VideoEdge IP Indoor Mini-dome

Installation & Operation Guide

Version1.6

Part Number: 8200-2646-02 B0

Copyright

American Dynamics

6600 Congress Avenue

Boca Raton, FL 33487, U.S.A.

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WARNING

At close range, Infrared light can seriously damage a person's vision. Install this Illuminator in such a manner as to provide a minimum safety zone of 1.22m (4ft) between the Illuminator and the closest possible human contact.

SERVICE WARNING

DO NOT LOOK DIRECTLY INTO AN OPERATIONAL IR ILLUMINATOR

Since IR light is invisible to the human eye, the only method of verifying a malfunctioning IR illuminator is to observe the picture at the video output location.

LASER RADIATION
DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS
CLASS 1M LASER PRODUCT

SAFETY PRECAUTIONS

All the following safety and operational instructions to prevent harm or injury to the operator(s) or other persons should be read carefully before the unit is activated.

WARNING

- **To prevent fire or shock hazard, avoid exposing this unit to rain or moisture.**
- **Do not block ventilation openings.**
- **Do not place anything on top of the unit that might spill or fall into it.**
- **Do not attempt to service this unit yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Please refer all servicing to your distributor / retailer.**
- **Do not use liquid cleaners or aerosols for cleaning.**
- **To prevent fire or electric shock, do not overload wall outlets or extension cord.**
- **This unit must be grounded to reduce the risk of electric shocks.**
- **Indoor use only.**
- **The installation should be made by a qualified service person.**
- **PoE considered a Network Environment 0 per IEC TR62101, and thus the interconnected ITE circuits may be considered SELV.**

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

1. PRODUCT FEATURES

1.1 Product Instructions

The VideoEdge IP Indoor Mini-dome **ADCIPE3312I** is a 3-axis IP dome camera with a vandal-proof body for day and night surveillance. With the specific 3-axis mechanical design, this dome camera provides a flexible installation for ceiling or wall mounting and wide angled viewing which pans 360˚and tilts 180˚.

The **ADCIPE3312I** provides a dual video stream in the MJPEG and MPEG4 formats with up to 30 fps for real-time images. The built-in Web server supports remote monitoring and control via local area network or the Internet. With the built-in IR lights, this camera captures vivid imaging for nighttime condition. In addition, the **ADCIPE3312I** supports PoE function, built-in motion detection, and alarm notification by SD card (SDHC, up to 32GB) and one alarm output.

The **ADCIPE3312I** is a feature-packed IP dome camera for indoor surveillance, which enables you to meet your security demands.

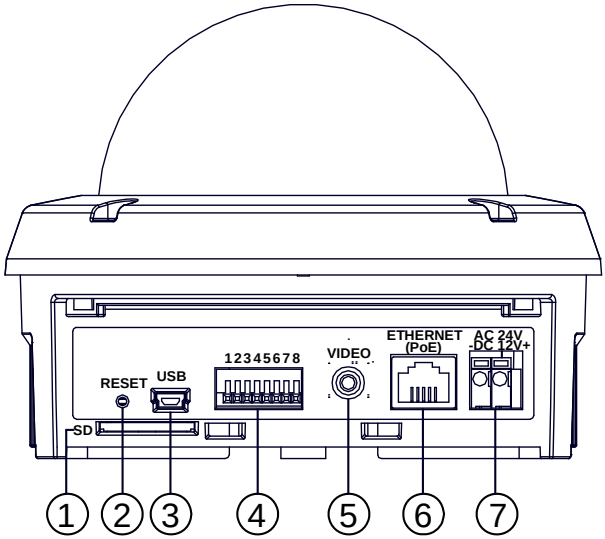
1.2 Product Features

- Selectable MJPEG / MPEG4 video compression.
- 1/3” Sony Super HAD CCD.
- Horizontal resolution: 520 TV lines.
- Built-in motion detection.
- IR distance: 20M.
- Built-in Web server.
- Pre-alarm: 100 pictures.
- Supports upgrading by SD card / USB / FTP.

NOTE: The fan and the IR light only functions in the Night mode.

2. DESCRIPTION OF THE FRONT/REAR VIEW

2.1 The Front View



1. **SD CARD slot:**

   This is used for system software updating and archiving / accessing critical images.

2. **RESET:**

   Recover to factory default.

3. **5pin MINI USB Port:**

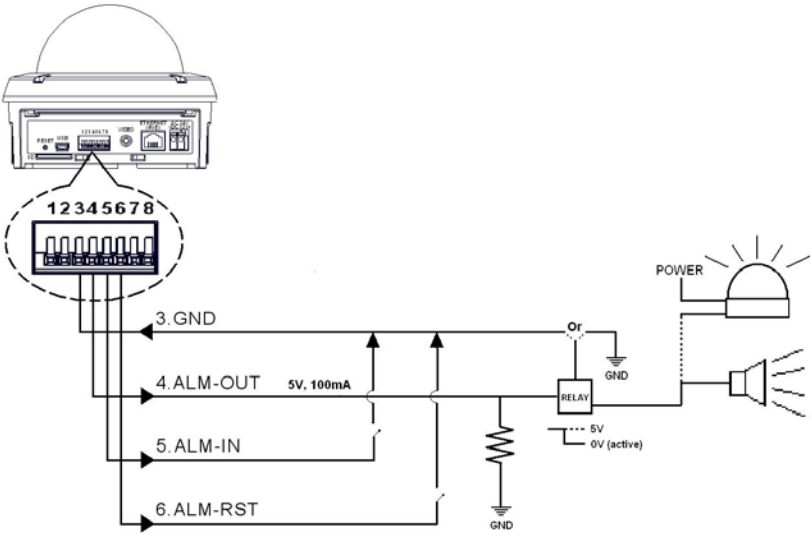
   You can use a USB device cable to connect the IP camera to the USB port on the PC**.**

4. **GPIO:**

   This is an 8-PIN connector including the **RS485+/-, ALARM IN/OUT, ALARM RESET, AUDIO IN/OUT** and **GROUND** items for connecting with external devices.

1.RS485+
2.RS485-
3.GND
4.ALM-OUT
5.ALM-IN
6.ALM-RST
7.AUDIO-IN
8.AUDIO-OUT

Alarm wiring diagram:



5. VIDEO OUT Connector:

The connector provides the unit's composite video signals to a monitor.

6. ETHERNET (PoE):

This is a standard RJ-45 connector for 10/100 Mbps Ethernet networks. PoE (Power over Ethernet) function: Provides power to the device via the same cable as used for the network connection.

NOTE: Please refer to the APPENDIX 6 –PoE Installation Method for more details.

7. Plug Inlet:

An AC 24V or a DC 12V inlet that connects to an external power supply.

NOTE: This device's requires AC 24 voltage, which is within the range of the SELV (safety extra-low voltage and Separated to primary circuit by double or reinforced insulation).

2.2 The USB function

By connecting the IP camera with a PC via the USB connector, the IP camera can provide two different functions.

1. Insert an SD card: As a card reader.

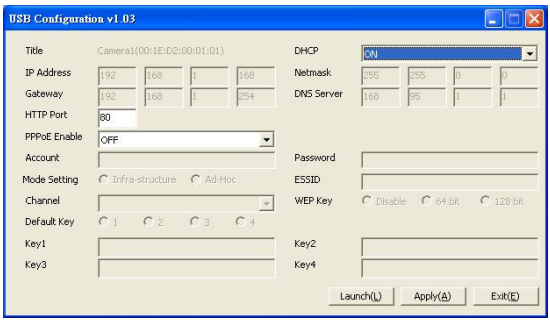
   Insert an SD card into the IP camera, then connect to the PC. You might transfer files between the SD card and the PC. Once you've connected your IP camera to your computer, the Windows system will detect the connection and ask you what you want to do with your SD card.

   In other words, if the user connects the IP camera with an SD card and the PC via the USB connector, the IP camera can be used as a normal card reader.

2. Remove an SD card: As a configuring tool.

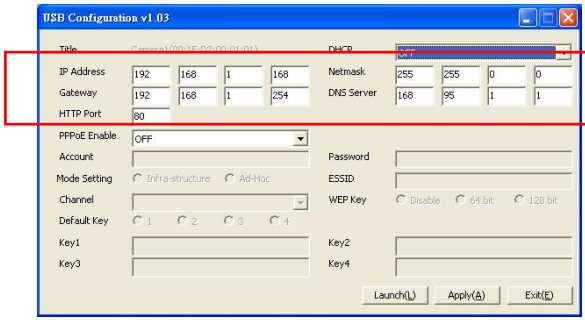
   Before using the USB configuration setting page, please remember to remove the SD card or your PC will read the SD card and won't show this window.

DHCP ON



DHCP OFF

(default)



Network Setting

NOTE: After changing the settings, please click the "Apply" button. All of the options will be effective after removing the USB connector.

NOTE: After the IP address has been changed and/ or reset, please unplug the network cable, then plug it once again to make sure the network connection is in normal mode.

2.3 PoE (Power over Ethernet)

These technologies will enable the development of new networked appliances, by providing power as well as data over existing Ethernet cables.

The Summary Comparison of PoE Standards (Table 1) is listed as follows.

Table 1. Summary Comparison of PoE Standards

STANDARD	SOURCE									LOAD		REMARKS
	Source Voltage	Ethernet RJ-45 connector pin number *								Load Voltage	DC Load Connector	
		1	2	3	4	5	6	7	8			
IEEE 802.3af using data pairs	48 V DC, protected	RX, DC+	RX, DC+	TX, DC-	spare	spare	TX, DC-	spare	spare	(embedded)		Industry Standard for embedded PoE
IEEE 802.3af using spare pairs	48 V DC, protected	RX	RX	TX	DC+	DC+	TX	DC-	DC-	(embedded)		Industry Standard for embedded PoE

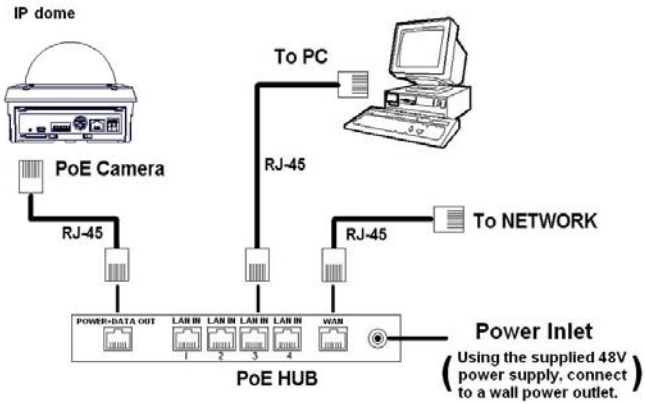
The compatible PoE Hubs (Table 2), which can be used with the unit, are shown in the tables below.

Table 2. Compatible PoE HUB

Manufacturer	Model	Port	Note
PLANET	FSP-804P	4 Port	PoE HUB
	POE-151	1 Port	PoE HUB
D-Link	DWL-P200	1 Port	PoE HUB

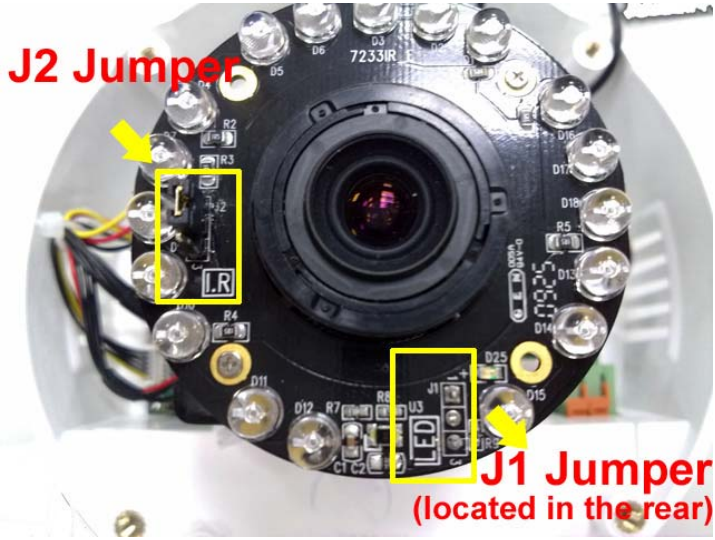
Connect to a PoE HUB

The Standard RJ-45 PIN configuration for connecting with a PoE HUB is shown below.



2.4 Power LED & IR LED Power setting

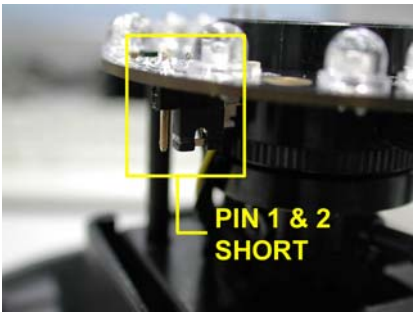
The IR Board:



- **The J1 Jumper: Controls ON/ OFF function of the Power LED**

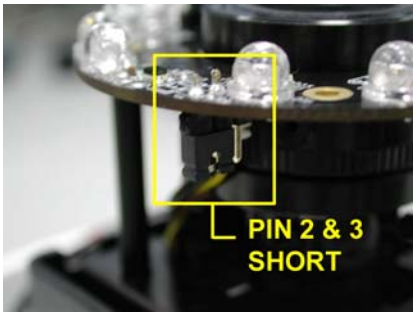
LED Power Disable:

Pin1 & Pin2 short



LED Power Enable (Factory Default):

Pin2 & Pin3 short

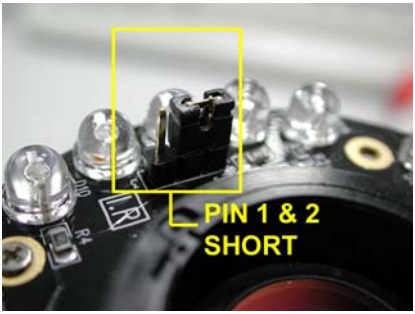


Make short circuits of PIN 1 and PIN 2 to disable the Power LED function. Make short circuits of PIN 2 and PIN 3 to enable the Power LED function.

- **The J2 Jumper: Controls ON/ OFF function of the IR LED**

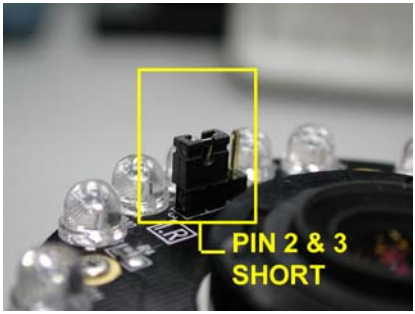
IR Power Disable (Factory Default):

Pin1 & Pin2 short



IR Power Enable:

Pin2 & Pin3 short



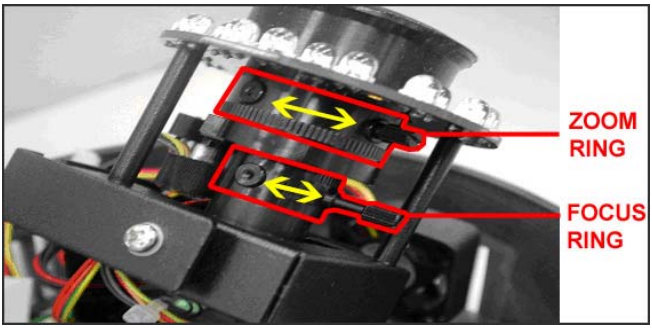
Make short circuits of PIN 1 and PIN 2 to disable the IR LED function and the IR LED will not light even when in the night mode. Make short circuits of PIN 2 and PIN 3 to enable the IR LED function and in this situation the IR LED will light in the night mode.

NOTE: To avoid the mechanical damage of the device, please power off the camera before exchanging the jumpers.

2.5 Lens adjustment

Before adjusting the lens, the user has to remove the cover of the dome. **1)** Loosen the screws holding the camera mount and then **2)** carefully lift the cover up. After all adjustments completion, attach the dome cover to the camera.

I. Focus adjustment:

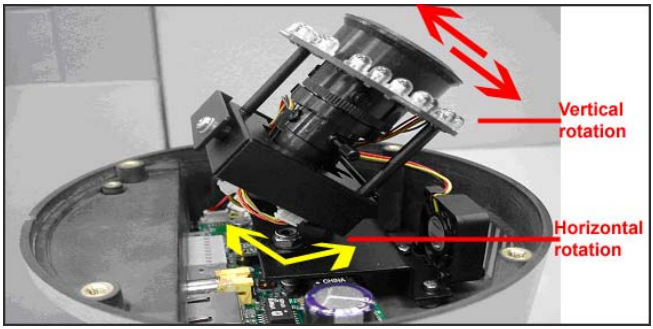


(1) Loosen the fixing screws on the Zoom ring and Focus ring.

(2) Adjust the angle of view with the Zoom ring and adjust the focus with the Focus ring for the best picture resolution.

(3) After lens adjustment completion, tighten both the Zoom ring fixing screw and the Focus ring fixing screw.

II. Adjust the camera angle:



The camera angle can be adjusted manually for horizontal rotation and vertical rotation.

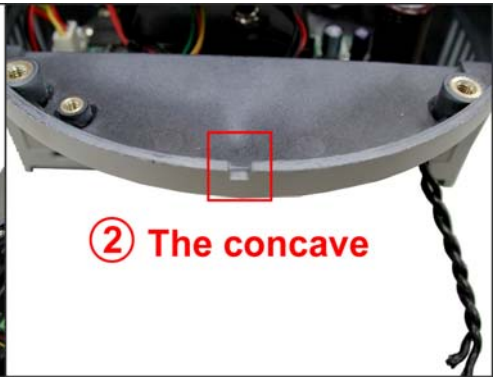
NOTE: The default angle between the lens and the camera pedestal is approximately 45° .

2.6 Cover Attaching

To attach the dome to the base, please do as steps (1) and (2).

(1) Note that the protrusion (the convex-shaped fitter) ① that reaches right up to the edge of the ring on the dome cover must align with the concave ② on the dome body.

The dome cover

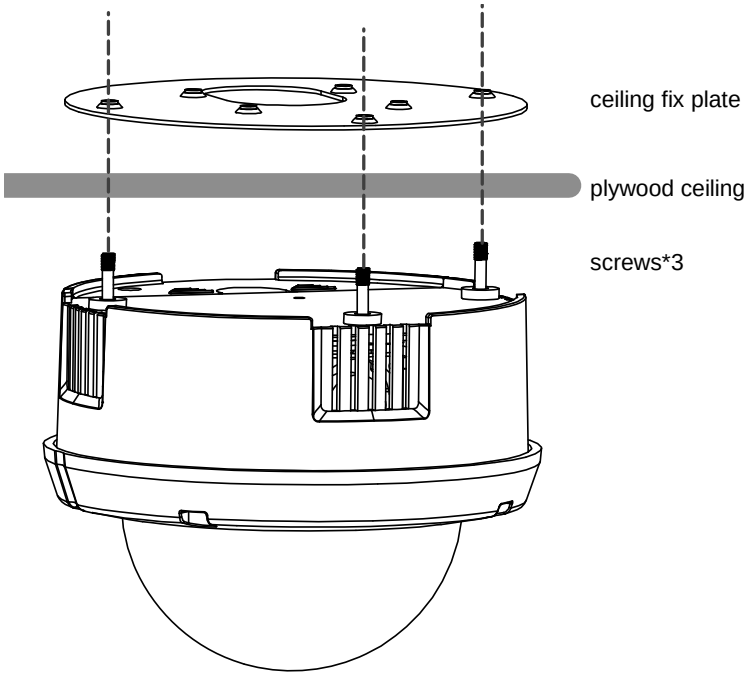


The dome body

(2) Screw the dome cover and the body together.

2.7 Ceiling mounting

When mounting the camera in the plywood ceiling, please follow steps (1) to (3).



(1) Make 3 entry holes in the plywood ceiling as shown above.

(2) Install the dome in the ceiling, then attach the supplied “ceiling fix plate” to the camera.

(3) Fix the dome to the ceiling using the 3 mounting screws.

3. INSTALLATION

Please follow the instructions and the diagram below to set up the system.

3.1 UPDATING SYSTEM SOFTWARE

If the system software of the IP camera needs to be upgraded, please take the following steps to safely process it.

Important: Before carrying out the following procedures, please ensure the SD card is working and the file of the system firmware is intact

1. Format an SD card using the FAT format.
2. Create a directory named LANCAM in the SD card if it does not exist.
3. Copy the file of UPDATE.BIN to the LANCAM-directory.
4. If the IP camera is running, please power it off first.
5. Insert the SD CARD into the IP camera.
6. Remove the Ethernet cable from the RJ-45 port and then power on the IP camera.
7. In 5 to 10 seconds, a message reading "UPDATE PROCESSING" will show up on the screen on a blue background; if not, please check out steps 1 to 6 carefully or else inform your technical support while ignoring the following steps.
8. DO NOT power off the IP camera while this update process is running until the message "UPDATE OK RESET PLEASE" appears on the screen; it might take 15 to 30 seconds to appear.
9. If the message "UPDATE NG RESET PLEASE" appears rather than "UPDATE OK RESET PLEASE", please write down the error messages shown on the screen and inform your technical support, while ignoring the following steps.
10. Power off the IP camera when this update process is finished, then remove the SD card from the IP camera.
11. Reconnect the Ethernet cable to the RJ-45 port as necessary.
12. Power ON the IP camera and it will work normally if the entire update procedure goes correctly.
13. Verify the version of the system software.

WARNING:

1. **Don’t use the NTFS format in step 1.**
2. **Steps 1 to 3 have to be done on a PC.**
3. **Make sure the file of UPDATE.BIN is a correct one in step 3, or the IP camera will not work normally after being updated.**
4. **If the power of the IP camera is suddenly lost in step 8, please remove the SD card first and turn on the IP camera next to test its operation. If the IP camera remains working normally, please go back to step 4; otherwise, please inform your technical support.**
5. **In step 10, if the SD card is not removed and the IP camera does not get online as well, the updating process must be repeated again after rebooting the IP camera.**
6. **Make sure that the SD card is inserted in a correct position in step 5, or the IP camera will suffer permanent physical damage.**
7. **If the message "CSUM ERROR" appears in step 8, it implies a problem in the file of UPDATE.BIN.**
8. **Don’t interrupt the process while the unit is updating itself; proceed with an SD card not including any system software of the unit, or else the unit will crash.**

3.2 IP camera SD card Troubleshooting

1. Check if the SD card position is correct or not. Please refer to the manual for the related information.
2. After powering the IP camera on, correctly insert the SD card, and a little icon of "SD" will show up in the upper-right corner of the monitor screen. If not, it means the device detection has failed. Please contact your technical support and ignore the following steps.
3. If no cross sign appears beside the "SD" icon, please go on to the next step. If a cross sign appears, please check the following:
    a. Is it really an SD "Memory" Card?
    b. Is this SD card formatted in the FAT16 format?
    c. Connect the SD card with a PC and test to see whether the PC can read the data or not.
    d. Does this SD card still have the capacity for storing data?
    e. Is the SD card set to write?

    If all the answers are "yes" but the cross sign still persists, please contact your technical support and ignore the following steps.
4. Please make sure the function of "SD CARD ENABLE" is activated in the ALARM and SCHEDULE pages if no cross sign appears beside the "SD" icon on the screen.
5. After recording, read the data on the web page of "sdget.htm". If the data cannot be read through the network, please read it instead in a PC, check the data stored in the "LANCAM" directory and contact your technical support regardless of whether there is data or not.

WARNING:

1. **Performing this troubleshooting process may need a monitor, a PC, a card reader and some cables.**
2. **If the SD card is removed while storing or accessing data, the data will be lost.**
3. **If there is a cross sign beside the "SD" icon, it means the SD card has been inserted into the IP camera but cannot perform its writing function. Possible reasons are:**
    a. It is not an SD memory card.
    b. The SD card is unformatted or formatted in a non-FAT16 or non-FAT12 format.
    c. The file system is damaged.
    d. The capacity of the SD card is full.
    e. The SD card is set to be read only.
4. **Turn off the power before inserting the SD card. Otherwise the unit may shut down.**

4. Network Configuration

4.1 Cable Connections

Please follow the instructions below to connect your IP camera to a computer or a network and to choose a proper RJ-45 cable configuration for connections.

Physical specifications of the RJ-45 cable for Ethernet

Wire Type	Cat. 5
Connector Type	RJ-45
Max. Cable Length	100 m
Hub Wiring Configuration	Straight Through
PC Wiring Configuration	Straight

4.2 Configure Your IP Camera Network Settings

Upon connecting with the network hardware, you need to activate the network function and configure the proper network settings of the IP camera.

4.2.1 Enable DHCP Function

This function can only work if the LAN, which the unit is connected to, has a DHCP server. If the DHCP server is working, please turn on to use the DHCP protocol; now the IP CAMERA will obtain an IP address automatically from the DHCP server. In this instance, please skip section 4.2.2 (Set IP address) and follow section 4.3 (TCP/IP Communication Software).

NOTE: The IP Dome camera software default setting is DHCP OFF. Users can build the camera working environment with a static IP address. The default static IP is 192.168.1.168. You can set an IP address for the camera if the LAN unit isn't connected to a DHCP server. Or turn on to use the DHCP protocol if the DHCP server is working in the LAN, The camera will obtain an IP address automatically from the DHCP server. The camera is linked by its Video Out connection via a BNC connector to a monitor's Video In connection. If this connection is there, you can see some information on the monitor screen, such as the camera factory default Static IP address.

4.2.2 Set IP Address

You need to set an IP address for the unit if the LAN unit isn't connected to a DHCP server. Otherwise, please follow the instructions given below:

Set the **IP**, **MASK** and **GATEWAY**. The following is a sample setting.

IP: 192.168.1.X

MASK: 255.255.255.0

GATEWAY: 0.0.0.0

NOTE: When only one unit of the IP camera is connected to a computer or LAN, you can freely assign an IP address for the IP camera. For example, there is a range of IP camera IP addresses from 192.168.1.1 to 192.168.1.255. You can pick one for use from the range of the IP. It's not necessary to set MASK and GATEWAY; leave the settings as default.

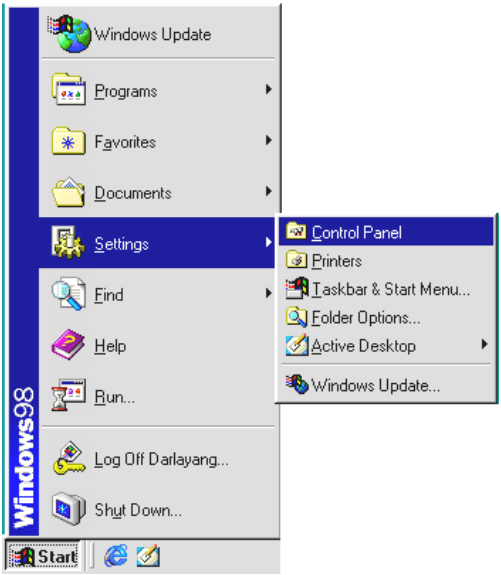
When an IP camera is connected to a WAN, you must acquire a unique, permanent IP address and correctly configure the MASK and GATEWAY settings according to your network architecture. If you have any questions regarding those settings, please consult a qualified MIS professional or your ISP.

NOTE: When connecting to a network, each connected IP camera must be assigned a unique IP, which must be in the same class type as your network address. IP addresses are written as four sets of numbers separated by periods; for example, 192.168.1.1 Therefore, if the connected network is identified as Class C, for example, the first three sets of numbers of the IP camera IP address must be the same as the network address. If the connected network is identified as Class B, the first two sets of numbers of the IP camera IP address must be the same as the network address. If you have any questions regarding these settings, please consult a qualified MIS professional or your ISP.

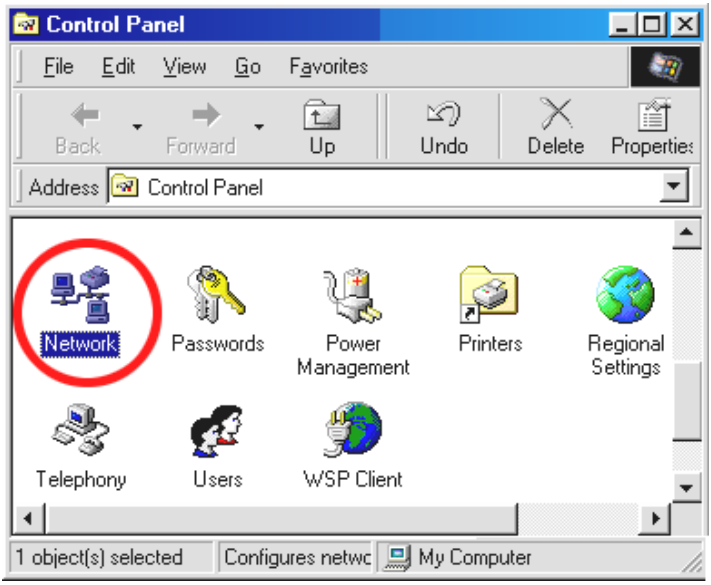
4.3 TCP/IP Communication Software

Follow the procedure below to install the TCP/IP communication program in your computer.

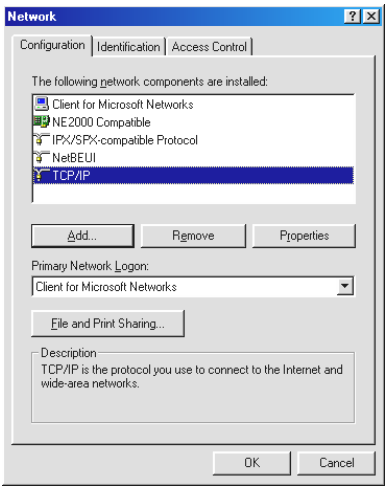
1. Open the **Start** menu from your computer, and select the **Settings/Control Panel** option.



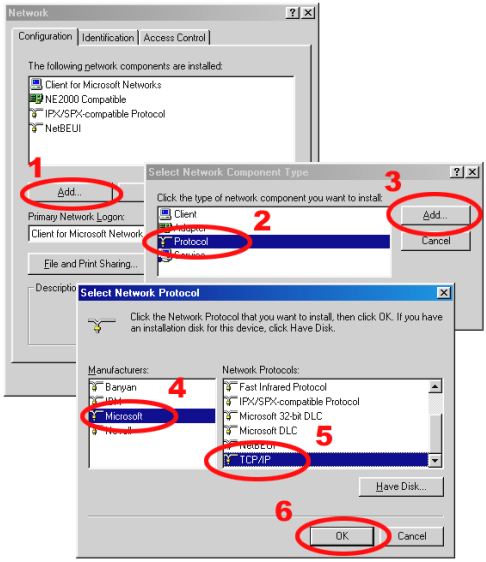
2. Double click the **Network** icon to enter the windows.



3. Click on the **Configuration** tag, and check if the TCP/IP is included among the network components list. If the TCP/IP is included, please process section 4.5. If it is not included, please follow section 4.4 to install the TCP/IP.



4.4 TCP/IP Installation



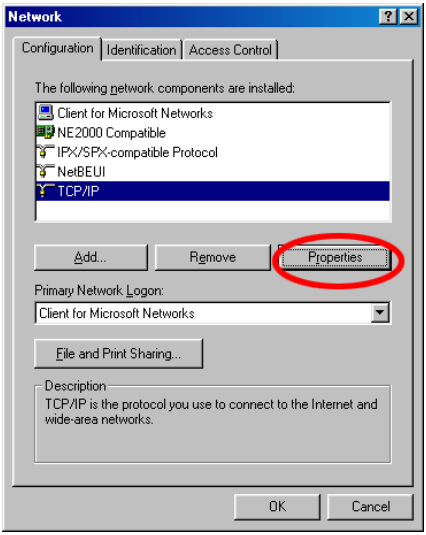
During the installation, you will be requested to insert the Windows CD-ROM. After installation, the PC may be restarted.

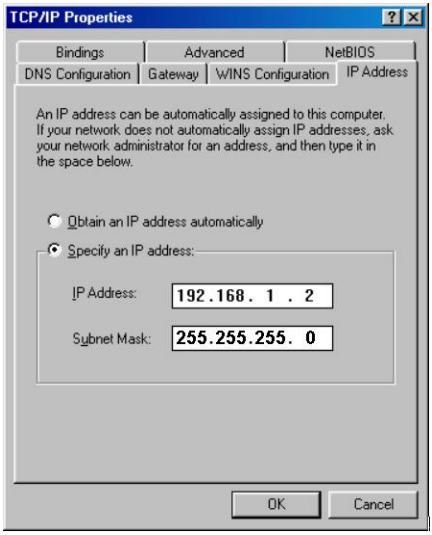
4.5 TCP/IP configuration setting

Click Start → Settings → Control Panel → Network**.**

Select TCP/IP**, and then click** Properties**.**

Before processing the IP camera installation in a WAN, please make sure the Internet connection works properly. If not, please contact your ISP provider.





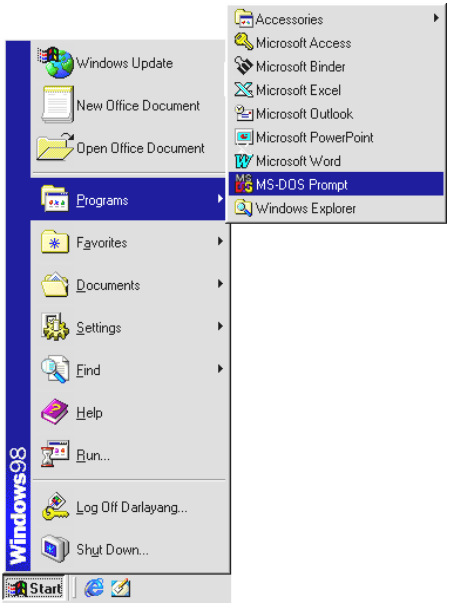
If you are using a DHCP server, please select **Obtain an IP address automatically**. Any assigned IP address for the connected IP cameras must be in the same class type as the server. If there is no DHCP server, please select **specify an IP address** and type in the IP address of your PC. This IP address must be different from other network IP devices but in the same class type.

NOTE: The IP address of an IP camera in a network must be unique to itself as opposed to those of the other chosen PCs, but in the same class type.

4.6 Connection Testing

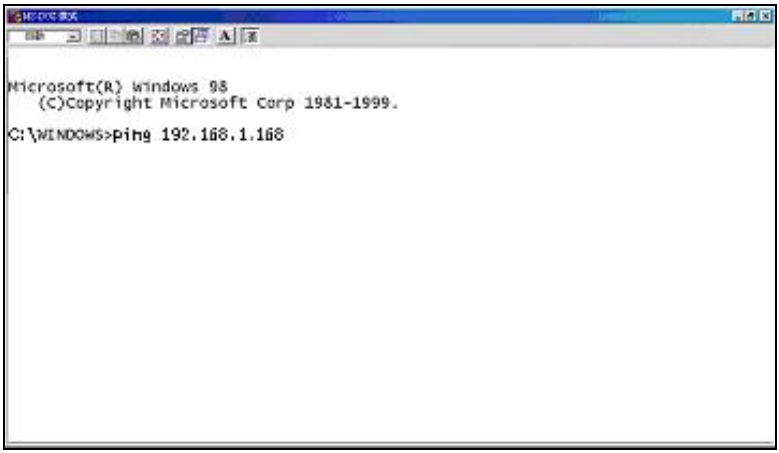
With the previous settings, follow the instructions below to ensure whether you have established the connection successfully.

1. Click **Start → Programs → MS-DOS Prompt**



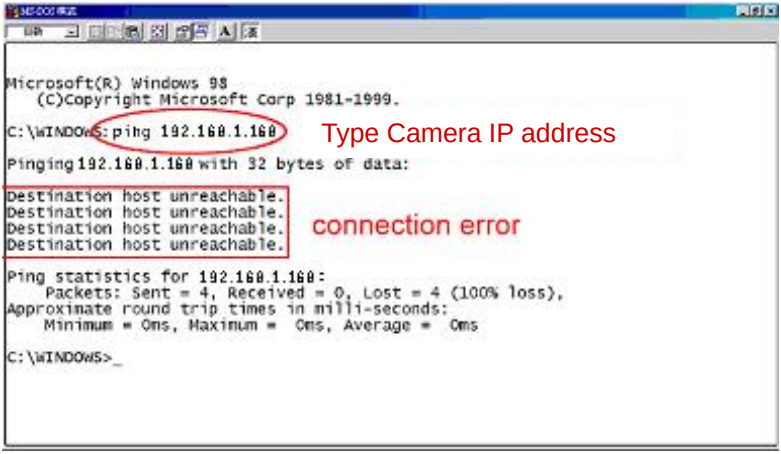
2. Enter **ping 192.168.1.168,** then enter. (See the sample screen below).

*** This is the IP address of IP camera that is assigned for the connected IP camera in step2.*

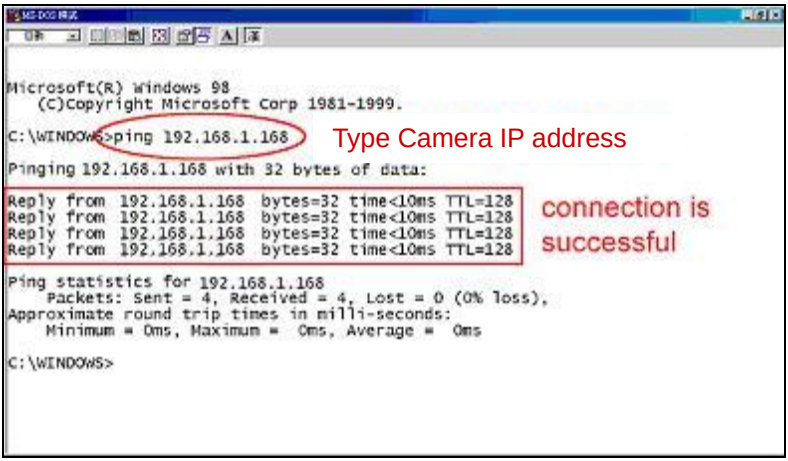


If you receive a response as in the sample screen below, the connection hasn't been

successfully established. Please re-check all the hardware and software installations by repeating sections 4.4 and 4.5. If you still can't establish the connection after rechecking, please contact your dealer.



If you receive a response as in the sample screen below, you have successfully made the connection.



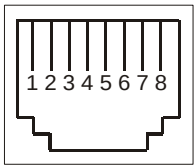
5. Operation Instructions for the Network

The Microsoft Internet Explorer in a PC provides the functions of monitoring remote zones or watching recorded data through the TCP/IP protocol. The details are listed as follows.

RJ-45 PIN configuration for Ethernet

PIN NO.	PIN Assignment
1.	TX +
2.	TX -
3.	RX +
4.	Not Connected
5.	Not Connected
6.	RX -
7.	Not Connected
8.	Not Connected

RJ-45 socket



Physical specification for Ethernet

Wire type	Cat. 5
Connector type	RJ-45
Max. cable length	100 m
Hub wiring configuration	Straight Through or Cross Over
PC wiring configuration	Straight Through or Cross Over

5.1 Microsoft Internet Explorer

5.1.1 Connecting the IP camera

1. Start up Microsoft Internet Explorer, and then follow the steps below to connect the IP camera.
2. Click on the URL block at the top of the window.
3. Enter the URL address of the IP camera into the URL block and press the "**Enter**" button to enter the home page.
4. Scroll to the bottom of the page, with its six icons, "Video", "Network", "System", "Application" and "SD card". Whichever you click, the page headlined "Enter Network Password" will appear.
5. Enter the "User Name" and "Password" in the appropriate spaces.
6. Click on the "**OK**" button to set your entries, and automatically exit the page.

NOTE: The default "User Name" and "Password" are admin and 9999 respectively.

NOTE: The page headlined "Enter Network Password" is shown below. Please enter the user name and password of the IP camera when you see it. If either the user name or the password is incorrect, please check the input data and rectify it as necessary.

NOTE: Once authorized successfully, it will not appear again until you close the window and reconnect it.

NOTE: The initial sequence of proceeding is to type in your IP address and click the "Enter" button to access the home page. If and when you revise or change data in the "SYSTEM USERS" page, the sequence will alter to initially show the "Enter Network Password" page.

Browsing images from the IP camera

The images from the IP camera are displayed on the home page when online with the IP camera. There are also additional settings provided on the home page. MJPEG mode or MPEG4 mode display different display formats on their home page.

Homepage of MJPEG mode

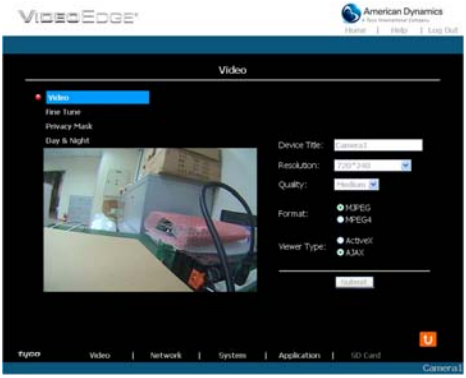
Homepage of MPEG4 mode

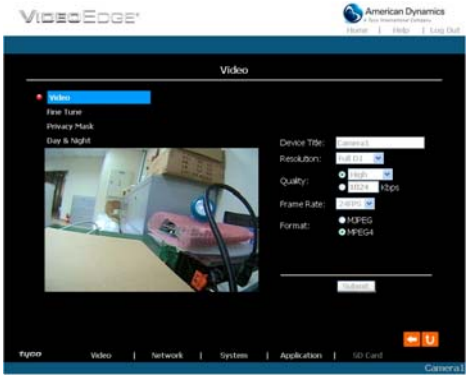
- Click on the **Video** button to enter the image-setting page.
- Click on the **Network** button to enter the network-setting page.
- Click on the **System** button to enter the system-setting page.
- Click on the **Application** button to enter the application-setting page.
- Click on the **SD card** button to open the SD card- FILELIST of the MEMORY CARD window, if the SD card is inserted.
- Click on the 11/10/2005 14:31:37 button to change the time/date display mode.
- Click on the button to switch high/low speed network.
- Click on the button to play the live audio while the audio function is set to ON. Click once again to deactivate.
- Click on the button to archive AVI videos into your PC. Click once again to deactivate. In the recording mode, there will appear a red twinkling icon in the upper-right hand corner of the image. The AVI file will be saved in the path of **c:** .
- **Digital zoom** function: Click on the video display area, and it will show the zoom-in images. Double click to see the maximum size. Click on the right mouse button on the video display area, and it will show the zoom-out images. Double click the right mouse button to come back to the normal size. (MPEG4 mode only)

5.1.2 Change Video Setting

Please follow the steps below to change the image setting through the network as necessary.

1. Click on the **Video** button on the home page to enter the image-setting page.

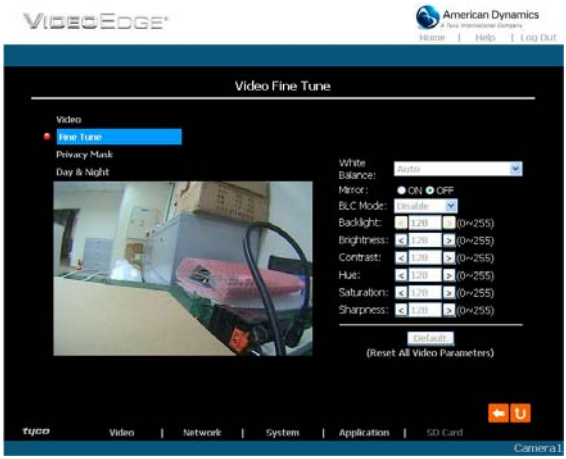




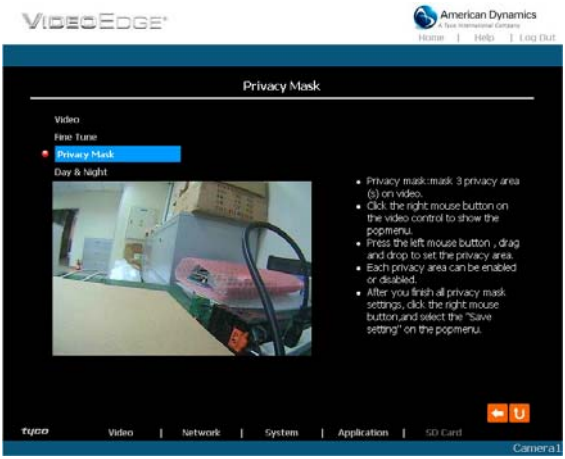
Video setting page of MJPEG mode **Video setting page of MPEG4 mode**

2. Adjust the image setting including “Device Title”, “Resolution”, “Quality”, “Frame rate” (MPEG4 mode only), “Format”, “Viewer Type” (MJPEG mode only) , and “MJPEG Deinterlace” (MJPEG mode only) as necessary.
3. Click on the **Submit** button to submit the new image setting.
4. Click on the **Fine Tune** button to enter the Video Fine Tune page to set the details of the device. Click on the **Default** button to reset all the settings.

NOTE: The revised image will appear immediately after any change is made.



5. Click on the **Privacy Mask** button to enter the Privacy Mask page.

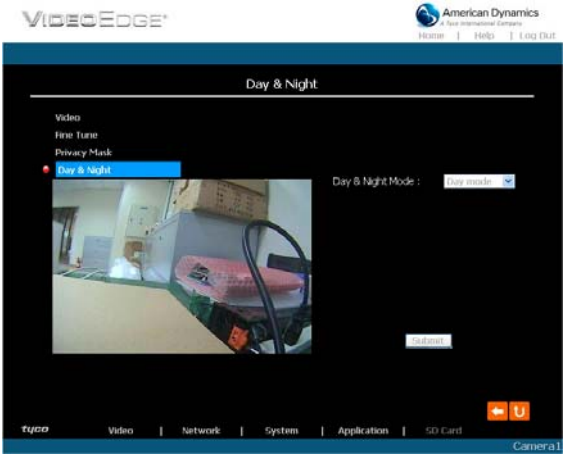


6. Click on the **Day & Night** button to enter the Day & Night page.

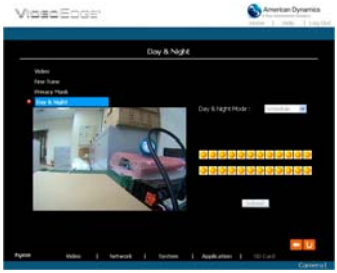
   i. Click on the drop-down list to choose the Day & Night mode of “Auto”, “Day mode”, “Night mode” and “Schedule”.

   ii. Set the values of Focus Adjust and Sensitivity.

   iii. Click on the **Submit** button to submit the new Day & Night setting.



NOTE: In the “Schedule” mode, you can click the icon to set the Day or Night mode of each hour. “0” means “00:00~00:59”, “1” means “01:00~01:59”, and so on.



7. Click on the **Home** button to return to the home page while the new image setting acts on the images to effect the desired changes instantly. (If the setting has not been changed by the above steps, any (re)entry onto the home page will find images in their earlier or original setting.)

Exchange the image format

1. Select one of the formats then press the **Submit** button.
2. The IP camera will restart automatically after several seconds.

Description of function keys:

MPEG4 mode:

Device Title:	Enter the camera title in the given space.
Resolution:	Scroll to choose the image resolution from “VGA” or “QVGA”.
Quality:	Scroll to choose the image quality out of a spectrum of qualities ranging from “highest”, ”high”, “medium”, and “low” to “lowest”. In MPEG4 mode, you can also set the quality by typing in the value. The custom quality value must be in the range between 64 Kbps to 8192 Kbps.
Frame rate:	Click on the drop-down list to choose the frame rates of “5FPS”, “10FPS”, “15FPS”, “24FPS” or “(25) 30FPS”.
Format:	Click to choose the “MJPEG” or the “MPEG4” mode.

Fine Tune mode

Brightness:	Enter your desired quality of image brightness from a spectrum of 0 to 255.
Saturation:	Enter the saturation level in the blank (0 to 255).

MJPEG mode:

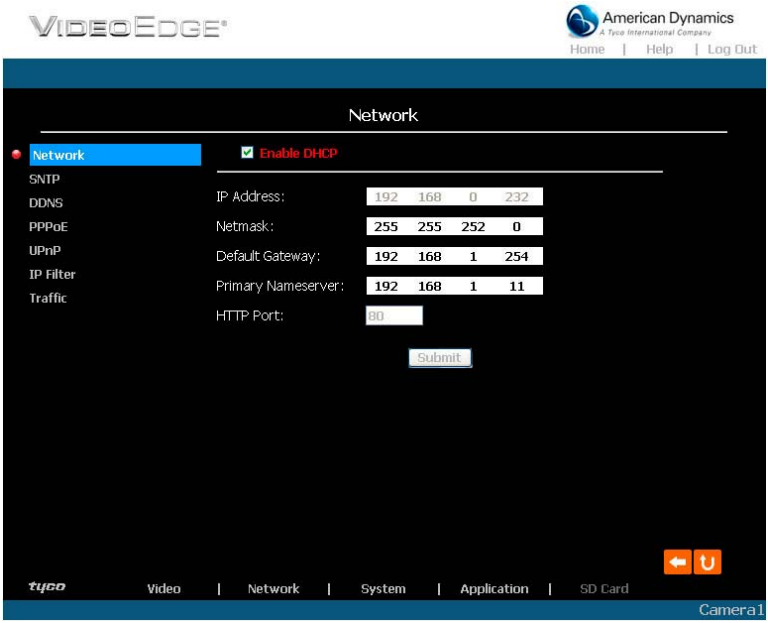
Viewer type:	Click to choose the viewer type of the “ActiveX” or “AJAX” mode.
MJPEG Deinterlace:	Click to choose the MJPEG Deinterlace of the “ON” or “OFF” mode.
Submit:	Click to submit the new image setting to the IP camera.
Default:	Click this button to install the default settings in all the entries for image parameters on this page.

5.1.3 Change the Network Setting

Please follow the steps below to change the network setting through the network as necessary.

- *Set the network options and IP address.*

1. Click on the **Network** button in the home page to enter the Network page.



2. The accessible networks here are the “FTP” (for PAL only), “SMTP” (for PAL only), “SNTP”, “DDNS”, “PPPoE”, ”UPnP”, ”IP Filter” and the ”Traffic”.
3. Enter the “IP Address”, “Netmask”, “Default gateway”, “Primary Nameserver”, and “HTTP Port” as necessary.
4. Click on the **Submit** button to submit the new network setting.
5. Click on the **Home** button to return to the home page.

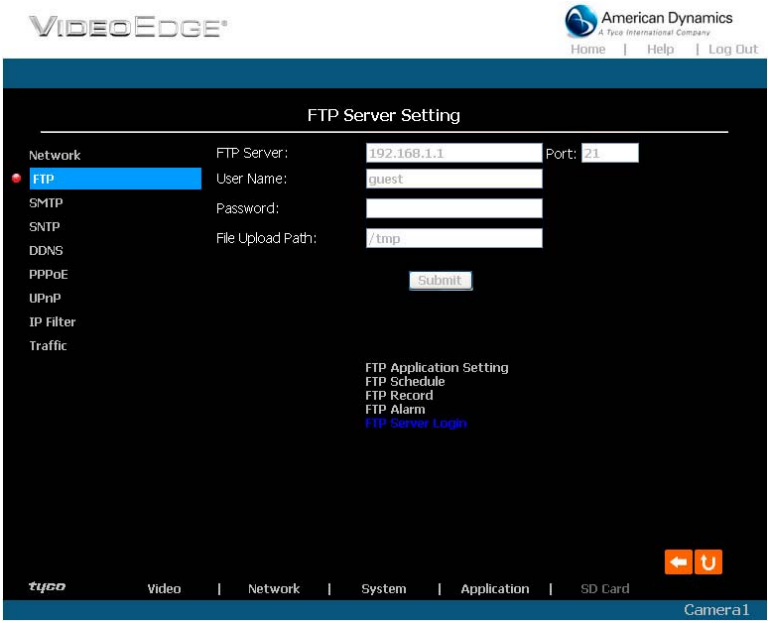
Description of function keys:

IP Address:	Enter the 4-byte IP Address in the appropriate blank space (the value in each box may be anywhere between 0 and 255). Every IP camera has to own an IP address to be identified on the network.
Netmask:	Enter the 4-byte Subnet Mask in the required blank spaces (usually any numbers between 0 and 255). It is used to identify the subnet where the IP camera is sited.
Default Gateway:	Enter the 4-byte Gateway in the relevant blank spaces (each unit value must be between 0 and 255).
Primary Nameserver:	Enter the 4-byte DNS Server Address in the blank spaces provided (each value unit must be between 0 and 255). The DNS Server is in charge of translating the Domain Name into the IP Address.
HTTP Port:	Indicates the specific HTTP Port Number. The default is 80.
Submit:	Click to submit the new network setting to the IP camera.

- *Change the Network Setting — FTP (MJPEG mode only).*

Please follow the steps below to change the FTP setting via the network as necessary to upload recording data live. (*FTP function is for PAL version only.)

1. Click on the **FTP** button at top left to enter the “FTP Server Setting” page.



2. Enter the “FTP Server” address, the “User Name”, and the “Password” of the FTP Server; and set the “File Upload Path” of the image files when necessary.
3. Click on the **Submit** button to submit the new FTP setting of the recording.
4. Click on the **Home** button to return to the home page.

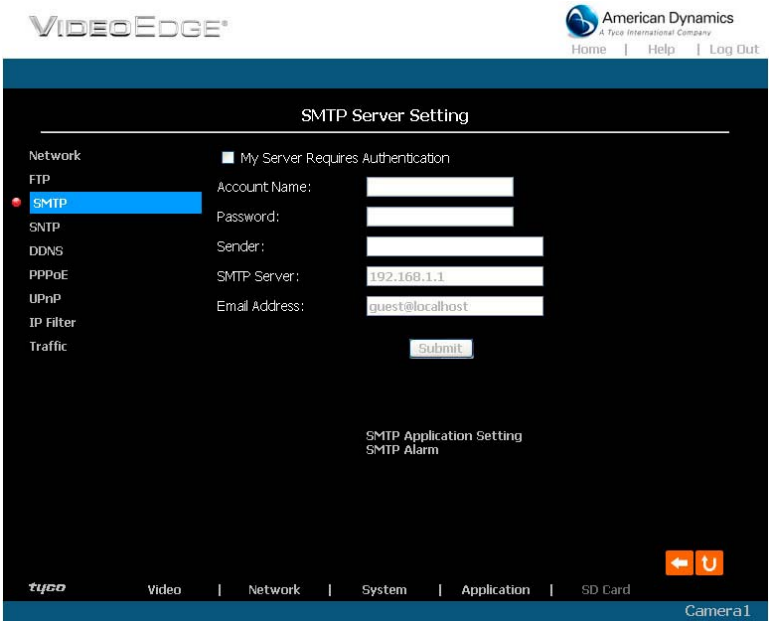
Description of function keys:

FTP IP Address:	Enter the FTP server DOMAIN NAME in the appropriate blank space.
User Name:	Enter the FTP login user name in the attached blank space (if the data is not provided, warning messages will show up).
Password:	Enter the FTP login password in the attached blank space (if the space is blank, warning messages will show up).
File Upload Path:	Enter the file upload path while setting the FTP.
Submit:	Click to submit the new FTP setting to the IP camera.

- *Change the Network Setting — SMTP (MJPEG mode only).*

Please follow the steps below to change the SMTP setting through the network as necessary.

1. Click on the **SMTP** button on the upper left menu to enter the “SMTP Server Setting” page. (*SMTP function is for PAL version only.)



2. Click “My Server Requires Authentication” to checkmark the box and activate the function.
3. Enter the Sender name, DOMAIN NAME of the SMTP server, and set the recipient’s e-mail address as necessary.
4. Click on the **Submit** button to submit the new SMTP setting.
5. Click on the **Home** button to return to the home page.

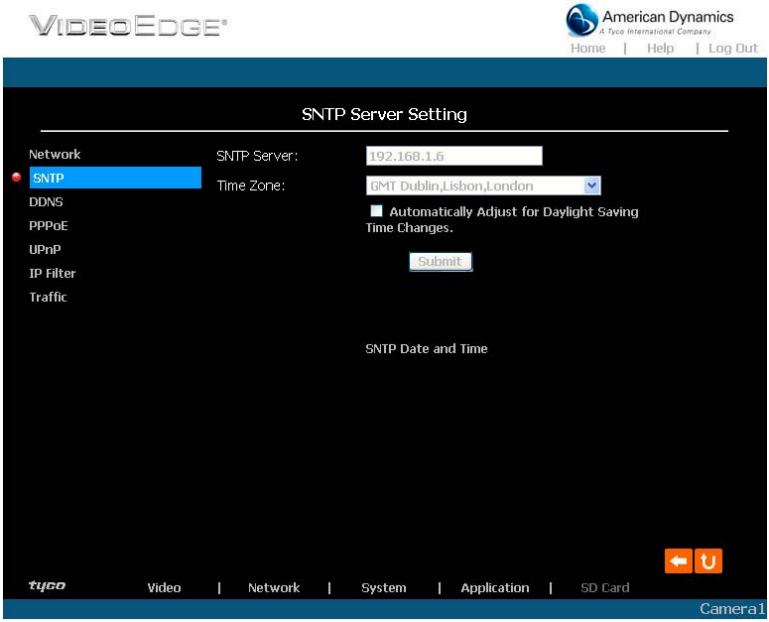
Description of function keys:

Account Name & Password:	Enter the account name and password if you check marked the “My Server Requires Authentication” function.
SMTP Server:	Enter the SMTP server DOMAIN NAME in the given blank space.
Email Address:	The recipient’s e-mail address.
Submit:	Click to submit the new SMTP setting to the IP camera.

- *Change the Network Setting — SNTP.*

Please follow the steps below to change the SNTP setting through the network as necessary.

1. Click on the **SNTP** button on the upper left menu to enter the “SNTP Server Setting” page.



2. Enter the IP Address of the SNTP server, and choose one of the time zones as and when necessary.
3. Click “Automatically Adjust for Daylight Saving Time Changes” to checkmark the box and activate the function.
4. Click on the **Submit** button to submit the new SNTP setting.
5. Click on the **Home** button to return to the home page.

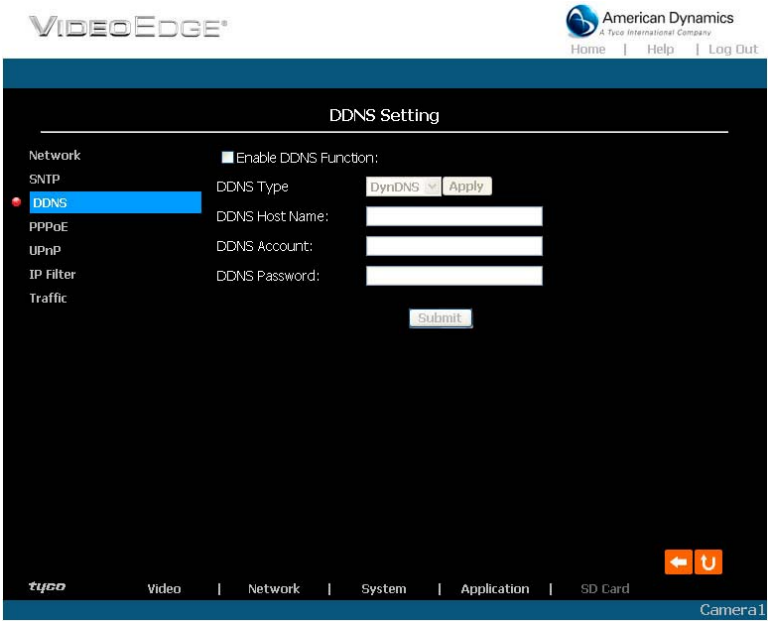
Description of function keys:

SNTP Server:	Enter the SNTP server DOMAIN NAME in the blank space provided.
Time Zone:	As we know, the globe is divided into various time zones. You must enter his/her time zone. If this is not done, the time given by the unit may be incorrect.
Submit:	Click to submit the new SNTP setting to the IP camera.

- *Change the Network Setting — DDNS.*

The “Network” page has, on its upper left, the “DDNS” icon. Please follow the steps below to change the DDNS setting through the network as necessary.

1. Click on the **DDNS** button on the upper left menu to enter the “DDNS Setting” page.



2. Click “Enable DDNS Function” to checkmark the box and activate the function.
3. Click ”DDNS Type” to open the list of two DDNS modes to choose from: “DynDNS” and “hn”. Click on the “Apply” button and connect their website automatically and visit it. Enter your dynamic IP Address and Email Address. If they are accepted by the website, you will get an Email containing your DDNS Account and DDNS Password in your Email box.
4. Enter the “DDNS Host Name”, the “DDNS Account” and the “DDNS Password”.
5. Click on the **Submit** button to submit the new setting.
6. Click on the **Home** button to return to the home page.

NOTE: Please refer to section 5.1.7 (PPPoE & DDNS) for more details.

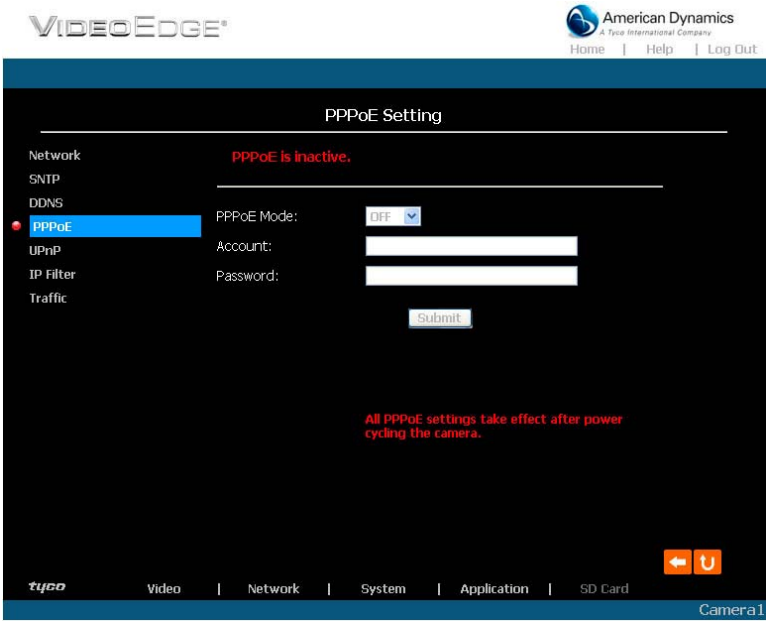
Description of function keys:

Enable DDNS Function:	Checkmark to activate the function.
DDNS Type:	Click to open the list of two DDNS modes to choose from: “DynDNS” and “hn”. Click on the “Apply” button and connect this website automatically and enter it. Enter your dynamic IP Address and Email Address. If they are accepted by the website, you will get an Email containing your DDNS Account and DDNS Password in your Email box.
DDNS Host Name:	Enter your host name in the attached space.
DDNS Account:	Enter it in the given space.
DDNS Password:	Enter it in the required space.
Submit:	Click to set.

- *Change the Network Setting — PPPoE.*

The “Network” page has, on its upper left, the “PPPoE” icon. Please follow the steps below to change the PPPoE setting through the network as necessary.

1. Click on the **PPPoE** button on the upper left menu to enter the “PPPoE Setting” page.



2. Please read the “PPPoE Troubleshooting” document first, then press “Close’ button.
3. Click on the “PPPoE mode” to activate the function.
4. Enter the PPPoE “Account” and the PPPoE “Password”.
5. Click on the **Submit** button to submit the new setting.
6. Click on the **Home** button to return to the home page.

NOTE: Please refer to section 5.1.7 (PPPoE & DDNS) for more details.

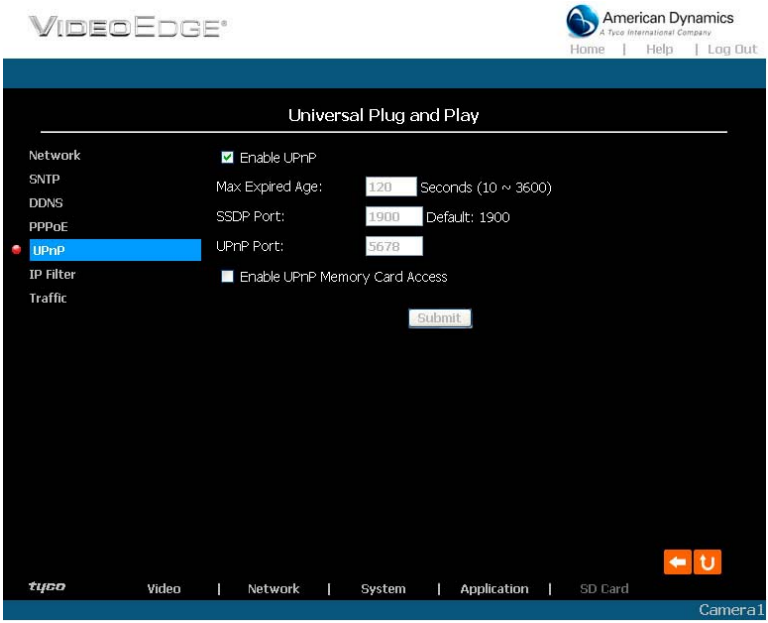
Description of function keys:

PPPoE mode:	Click your choices to enable the PPPoE function.
Account:	Enter it in the given space.
Password:	Enter it in the required space.
Submit:	Click to set.

- *Change the Network Setting —UPnP.*

The “Network” page has, on its upper left, the “UPnP” icon. Please follow the steps below to change the UPnP setting through the network as necessary.

1. Click on the **UPnP** button on the upper left menu to enter the “Universal Plug and Play” page.



2. Click “Enable UPnP” to checkmark the box and activate the function.
3. Enter the UPnP “Max Expired Age”, the “SSDP Port” and the “UPnP Port”.
4. Click “Enable UPnP Memory Card Access” to checkmark the box and activate the function.
5. Click on the **Submit** button to submit the new setting.
6. Click on the **Home** button to return to the home page.

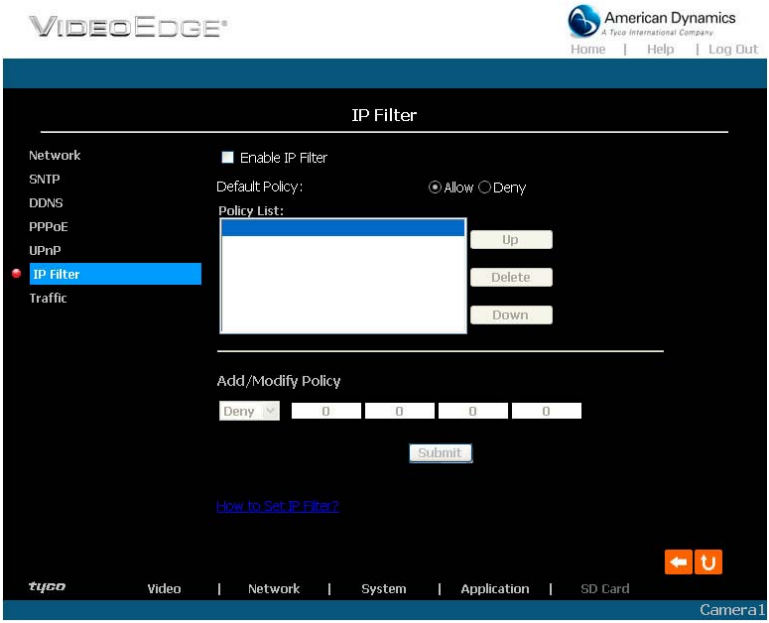
Description of function keys:

Max Expired Age:	Enter it in the given space from a range of 10~3600.
SSDP Port:	SSDP stands for Simple Service Discovery Protocol. SSDP searches for upstream Internet gateways using UDP port 1900.
UPnP Port:	Enter the UPnP Port in the attached space.
Submit:	Click to set.

- *Change the Network Setting — IP Filter*

The “Network” page has, on its upper left, the “IP Filter” icon. Please follow the steps below to change the IP Filter setting through the network as necessary.

1. Click on the **IP Filter** button on the upper left menu to enter the “Network Setting” page.



2. Click “Enable IP Filter” to checkmark the box and activate the function.
3. Select the Default policy.
4. Set the Allow/Deny IP Filter policy and enter its IP address.

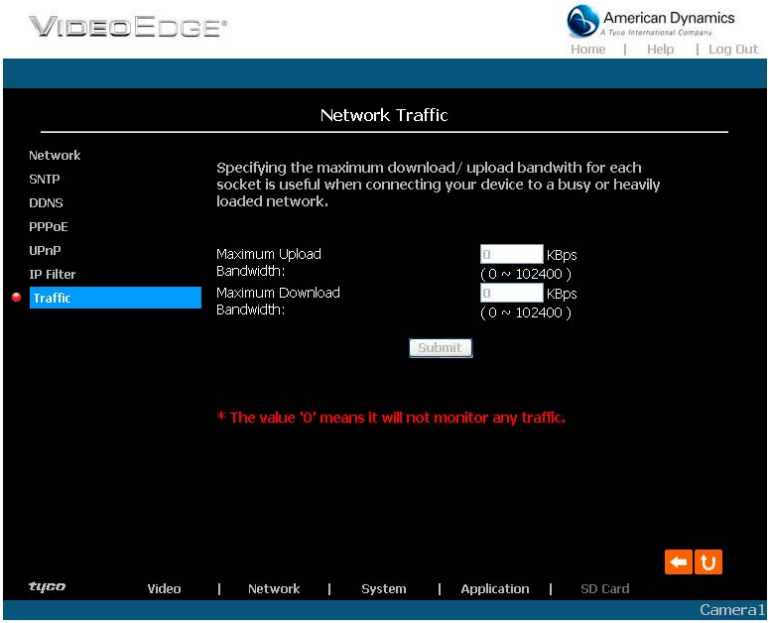
   After setting the policies, they will be shown on the **Policy List**. You can use the “**Up**” or “**Down**” to select a policy and use the “**Delete**” button to erase it.
5. Click on the **Submit** button to submit the new setting.
6. Click on the **Home** button to return to the home page.

NOTE: The settings of the IP Filter must be correct or you may not able to operate the device regularly. If the IP Filter has been incorrectly setup and you can’t access the device normally, please press the “Default” button on the rear panel of the camera to return to the factory default setting.

- *Change the Network Setting —Network Traffic.*

The “Network” page has, on its upper left, the “Traffic” icon. Please follow the steps below to change the UPnP setting through the network as necessary.

1. Click on the **Traffic** button on the upper left menu to enter the “Network Traffic” page.



2. Enter the “Maximum Upload Bandwidth” and the “Maximum Download Bandwidth”.
3. Click on the **Submit** button to submit the new setting.
4. Click on the **Home** button to return to the home page.

Description of function keys:

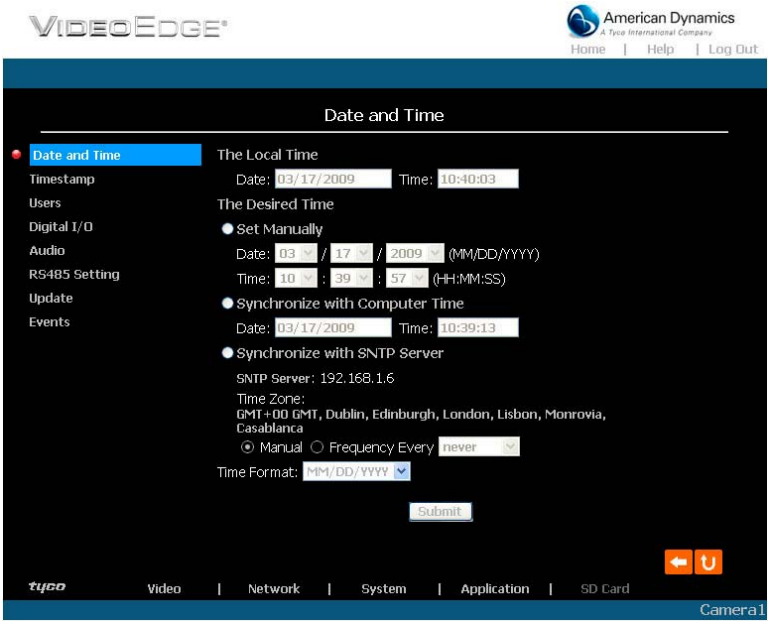
Maximum Upload Bandwidth:	Enter it in the given space from a range of 0 to 102400.
Maximum Download Bandwidth:	Enter it in the required space from a range of 0 to 102400.
Submit:	Click to set.

5.1.4 Change the System Setting

Please follow the steps below to change the date and time of the system setting through the network as necessary.

- *Set the Date and Time of the system*

1. Click on the **System** button in the home page to enter the “Date And Time” page (default).



2. Choose one of the three modes shown on the page to set the Date and Time of the system. The three modes are “Set Manually”, “Synchronize With Computer Time”, and “Synchronize With SNTP Server”.
3. Click on the **Submit** button to submit the new Date and Time settings.
4. Click on the **Home** button to return to the home page.

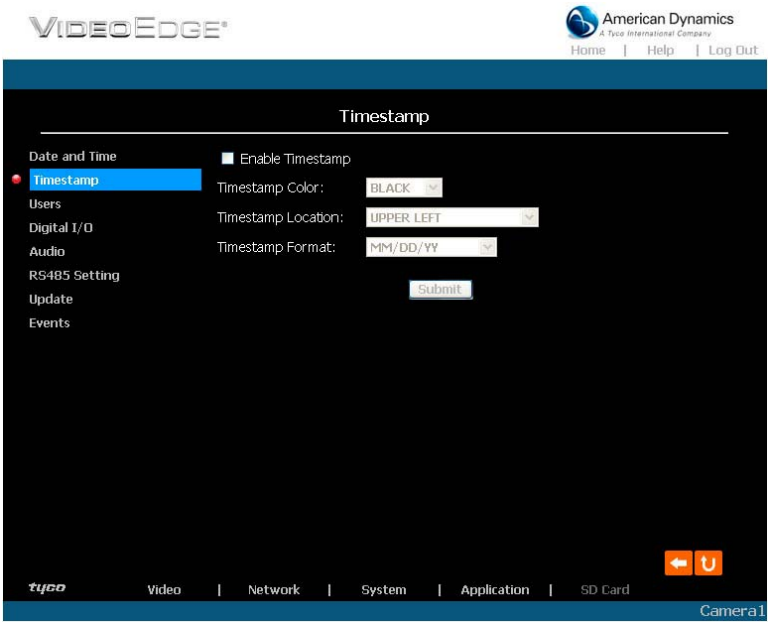
Description of function keys:

The Local Time:	Shows the current date and time of the IP camera.
Set Manually:	Manually sets the date and time of the IP camera.
Synchronize With Computer Time:	Synchronizes with the linking computer.
Synchronize With SNTP Server:	Synchronizes with the SNTP server. In this mode, two choices of adjusting are provided: doing it manually or setting the frequency to enable the system to do it automatically.
Submit:	Click to submit the new setting to the IP camera.

- *Change the System Setting — Timestamp.*

Please follow the steps below to change/add the timestamp through the network as necessary.

1. Click on the **Timestamp** button on the left side of the “System - Date and Time” page to enter the “System - Timestamp” page.



2. Click “**Enable Timestamp**” to checkmark the box and activate the function
3. Add or modify any timestamp’s data as necessary.
4. Enter the "Timestamp Color" you have chosen.
5. Enter the "Timestamp Location" you have chosen.
6. Enter the "Timestamp Format" you have chosen.
7. Click on the **Submit** button to submit the new user’s setting.
8. Click on the **Home** button to return to the home page.

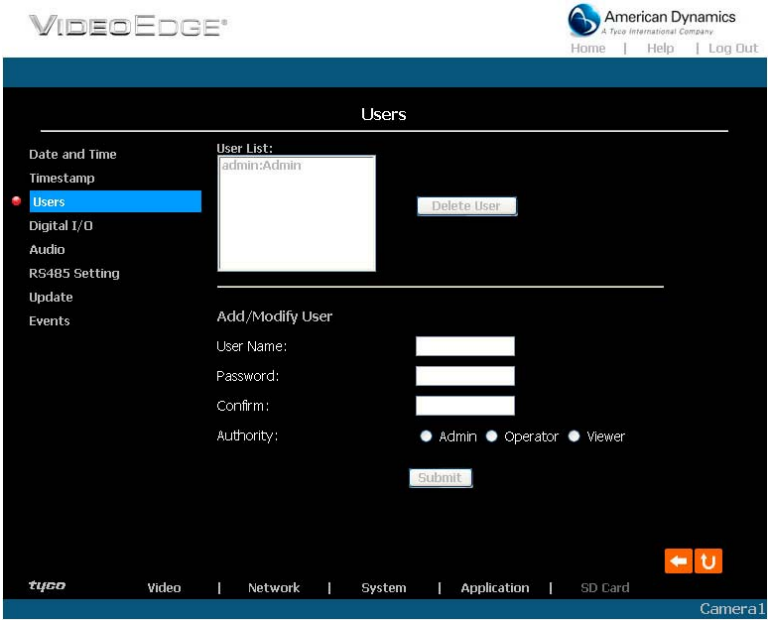
Description of function keys:

Enable Timestamp:	Checkmark to activate the function.
Timestamp Color:	Click to open the list of eight color modes to choose from: “BLACK”, “WHITE”, “RED”, “ORANGE”, “YELLOW”, “GREEN”, “BLUE”, and “PURPLE”.
Timestamp Location:	Click to open the list of four location modes to choose from: “UPPER LEFT”, “UPPER RIGHT”, “BOTTOM LEFT”, and “BOTTOM RIGHT”.
Timestamp Format:	Click to open the list of six format modes to choose from: “YY/MM/DD”, “MM/DD/YY”, “DD/MM/YY”, “YY/MM/DD TITLE”, “MM/DD/YY TITLE”, and “DD/MM/YY TITLE”.
Submit:	Click to set.

- *Change the System Setting — Users.*

Please follow the steps below to change/add the users' authority through the network as necessary.

1. Click on the **Users** button on the left side of the "Date and Time" page to enter the "Users" page.



2. Add, modify or delete any user's data as necessary.
3. Click on the **Submit** button to submit the new user's settings.
4. Click on the **Home** button to return to the home page.

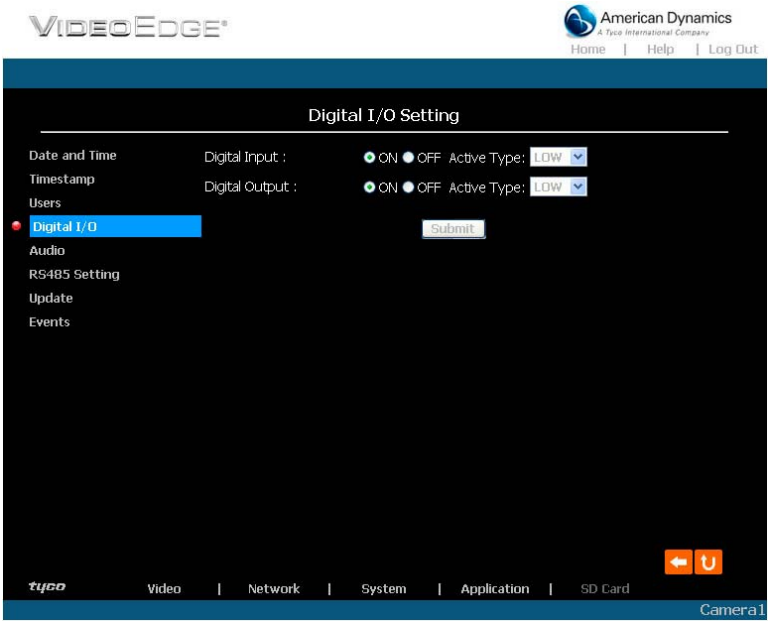
Description of function keys:

User List:	The list shows the registered user(s) and the corresponding authority.
Delete:	Deletes a selected user.
Name:	Enter the user's name, which will be added or modified.
Password:	Enter the new password of the user's name above.
Confirm:	Enter the password again for verification.
Authority:	Choose an authority option of the user's name from: Admin, Operator, and Viewer.
Submit:	Click to submit the new setting to the IP camera.

- *Change the System Setting — Digital I/O.*

Please follow the steps below to change the Digital I/O through the network as necessary.

1. Click on the **Digital I/O** button on the left side of the “Date and Time” page to enter the “Digital I/O Setting” page.



2. Mark the “Digital Input” “ON” or “OFF” and the “Digital Output” “ON” or “OFF”. Click your choices to enable.
3. Click on the **Submit** button to submit the new user’s settings.
4. Click on the **Home** button to return to the home page.

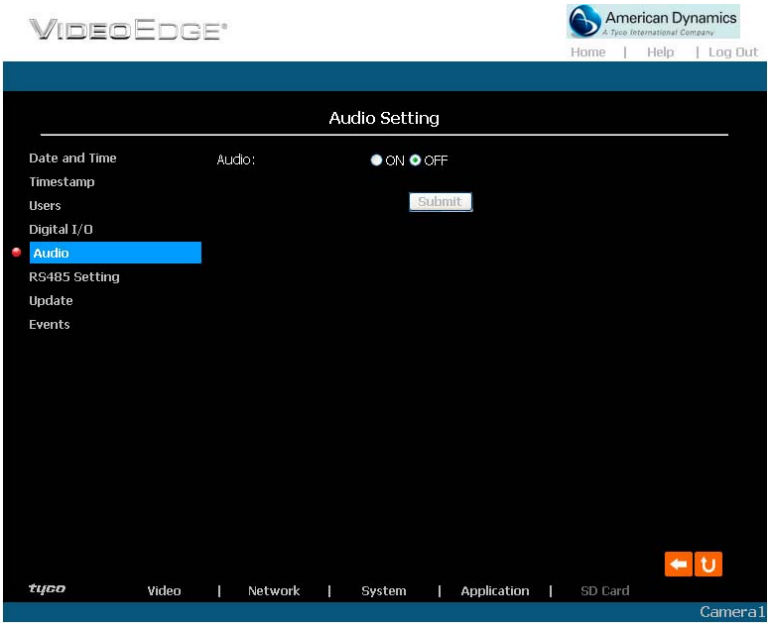
Description of function keys:

Digital Input:	Select “ON” or “OFF” to use the GPIO connector or shut it down.
Digital Output:	Select “ON” or “OFF” to use the GPIO connector or deactivate it.

- *Change the System Setting — Audio.*

Please follow the steps below to change the Audio through the network as necessary.

1. Click on the **Audio** button on the left side of the “Date and Time” page to enter the “Audio Setting” page.



2. Mark the “Audio” “ON” or “OFF”.
3. Click on the **Submit** button to submit the new user’s settings.
4. Click on the **Home** button to return to the home page.

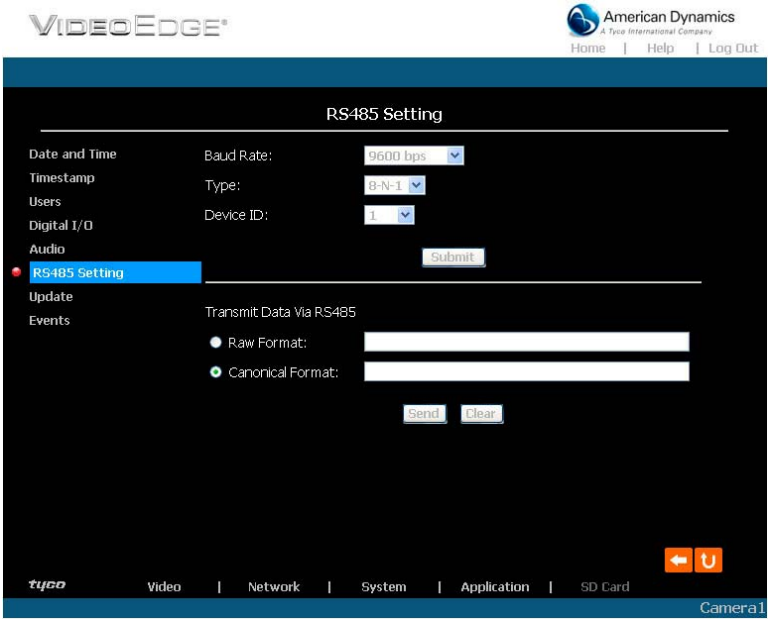
NOTE: This setting is for turning the audio of the Camera on/off automatically. The Live audio service is only provided in the MPEG4 mode via the Web browser.

Description of function keys:

Audio:	Select “ON” or “OFF” to activate or deactivate the function.

- *Change the System Setting — RS485 Setting.*

Click on the **RS485 Setting** button on the left side of the “Date and Time” page to enter the “RS485 Setting” page.



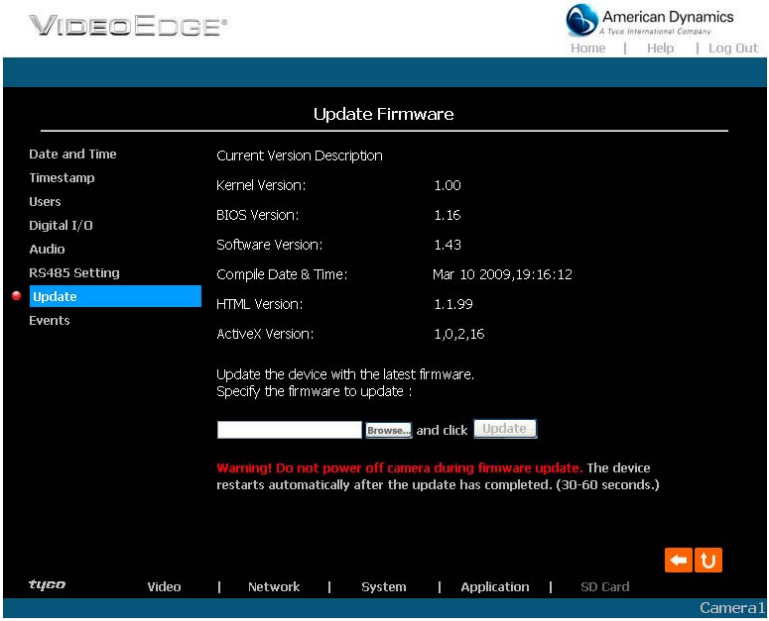
Description of function keys:

Baud rate:	Eight different speeds can be used: 2400 baud per second, 4800 baud, 9600 baud, 19200 baud, 28800 baud, 38400 baud, 57600 baud and 115200 baud.
Type:	Choose one of the types.
Device ID:	You have the option of using an ID code (any number between **1** and **255**).
Raw format:	Set to transmit the ASCII codes.
Canonical format:	Set to transmit the character string.

- *Change the System Setting — Update Firmware.*

Please follow the steps below to update the firmware through the network as necessary.

1. Click on the **Update** button on the left side of the “Date and Time” page to enter the “Update Firmware” page.



2. Click on the “Browse…” button to select the UPDATE.BIN file which was copied into your computer.
3. Click on the “Update” button.

NOTE: DO NOT power off the IP camera during firmware update.

NOTE: Don’t interrupt the process while the unit is updating itself.

NOTE: Please make sure that the UPDATE.BIN file is appropriate to the model of the unit. Updating with the wrong UPDATE.BIN file may cause physical damage to the device.

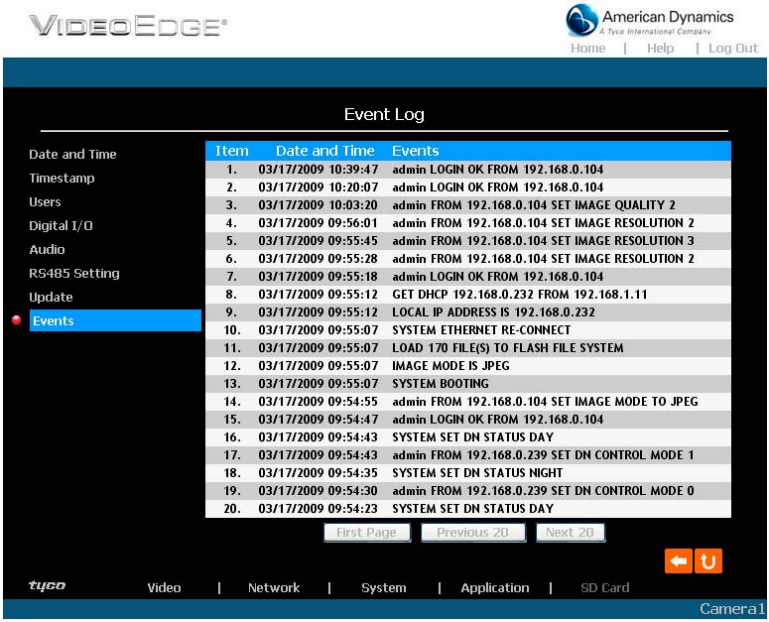
NOTE: The Temporary Internet Files (or cache) folder contains Web page content that is stored on your hard disk for quick viewing. We suggest deleting the Temporary Internet Files immediately after updating the firmware. To delete the files in the Temporary Internet Files folder, follow these steps:

1. Quit Internet Explorer and quit any instances of Windows Explorer.
2. Click **Start**, click **Control Panel**, and then double-click **Internet Options**.
3. On the **General** tab, click **Delete Files** under **Temporary Internet Files**.
4. Select the **Delete all offline content** check box in the **Delete Files** dialog box, and then click **OK**.
5. Click **OK**.

- *View the Event Logs.*

Please follow the steps below to view events through the network as necessary.

1. Click on the **Events** button on the upper left above to enter the “Event Log” page.



2. Choose one of the three buttons shown on the page to view an event when necessary. The three buttons are titled “First Page”, “Previous 20”, and “Next 20”.

Description of function keys:

First Page:	Displays the first page.
Previous 20:	Displays the previous 20 pages.
Next 20:	Displays the next 20 pages.

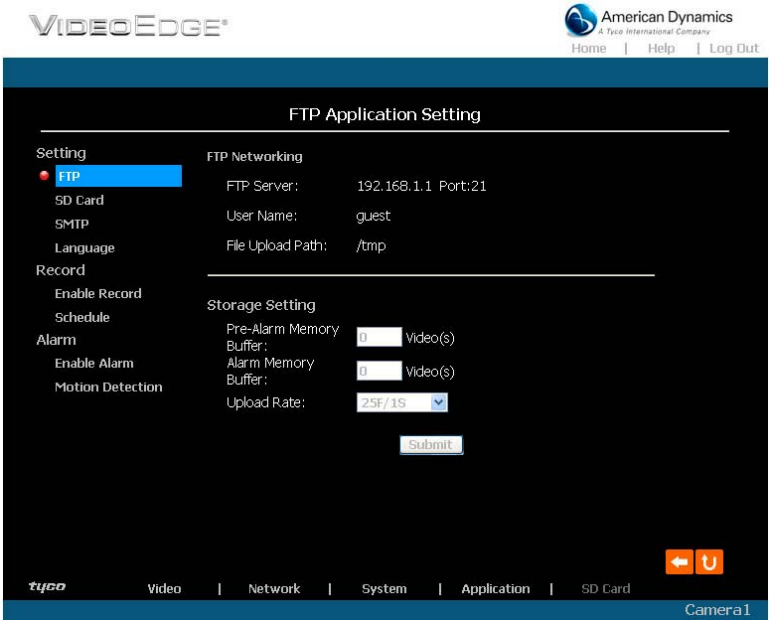
5.1.5 Change the Application Setting

Please follow the steps below to change the application setting through the network as necessary.

- *Change the Application Setting — FTP Application Setting (MJPEG mode only).*

Please follow the steps below to change the FTP setting via the network as necessary to upload recording data live. (*FTP function is for PAL version only.)

1. Click on the **Application** button on the home page to enter the “FTP Application Setting” page (default).



2. Enter the required number of images you wish to set in "Pre - Alarm Memory Buffer" and "Alarm Memory Buffer respectively" in their corresponding blank spaces within the Storage Settings.
3. Enter the "Upload Rate" you have chosen.
4. Click "Submit" after each of the above entries for their settings.
5. Click on the “Home” button to return to the home page.

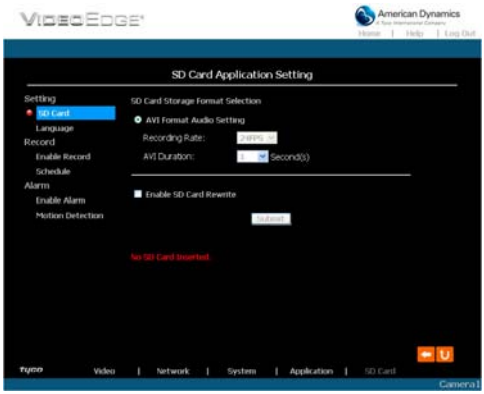
Description of function keys:

Pre – Alarm Memory Buffer:	Fixes the desired number of images to prelude an alarm.
Alarm Memory Buffer:	Determines the selected length of the image buffer after an alarm.
Upload Rates:	Sets the upload speed rate.

- *Change the Application Setting — SD Card Application Setting.*

Please follow the steps below to change the SD CARD setting via the network as necessary to upload recording data live.

1. Click on the **SD card** button on the top left to enter the “SD Card Application Setting” page.



SD Card setting page of MJPEG mode **SD Card setting page of MPEG4 mode**

You can choose which SD card storage format to use, MJPEG (MJPEG mode only) or AVI.

2. Click on your selected format and "Submit" to set it.
3. Enter "Max MJPEG Numbers" entry if it's MJPEG format.
4. Enter its recording rate and duration in seconds, and click "Submit" for their setting if AVI is your choice.

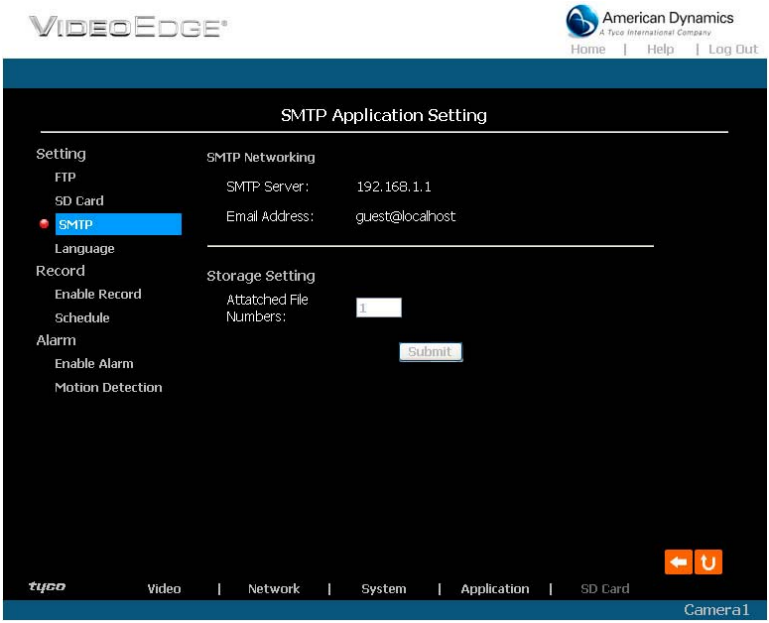
Description of function keys:

MJPEG Format:	One image per file.
Max MJPEG Numbers:	Sets the number of file sequences you can save per second.
AVI Format audio setting:	Unlike a single image file, this option offers a selected section of a video record.
Recording Rate:	Sets your chosen frame rate of frames per second.
AVI Duration:	Predetermines the length of each video file in terms of seconds.
Enable SD Card Rewrite:	Tick to activate the SD card rewrite function.
SD Card Capacity:	The free capacity of the SD card.
SD Card Usage:	The percentage of the recorded file on the SD card.
SD Format **:**	Click and press the Yes button to format the SD card.

- *Change the Application Setting —SMTP Application Setting (MJPEG mode only).*

Please follow the steps below to change the SMTP setting via the network as necessary.

1. Click on the **SMTP** button on the left side to enter the “SMTP Application Setting” page. (*SMTP function is for PAL version only.)



2. Enter the attached file number as and when necessary. The maximum number which can be used is 8.
3. Click on the **Submit** button to submit the new SMTP setting of the recording.
4. Click on the **Home** button to return to the home page.

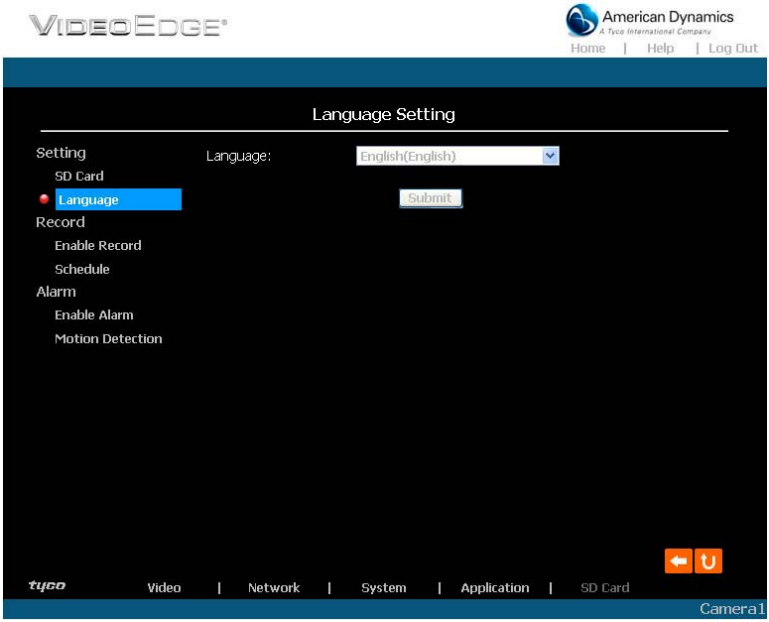
Description of function keys:

File numbers:	Sets the quantity of images per Email.

- *Change the Application Setting —Language Setting.*

Please follow the steps below to change the Language setting via the network as necessary.

1. Click on the **Language** button on the left side to enter the “Language Setting” page.



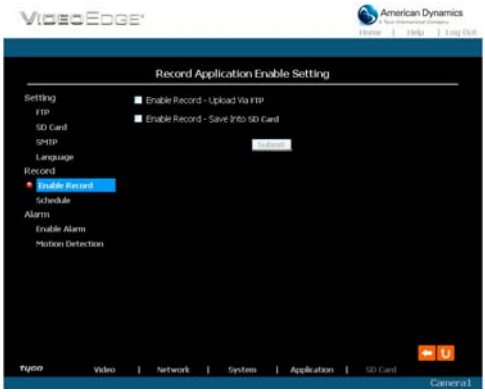
You have an option as to which language to use. The default is “English”

2. Choose your selected language and click "Submit" to set it.

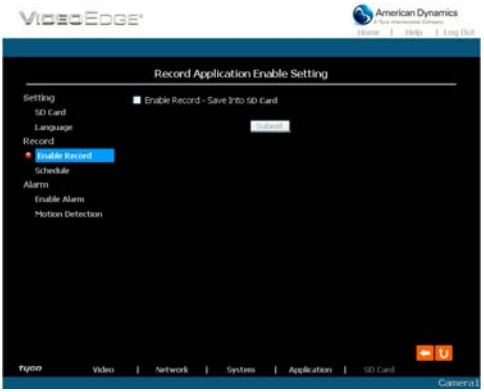
- *Change the Application Setting —Record Application Enable Setting.*

Please follow the steps below to change the setting via the network as necessary.

1. Click on the **Enable Record** button on the left side of the record to enter the “Record Application Enable Setting” page.



Record setting page of MJPEG mode



Record setting page of MPEG4 mode

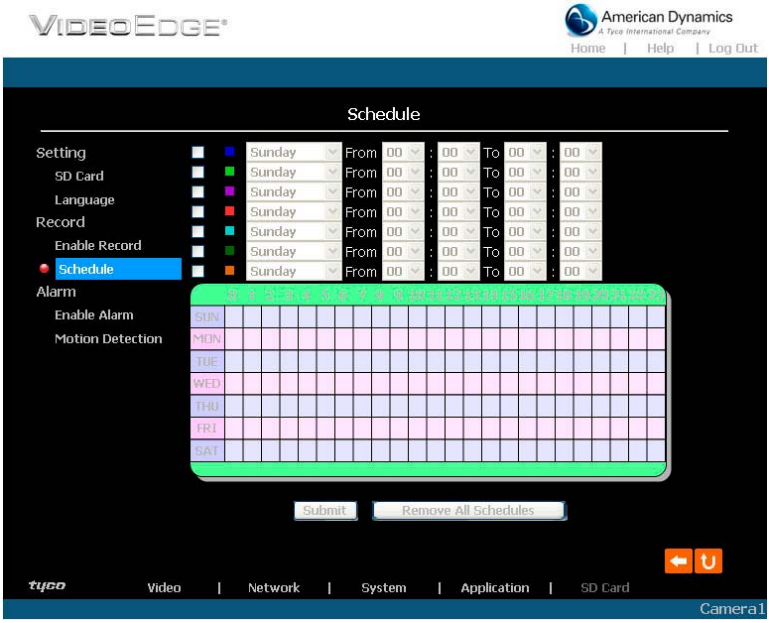
2. Click “Enable Record – UPLOAD Via FTP” to checkmark the box and activate the function (*FTP function is for PAL version only).
3. Click “Enable Record – Save Into SD card” to checkmark the box and activate the function.
4. Click on the **Submit** button to submit the new setting of the recording.
5. Click on the Home button to return to the home page.

Description of function keys:

Enable Record – Upload Via FTP:	Activates or deactivates the recording to the FTP server.
Enable Record – Save Into SD Card:	Activates or deactivates the recording to the SD card.

- *Change the Application Setting —Record - Schedule.*

1. Click on the **Application** button on the home page to enter the “Record - Schedule” page.



2. Check/uncheck any/all of the first seven boxes set vertically in the upper half of the “Schedule” page to enable/disable the programmed recording function, and vary the setting of the targeted item while it is enabled.
3. Click on the **Submit** button to submit the new schedule setting.
4. Click on the **Remove All Schedules** button to clear out all the data of the schedule setting.

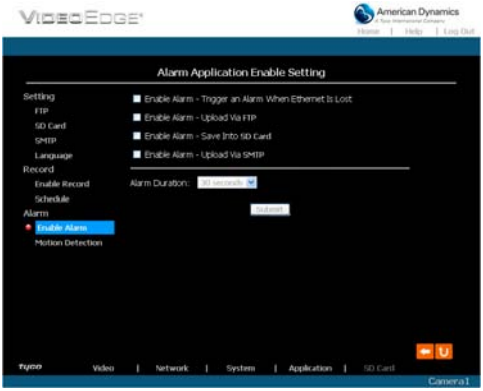
Description of function keys:

Schedule:	Check / uncheck the first seven boxes in a vertical row on the left to enable/disable the programmed scheduled recording function as necessary. Vary any of the schedules of the recording setting as necessary (please refer to the above description).
Chart:	Schedule list.
Submit:	Click to submit the new setting to the IP camera.
Remove All Schedules:	Click to clear out all the data of the schedule setting.

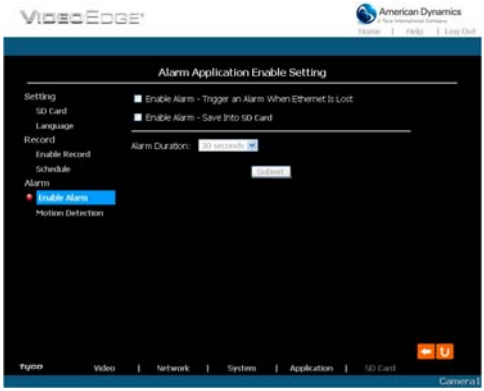
- *Change the Application Setting — Alarm Application Enable Setting.*

Please follow the steps below to change the setting via the network as necessary.

1. Click on the **Enable Alarm** button on the left side of the record to enter the “Alarm Application Enable Setting” page.



MJPEG mode



MPEG4 mode

2. Click “Enable Alarm – Trigger an Alarm When Ethernet Is Lost” to checkmark the box and activate the function.
3. Click “Enable Alarm – Upload Via FTP” to checkmark the box and activate the function (*FTP function is for PAL version only).
4. Click “Enable Alarm – Save Into SD card” to checkmark the box and activate the function.
5. Click “Enable Alarm – Upload Via SMTP” to checkmark the box and activate the function (*SMTP function is for PAL version only).
6. Enter the "Alarm Duration" you have chosen.
7. Click on the **Submit** button to submit the new setting of the recording.
8. Click on the **Home** button to return to the home page.

Description of function keys:

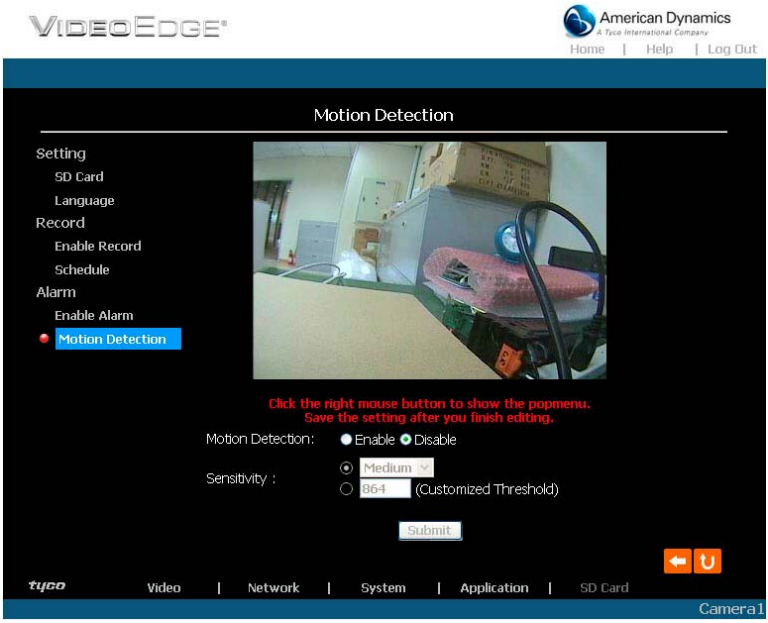
Enable ALARM – Trigger an Alarm When Ethernet Is Lost:	Activates or deactivates the alarm triggering while the Ethernet lost.
Enable Alarm – Upload Via FTP:	Activates or deactivates the alarm recording upload to the FTP.
Enable Alarm – Save Into SD card:	Activates or deactivates the alarm recording to be saved to the SD card.
Enable Alarm – Upload Via SMTP:	Activates or deactivates the alarm recording upload to the SMTP.
Alarm Duration:	Predetermines the length of the alarm.

- *Change the Application Setting — Alarm - Motion Detection.*

Please follow the steps below to enable changes in the motion detection function of the alarm through the network as necessary.

Set the motion detection:

1. Click on the **Motion Detection** button on the left side of the Alarm to enter the “Alarm – Motion Detection” page.



2. Click and drag the mouse across a targeted zone to draw a red rectangle on the image (coordinates provided below).

   NOTE: You can set more than one targeted zone depending on your requirement.

3. Enables / disables the motion detection function.
4. Set up the signal level.
5. Click on the **Submit** button to submit the new setting of the recording.
6. Click on the **Home** button to return to the home page.

Description of function keys:

The targeted zone:	Click and drag the mouse across the targeted zone to draw a red rectangle on the image.
Detection Range:	The red rectangle’s coordinates.
Save:	Click to save the motion detection range.
Motion Detection:	This option enables / disables the motion detection function.
Sensitivity Level:	You can select any one of the given options for the setup signal level or just type in the value of Customized Threshold.

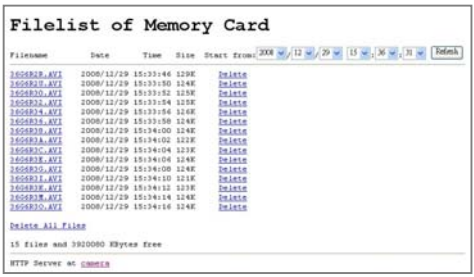
5.1.6 Change the SD card Setting

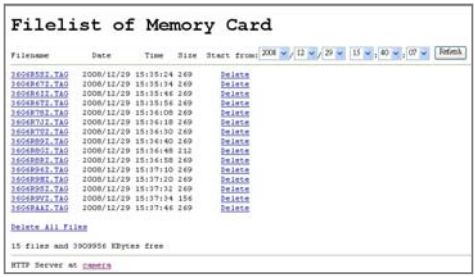
Please follow the steps below to change the SD card setting through the network as necessary.

- *Change the SD card Setting — FILELIST of MEMORY CARD.*

Please follow the steps below to change the setting via the network as necessary.

1. Click on the “SD card” button at the bottom of the home page to enter the “Filelist of Memory Card” screen. The page comes in two modes, the JPEG and the AVI (please refer to the “SD card Application Setting Page”).





2. Click on the desired file to display the images.
3. Each file can be deleted by clicking the “Delete” hyperlink.

NOTE: Right click the hyperlink of the file in the "Filelist of Memory Card" page and then click "Save" to save the file.

CAUTION: If you wish to save the SD CARD files from a camera to your computer, enter the JPEG column in the "Filelist of Memory Card" page and enter the relevant files in the column. When you click right, the images concerned will appear. Move your cursor within the image area and right click the mouse. A table of item entries displays. Click "Save" and select the file path in which to save your files.

5.1.7 PPPoE & DDNS

Using the PPPoE

1. Install the XDSL software (obtained from your ISP dealer) in your PC.
2. Search your IP camera's IP address: you can connect the IP camera and the Video monitor. The monitor screen will show the IP address on its right side.
3. Turn off the DHCP function (of the IP camera) if it is “ON”.

   NOTE: Use the IE browser to go to the Network Setting page to note the check box at the top of the page. If the box has a tick mark, click it to “OFF".
4. Installing an IP address in your PC or notebook.

   Desktop → Move the mouse focus to the Network neighborhood and click the right key of the mouse → Choose the properties → Choose your local connection → Choose the properties and select the configuration → Select the TCP / IP → Choose the properties → Enter the IP address in a four-part formula, for example “192. 168. 1.101” (the first three parts must be identical to the above numbers, only the last part can be changed to your own number, which must never exceed 255) → Click on the mask and the mask input, namely “255. 255. 255. 0” (a fixed formula) → Click “OK” → Click “OK”.
5. Desktop → Choose IE browser → Enter the IP camera IP address in the URL (check step # 2 above) → Enter → IP camera images will appear.

PPPoE Settings

1. Enter the IP camera home page → Choose the network → Enter “User Name: admin” and “Password: 9999” → Click “OK’.
2. Choose PPPoE → PPPoE mode: Select “ON” → Enter “Account” → Enter “Password” → Submit → Unplug the power connection.
3. Plug in the IP camera and it will receive an IP address from the ISP dealer (this IP address is dynamic --- every time you unplug and plug in again you’ll get a new IP address).

Test: Go to the Internet.

1. Set your PC to enter the Internet.
2. Desktop → IE browser → Enter the IP camera IP address (the same address as in the PPPoE settings and step 3 above) → You can see the IP camera images.

DDNS settings

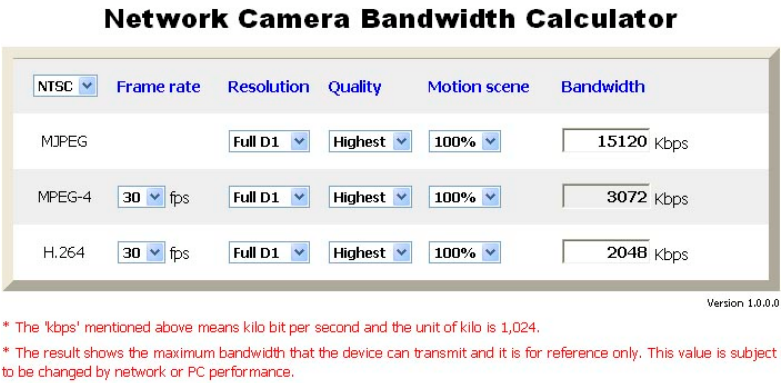
1. Check your IP camera's IP address (monitor) → open your IE browser → Use the address to connect to the IP camera or view the images → Choose the network → Enter "User name : admin" and "Password : 9999" → Click "OK" .
2. Choose the "DDNS" → Click "Enable DDNS" → Enter the "DDNS host name", for example "abc123. homeip.net" → Enter "DDNS Account", for example "abc123" → Enter the "DNS Password", for example "7777" → Submit → The settings are now complete → Close the IE browser.
3. Open the IE browser again → Enter the Website address you just applied for, such as "abc123.homeip.net" → You can look at your IP camera images right away. The procedure is complete.

Note: These settings are only for your ADSL Dynamic IP configuration. If your configuration is fixed (true IP), you don't need to proceed with the PPPoE and DDNS settings. The DDNS is just for your convenience.

5.1.8 The Bandwidth Calculator of the IP camera

You can use the calculator to obtain the rough bandwidth throughput for reference.

Enter "**http://***.***.***.***/calculator.html**" into the URL block and press the "Enter" button to enter the calculating page. (The ***.***.***.*** is the URL address of the IP camera accordingly.)



Please select the video format and set the desired resolution, quality and the percentage of the motion scene and the result will show on the bandwidth column immediately.

NOTE: The selection of motion scene provides the rough percentage of motion within the scene, please make the setting in regards to the situation which you want to know.

6. ADVANCED OPERATION

Question 1:

How to view the live images of the IP camera via the Microsoft Internet Explorer on the Desktop PCs or the laptop computers in a situation where there are no monitors or television?

◇To get the IP address of the IP camera without a monitor, use one of the following two methods to get the IP address: UPnP and IP function.

UPnP: Please refer to **APPENDIX 1**.

IP function: Please refer to **APPENDIX 2**.

Question 2:

How to set up the motion detection area and its sensitivity? How to record into the SD card for 30 seconds when the motion has been activated and use the Microsoft Internet Explorer to view the recorded files?

◇Set up the motion detection

1. Click on the **Application** button in the home page.
2. Click on the **Motion detection** button on the left side of the page to enter the "ALARM – MOTION DETECTION" page.
3. Click and drag the mouse left button across a targeted zone to draw a red rectangle on the image. You can also draw the other targeted zones as you wish.
4. Please **Enable** the motion detection function.
5. Set up the sensitivity level from: Lowest, Low, Medium and High to Highest.
6. Click on the **Submit** button to submit the setting.

◇Recording the images into an SD card while the motion detection function is working

1. Click on the **Application** button in the home page.
2. Click on the **Enable** button below the ALARM item on the left side of the page to enter the "ALARM APPLICATION ENABLE SETTING" page.
3. Tick on "**Enable ALARM-SAVE into SD Card**" to activate it.
4. Click on the **Submit** button to submit the setting.

NOTE: Please remember to insert the SD card into the built-in SD slot of the unit first.

◇Set the recording time (the AVI duration) of the SD card

1. Click on the **Application** button in the home page into the “SD-Card APPLICATION SETTING” page.
2. Choose the **AVI Duration** from the drop-down list.
   If you want to record the file into the SD card for 30 seconds, please choose 30 seconds.
3. Click on the **Submit** button to submit the setting.

◇Use IE to view the recorded files

1. Click on the **SD Card** button in the home page to enter the page containing the “FILELIST of MEMORY CARD”.
2. Click on the filename which you want to view.
3. It will ask you to enter the username and password.
4. If you didn’t set the other player before, the AVI file will be played by the Windows Media Player.

Question 3:

How to use the DynDNS to connect the IP camera by using its Sub Hostname via the intranet?

◇Set the DDNS function

1. Click on the **Network** button in the home page.
2. Click on the **DDNS** button on the left side of the page to enter the “DDNS SETTING” page.
3. Tick on the “Enable DDNS Function” to activate it.
4. Choose one of the DDNS Types from the drop-down list.
   If you didn’t register for a DDNS before, please choose one of the DDNS Type then press “Apply” button to its registering homepage and register as a member.
5. Enter the DDNS Host Name, DDNS Account and DDNS Password which you created in the www.dyndns.com website.
6. Click on the **Submit** button to submit the setting.

   NOTE: Please refer to the APPENDIX 4 for more details.

◇Set the PPPoE function

1. Click on the **Network** button in the home page.
2. Click on the **PPPoE** button on the left side of the page to enter the “PPPoE SETTING” page.

3. Choose “ON” from the “PPPoE mode” list to activate it.
4. Enter the Account and the Password which are provided from your ISP.
5. Click on the **Submit** button to submit the setting.

NOTE: Please refer to section 5.1.7 for more details.

◇Use the Sub Hostname to view the IP camera

1. Click on the URL block at the top of the PC screen.
2. Enter the DDNS Host Name of the IP camera into the URL block and press the “**Enter**” button to enter the login page.
3. Enter the user name and fill in the password.
4. Click on the “**OK**” button and enter the home page of the IP camera.

Question 4:

How to add or modify the users and their authorities of using the IP camera?

◇Entering the setting page

1. Click on the **System** button in the home page.
2. Click on the **Users** button on the left side of the page to enter the “SYSTEM - USERS” page.

◇Add a new user

1. Please enter the user name, the password, the confirmed password and choose the authority. There are three different levels of authorities, namely Admin, Operator and Viewer.

   Admin: You who accesses with the admin name and password has the full power to even change the settings of the IP camera.

   Operator: The suggested choice for normal use.

   Viewer: You who accesses with just the viewer name and password has only a limited power to view.

2. Click on the **Submit** button to submit the new user’s setting.

◇Modify the user

1. Click on the user name you want to modify on the **User List**.
2. Enter the password, the confirmed password and choose the authority.
3. Click on the **Submit** button to submit the new setting.

◇Delete a user

1. Click on the user name you want to modify on the **User List**.
2. Click on the **Delete** button.

7. SPECIFICATIONS

Model	**ADCIPE3312ICN**	VideoEdge IP Indoor Mini-dome, 3.3-12mm, clear, NTSC, w/PS
	ADCIPE3312ICPE	VideoEdge IP Indoor Mini-dome, 3.3-12mm, clear, PAL, EU Plug, w/PS
	ADCIPE3312ICPU	VideoEdge IP Indoor Mini-dome, 3.3-12mm, clear, PAL, UK Plug, w/PS
	ADCIPE3312ISN	VideoEdge IP Indoor Mini-dome, 3.3-12mm, smoke, NTSC, w/PS
	ADCIPE3312ISPE	VideoEdge IP Indoor Mini-dome, 3.3-12mm, smoke, PAL, EU Plug, w/PS
	ADCIPE3312ISPU	VideoEdge IP Indoor Mini-dome, 3.3-12mm, smoke, PAL, UK Plug, w/PS
Video system	System	NTSC/ PAL
	Video sensor	1/3" Sony Super HAD CCD
	Horizontal resolution	520 TV lines
	Lens	Vari-focal 3.3~12mm
	Auto-iris	DC drive
	Min. illumination	IR Off: 0.5 Lux @ F1.2 / IR On: 0 Lux.
	Camera adjustment angle	Pan: 0~360° / Tilt: 0~180°
	Day & Night	Yes (mechanical IR-cut filter)
	IR distance	20M
Image system	Video compression	MJPEG or MPEG4 selectable
	Resolutions	4CIF / 2CIF / CIF
	Frame rate	MJPEG: 30(25) FPS at all resolutions.
		MPEG4: 30 (25)/24/15/10/5 FPS at all resolutions.
	Image quality	5 levels
	Image configurations	Contrast, Brightness, AWB, BLC, Sharpness, Saturation, Mirror, Private mask (3 areas).
	Motion Detection	Built-in motion detection (96 zones / 5 levels)
Audio	One-way audio (audio-in), 8Khz, sample rate.	
Network system	Interface	Ethernet (RJ-45 wired, 10 /100 BaseTX, MDIX supported
	Protocols	HTTP, TCP, DHCP, UPnP, ARP, DNS, DynDNS, SNTP, PPPoE, RTP, RTSP, **SMTP, **FTP.
	Security	Multiple authorities levels / IP address filtering
	Users	8 simultaneous users access
	Firmware update	upgrade via SD card, HTTP, USB
	System integration	Software development kit (HTTP-API / ActiveX control / customized web page tool)
Alarm management	Alarm triggered by built-in motion detection / external alarm input / Network disconnection	
	Alarm notification by ANNP / e-mail* / SD card / alarm output	
	Pre-alarm: 100 pictures	
Connectors	Alarm output	1.0Vp-p, 75ohm, composite, negative, BNC x 1
	Ethernet	RJ-45 x 1
	Push-in jack (8 pins)	alarm input x 1 / alarm output x 1/ alarm reset x 1 / audio input x 1 / audio output x1 / RS-485 x2 / GND x 1
	SD card slot	update / alarm and schedule recording.
	USB	update / configuration
	Power jack x 1	

Others	LED indicator	Network / Power indicator
	Power requirement	DC12V (8.4W) / AC24V / PoE (IEEE 802.af)
	Temperature	0 – 50℃
	Dimensions (mm)	152.9 (D) x 116.3 (H)
	Approvals	FCC / CE / RoHS
	Accessories	CD x 1
		Quick installation manual x 1
		Power adapter x 1
		USB connection line x 1

* Specifications are subject to change without notice.

* FTP and SMTP functions are for PAL version only.

** This device's requires AC 24 voltage, which is within the range of the SELV (safety extra-low voltage and Separated to primary circuit by double or reinforced insulation).

8. Functions of client PC

System requirement	Windows 2000, XP or above
Browser	IE 6.x
Live Monitor	Max. 16 Split , Real Time REC/ Capture/ Audio/ Live Event/ Full Screen
Playback Viewer	Playback, Time / live event Search / Export (JPEG / AVI)
Settings	Device/ System/ Camera management/ web page
Multi-camera link	Max. 16 camera

APPENDIX 1. –IP camera UPnP How To

The most troublesome issue when you setup a LANCam® is that you have no idea what the IP address of this device is. Now LANCam® supports the UPnP (Universal Plug and Play) protocol which makes it easier for you to examine it; however, it is a pity that Microsoft Windows XP® doesn't start this service by default. Therefore, the following procedures will help you to turn it on and discover your LANCam® step by step as shown in Figure1 below.

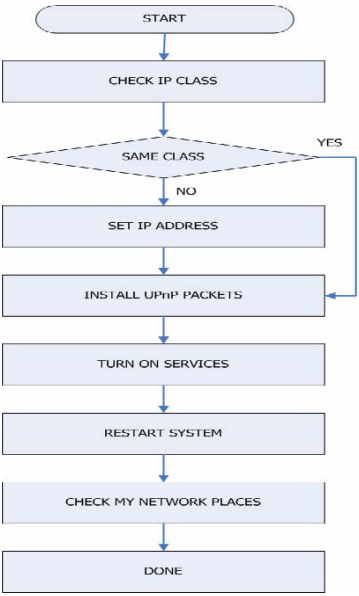


Figure 1 UPnP Setup Flow Chart

1. Check the IP class of your PC

In most case Microsoft Windows XP® will assign an IP address, 169.254.*.*, automatically with a subnet mask, 255.255.0.0, if the DHCP server is absent, while the default IP address of a LANCam® is 192.168.1.168 with a subnet mask of 255.255.255.0. There won't be any communication due to different IP class domains, and you have to modify the relative settings or the UPnP protocol won't work; however, checking your own IP address is necessary. Here are the procedures to check and modify them.

Step 1: From the **Start** menu, point to **Settings**, and then click **Control Panel**. See Figure 2.

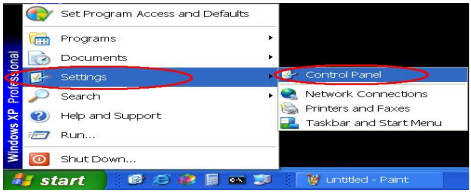


Figure 2

Step 2: When **Control Panel** appears, double-click the **Network Connections** icon. The **Network Connections** dialog box appears. See Figure 3.

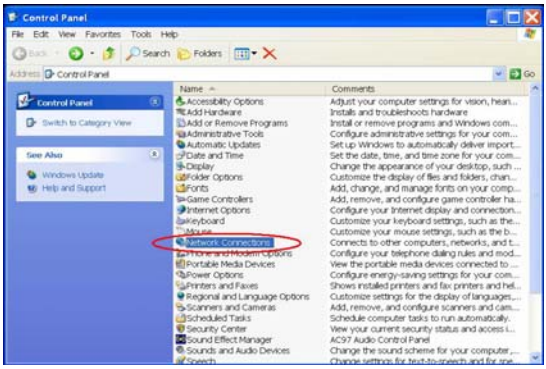


Figure 3

Step 3: Click on the **Protocols** tab in the **Network Connections** dialog box. See Figure 4.

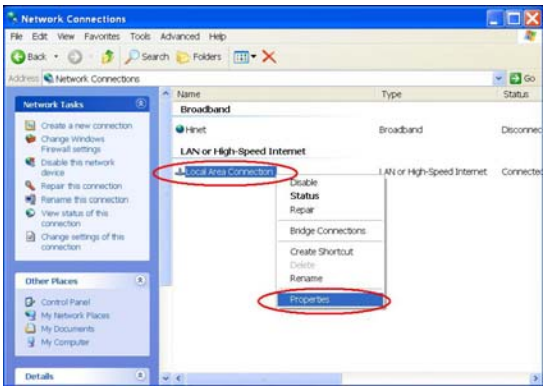


Figure 4

Step 4: When the **Local Area Connection Properties** dialog box shows up, choose **Internet Protocol (TCP/IP)** and click **Properties**. See Figure 5.

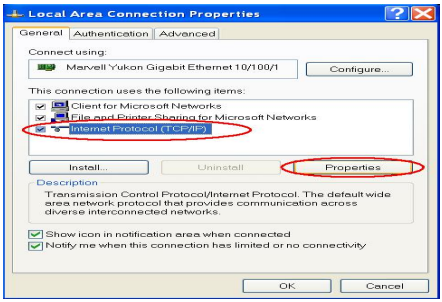


Figure 5

Step 5: In the **Internet Protocol(TCP/IP) Properties** dialog box, choose **Use the following IP Address** to indicate that you do not wish to use DHCP, and assign IP Address 192.168.1.200 with Subnet mask 255.255.255.0.

Click **OK** when you finish it. See Figure 6.

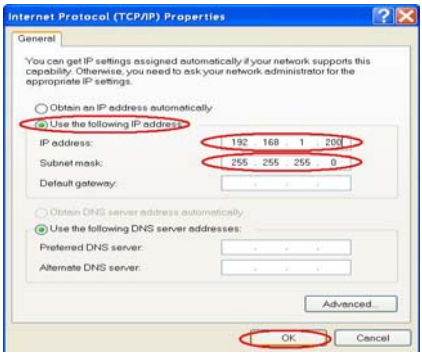


Figure 6

Step 6: Choose Close to finish the modification. See Figure 7.

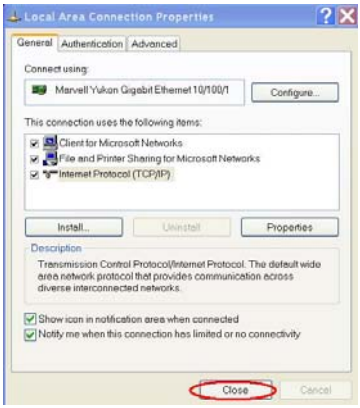


Figure7

2. Install UPnP Packets

As described before, Microsoft Windows XP® doesn't start the UPnP service by default; however, we have to install some packets before we initialize it. The following steps will help you to install them.

Step1: From the **Start menu**, point to **Set Program Access and Default**, and then click it. See Figure 8

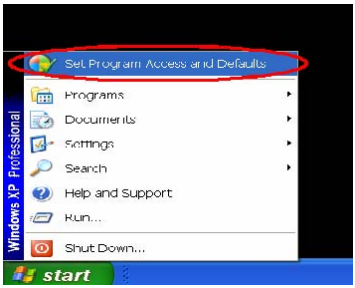


Figure 8

Step 2: When the **Add or Remove Programs** dialog box appears, click the **Add/Remove Windows Components** button. See Figure 9.

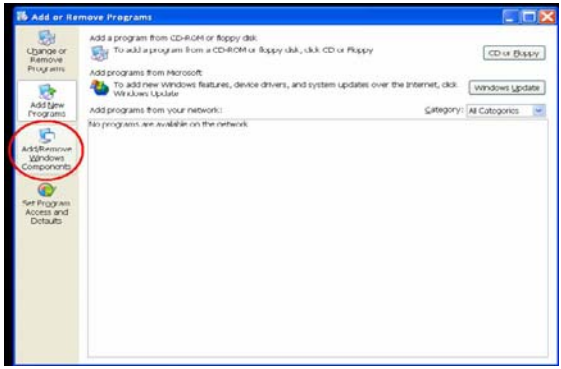


Figure 9

Step 3: Check the **Network Services** in the **Windows Component Wizard** dialog box, and then click **Details…**. See Figure10.

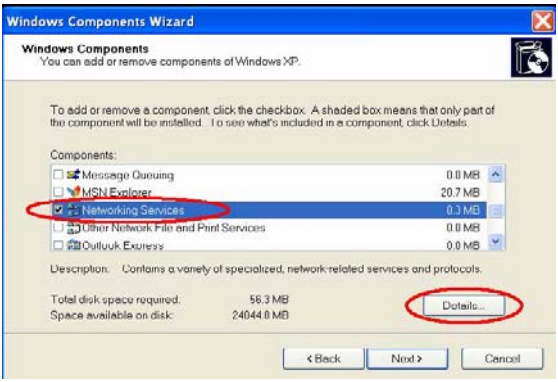


Figure 10

Step 4: Check **UPnP User Interface**, and choose **OK**. See Figure 11.

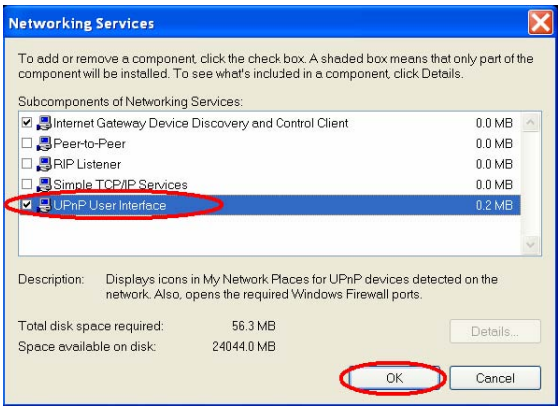


Figure 11

Step 5: When the original **Network Component Wizard** dialog box returns, click **Next**. See Figure12.

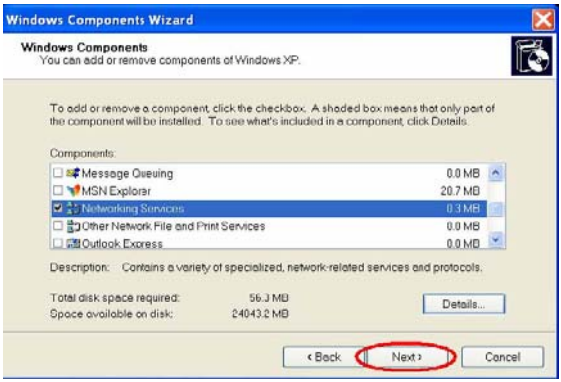


Figure 12

Step 6: After about one minute the UPnP installation will be done, and choose **Finish** to close it. See Figure13.

Figure 13

3. Turn on Services

After installation, we should turn on the relative services to start the UPnP protocol. The following procedures will teach you how to do it.

Step 1: From the **Start** menu, point to **Settings**, and then click **Control Panel**. See Figure14.

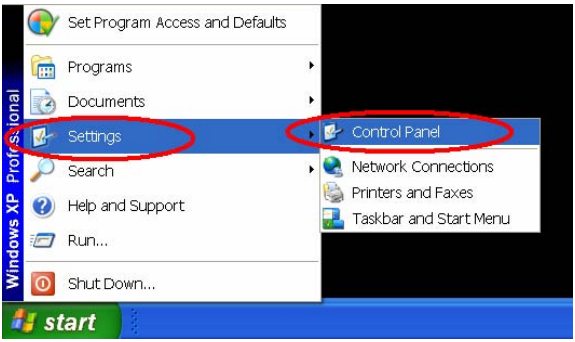


Figure 14

Step 2: When **Control Panel** appears, double-click the **Administrative Tools** icon. The **Administrative Tools** dialog box appears. See Figure15.

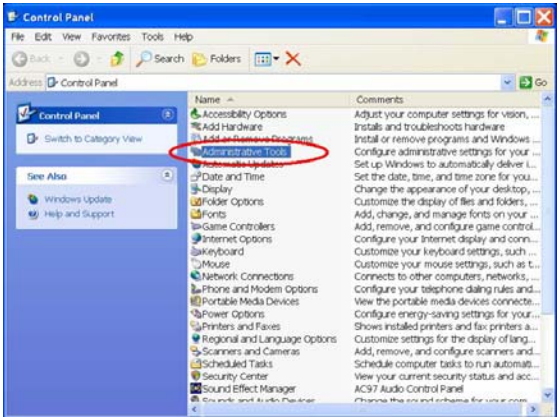


Figure15

Step 3: Click on the **Services** icon in the **Administrative Tools** dialog box. See Figure16.

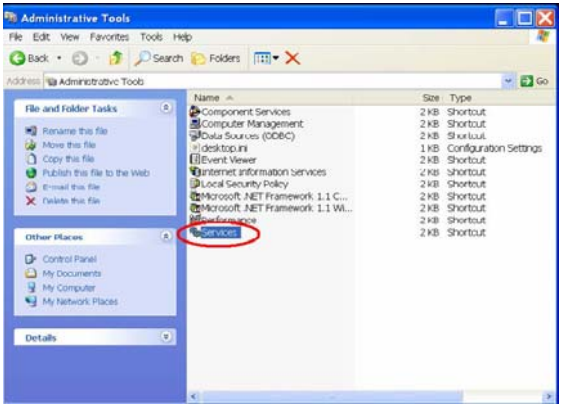


Figure16

Step 4: When the **Services** dialog box shows up, double click the **SSDP Discovery Service icon**. See Figure17.

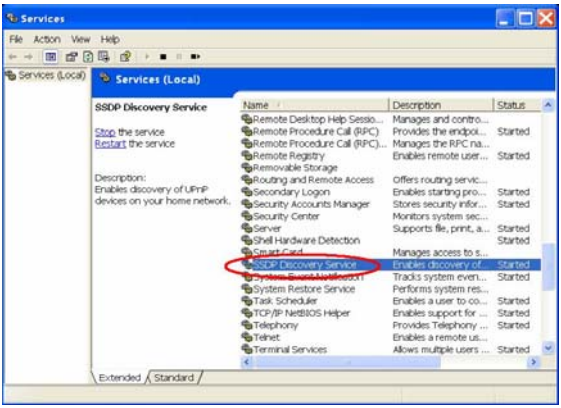


Figure17

Step 5: Choose **Automatic** in the **Startup type**, and click **OK** to start it. See Figure18.

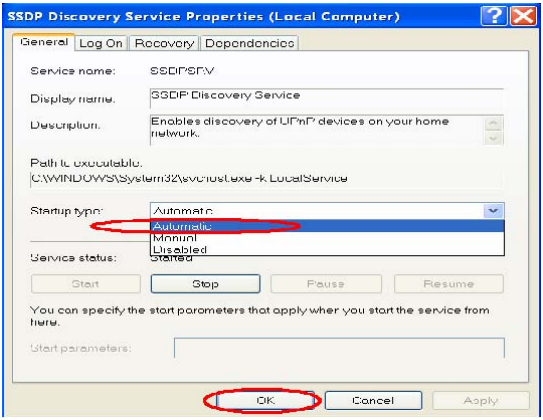


Figure18

Step 6: When the **Services** dialog box appears again, double click the **Universal Plug and Play Device Host** icon. See Figure19.

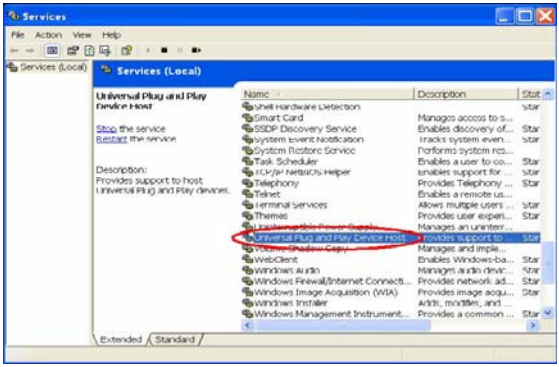


Figure19

Step 7: Choose **Automatic** in the Startup type, press the **Start** button, and click **OK** to start it.

See Figure20.

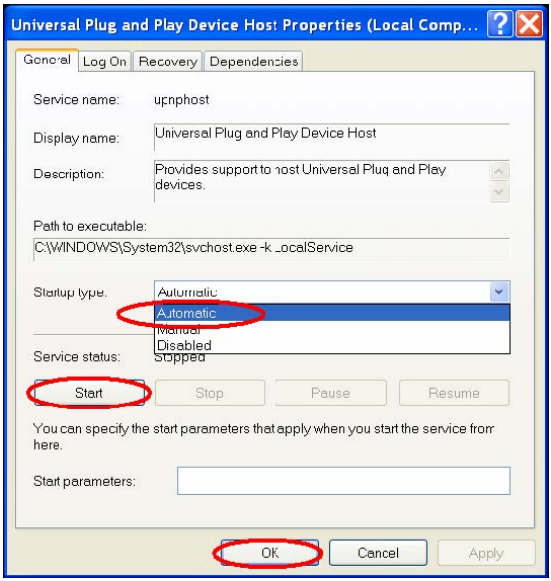


Figure20

Step 8: Restart your system.

4. Scan LANCams® through My Network Place

After your installation and starting services, the UPnP protocol will take effect. You can scan all LANCams® in My Network Place like Figure21 and Figure22 below.

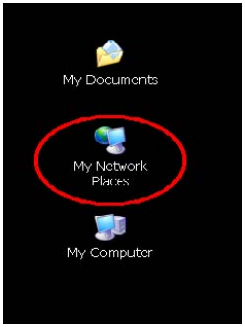


Figure21

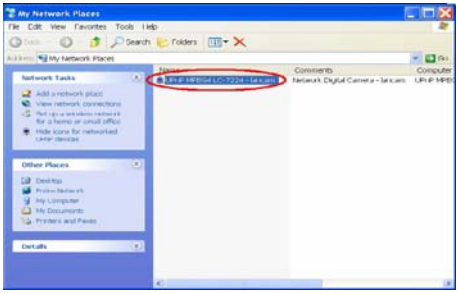


Figure22

Just double click the **UPnP MPEG4 IP camera** the video live stream will pop up automatically without assigning any IP address in Microsoft Internet Explorer®.

APPENDIX 2. –The ARP function

Setting the IP Address

The Ethernet interface on the IP camera has a default IP address (192.168.1.168) that most likely needs to be changed to make it work on your local network. You need to acquire a unique IP address (ask your network administrator). For the initial setting of the IP address the IP camera needs to be connected to the same network segment as your client, and the IP address can then be configured by using a combination of ARP and ping command.

Use any of the following ways to set the IP address within thirty seconds after booting the IP camera (re-cycle the power). Setting IP using the method below can only be done on the Ethernet interface.

ARP and ping from Windows or MS-DOS:

You can open the PC's MS-DOS windows from the WINDOWS 98 operation system, or open the PC's Command Prompt windows from either the WINDOWS 2000 or the WINDOWS XP operation system.

1. Start a DOS prompt window
2. Type the following in 30 seconds after the booting:

   arp -s <IP address> <Ethernet address>

   [**or** arp -s <IP address> < MAC address>]

   ping <IP address>

   Example:

   arp -s 192.168.1.100 00-0C-0C-00-00-01

   ping 192.168.1.100

   The IP address now is: 192.168.1.100.

ARP and ping from UNIX or GNU/Linux:

1. Start a shell
2. Type the following as superuser (root):

   arp -s <IP address> <Ethernet address>

   [**or** arp -s <IP address> < MAC address>]

   ping <IP address>

   Example:

   arp -s 192.168.1.100 00-0C-0C-00-00-01

   ping 192.168.1.100

The device responds to the ping in the examples above if the new address was configured. Note, this method will set the IP address permanently.

NOTE: The default account and password after the reset are admin and 9999.

APPENDIX 3. –Register as a DDNS member

The DDNS（dynamic domain name system） is a function which is provided by an American company. Please refer to www.dyndns.com. This chapter provides the user with the basic instructions on how to register a free DDNS service.

Registering for a DDNS

Enter the URL www.dyndns.com. In the upper right-hand corner of the main page, where there is an item, ”Create Account”, as shown in Figure 1.

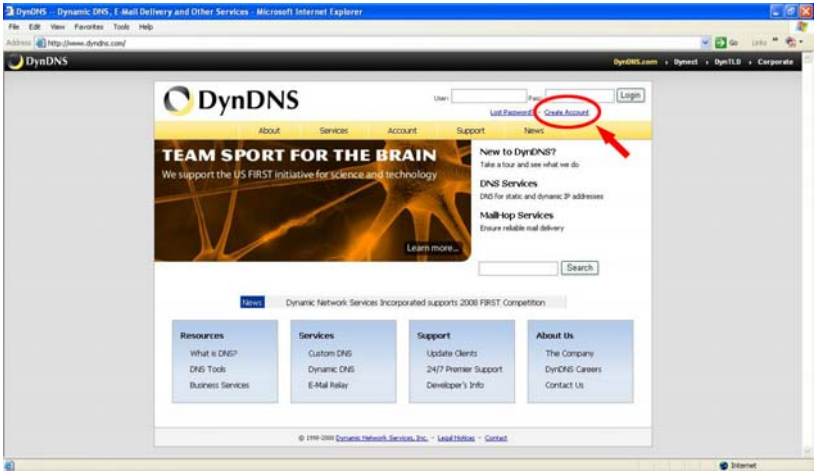


Figure 1

Create an account

After clicking ”Create Account”, you will enter the Create Account page. Please complete the form at the bottom of the page to create your account. You will receive an e-mail containing instructions to activate your account. If you do not follow the directions within 48 hours, you will need to recreate your account.

Set up the DDNS

After creating the account successfully, please enter your user name and password in the upper right-hand corner of the main page to login, as shown in Figure 2.

After you login successfully, a text will appear saying “My Services”, as shown in Figure 3.

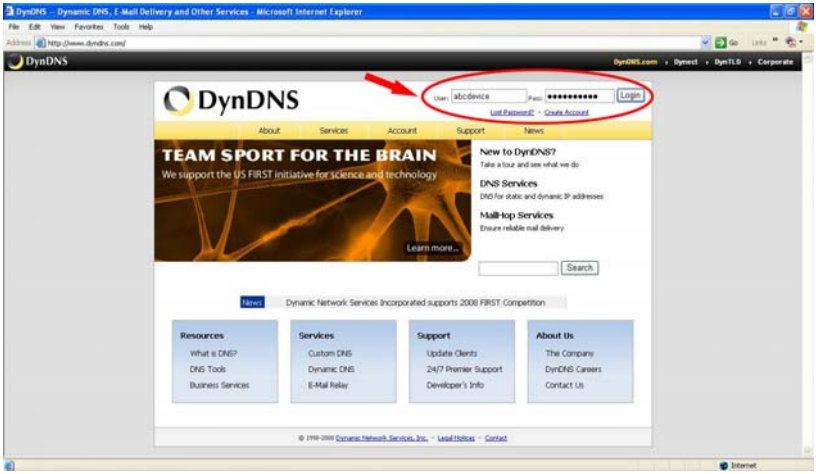


Figure 2

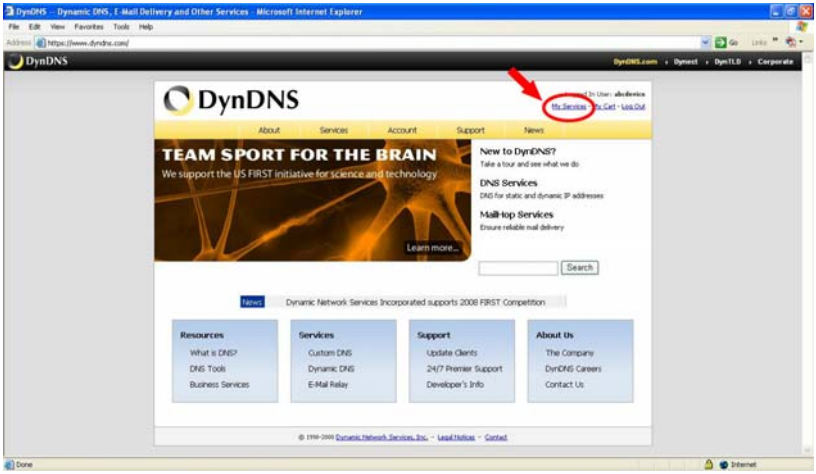


Figure 3

Click “My Services” to enter the service page. Please click the “Add Host Service” item which is below the ”My Hosts“ item, as shown in Figure 4.

Click “Add Host Service”, and its service items will appear. The Add Dynamic DNS Host item helps to add a new DDNS. Each member may have only one free account, and one free account can have only five DDNS.

Click Add Dynamic DNS Host to enter the DDNS setting page as shown in Figure 5.

Figure 4

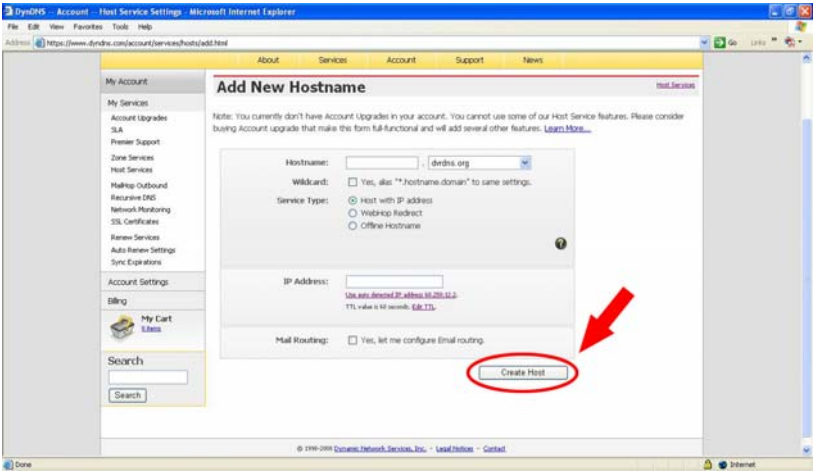


Figure 5

All we have to set in this page is the “Hostname” item. You can choose a Sub Hostname as s/he likes from the right-hand side of the Hostname’s drop-down list.

NOTE: You don’t have to set the “IP Address” in the same format as the camera’s IP Address. It will renew the IP Address automatically.

After finishing the setting, please press the “Create Host” button as shown in Figure 5.

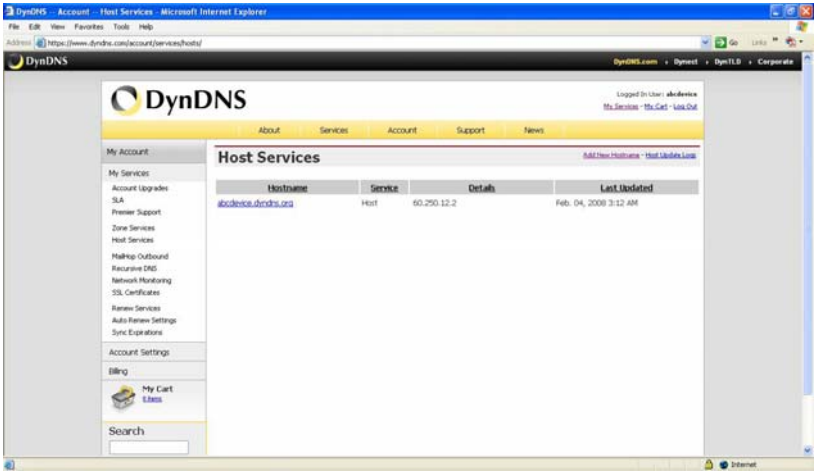

DynDNS -- Account -- Host Services - Microsoft Internet Explorer
File Edit View Favorites Tools Help
https://www.dyndns.com/account/services/hosts/
DynDNS
DynDNS.com • Dynect • DynTLD • Corporate
DynDNS
Logged In User: abcdevice
My Services - My Cart - Log Out
About
Services
Account
Support
News
My Account
My Services
Account Upgrades
SLA
Premier Support
Zone Services
Host Services
Mailhop Outbound
Recursive DNS
Network Monitoring
SSL Certificates
Renew Services
Auto Renew Settings
Sync Expirations
Account Settings
Billing
My Cart
0 Items
Search
Host Services
Add New Hostname - Host Update Logs
Hostname
Service
Details
Last Updated
abcdevice.dyndns.org
Host
60.250.12.2
Feb. 04, 2008 3:12 AM
Internet

Figure 6

APPENDIX 4. –MPEG4 Bit Rate Lookup Table of IP camera

1. When frame rate is higher than 15 frames/second (15 is not including):

	Highest	High	Medium	Low	Lowest
FULL D1	3	2.5	2	1.5	1
VGA	2.63	2.25	1.75	1.31	0.88
2CIF	1.5	1.25	1	0.75	0.5
Half VGA	1.31	1.13	0.88	0.67	0.44
CIF	0.75	0.63	0.5	0.38	0.25
QVGA	0.66	0.56	0.44	0.38	0.22
ZOOM * 2	3	2.5	2	1.5	1
ZOOM * 3	3	2.5	2	1.5	1
ZOOM * 4	3	2.5	2	1.5	1

2. When frame rate is lower or equal to 15 frames/second:

	Highest	High	Medium	Low	Lowest
FULL D1	2.25	1.94	1.5	1.13	0.75
VGA	1.94	1.69	1.31	0.98	0.66
2CIF	1.13	0.94	0.75	0.56	0.38
Half VGA	0.98	0.84	0.66	0.49	0.33
CIF	0.56	0.47	0.44	0.28	0.19
QVGA	0.5	0.44	0.34	0.25	0.19
ZOOM * 2	2.25	1.88	1.5	1.125	0.75
ZOOM * 3	2.25	1.88	1.5	1.125	0.75
ZOOM * 4	2.25	1.88	1.5	1.125	0.75

***The unit is in Mbps/second.**

APPENDIX 5. –PoE Installation Method

Warning: Please follow the steps in this instruction carefully. Connecting these adapters incorrectly may result in damage to your network devices.

1. Provided accessories:

	**IP Indoor Mini-dome**
	**Ethernet (CAT5 UTP/Straight Through) Cable**
	**Power over Ethernet Injector** **(input rating: DC 48V)**
	**AC Adapter** **(input: AC 100-240V; output: DC 48V)**
	**Power Cord**

2. Indoor Mini-dome

POWER+DATA IN: Connect a CAT 5 RJ-45 straight- through cable from the POWER+DATA OUT port on the Power over Ethernet Injector.

3. Power over Ethernet Injector

POWER+DATA OUT: Provides the data and power to the IP Indoor Mini-dome camera. Connect this port to the POWER+DATA IN port on the IP box camera.

POWER IN: Using the supplied 48V power supply, connect to a wall power outlet.

LAN IN: Connect a CAT 5 RJ-45 straight- through cable to your computer

4. Connecting the IP Indoor Mini-dome: please take the following steps:

Step 1:

Insert one end of a Cat 5 Ethernet RJ-45 cable into the “LIN IN” port of the Power over Ethernet Injector. Connect the other end of the cable to your network switch or PC.

Step 2:

Plug one end of the Power adapter into the “POWER IN” port of the Power over Ethernet Injector and the other end into your electrical outlet.

The installed connection looks the same as in Figure 1.

Figure 1

Step 3:

Connect another Cat 5 Ethernet RJ-45 cable from the Power over Ethernet Injector “POWER+DATA OUT” port to the “POWER+DATA IN” port of the IP Indoor Mini-dome camera.

The installed connection looks the same as in Figure 2 and Figure 3.

Figure 2

Figure 3

Step 4:

The ”Power LED” of the IP Indoor Mini-dome should light up.

APPENDIX 6. –FAQ

1. Can the SD card be removed during recording?

A：No, it cannot be removed until the recording comes to a single point. The POWER LED flashing light signals the SD card is operating. The green light indicates the unit is activating. The red light warns the SD card cannot be removed. If the SD card is withdrawn in this mode, the card will break.

2. I've set the function of "Motion Detection" but it doesn't seem to work.

A：Check if "Motion range" and "Sensitivity" have been set before activating the function.

3. My AVI files recorded in the SD card cannot be displayed. What can I do to display the files?

A：Please visit "http://www.morgan-multimedia.com/" to download "Morgan M-JPEG codec" and install it, and then check the selection of the "IJP Core".

4. How to turn on/off the OSD (on screen display) on/off on the IP camera?

A：Visit the homepage - tailpage.htm of the device, and select "ON" or "OFF" in the OSD column.

Example: suppose the IP address of the device is 192.168.1.168

Enter http://192.168.1.168/tailpage.htm (a registration is needed) and select "ON" or "OFF" in the OSD column.

WARNING: Please write down the IP address of the device before you turn off the OSD.