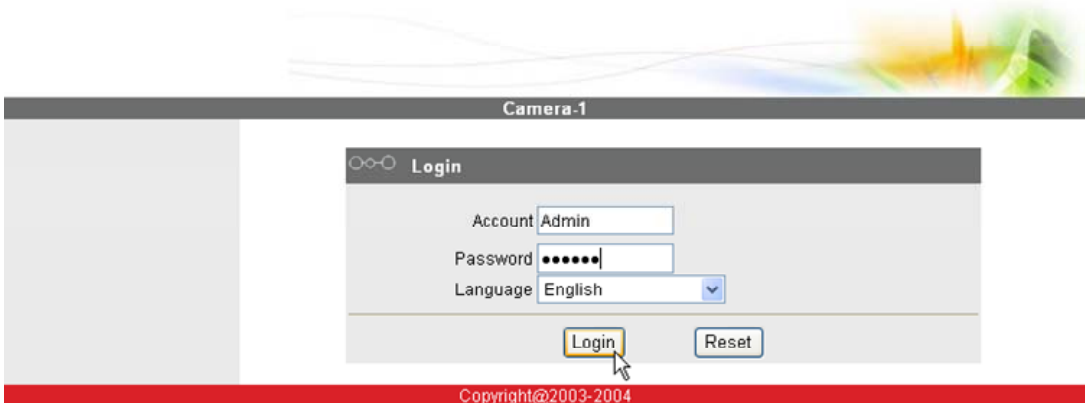
4.1.2 Open Internet Explorer with IP address



NOTE: If your web browser is earlier than IE6, then download IE6 is recommended.

NOTE: The IP high speed dome default IP address is set to 192.168.0.100

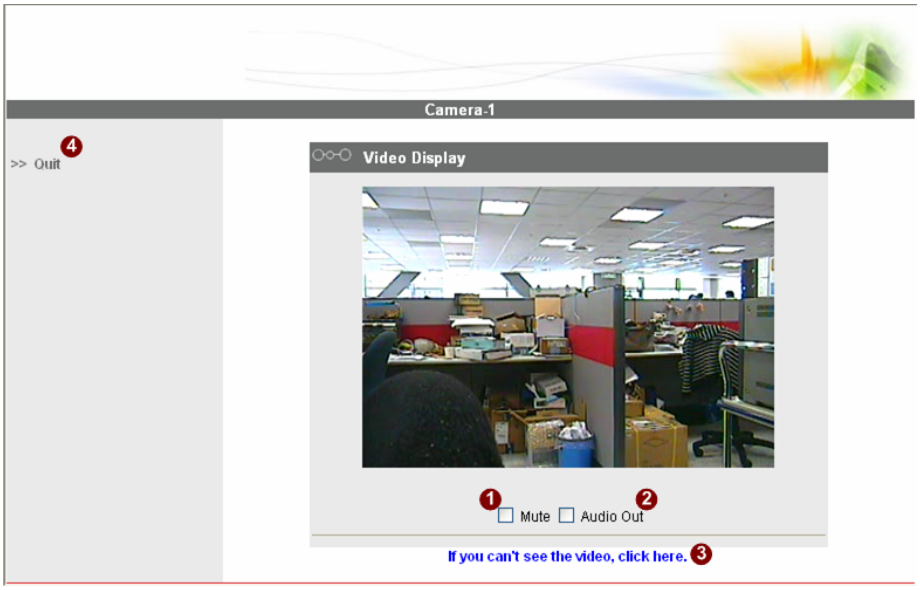
4.1.3 Login with default administrator's account & password



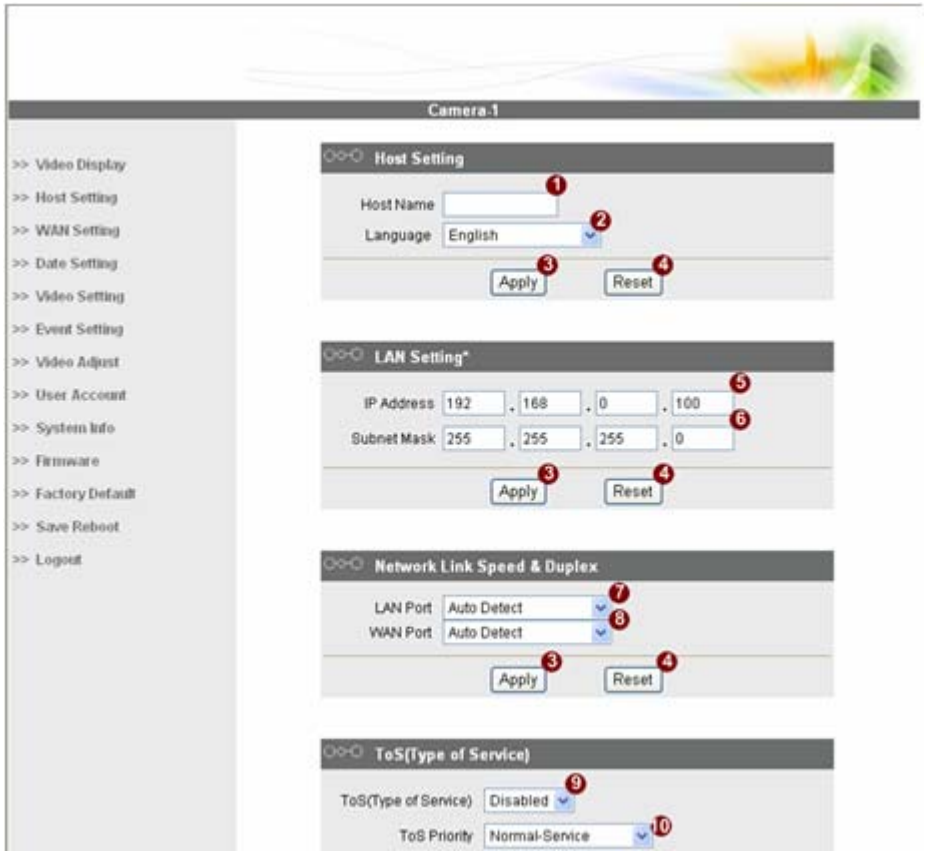
NOTE: Default administrator account is set to **Admin**, password is set to **123456,** and click Login button.

4.1.4 Preview the video

NOTE: In your Client PC, please make sure the setting of Network Connections Type is set to Auto Negotiation, since IP indoor fixed dome follows MII standard. Otherwise, you might not see the live image.



4.1.5 Set the new IP address



1. **Host Name :** Enter in the domain name.
2. **Language :** Language setting for Web Configurator after Save Reboot. Default setting is English.
3. **IP Address :** The IP address of the LAN interface. The default IP address is 192.168.0.100.
4. **Subnet Mask :** The subnet mask of the LAN interface. The default subnet mask is 255.255.255.0
5. **Click** Apply button

NOTE: Check with your MIS department, if Client PC and IP indoor fixed dome are setting in different VLANs, please connect to WAN port.

NOTE: In your Client PC, please make sure the setting of Network Connections Type is set to Auto Negotiation, since IP indoor fixed dome follows MII standard. Otherwise, you might not see the live image.

IMPORTANT: After the IP address is changed, please record this IP address. There is no way to connect to the IP indoor fixed dome if user forgets the new IP address.

4.1.6 Check default video setting

The streaming type [Version 1.0] – without audio function

The streaming type [Version 2.0] – with audio function

NOTE: Please make sure the TV Input (NTSC / PAL) is meet your requirement, and click Apply button.

4.1.7 Click **Save Reboot** to restore all settings and please wait about 30 seconds for system reboot.