

IP CAMERA LC-7513 / LC-7523D/ LC-7533D / LC-7553D



Before trying to connect or operate this product, please read this manual completely

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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 cords.
- PoE warning : If the PoE injector is used instead of the supplied power adaptor, all
 of the wiring to and from the injector must be routed/ installed inside a building/
 plant and never routed/ installed outside of the building/ plant.
- Please only select a power adapter or power certified by UL and marked at 24Vac / 60 Hz, minimum 1A, class 2 or LPS.
- The IP Box Camera and the Indoor Mini-dome are for Indoor use only.

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

ATTENTION

RISQUE D'EXPLOSION SI LA PILE EST REMPLACEE PAR UN TYPE INCORRECT. DEBARRASSEZ-VOUS DES PILES USAGEES EN SUIVANT LES INSTRUCTIONS.

1. PRODUCT FEATURES

1.1 Product Instructions

This IP camera series is a high performance mega-pixel network camera which is equipped with a high resolutions OV 2M CMOS sensor and a resolution of up to 1920x1080 (FULL HD). This powerful new series enables you to see fresh images in fine detail aided by a spectrum of high resolutions. In addition the series is equipped with the dynamic H.264 video compression format, the compression codec which ensures top image quality at a low bit rate. The 3GPP installed mobile phone helps you see live scenes via the Internet as well. And this series provides you with freshly designed, simultaneous video codec streams of H.264, MPEG4 and MJPEG. This function, the multi-profile function, can simultaneously use different rates of resolutions while allowing maximum 3 video codecs to connect with computers at the same time. This IP camera not only offers the highest resolutions in images in the field, but also day and night, pre- and post-alarm, and ePTZ functions.

Following are the special powers featured in this series.

FULL HD / 1920x1080 pixels

The series lets you view the video feed with a large field of high resolutions at FULL HD /

1920x1080 pixels that provide you with clear images in great detail.

H.264 compression

Currently, the H.264 is the most common and dynamic video compression format and a powerful compression codec which delivers superior image quality at a low bit rate.

3GPP

Users can view a live scene via the Internet with a 3GPP installed mobile phone.

(Note: The 3G network bandwidth is limited; you can't use too large video size on your cell phone.) Video Settings:

- Video Profile 1
- Maximum frame rate: 3 fps
- Intra Frame Period: 1 S
- Constant bit rate: 64 Kbps

In short, the series provides quality images and professional surveillance functions for comprehensive security applications.

1.2 Product Features

- Adopts TI TMS320DM368 digital media processor.
- OmniVision 2M CMOS sensor.
- · Simultaneous H.264, MPEG4 and MJPEG video compression.
- Three multi-profile applications: Selectable resolutions, frame rates, qualities, and image chopping.
- · Built-in IR-cut filter provides high quality images in low light conditions.
- Two-way audio.
- · 3GPP mobile surveillance.
- Advanced motion detection (512 zones. Sensitivity: 0 -100 %).
- Built-in SD / SDHC card for schedule and alarm recording.
- Supports ONVIF.
- Full range of power options: DC12V / AC24V / PoE (IEEE 802.3af).

2. DESCRIPTION OF THE SURFACE 2.1 The LC-7513 IP Box Camera (PoE)

Front Panel and Rear Panel:



- 1. Light Sensor: Registers the quality of light in the camera's environment, and controls the iris shuttle to provide better information concerning the light.
- 2. MICROPHONE: The IP Camera has an additional audio function. The device has a microphone built into its front panel which records sound.
- 3. POWER indicator: Indicates the power status of the unit.
- 4. Plug Inlet: A DC 12V inlet that connects to an external power supply.
- 5. Plug Inlet: An AC 24V inlet that connects to an external power supply.
- 6. ETHERNET 10/100 Connector: 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.
- 7. RESET: Recover to factory default. (Refer to section 2.4 The Reset Button.)
- 8. VIDEO OUT Connector: The connector provides the unit's composite video signals to a monitor. (This connector adjusts and improves the images.)
- **9. USB port:** The user can use a USB device cable to connect the IP camera to the USB port on the PC.
- **10.LED indicator:** The green light indicates the unit is activating and the SD card cannot be removed.
- 11. AUDIO IN: The connector is used to connect the audio output from other devices to the camera.
- 12.SD/ SDHC CARD slot: This is used for updating system software and archiving / accessing critical images.
- 13. GPIO: This is a 6-PIN connector including the ALARM IN/OUT, RS-485, DC OUTPUT and GROUND items for connecting with external devices.
- 14. AUDIO OUT: Provides the camera's audio signal to a speaker or stereo.

Flank Panel:



1. IRIS: Auto iris connector.

This camera works with a DC drive auto iris lens. Please refer to the pin assignment marked on the camera when connecting the auto iris lens

2. DIP Switch:

	1. AES: Auto electric shutter.
4.0	2. DC IRIS: Use an auto iris (DC drive)
13	3. DHCP: Turn On / Turn Off to use the DHCP protocol. If the switch
	points upwards, the device can obtain an IP address from
	the DHCP server via the network.
	4. STATIC IP: If the switch points down, the device can't obtain an IP
	address from the DHCP server. This option is needed
24	to configure the network communication settings.
	(*In the default factory configuration, this DIP Switch is in the Down
	position.)

2.2 The LC-7523/7533 Fixed IP Indoor/ Outdoor Mini-Dome (PoE)



- 1. Plug Inlet: A DC 12V inlet that connects to an external power supply.
- 2. Plug Inlet: An AC 24V inlet that connects to an external power supply.
- ETHERNET 10/100 Connector: 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.
- 4. AUDIO IN: The connector is used to connect the audio output from other devices to the camera.
- VIDEO OUT Connector: The connector provides the unit's composite video signals to a monitor. (This connector adjusts and improves the images.)
- 6. AUDIO OUT: Provides the camera's audio signal to a speaker or stereo.
- GPIO: This is a 6-PIN connector including the Digital output/input, DC output and GROUND items for connecting with external devices.
- USB port: The user can use a USB device cable to connect the IP camera to the USB port on the PC.
- 9. SD/ SDHC CARD slot: This is used for updating system software and archiving / accessing critical images.
- 10. RESET: Recover to factory default. (Refer to section 2.4 The Reset Button.)

2.3 The LC-7553 Bullet IP Camera Indoor/ Outdoor (PoE)

The component parts (the internal view).

Dismantle the bullet IP camera to see its different parts. The picture here shows you the internal component items making up the product.



Camera with bracket (the external view).

The picture here shows the camera's exterior, with the bracket screwed in and fixed to it. The bracket enables you to easily mount the camera on a wall, turned at the angle you want.



NOTE: Use the 2 screws to screw the sun shield (above) into the 2 extreme holes indicated in the bullet camera (below) to get an unobstructed viewing angle. Please don't use the middle hole in the camera, as that will block the view.



The PCB board:



- 1. Plug Inlet: An AC 24V inlet that connects to an external power supply.
- ETHERNET 10/100 Connector: 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.
- 3. Plug Inlet: A DC 12V inlet that connects to an external power supply.
- GPIO: This is a 6-PIN connector including the Digital output/input, DC output and GROUND items for connecting with external devices.
- 5. VIDEO OUT Connector: The connector provides the unit's composite video signals to a monitor. (This connector adjusts and improves the images.)
- 6. AUDIO IN: The connector is used to connect the audio output from other devices to the camera.
- USB port: The user can use a USB device cable to connect the IP camera to the USB port on the PC.
- 8. AUDIO OUT: Provides the camera's audio signal to a speaker or stereo.
- 9. SD/ SDHC CARD slot: This is used for updating system software and archiving / accessing critical images.
- 10. RESET: Recover to factory default. (Refer to section 2.4 The Reset Button.)

2.4 The Reset Button

The **Reset Button** operation can be reset back to default. Press the **Reset Button** for about 10 seconds. Blue screens will be displayed, and a text saying "RESETTING..." will appear. The device auto reboots. All settings are back to default. The following items return back to default.

[SETUP]

Network Setup

- a. LAN Settings (You can manually reset this function by yourself.)
- b. PPPOE Settings (You can manually reset this function by yourself.)

Dynamic DNS

a. DYNAMIC DNS SETTING (You can manually reset this function by yourself.)

IMAGE SETUP

- a. Privacy Mask Setting
- b. IMAGE SETTINGS

AUDIO AND VIDEO

- a. VIDEO PROFILE 1
- b. VIDEO PROFILE 2
- c. AUDIO SETTINGS

MOTION DECTION

a. Video Motion setting

TIME AND DATE

- a. TIME CONFIGURATION
- b. AUTOMATIC TIME CONFIGURATION
- c. SET DATE AND TIME MANUALLY

Event Setup

- a. Server
- b. Media
- c. Event
- d. Recording

[ADVANCED]

DI and DO

- a. DI and DO
- b. LED
- c. VIDEO OUTPUT

RS-485 (for the IP Box Camera only)

a. RS-485

ICR

a. ICR

HTTPS

a. HTTPS

Access List

- a. Allow List
- b. Deny List

2.5 The Alarm wiring diagrams

The LC-7513 IP Box Camera (PoE)



The LC-7523/7533 Fixed IP Indoor/ Outdoor Mini-Dome (PoE)





The LC-7553 Bullet IP Camera Indoor/ Outdoor (PoE)



2.6 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

Title	ipcam(C	la:ca:ca:ca	(ca:0b)		DHCP	ON			1
IP Address	192	168	0	83	Netmask	255	255	252	0
Gateway	0	0	0	0	DNS Server	192	168	1	11
HTTP Port	80							1.6.	

DHCP OFF

Title ipcam(0arcarcarcarctb) DHCP OFF IP Address Ip2 168 0 83 Netmask 255 255 252 0	1
IP Address 192 168 0 83 Netmask 255 255 252 0	
	_
Gateway 0 0 0 0 DNS Server 192 168 1 11	
HTTP Port 80	
Apply(A) Exit(E)	

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.

3. INSTALLATION

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

NOTE: The IP 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 IP camera factory default Static IP address (192.168.1.168). But the IP camera Static IP address can only appear if there is a connection between the IP camera and another device. If there is no such connection, the IP camera factory default Static IP address will not appear on the monitor screen.

3.1 Hardware Installation

- 1. Plug in the power connection to the IP camera.
- 2. Plug in the IP camera cable.
- 3. Confirm the correct network connection status (PC/ HUB/ IP camera).
- 4. In the PC IE Browser, key in the camera's IP online to link up to the live first page.

NOTE: Red light power indicator of the IP Box Camera: it flashes when the power supply is

on.

Two-color network indicator:

- 1. It is off when the network is disconnected.
- The green light goes on when the network is connected; the orange light flashes indicate the network connection status.

3.2 Placing a Desiccant Pack Inside the Camera

The outdoor mini-dome/ bullet camera comes with a desiccant pack which is placed inside the camera using a two-sided adhesive tape. The desiccant pack is for reducing the moisture and humidity content inside the camera and prevents moisture from condensing on the lens or its cover.

If the user decides to remove the camera cover after more than a few months of camera use, remove the used desiccant pack as well and place the replacement pack inside the camera.

- 1. Stick the piece of desiccant pack to the inner side of the camera.
- 2. Then use a two-sided adhesive tape to fix the desiccant pack.
- 3. Reattach the cover of the camera.



3.3 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. Create a directory named **UPGRADE** (upper-case or lower-case letters are no difference) in the SD card if it does not exist.
- 2. Copy the file of UPDATE.BIN to the **UPGRADE** -directory.
- 3. If the IP Camera is running, please power it off first.
- 4. Insert the SD CARD into the IP Camera.
- 5. Remove the Ethernet cable from the RJ-45 port and then power on the IP Camera.
- 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.
- 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.
- 8. 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.
- 9. Power off the IP Camera when this update process is finished, then remove the SD card from the IP Camera.
- 10. Reconnect the Ethernet cable to the RJ-45 port if necessary.
- 11. Power ON the IP Camera and it will work normally if the entire update procedure goes correctly.
- 12. Verify the version of the system software.

WARNING:

- Steps 1 to 2 have to be done on a PC.
- Make sure the file of UPDATE.BIN is a correct one in step 2, or the IP Camera will not work normally after being updated.
- If the power of the IP Camera is suddenly lost in step 7, 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 3; otherwise, please inform your technical support.
- In step 9, 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.
- Make sure that the SD card is inserted in a correct position in step 4, or the IP Camera will suffer permanent physical damage.
- · If the message "CSUM ERROR" appears in step 7, it implies a problem in the file of UPDATE.BIN.
- 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.

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 Through

4.1.1 Connect to a computer

Use a straight LAN cable to connect directly to a computer.



4.1.2 Connect to a LAN Hub (INTRANET)

The RJ-45 PIN configuration for connecting with a LAN Hub is shown below.



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

Note: The IP Camera default setting is DHCP ON. Users can obtain an IP address automatically from the DHCP server.

The IP box camera:

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 move the dip switch points up to **3** on the flank panel; 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).

The IP indoor/ outdoor mini-dome & the IP bullet camera:

This function can only work if the LAN, which the unit is connected to, has a DHCP server. If the DHCP server is working in the LAN, please plug the USB connector into your PC's USB socket and the other end of the connector in the camera. A window pops up asking if you want to "Run the program", "Open folder to view files", or "Take no action". Choose "Run the program" and click "**OK**", and the "USB configuration" window will pop up. Set the Network setting and turn on the DHCP setting to use the DHCP protocol. The IP Camera will obtain an IP address automatically from the DHCP server.

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:

Note: The default static IP is 192.168.1.168.

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

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 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.

Click Start, and then click Control Panel. 1.



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



4. Right-click your network connection and then click Properties.



 On the General tab, check if the Internet Protocol (TCP/IP) is included in the 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.

Local Area Connection Properties	?
General Authentication Advanced	
Connect using:	
SiS 900 PCI Fast Ethernet Adapter	
This connection uses the following items:	
Glient for Microsoft Networks Glient for Microsoft Networks Glient for Microsoft Networks Glient Scheduler Glienter Protocol (TCP/IP)	
Install Uninstall Properties	
Description	
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.	:
 Show icon in notification area when connected Notify me when this connection has limited or no connectivity 	ity
OK Ca	ncel

4.4 TCP/IP Installation

On the **General** tab of the Connection Properties, under "This connection uses the following items", click **Internet Protocol (TCP/IP)**. Then click **Install**. Select **Protocol** from the network component type then click **Add**. Select **Microsoft TCP/IP** from the network protocol then click **OK**. Click **Close** to return to the **Network Connections** window.

👍 Local Area Connection	Properties	? 🛛	1. Select "TCP/IP."
General Authentication Adv	vanced		2. Click "Install".
SiS 900 PCI Fast Ether	met Adapter	nfigure	3. Select "Protocol"
This connection uses the follo	owing items:	Select Netw	ork Component Type 🛛 💽 🔀
File and Printer Shar	ing for Microsoft Networks	Click the type	of network component you want to install:
Internet Protocol [11	(P/IP)	Client	
[] <u>1</u> nstall	<u>U</u> ninstall Pro	Description	3.
Allows other computers to	access resources on your (A protocol communica	is a language your computer uses to ate with other computers.
Using a Microsoft network.			
Show icon in notification a Notify me when this conne	irea when connected ection has limited or no con		Add 4. Cancel
	Select Network Prot	ocol	? 🛛
	Click the Netw an installation	vork Protocol that disk for this comp	t you want to install, then click OK. If you have ponent, click Have Disk.
4. Click "Add"	Network Protocol:	rersion 6 5.	
	Wetwork Monitor Dr	nver NetBIOS Compat	tible Transport Protocol
5. Select TCP/	P.		
6. Click "OK".	This driver is digital	ly signed. signing is importar	nt Have Disk
			6. OK Cancel

4.5 TCP/IP configuration setting

Click <u>Start</u> > <u>Control Panel</u> > <u>Network Connections</u>.

Select Internet Protocol (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.

onnect using:	You can get IP settings assigned automatically if y this capability. Otherwise, you need to ask your ne	our network supports twork administrator for
SiS 900 PCI Fast Ethernet Adapter	Obtain an IP address automatically	
his connection uses the following items:	Use the following IP address:	
Elient for Microsoft Networks Elient for Microsoft Networks Elie and Printer Sharing for Microsoft Networks EQ QoS Packet Scheduler	IP address:	** ** *
✓ 3 Internet Protocol (TCP/IP)	Default gateway:	
I <u>n</u> stall Uninstall P <u>r</u> operties	Obtain DNS server address automatically	
Description	Use the following DNS server addresses: —	
I ransmission Lontrol Protocol/Internet Protocol. The default wide area network protocol that provides communication	Preferred DNS server: 168 . 9	5.1.1
across diverse interconnected networks.	Alternate DNS server:	× *
Show icon in notification area when connected		
Notify me when this connection has limited or no connectivity		Ad <u>v</u> anced

If you are using a DHCP server, please select <u>Obtain an IP address automatically</u>. 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 <u>specify an IP address</u> enter the IP address, subnet mask and default gateway of your choosing 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 > All Programs > Command Prompt.

- Enter ping XXX.XXX.XXXX (the camera's IP address), then enter. (See the sample screen below).
 - ** This is the IP address for an IP camera that is assigned for the connected IP camera.



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. Operating Instructions for Image Software and Network

Two choices of software are available for linking with the IP camera: (1) the Microsoft Internet Explorer; and (2) the IP camera viewer software, a network browser in a PC which provides the functions of monitoring remote zones or watching recorded data through the TCP/IP protocol. The details are listed as follows.

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 PIN configuration for Ethernet



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

- Start up the 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. Enter the "User Name" and "Password" in the appropriate spaces.
- 5. 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, the login page 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.

Connect to 192.	168.0.92	? 🔀
NETWORK User name: Password:		>
	OK	Cancel

5.1.2 Live Video

The Live Video from the IP camera is displayed on the home page when your PC is online with the IP camera. There are also additional settings provided on the home page. The AJAX (default) and the ActiveX viewer types display different display formats on their home page.





- Click Profile-1(640×480) v to change the pairs of resolution and quality which you already arranged in the "Audio and Video" setting page (for the JPEG mode).
- SD card icon: Check if the SD card is inserted or not. When a SD card is inserted, the icon becomes red
- A Motion-on icon: When there is a detection of motion, the icon will appear in the right upper corner to warn the user. When the motion detection is triggered, the icon will blink red
- Status Recording on icon: The icon will appear on the upper right corner. When the recording is triggered, the icon will become red and record the images into the inserted SD card.

• Alarm on-icon: When there is a detection of external devices such as a sensor, The icon will appear on the upper right corner warn the user. When an alarm is triggered, the

icon will blink red 🖤.

The ActiveX viewer type:

You can select from the available thumbnails for your option of taking a Snapshot, setting the Storage Folder, selecting the Full Screen mode, Recording, Listen, Talk and Zoom.



- Snapshot: Click on the button to take a snapshot. The icon will change to a blue color
 while working effectively.
- Set Storage Path: Click on the button to set a storage folder for saving the snapshot and the video clips.
- Full Screen: Click on the button to enter the full screen mode. The icon will change to a blue color will writing effectively.
- Record switch: Click on the button to record a video clip. The icon will change to a blue color while working effectively.
- Audio switch: Click on the working button to start/stop the audio-in function (listen/stop listening). The icon will change to a blue color while working effectively.
- Talk switch: Click on the I button to start/stop audio out function (talk/stop talking). The

icon will change to a blue color while working effectively.

- Digital output: Click on the button to start/stop digital output. The icon will change to a blue color while working effectively.
- EPTZ: The Digital Zoom mode. The mode utilizes the high resolution feature of the mega pixel camera to simulate the mechanical functions of the PTZ camera. The mode helps the user to filter the image details more efficiently. When the digital zoom mode is active, the image can be zoomed in and out directly.

Hold the left key of the mouse and move the mouse in the preferred direction in the Global View area. As the mouse moves, the live view area shows the corresponding image until the border of the image appears.

- Live Video: Click to go back to the device's homepage.
- Setup: Click to proceed to the advanced settings.
- Logout: Click to close the window.

5.1.3 Setup

Click on the Setup button on the home page to proceed to the advanced settings.

5.1.3.1 Wizard

To quickly configure your IP Camera, click Wizard on the top of the Setup pages.

This wizard will guide you through a step-by-step process to configure your new camera and

connect the camera to the Internet.

IPNetCam	
Velcome to setup wizard - internet connection setup	
his wizard will guide you through a step-by-step process to configure your new Camera and connect the can ne internet. To set-up your camera motion detection settings, please click Back button to close this wizard an pen the motion detection setup wizard.	nera to 1d re-
 Step 1: Setup LAN Settings 	
 Step 2: Setup Internet Settings 	
Step 3: Setup DDNS Settings	
 Step 4: Camera Name Settings 	
Step 5: Setup Time Zone	
Back Next Cancel	

Click Next to continue.

Step 1:

	IPNetCam		
Step 1: Setup LAN Settings			
Please select whether your camera will connect to the I camera is connected to a router, or you are unsure wh selection of DHCP connection. Otherwise, click on Stati on the Next button.	Internet with a DHCP connection or Static IP address. If your ich settings to pick, recommends that you keep the default ic IP address to manually assign and IP address before clicking		
🗹 Enable DHCP	Enable DHCP		
IP address	192.168.0.129		
Subnet mask	255.255.252.0		
Default Gateway	0.0.0.0		
Primary DNS	192.168.1.11		
Back	Next Cancel		

The IP Camera default setting is DHCP **On**. Use the DHCP protocol if the DHCP server is working in the LAN. The IP Camera will obtain an IP address automatically from the DHCP server. Or you can turn the DHCP **Off** to build the IP 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 IP Camera if the LAN unit isn't connected to a DHCP server.

If your Internet Service Provider has provided you with connection settings, or you wish to set a static address within your home network, enter the accurate information for your static IP setting. Click **Next** to continue.

Step 2:

	IPNetCam
Step 2: Setup Internet Settings	
Please enter your ISP Username and Password in the button. Please contact your ISP if you do not know you	case that your ISP is using PPPoE and then click on the Next ur Username and Password.
Enable PPPo	E
User Name	
	(e.g. 654321@hinet.net)
Password	
Back	Next Cancel

If you are using PPPoE, select Enable and enter your user name and password, otherwise select

Disable and click Next to continue.

Step 3:

		IPNetCam
Step 3: Setup DDNS Settings		
If you have a Dynamic DNS account a and enter in your host information be	and would like the camer low. Please click on the l	a to update your IP address automatically, enable DDNS Next button to continue.
Enable DDNS		
Server Address		<< Select Dynamic DNS Server 👻
Host Name]
User Name]
Password		
Verify Password		
Timeout	24	(hours)
	Back	Cancel

If you have a Dynamic DNS account and would like the camera to update your IP address

automatically, Select Enable and enter your host information.

Click Next to continue.
Step 4:

	IPNetCam
Step 4: Camera Name Settings	
Recommends that you rename your camera for easy ac via this name. Please assign a name of your choice bef	ccessibility. You can then identify and connect to your camera ore clicking on the Next button.
IP Camera Name	IP camera
Back	Next Cancel

Enter a name for your camera and click **Next** to continue.

Step5:

	IPNetCa	m
Step 5: Setup Time Zone		
Please configure the correct time to and day and then click on the Next b	ensure that all events are triggered, captured and scheduled utton.	at the correct time
Time Zone	(GMT+08:00) Taipei	~
Enable Daylight Saving		
	Back Next Cancel	

Configure the correct time to ensure that all events will be triggered, captured and scheduled at the

right time. Click Next to continue.

Step 6:

		IPNetCam
Step 6: Setup complete		
Below is a summary of your c button if all settings are corre network or via your web brow	amera settings. (ct. It is recomme ser.	Click on the Back button to review or modify settings or click on the Apply nded to note down these settings in order to access your camera on the
IP Address	5 DHCP	
IP Camera	Name IP Came	ra
Time Zone	(GMT+08	3:00) Taipei
DDNS	Disable	
PPPoE	Disable	
		Back Apply Cancel

If you have selected **DHCP**, you will see a summary of your camera's settings. Please note down

all this information as you will need it for accessing your camera within the network.

Click Apply to save your settings.

5.1.3.2 Change Image Setting

Please follow the steps below to change the video setting through the network as necessary. A preview of the image will be shown in the window of Live Video. Click **Submit** to activate and save your changes.

- <u>The Image Setup setting page</u>
- 1. Click on the Image button to enter the image-setting page.



2. Adjust the "Viewer Type". Click to choose the viewer type of the "AJAX" or "ActiveX" mode.

- Adjust the "Image Settings", including "Metering Method", "Exposure Mode", "Denoise", "Mirror", "Flip", "White Balance", "Brightness", "Contrast", "Saturation", "Sharpness" and "WDR Level" as necessary.
- 4. Adjust the "Device Settings" including "Device Name" and "Enable OSD".
 - Click "Enable OSD" to checkmark the box and activate the function.
 - Enter the "Timestamp Label" you have chosen.
 - Enter the "Timestamp Location" you have chosen.
- 5. Click on the **Submit** button to submit the new image setting.

Meterina Method	The metering method determines the exposure. Different metering						
	methods measure the subject brightness differently.						
	Center-weighted: The metering is weighted at the center and then						
	averaged for the entire scene.						
	Spot: This is for metering the central part of the entire scene.						
Exposure Mode	Exposure Mode controls a camera by shutter speed and the lens aperture.						
	Indoor: The optimum exposure setting is pre-programmed for the indoor						
	environment. The default shutter time is 1/30~1/120 (1/25~1/100)						
	and the maximum gain is 36 dB.						
	Outdoor: The optimum exposure setting is pre-programmed for the						
	outdoor environment. The default shutter time is 1/30~1/750						
	(1/25~1/750) and the maximum gain is 36 dB.						
	Night: The optimum exposure setting is pre-programmed for the night						
	environment. The default shutter time is 1/30~1/750 (1/25~1/500)						
	and the maximum gain is 12 dB.						
	Moving: The optimum exposure setting is pre-programmed for moving						
	subjects. The default shutter time is 1/120~1/1,000						
	(1/100~1/1,000) and the maximum gain is 36 dB.						
	Low noise: The optimum exposure setting is pre-programmed to reduce						
	the movimum goin is 26 dP						
	the maximum gain is 36 dB.						
	Customize 1-3: You can customize an exposure mode by adjusting						
	individual parameters like Gain and Shutter.						
	Schedule: In the Schedule mode, you can set the customize schedule.						
	Select a schedule and set the time period. You can assign one						
	of the exposure modes to be the function mode of the						
	Remaining time. Check and press to Save.						
	Note: The period of the schedule can't be set across midnight. For						
	example, if you want to set a schedule of Night mode from						
	22.00 to 04:00, you have to (1) check a schedule and select the						
	wight mode and set the period from 22:00 to 24:00, then (2)						
	enable the next schedule and set it to hight mode and set the period from 00:00 to 04:00. Remember to click Save to activate						
	period from 00.00 to 04.00. Remember to click Save to activate.						
Denoise	Denoise (noise reduction) is the process of removing noise from signals.						

Mirror:	The mirror stores the images reflected by it so it can be used for surveillance or to simply take your own picture.
Flip:	To flip the camera's lens 180 degrees.
White Balance	White balance is the process of removing unnatural shades of color, so that objects which appear white in reality are rendered white in the images. Select your options from "Auto", "Outdoor", "Indoor", "Fluorescent" and "Push Hold".
Brightness:	An adjustable setting to compensate for backlit scenes.
Contrast:	The measurement for color intensity/strength.
Saturation:	This setting controls the strength of colors from black and white to bold colors.
Sharpness	An adjustable setting to set the clarity of detail in the images.
Timestamp Label:	Enter the timestamp label.
Timestamp Location:	Click to open the list of four location modes to choose from: "UPPER LEFT", "UPPER RIGHT", "BOTTOM LEFT", and "BOTTOM RIGHT".
Submit:	Click to set.

NOTE: The default setting table of the exposure mode--

NTSC		
Exposure Mode	Shutter	Max Gain
Indoor	1/30~1/120	36 dB
Outdoor	1/30~1/750	36 dB
Night	1/30~1/500	12 dB
Moving	1/120~1/1,000	36 dB
Low noise	1/8~1/30	36 dB
PAL		
Exposure Mode	Shutter	Max Gain
Exposure Mode Indoor	Shutter 1/25~1/100	Max Gain 36 dB
Exposure Mode Indoor Outdoor	Shutter 1/25~1/100 1/25~1/750	Max Gain 36 dB 36 dB
Exposure Mode Indoor Outdoor Night	Shutter 1/25~1/100 1/25~1/750 1/25~1/500	Max Gain 36 dB 36 dB 12 dB
Exposure Mode Indoor Outdoor Night Moving	Shutter 1/25~1/100 1/25~1/750 1/25~1/500 1/100~1/1,000	Max Gain 36 dB 36 dB 12 dB 36 dB

• The Audio and Video setting page

 Click on the Audio and Video button to enter the Audio and video page to set the details of the device. You may configure video profiles with different settings for your camera. Hence, you may setup different profiles for your computer and mobile displays. In addition, you may also configure your audio setup for your camera. Click Submit to activate and save your changes.

IP c	amera			Live Video S	etup Wizard Help
Image	Network Sy	stem	Application	Storage	Status
Audio and Video	AUDIO AND VIDEO				
Privacy Mask	VIDEO SETTINOS	2.0			
Logout	Prome number	2	Warning: Cl	nange the aspect rati	o will clear the settings
1	Aspect ratio	16:9	of privacy ma	sk.	
		Sav	e Default		
	VIDEO PROFILE 1				
	Mode	H.20	64 💌		
	Frame size	192	0x1080 💌		
	Viewer window area	192	0x1080 🔽		
	Intra Frame Period	30	~		
	Maximum frame rate	30	~		
	Constant hit rate	0	2M 💌		
	Fixed quality	0	Medium 🖌		
	VIDEO PROFILE 2				
	Mode	JPE	G 🖌		
	Frame size	640	x360 🔽		
	Viewer window area	640	x360 🔽		
	Maximum frame rate	30	~		
	Video quality	Med	lium 🚩		
	AUDIO SETTINGS				
	Encoding	G 711	1		
	Audio Mechanism Settin	a			
	 Audio Mic Gain 	20dB 🔽			
	O Line IN	0dB 🖂			
	Enable audio out				
	Audio out volume level	10 🚩			
	POWER LINE				
	🕑 60 Hz 💛 50 Hz				
			Submit		

 Select the Profile Number from 1-3. Then set the Aspect ratio of 4:3 or 16:9. Click Save to activate it.

- Set the "Mode", "Frame size", "Viewer window area", "Maximum frame rate" and "Video quality" of the Video Profile as necessary.
- 4. Set the details of the audio functions.
- 5. Select 50 Hz or 60Hz of the Power Line.
- 6. Click on the **Submit** button to submit the new setting.

Profile Number	Select the Profile Number from 1-3 and the default video profile
	number is 2.
Aspect ratio	The aspect ratio of an image is the ratio of the width of the image to its
-	height. Select 4:3 or 16:9 of the ratio that best suits your needs.
Mode:	Choose the video format from "H.264", "JPEG" or "MPEG4". It can be
	either JPEG or MPEG4. In JPEG mode, the video frames are
	independent. However, MPEG4 consumes much less network
	bandwidth than JPEG.
Frame size:	This option allows the user to choose the video resolution of the
	camera:
	4:3 - "1440x1080", "1280x960", "1024x768", "800x600", "640x480",
	"480X360", "320X240" and "160X120".
	"320x180" and "176x120".
Viewer window area	This option allows the user to choose the video resolution of the live
	view area:
	4:3 - "1440x1080", "1280x960", "1024x768", "800x600", "640x480",
	"480x360", "320x240" and "160x120".
	16:9 - "1920x1080", "1280x720", "800x450", "640x360", "480x270", "320x180" and "176x120"
lutus France Daviada	In the H 264 and the MPEG4 mode, if there is little motion and most
Intra Frame Period:	of the video content does not change from frame to frame, the H 264
	and the MPEG4 encoding can compress the video by intra-frame
	way to keep the quality from loss.
	You can set the desired time period to use intra-frame compression.
Maximum framo rato:	Click on the drop-down list to choose the frame rates of "30FPS"
	(PAL: "25FPS"), "15FPS", "7FPS", "4FPS" and "1FPS".
Video quality:	Selects the image quality level of JPEG images captured from
	"Highest", "High", "Medium", "Low" and "Lowest".
	Selects the image quality level of MPEG4 or H.264 images captured
	from "Constant bit" (8M, 6M, 4M, 2M, 1M, 512K, 256K, 200K, 128K
	and 64K) or "Fixed Quality" (Highest, High, Medium, Low and
	Lowest).
Audio Settings:	You can use the option to switch the external microphone on/off or
-	adjust the volume.

Encoding	Click on the drop-down list to choose the audio encoding of "G.711"			
Encounig.	and "G.726". G.726 offers quality nearly identical to G.711, but it uses			
	only half the bandwidth.			
Audio Mechanism Setting:	Check to activate this function. Then select MIC or Line In.			
	NOTE: The option of 26dB is for long-distance audio receiving,			
	especially longer than 3 meters.			
Enable audio out:	Check to activate this function. Then set the Audio out volume level.			
Power Line	Select 50 Hz or 60Hz that depends on your local electric utility			
	configuration.			

NOTE: Audio In/Out:





In order to use the Audio In/ Out signal function, please follow the steps given below.

- 1. Connect to the camera webpage over the PC IE Browser.
- 2. Ensure "Audio Mechanism Setting" & "Enable audio out" are both selected. Click Submit.
- 3. Connect the Mic to the PC, and connect the camera Audio out to the speaker.
- 4. Select "Talk" 4; speak to the PC-connected microphone.
- 5. Confirm the sounds made in the camera-connected speaker.
- 6. Connect the Mic to the camera--Audio in; connect the speaker to the PC--AUDIO Out.
- 7. Click "Listen" in the webpage $\square \rightarrow \square$; the Mic sends audio signals to the camera.
- 8. Confirm the sounds from the PC speaker.

<u>The Privacy Mask setting page</u>

Click on the **Privacy Mask** button to enter the Privacy Mask Area setting page. Mask 3 privacy area(s) on video to specify up to the area(s) on the camera's image to be blocked/excluded from recordings and snapshots.



- 1. Click the right mouse button on the video control to show the pop-menu.
- 2. Press the left mouse button, drag and drop to set the privacy area.
- 3. Privacy area can be enabled or disabled.
- 4. After you finish all privacy mask settings, click the Submit button.

5.1.3.3 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 Setup page.

		IP car	mera	Live Video S	etup Wizard Help	
Image	Network	System	Application	Storage	Status	
lletwork	NETWORK SE	TUP				
PPPoE	LAN SETTINGS					
Port Detail	Enable DHCP					
Traffic	IP addres:	192,168	3.0.188			
Dynamic DNS	Subnet m	ask 255.25	5 252 0			
нттрѕ	Default G					
Access List	Delault Of	NC 103.10	2.4.44			
Logout	Primary D	192.160	5.1.11			
	Enable UPnP pr	esentation				
	Enable UPnP po	rt forwarding				
	Forwardin	Forwarding Port 1024 Test				
	Forewarding Status UPnP : Forwarding is inactive					
			Submit			
			- Sabrine			

- The accessible networks here are the "PPPoE", "Port Detail", "Traffic", "Dynamic DNS", "HTTPS" and "Access List".
- 3. Set the details of the "LAN Settings" for your local area network as necessary.
- 4. Click on the **Submit** button to submit the new network setting.

DHCP:	If you have a DHCP server running on your network and would				
	like a dynamic IP address to be updated to your camera				
	automatically.				
DNS	(The Domain Name System) is an Internet service that				
	translates domain names into IP addresses (e.g., 192.168.0.20).				
	The address can be obtained from your ISP or network gateway.				
Enable UPnP Presentation:	Enable this setting to allow your camera to be configured as an				
	UPnP device in your network.				
Enable UPnP port forwarding:	Enable this setting to allow the camera to add port forwarding				
	entries into the router automatically on a UPnP capable network.				

• 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 Settings" page.

		IP camera		Live Video Se	etup Wizard Help
Image	Network	System	Application	Storage	Status
Image Network PPPoE Port Detail Traffic Dynamic DNS HTTPS Access List Logout	Network PPPoE SETTINGS O Enable O Dis User Nar Passwor Confirm	System	Submit	Storage	Status

- Active the "Enable" or "Disable" status of the PPPoE Settings function. Click your choices to enable.
- 3. Enter the PPPoE "Username" and the PPPoE "Password", then confirm the password again.
- 4. Click on the **Submit** button to submit the new setting.

NOTE: Please refer to section 5.1.3.8 (PPPoE & DDNS) for more details.

PPPoE Setting	If you use the camera to connect directly to the Internet, you will need to
	enter the username and password, which were given to you when you set
	up your account with your Internet Service Provider. If the camera is
	behind a router or a gateway, you do not need to configure this setting.
Username:	Enter it in the given space.
Password:	Enter it in the required space.

• Change the Network Setting — Port Detail.

The "Network" page has, on its upper left, the "Port Detail" icon. It allows you to specify and reserve the ports for both the HTTP and RSTP streaming. Please follow the steps below to change the Port Detail setting through the network as necessary.

1. Click on the **Port Detail** button on the upper left menu to enter the "Port Detail" page.

		IP can	nera	Live Video Setup Wizard Hel	
Image	Network	System	Application	Storage	Status
Network PPPoE					
Port Detail Traffic Dynamic DNS HTTPS Access List Logout	HTTP port Access name for stre Access name for stre Access name for stre HTTPS HTTPS port 443	80 video1.mjpg video2.mjpg am3 video3.mjpg			
	RTSP RTSP port Access name for stre Access name for stre	554 aam1 live1.sdp aam2 live2.sdp aam3 live3.sdp	Submit		

- Enter the "HTTP port" and the "Access name for stream" for the MJPEG streams of the HTTP.
- 3. Enter the "HTTPS port". The default value is 443.
- 4. Enter the "RSTP port" and the "Access name for stream" for the MJPEG or JPEG streams of the RSTP.
- 5. Click on the **Submit** button to submit the new setting.

NOTE: If you want to use an RTSP player to access the IP camera, you have to use the following

RTSP URL command to request transmission of the streaming data.

Description of function keys:

HTTP Port	HTTP ports allow you to connect to the camera via a standard web browser. This port can be set to a number other than the default HTTP port 80. A corresponding port must be opened on the router. For example, if the port is changed to 8080, users must type in the web browser
	'http://192.168.0.100:8080' instead of 'http://192.168.0.100'.
HTTPS Port	HTTPS Port in a camera connects it with a PC via a secure web browser.
RTSP Port	The port number that you use for RTSP streaming to mobile devices, such as mobile phones or PDAs. You may specify the address of a particular stream. For instance, live1.sdp can be accessed at rtsp://x.x.x.x/video1.sdp where the x.x.x.x represents the IP address of your camera.

NOTE: Using a RSTP player to view the video streams

To view the MPEG4 streaming media by using RTSP players, you can use the players that support RTSP streaming, such as Quick Time Player, Real Player, and so on.

- (1) Launch the RTSP player.
- (2) Choose "File", and an "Open URL" dialog box will pop up.
- (3) Enter an Internet URL to open. The address format is rtsp://<ip address>:<rtsp port>/<RTSP streaming access name for stream1, stream2 or stream3>
- (4) The live video will be displayed in your player.

• Change the Network Setting —Network Traffic.

The "Network" page has, on its upper left, the "Traffic" icon. Specifying the maximum download/upload bandwidth for each socket is useful when connecting your device to a busy or heavily loaded network. Please follow the steps below to change the setting through the network as necessary.

1. Click on the Traffic button on the upper left menu to enter the "Traffic" page.

		IP car	nera	Live Video S	etup Wizard Help
Image	Network	System	Application	Storage	Status
Network PPPoE Port Detail Traffic Dynamic DNS HTTPS Access List Logout	TRAFFIC TRAFFIC Maximum Upload E Maximum Download	tandwidth: 0 d Bandwidth: 0	Kilo Bytes Per S Kilo Bytes Per S Submit	Second	

- 2. Enter the "Maximum Upload Bandwidth" and the "Maximum Download Bandwidth".
- 3. Click on the Submit button to submit the new setting.

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.		

• Change the Network Setting — DDNS.

The DDNS (Dynamic Domain Name Server) will hold a DNS host name and synchronize the public IP address of the modem when it has been modified. The user name and password are required when using the DDNS service. 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 Dynamic DNS button on the upper left menu to enter the "Dynamic DNS" page.

		IP car	nera	Live Video Se	etup Wizard Help	
Image	Network	System	Application	Storage	Status	
Network Port Detail Traffic Dynamic DIIS HTTPS Access List Logout	DYNAMIC DNS SE Enable DDNS Server Address Host Name User Name Password Verify Password Timeout Status	S TTING	< Se	lect Dynamic DNS S	ierver 💙	
			Submit			

- 2. Click "Enable DDNS" to checkmark the box and activate the function.
- Fill in your dynamic "Server Address", "Host Name", "User Name", "Password", "Verify Password", "Timeout", "IP Address" and "Email Address".
- 4. Click on the **Submit** button to submit the new setting.

NOTE: Please refer to section 5.1.3.8 (PPPoE & DDNS) for more details.

Enable DDNS Function:	Checkmark to activate the function.
DNS	(The Domain Name System) is an Internet service that translates domain
	names into IP addresses (i.e. 192.168.0.20). The address can be
	obtained from your ISP or network gateway.
Server Address:	Select your Dynamic DNS provider from the pull down menu or enter the
	server address manually.
Host Name:	Enter the host name of the DDNS server.
User name:	Enter your user name or e-mail used to connect to the DDNS
Password:	Enter your password used to connect to the DDNS server.
Verify Password	Enter your password again to connect to the DDNS server.
Timeout:	Enter the DNS Timeout values for registering the IP address.
Status:	Indicate the connection status, automatically determined by the system.

• Change the Network Setting — HTTPS.

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

1. Click on the HTTPS button on the upper left menu to enter the "HTTPS Setting" page.

		IP car	mera	Live Video Se	etup Wizard Help	
Image	Network	System	Application	Storage	Status	
Network PPPoE Port Detail Traffic Dynamic DNS HITTPS Access List Logout	HTTPS HTTPS Enable secure HTTPS connection Create certificate settings Oreate self-signed certificate automatically Create self-signed certificate manually Create certificate request and install Create certificate: Create					
	CERTIFICATE INF Status	ORMATION No installed	roperty. Remov	9		

- 2. Mark the "Enable HTTPS secure connection" to activate the function.
- Click to select the "Create certificate method" from "Create self-signed certificate automatically", "Create self-signed certificate manually" and "Create certificate request and install".
- 4. Click "Create" to save the create certificate settings.
- 5. The Certification Information will show below.
- 6. Click "CSR Property" to see the Certificate Signing Request information.
- 7. Click "Certificate Property" to see the Certificate information.
- 8. Click "Remove" to remove the created certificate.
- 9. Click on the **Submit** button to submit the new setting.

NOTE: The certificate cannot be removed while the HTTPS is still enabled. To remove the certificate you must first uncheck Enable HTTPS secure connection.

Methods of creating and installing the certificate:

1. Create self-signed certificate automatically

Before using HTTPS for communication with the IP camera, a Create self-signed certificate automatically:

- (1) Enable HTTPS secure connection.
- (2) Select the "Create self-signed certificate automatically" option.
- (3) Click the Create button.
- (4) The new Certification Information will show in the third column on the HTTPS setting page.
- (5) Click Home to return to the main page. Change the address from "http://" to "https://" in the address bar and press Enter on your keyboard. Some Security Alert dialogs will pop up. Click OK or Yes to enable HTTPS.

2. Create self-signed certificate manually

- (1) Enable HTTPS secure connection.
- (2) Click "Create self-signed certificate manually" to open the Create certificate column.
- (3) Click the Create button.
- (4) The new Certification Information will show in the third column on the HTTPS setting page.

3. Create certificate request and install

- (1) Enable HTTPS secure connection.
- (2) Click "Create self-signed certificate automatically" to open the Create certificate column.
- (3) Click the Create button.
- (4) If you see an Information bar, click OK and click on the Information bar at the top of the page to allow pop-ups.
- (5) The pop-up windows will show a certificate request.
- (6) Look for a trusted certificate authority that issues digital certificates. Enroll the IP camera. Wait for the certificate authority to issue a SSL certificate; click "Browse..." to search for the issued certificate, then click "Upload" on the Create certificate column.
- (7) The new Certification Information will show in the third column on the HTTPS setting page.

• Change the Network Setting — Access List.

The "Network" page has, on its upper left, the "Access List" icon. Please follow the steps below to change the Access List setting through the network as necessary.

1. Click on the Access List button on the upper left menu to enter the "Access List" page.

		IP car	nera	Live Video Se	etup Wizard Help
Image	Network	System	Application	Storage	Status
Network PPPoE Port Detail Traffic Dynamic DNS HTTPS	ACCESS LIST ALLOW LIST Start IP address End IP address Delete allow list DENY LIST			Add Delete	
Logout	Start IP address End IP address Delete deny list			Add Delete	

- 2. Fill in the "Start IP address", "End IP address" and "Delete allow list" details of the "Allow List". Press the "Add" button to add or press "Delete" to erase it.
- Fill in the "Start IP address", "End IP address" and "Delete deny list" details of the "Deny List". Press the "Add" button to add or press "Delete" to erase it.
- 4. Click on the **Submit** button to submit the new setting.

Allow List:	
Start IP Address	The starting IP Address of the devices (such as a computer) which have
	permission to access the video of the camera.
End IP Address	The ending IP Address of the devices (such as a computer) which have
	permission to access the video of the camera.
Delete Allow List	Remove the customized setting from the Permission List.

Deny List:	
Start IP Address	The starting IP Address of the devices (such as a computer) which don't
	have permission to access the video of the camera.
End IP Address	The ending IP Address of the devices (such as a computer) which don't
	have permission to access the video of the camera.
Delete Deny List	Remove the customized setting from the Permission List.

NOTE: If there are any conflicts between the range of the Allow List and the range of the Deny List, the Access List within the range of the Deny List has the higher priority over the range of the Allow List.

For example, the range of the Allow List is set from 1.1.1.0 to 192.255.255.255 and the range of the Deny List is set from 1.1.1.0 to 170.255.255.255. Only users with IPs located between 171.0.0.0 and 192.255.255.255 can access the IP camera.

5.1.3.4 Change the System Setting

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

- <u>Set the Time and Date of the system</u>
- 1. Click on the **System** button to enter the "Time And Date" page (default). From this section, you may automatically or manually configure, update and maintain the internal system clock for your camera.

		IP can	nera	Live Video S	etup Wizard Help
Image	Network	System	Application	Storage	Status
Time and Date	TIME AND DA	TE			
DI and DO CR LS-485 Jser Aaintenance Jpgrade Firmware ogout	TIME CONFIGURA Time Zone (GMT Time Format YYY E Enable Dayligh Auto Dayl Set date a Offset Start tim End tim	tTION +08:00) Taipei Y/MM/DD ♥ t Saving ght Saving nd time manually +2:00 Month ne 1 ♥	Week Day of week	four Minutes	
	AUTOMATIC THE Synchronize w NTP Server SET DATE AND T Set date and ti Copy You Year 2010 Y Hour 1	th NTP Server pool ntp.org IME MANUALLY me manually r Computer's Time S Month 1 Da Minute 18 Se	ettings y 1 y cond 25 y Submit		

- To set the Time Configuration, please select your time zone from the drop-down menu. Select this to enable the daylight saving time. Then Select "Auto Daylight Saving" or "Set date and time manually".
- 3. To set the Automatic Time Configuration, please checkmark "Synchronize with NTP Server" and enter the address of the NTP Server.
- 4. To set the Date and Time Manually, please checkmark "Set date and time manually". Press "Copy Your Computer's Time Settings" as necessary to synchronize the time information from your PC or just manually set the date and time from the drop-down lists.
- 5. Click on the **Submit** button to submit the new Date and Time settings.

Time Zone:	Select your time zone from the drop-down menu.
Enable Daylight Saving:	Select this to enable the daylight saving time.
Auto Daylight Saving:	Select this option so that your camera will configure the
	Daylight Saving setting automatically.
Set date and time manually:	Select this option so that you may configure the Daylight
	Saving date and time manually.
Offset:	Sets the amount of time to be added or removed when
	Daylight Saving is enabled.
Synchronize with NTP server:	Enable this feature to obtain time configuration
	automatically from the NTP server.
NTP Server:	The Network Time Protocol (NTP) synchronizes the device
	with an Internet time server. Choose the one that is closest
	to your location.
Set the date and time manually:	This option allows you to set the time and date manually.
Copy Your Computer's Time Settings:	This will synchronize the time information from your PC.

• <u>Change the System Setting — Digital Input & Output.</u>

You may enable the **Digital Input** (D/I) and **Digital Output** (D/O) feature and configure the source of events for your camera.

1. Click on the **DI and DO** button on the left side of the "System" page to enter the "DI and DO" page.

IP c	amera				Live Video Se	etup Wizard Help	
Image	Network		System	Application	Storage	Status	
Time and Date							
DI and DO	DI AND DO						
ICR R5-485 Licer	Digital Input 1: Ti Digital Output 1: 1	ne active The activ	estate is N.O. vestate is N.O.	Y ; the current star 0. ▼	te detected is Open		
Maintenance	LED	~	-				
Upgrade Firmware Logout	LED VIDEO OUTPUT	⊙ On	OOff				
	VIDEO OUTPUT OSD OUTPUT	⊙ On ⊙ On	OOff OOff				
				Submit			

- 2. Select the active state of the Digital Input 1 from the drop-down list.
- 3. Select the active state of the Digital Output 1 from the drop-down list.
- 4. Click to set the LED "On" or "Off'.
- 5. Click to set the VIDEO OUTPUT "On" or "Off'. Click to set the OSD OUTPUT "On" or "Off'.
- 6. Click on the **Submit** button to submit the new user's setting.

Digital Input:	Select "N.O." or "N.C." as the active state of the Digital Input, in order to
	use the GPIO connector function.
Digital Output:	Select "N.O." or "N.C." as the active state of the Digital Output, in order to
	use the GPIO connector function.
LED	Select "ON" or "OFF" to use the item, which indicates a camera's status.
VIDEO OUTPUT	Select "ON" or "OFF" to use the video out connecting port, to send out
	analog signals.
OSD OUTPUT	Select "ON" or "OFF" to display the OSD when send out the signals.

• <u>Change the System Setting — ICR.</u>

Please follow the steps below to change the IR cut function through the network as necessary.

1. Click on the **ICR** button on the left side of the "System" page to enter the "ICR" page.

		IP car	nera	Live Video Se	tup Wizard Help
Image	Network	System	Application	Storage	Status
Time and Date	ICR				
ICR	ICR IR _ Cut Removable	filters triggering con	dition:		
RS-485 User	 Automatic Day mode 				
Maintenance Upgrade Firmware	 Night mode Schedule mode 	Night mode Schedule mode			
Logout		Day mode(24hr) From 07 🖌 00 🖌	To 18 🔽 00 💌		
			Submit		

- For the "IR-Cut Removable filter trigger condition", mark your options from "Automatic", "Day Mode", "Night Mode" or "Schedule". Click your choices to enable.
- 3. Mark the IR light power from "Off", "On", "Sync, with ICR" or "Schedule". Click your choices to enable (for the IP indoor/ outdoor mini-dome & the bullet only).
- 4. Click on the **Submit** button to submit the new user's setting.

Automatic	The Day/Night mode is set automatically. It is normally set in the Day
	mode and changes to the Night mode in a dark place.
Day mode	The Day mode disables the IR Cut Filter.
Night mode	The Night mode enables the IR Cut Filter.
Schedule mode	Set the Day/Night mode using the schedule. Fill in the time so the
	Day/Night mode is normally set to Day mode and it enters the Day mode
	at the start time and returns to the Night mode at the end time.

• <u>Change the System Setting — RS485 Setting</u> (for the IP Box Camera only)

You may configure the **RS-485** settings or communication specifications (baud rate, data bit, stop bit, and parity bit) for your camera. The RS-485 is a serial communication method for computers and devices. For your camera, the RS-485 is used to control a PAN/TILT device, such as an external camera enclosure, to perform the PAN and TILT movement. Click on the **RS485 Setting** button on the left side of the "System" page to enter the "RS485 Setting" page.

		IP car	IP camera		etup Wizard Help
Image	Network	System	Application	Storage	Status
Time and Date DI and DO	RS-485 RS-485				
ICR Support P RS-485 Protocol User ID Maintenance Upgrade Firmware Logout Parity Bi Stop Bit		T Pe 1 96 ©	lco-D ♥ 7 ● 8 No Even Odd 1 ◯ 2	3	
			Submit		

NOTE: Checkmark "Support PAN-TILT" and a RS-485 control panel will appear on the left side of the Live View page.

Support PAN-TILT:	When enabling Support PAN-TILT, a control panel will be displayed on
	the Live Video page allowing control for an external camera enclosure
	through the RS-485.
Protocol:	Select one protocol type from the pull-down menu.
ID:	Choose an ID between 1 and 255. This ID is the identifier for each
	RS-485 device.
Baud Rate:	Choose between 2400 and 115200 bps. This is a speed measurement
	for communication between a transmitter and receiver, indicating the
	number of bit transfers per second. A higher baud rate will reduce the
	distance of the two devices (transmitter and receiver).
Data Bits:	Either 7 or 8. It is a measurement of the actual data bits in a
	transmission. By default, the value is 8.
Parity Bit:	Choose from No, Even, and Odd. This is a simple form of error checking
-	used in serial communication and you may use no parity. For even and

	odd parities, the serial port sets the parity bit (the last bit after the data bits) to a value to ensure that the transmission has an even or odd number of logic-high bits. For example, if the data is 011, for even parity, the parity bit is 0 to keep the number of logic-high bits even. If the parity is odd, the parity bit is 1, resulting in 3 logic-high bits.
Stop Bit:	Either 1 or 2 . It is used to signal the end of communication for a single packet. The more bits used for stop bits, the greater the lenience in synchronizing the different clocks but the slower the data transmission rate. In default mode, the value is 1 .

<u>Change the System Setting — Users.</u>

You may modify the name and administrator's password of your camera, as well as add and manage the user accounts for accessing the camera. You may also use this section to create the unique name and configure the OSD setting for your camera. 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 "System" page to enter the "Users" page.

		IP car	nera	Live Video S	etup Wizard Help	
Image	Network	System	Application	Storage	Status	
Time and Date DI and DO ICR RS-485 User Maintenance Upgrade Firmware Logout	USER USER LIST admin:Admin	D	elete User			
	ADD/MODIFY USE User Name : Password: Confirm: Authority:	R) Operator O Viewe Add/Modify User	r		

- 2. Add, modify or delete any user's data if necessary.
- 3. Click the Add/ Modify User button to submit the new user's settings.
- 4. Click the **Home** button to return to the home page.

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:	Type in the password again for verification.
Authority:	Choose an authority option of the user's name from: Admin, Operator, and
	Viewer.
Add/ Modify User:	Click to submit the new setting to the IP camera.

• Change the System Setting — Maintenance.

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

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

		IP car	nera	Live Video Se	etup Wizard Help	
Image	Network	System	Application	Storage	Status	
Time and Date DI and DO ICR RS-485 User	MAINTENANC SYSTEM Save To Local Hard Load From Local H	E Drive ard Drive	Save Configuration	Browse		
Maintenance Upgrade Firmware Logout	Restore To Factory Reboot Device	Default E	Load Configuration Restore Factory Def Reboot Device	fault		

Save Configuration:	Click on "Save Configuration" to save the configuration files to the local
	hard drive.
Load Configuration:	Browse and click on the "Load Configuration" to load the configuration
	files to the local hard drive.
Restore Factory Defaults:	Click on "Restore Factory Defaults" to restore the factory defaults. You
	may browse and load the configuration file. This option will restore the
	pre-configured or saved settings
Reboot Device:	Click on "Reboot Device" to reboot the device. This option will restart
	the camera.

• Change the System Setting — Update Firmware.

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

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

		IP camera		Live Video Setup Wizard Help		
Image	Network	System	Application	Storage	Status	
Time and Date DI and D0 ICR R5-485 User Maintenance Upgrade Firmware	UPGRADE FIR FIRMWARE INFOR Current Firmware V Current Product Na UPGRADE FIRMW File Path:	RMWARE RMATION ersion: 0.09 me: IP ce (ARE	rowse) Upload	otorage		
Logout						

"Firmware Upgrade" page.

- Click on the "Browse..." button to select the UPDATE.BIN file which was copied into your computer.
- 3. Click on the "Upload" button.

NOTE: DO NOT power off the IP camera while updating firmware.

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 in 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.

5.1.3.5 Change the Application Setting

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

• 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.

		IP camera		Live Video S	etup Wizard Help
Image	Network	System	Application	Storage	Status
Language Motion Detection Event Logout	LANGUAGE SETUP LANGUAGE SETTING Language: English(English)				
			Submit		

You have an option as to which language to use.

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

• Change the Application Setting — 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:

 Click on the Motion Detection button on the left side of the Alarm to enter the "Motion Detection" page.



2. Click and drag the mouse across a targeted zone to draw a rectangle on the image.

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

- 3. Enables / disables the motion detection function.
- 4. Click on the **Submit** button to submit the new setting of the recording.

• Change the Application Setting — Event.

In this section, you can configure and schedule the recording setting for your IP camera.

Click on "Add" to enter the setting pages of the Server, Media, Event and Recording to make the advanced settings. Or click on "Delete" to erase the settings.

		IP camera		Live Video Setup Wizard Help		
Image	Network	System	Application	Storage	Status	
Language Motion Detection Event Logout	EVENT SETU SERVER Name Type Av Add v Delet Mame Type Add v Delet EVENT Name Status Sun Add v Delet RECORDING Name Status Sun Add v Delet	P Idress/Location e e Mon Tue Wed Thr e	u Fri Sat Time Trig u Fri Sat Time Sou	ger rce Destination		

The Event Setup page includes 4 different sections: Server, Media, Event and Recording.

- 1. To add a new item "event, server or media," click Add.
- To delete the selected item from the pull-down menu of event, server or media, click Delete.
- 3. Click on the item name to enter the window for modifying.

NOTE: You can add up to five servers, five media fields, three event schedules, and two recording schedules.

Server:

Click on the Add button in the Server column to enter the "Server" setting page.

		IP ca	IP camera		Live Video Setup Wizard Help		
Image	Network	System	Application	Storage	Status		
Language Motion Detection							
Event Logout	Server Name: Server Name: Senver au Server au User nar Passwor Port This FTP Server au Port User nar Passwor Remote Passwor Remote Passwor Network storag Network storag Ne	mail address t email address ddress ne d server requires a se ddress ne d dfolder name storage location nple:\\my_nas\disk\v up ne d WINS server	Image: state stat	ntTLS)			

- 1. Enter the Server name, the unique name for a server. There are four kinds of servers supported. They are email server, FTP server, HTTP server and network storage.
- Set the details of the Email. "Sender email address": The email address of the sender.
 "Recipient email address": The email address of the recipient.
- 3. Set the details of the FTP. "Remote folder name": An authorized folder on the external FTP server. The string must conform to that of the external FTP server. Some FTP servers cannot accept a preceding slash symbol before the path without virtual path mapping. Refer to the instructions for the external FTP server for details. The folder privilege must be open

for uploading. "Passive Mode": Check it to enable the passive mode in transmission.

- Set the details of the Network storage. Only one network storage is supported. "Network storage location": The path to upload the media. "Workgroup": The workgroup for network storage.
- 5. Click on the SD card to activate the function. Use the SD card for recording media.
- 6. Click on "Submit" to save or click on "Don't Submit" to go back to the Event main page.

Server settings:

(1) Click Add under the Sever column on Event Settings page to open the Server setting page. On this page, you can specify where the notification has been sent when a trigger is activated. A total of 5 server settings can be configured.

NOTE: The maximum server settings amount is five, however, you can set the Network storage or the SD card for only one.

- (2) Enter the Server Name for the server setting.
- (3) Select the Server Type. There are four choices of server types available: Email, FTP, Network storage and SD card. Select one of the server types.
 - Email: Select to send the media files via the email when a trigger is activated.
 - (a) Sender email address: Enter the email address of the sender.
 - (b) Recipient email address: Enter the email address of the recipient.
 - (c) Server address: Enter the domain or IP address of the email server.
 - (d) User name: Enter the user name of the email account if necessary.
 - (e) Password: Enter the password of the email account if necessary.
 - (f) Port: The default email server port is 25. You can also manually set another port.
 - (g) To verify if the email setting is correctly configured, click the Test button. The result will be shown in above this setting page (TEST OK or TEST ERROR).
 If successful, you will receive an email indicating the result.
 - (h) Click Submit to activate the setting.

- FTP: Select to send the media files to an FTP server when a trigger is activated.
- (a) Server address: Enter the domain or IP address of the FTP server.
- (b) Port: The default FTP server port is 21. It can also be assigned to another port number.
- (c) User name: Enter the login name of the FTP account.
- (d) Password: Enter the password of the FTP account.
- (e) Remote folder name: Enter the folder where the media file will be placed. If the folder name does not exit, the IP camera will create one on the FTP server.
- (f) Passive mode: Most firewalls do not accept new connections initiated from external requests. If the FTP server supports passive mode, select this option to enable passive mode FTP and allow data transmission to pass through the firewall.
- (g) To verify if the FTP setting is correctly configured, click the Test button. The result will be shown in above this setting page (TEST OK or TEST ERROR).
- (h) Click Submit to activate the setting.

Network storage: Select to send the media files to a network storage location when a trigger is activated. Please fill in the information for your server.

- Network storage location: Enter the network storage path (\\ server name or IP address\ folder name).
- (b) Workgroup: Enter the workgroup name for the network storage server.
- (c) User name: Enter the user name for the server.
- (d) Password: Enter the password for the server.
- (e) Primary WINS server:
- (f) To verify if the storage setting is correctly configured, click the Test button. The result will be shown in above this setting page (TEST OK or TEST ERROR).
- (g) Click Submit to activate the setting.

- **SD card:** Select to send the media files to an SD card when a trigger is activated.
- (a) Insert your SD card first.

•

- (b) To verify if the storage setting is correctly configured, click the Test button. The result will be shown in above this setting page (TEST OK or TEST ERROR).
- (c) Click Submit to activate the setting.
- (4) When completed, click Submit to enable the settings to exit this page. The new server settings will appear on the Event Settings page.

NOTE: To remove a server setting from the list (Application> Event>), select a server name from the drop-down list and click Delete.

Note that only when the server setting is not being applied to an event setting (Application> Event> Event> The "Action" option) can it be deleted or the camera won't take any action when a trigger is activated.
Media:

Click on the Add button in the Media column to enter the "Media" setting page.

		IP car	nera	Live Video S	etup Wizard Help
Image	Network	System	Application	Storage	Status
Language Motion Detection Event Logout	MEDIA MEDIA TYPE Media name: Source: Profile Send 1 Send 1 File Name Prefi Add date ar Video Clip Source: Profile Pre-event record Maximum durat Maximum file si File Name Prefi System log	1 v pre-event image(s) post-event image(s x: nd time suffix to file n 1 v ting: sec sec ze: kbyte x:	[0~4]) [0~7] ame onds [0~4] inds [1~100] is[100~3000] Submit Don't Subr	mit	

- 1. Enter the Media name, the unique name for media. There are three kinds of media: snapshot, video clip and system log.
- 2. Set the details of the Snapshot.

"Source": Select the video source.

"Send Pre-event images": The number of pre-event images.

"Send Post-event images": The number of post-event images.

"File name prefix": The prefix name will be added on the file name of the snapshot images.

"Add date and time suffix to file name": Check it to add timing information as file name suffix.

3. Set the details of the Video Clip.

"Source": Select the video source.

"Pre-event recording": The interval of pre-event recording in seconds. There are two limitations for video clip file.

"Maximum duration": The maximum recording file duration in seconds.

"Maximum file size": The maximum file size would be generated.

- 4. Click on the System log to activate the function.
- 5. Click on "Submit" to save, or click on "Don't Submit" to go back to the Event main page.

Media settings:

- (1) Click Add under the Media column on Event Settings page to open the Media setting page. On this page, you can specify the type of media that will be sent when a trigger is activated. A total of 5 media settings can be configured.
- (2) Enter the Media Name for the media setting.
- (3) Select the Media Type. There are three choices of media types available: Snapshot, Video Clip and System log. Select one of the media types.
 - **Snapshot:** Select to send snapshots when a trigger is activated.
 - (a) Source: Select to take snapshots from the video profile.
 - (b) Send pre-event image(s) [0~4]: The IP camera has a buffer area; it temporarily holds data up to a certain limit. Enter a number to decide how many images to capture before a trigger is activated. Up to 4 images can be generated.
 - (c) Send post-event image(s) [0~7]: Enter a number to decide how many images to capture after a trigger is activated. Up to 7 images can be generated.

NOTE: For example, if both the Send pre-event images and Send post-event images are set to 4, a total of 8 images are generated after a trigger is activated.

(d) File Name Prefix: Enter the text that will be appended to the front of the file name.

For example, the file name will be in this form:



The format is: YYYYMMDD_HHMMSS

- (e) Add date and time suffix to file name: Select the option to add the date/ time suffix to the file name.
- (f) Click Submit to activate the setting.

Video Clip: Select to send video clips when a trigger is activated.

- (a) Source: Select to record video clips from the video profile.
- (b) Pre-event recording: The IP camera has a buffer area; it temporarily holds data up to a certain limit. Enter a number to decide the duration of recording before a trigger is activated. Up to 4 seconds can be set.
- (c) Maximum duration: Specify the maximum recording duration in seconds. Up to 100 seconds can be set.
 - NOTE: For example, if pre-event recording is set to 4 seconds and the maximum duration is set to 10 seconds, the IP camera continues to record for another 5 seconds after a trigger is activated.



- (d) Maximum file size: Specify the maximum file size allowed.
- (e) File Name Prefix: Enter the text that will be appended to the front of the file name.
- (f) Click Submit to activate the setting.

- System log: Select to send a system log when a trigger is activated. Click Submit to activate the setting.
- (4) When completed, click Submit to enable the settings to exit this page. The new media settings will appear on the Event Settings page.
- NOTE: To remove a media setting from the list (Application> Event>), select a media name from the drop-down list and click Delete. Note that only when the media setting is not being applied to an event setting (Application> Event> Event> The "Attached media" item) can it be deleted or you can't get the images/ logs when a trigger is activated.

Event:

Click on the Add button in the Event column to enter the "Event" setting page.

IP c	amera			Live Video S	etup Wizard Help					
Image	Network	System	Application	Storage	Status					
Language	EVENT									
Motion Detection	EVENT									
Event	Event name:				etup Wizard Help Status digital input]					
Logout	Enable this eve	nt								
	Priority: normal 😽									
	Delay for 10 s	- econds before detec	ting next event (For r	motion detection and	digital input]					
	TRIGGER		5 1		5 1 1					
TRIGGER		1								
	O Periodic									
	Trigger every	1 minutes								
	O Digital input									
	O System boot									
	O Network Lose									
	EVENT SCHEDUL									
	Sun 🗹 Mon 🛙	🛛 Tue 🗹 Wed 🗹	Thu 🗹 Fri 🗹 Sat		/ideo Setup Wizard Help Ige Status tion and digital input]					
	Time									
	Always									
	O From 00	00 Y To 23 Y	59 🖌							
	ACTION									
	Trigger D/O for	1 seconds								
			Submit Don't Sub	omit						

 Enter the Event name. Checkmark the "Enable this event" box and activate the function. Then set the Priority and the Source from the drop-down list.

"Priority": The event with higher priority will be executed first.

2. Select the event trigger mode.

"Video motion detection": Select the windows which need to be monitored.

"Periodic": The event is triggered in specified intervals. The unit of trigger interval is a minute.

- "Digital input": The event is triggered when the DI status is changed by an external device.
- "System boot": The event is triggered when the system boots up.
- "Network Loss": The event is triggered when the network disconnect.

- 3. Set the recording schedule time.
- 4. Set the Trigger D/O of activating the action. Check it to trigger digital output for specific seconds when an event is triggered.
- 5. Click on "Submit" to save or click on "Don't Submit" to go back to the Event main page.

Event settings:

- Click Add under the Event column on Event Settings page to open the Event setting page. On this page, you can arrange three parts –Trigger, Event Schedule, and Action to set an event. A total of 3 event settings can be configured.
- (2) Enter the Event Name for the event setting.
- (3) Select "Enable this event" option to enable the event setting.
- (4) Set the event priority from: "normal", "high" and "highest". Events with a higher priority will be executed first.
- (5) Enter the duration in seconds to pause motion detection after a motion is detected (for the trigger types motion detection and digital input use only).
- (6) An event is an action initiated by a user-defined trigger source; it is the causal arrangement of the following three parts: Trigger, Event Schedule, and Action. Set the event details of each part.
 - **Trigger:** This option defines when to trigger the IP camera. The trigger source can be configured to use the IP camera's built-in motion detection mechanism, periodic, external digital input devices or system boot. There are several choices of trigger sources as shown below.
 - (a) Video motion detection: This option makes use of the built-in motion detection mechanism as a trigger source. To enable this function, you need to configure a motion detection windows first.
 - NOTE: For example, when the event status is on, once an event is triggered by motion detection, the IP Camera will automatically send snapshots, video clips or System log via the server type as your settings.
 - (b) Periodic: This option allows the IP camera to trigger periodically for every

other defined minute(s). UP to 99999 minutes.

- (c) Digital input: This option allows the IP camera to use an external digital input device or sensor as a trigger source. Depending on your application, there are many choices of digital input devices on the market which helps to detect changes in temperature, vibration, sound, and light, etc.
- (d) System boot: This option triggers the IP camera when the power to the IP camera is disconnected.
- (e) Network Loss: This option triggers the IP camera when the network to the IP camera is disconnected.
- Event Schedule: Specify the period for the event.
- (a) Select the days of the week.
- (b) Set the recording schedule in the 24-hour time format.
- Action: Define the actions to be performed by the IP camera when a trigger is activated.
- (a) Trigger D/O for ~ seconds: Select this option to turn on the external digital output device when a trigger is activated. Specify the length of the trigger interval in the text box.
- (b) If you want to set an event with recorded video or snapshots, it is necessary to configure the server and media settings first so that the IP camera will know what action to take (such as which server to send the media files to) when a trigger is activated.

Checkmark the one of the Server Names which you have set already, then select the Attached media (the media name) from the drop-down list.

(7) When completed, click Submit to enable the settings to exit this page. The new event settings will appear on the Event Settings page.

NOTE: The new event settings / server settings / media settings will appear in the event

drop-down list on the "Application> Event>" page.

Recording:

Click on the **Add** button in the Recording column to enter the "Recording" setting page.

		IP car	nera	Live Video Se	etup Wizard Help
Image	Network	System	Application	Storage	Status
Language Motion Detection Event Logout	RECORDING Recording entry n Enable this recording Priority: normal Y Source: Profile 1 RECORDING SCH Y Sun Y Mon Time	ame: ording EDULE 2 Tue VWed V 100 To 23 V TINGS 1000 recording: 200	Thu 🕑 Fri 🗹 Sat	0000000) mit	

- Enter the Recording entry name. Checkmark the "Enable this recording" box and activate the function. Enable this option if you want to upload the recording to a shared folder in the network. Then set the Priority and the Source from the drop-down list.
- Set the recording schedule time. Select the day(s) according to when you want the camera to make a video clip.
- 3. Set the details of the recorded file.

"Always": This enables the camera to make video clips continuously.

"From": The time range specified for the video clip.

4. Click on "Submit" to save or click on "Don't Submit" to go back to the Event main page.

Record settings:

- (1) Click Add under the Record column on Event Settings page to open the Record setting page. In this page, you can define the recording source, recording schedule and recording capacity. A total of 2 recording settings can be configured.
- (2) Enter the Record entry name for the event setting.
- (3) Select "Enable this recording" option to enable the recording setting.
- (4) Select the recording priority from: "normal", "high" and "highest". Recording with a higher priority will be executed first.
- (5) Select the recording source from the drop-down list (profiles).
- (6) Specify the recording schedule and the recording settings.
 - Recording Schedule:
 - (a) Select the days of the week.
 - (b) Set the recording schedule in the 24-hour time format.

Recording Settings:

- (a) Destination: You can select the SD card or SAMBA (Network storage) that was set up for the recorded video files.
- (b) Total cycling recording size: When the maximum capacity is reached the value you set, the oldest file will be overwritten by the latest one. The reserved amount is reserved for cyclic recording to prevent malfunction. The limited value is 1000~20000000 Kbytes.
- (c) Size of each file for recording: Set the maximum file size of each recording video files.
- (d) File Name Prefix: Enter the text that will be appended to the front of the file name.
- (7) When completed, click Submit to enable the settings to exit this page. The new media settings will appear on the Event Settings page.

5.1.3.6 Change the Storage Setting

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

• Change the SD card Setting.

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

1. Click on the "storage" button at the top of the Setup page to enter the "SD Card" screen.

	IPNetCam Live Video [Setup Wizard He mage Network System Application Storage Status SD CARD SD Card: / SD Status : Ready Files per Page: 10 V Refresh 1 V of 1 Delete File Number of files Video D	etup Wizard Help				
Image	Network	System	Application	Storage	Status	
SD Card	SD CARD					
Logout	SD CARD					1
	SD Card Files pe	: / · Page: 10 🔽 <u>Refre</u> :	<u>sh</u>	SD :	Status : Ready	
	🗆 De	lete File	Number o	ffiles	Size	
		Video	0			
		Pictur	<u>e</u> 0	T . 1 700040 41/		
	Forn	nat SD Card		Total:7996124Ki Fr	B, Used:12KB, ee:7996112KB	
			Submit			

- 2. The SD Card page contains two image modes, the Video and the Picture.
- 3. Click "Video" or "Picture" to enter its sub year-month folder.
- 4. Click to enter its sub date folder.
- 5. Click the desired file to display the images therein.
- 6. Each file can be deleted by checking and pressing the OK button.

5.1.3.7 Status

• The device information.

This page displays all the information about your device and network connection.

Click on the "Device info" button of the Status page to enter the "Device info" screen.

IP c	amera			Live Video Se	etup Wizard Help	
Image	Network	System	Application	Storage	Status	
Device Info Log	DEVICE INFO					
Logout	Model Name Device Name Time & Date Firmware Version HTML Version Activex Version MAC Address IP Address IP Subnet Mask Default Gateway Primary DNS PPPoE DDNS AES TV Output Mode	2.0M Box IP Cam IP camera Thu Mar 31 20:57: 2.00 3.0.73 2.0,0,48 00:0C:0C:15:71 192:168.0.74 255:252.00 0.0.0.0 192:168.1.11 Disable Disable Disable NTSC	58 2011			

• <u>The device information.</u>

This page displays the log information of your camera.

		IP can	nera	Live Video S	etup Wizard Help
Image	Network	System	Application	Storage	Status
Device Inro	SYSTEM LOG)			
Log	CURRENT LOG				
Logout	1. 2010-01-03 20:17 2. 2010-01-03 20:07 3. 2010-01-03 20:07 3. 2010-01-03 19:25 5. 2010-01-03 19:26 5. 2010-01-03 18:32 8. 2010-01-03 18:32 9. 2010-01-03 18:32 9. 2010-01-03 18:32 9. 2010-01-03 18:11 10. 2010-01-01 01:2 11. 2010-01-01 01:2 12. 2010-01-01 01:2 13. 2010-01-01 00:2 14. 2010-01-01 00:2 15. 2010-01-01 00:2 16. 2010-01-01 00:2 17. 2010-01-01 00:2 18. 2010-01-01 00:2 19. 2010-	141 admin LOGIN 0 :32 admin LOGIN 0 :44 admin LOGIN 0 :44 admin LOGIN 0 :41 admin LOGIN 0 :51 admin LOGIN 0 :51 admin LOGIN 0 :51 admin LOGIN 0 :22 admin LOGIN 0 :23 admin LOGIN 0 :45 admin LOGIN 0 :45 admin LOGIN 0 :45 admin LOGIN 0 :51 admin LOGIN 0 :2:34 admin LOGIN 0 :2:4 admin LOGIN 0 :3:7 admin LOGIN 0 :1:38 admin LOGIN 0 :1:38 admin LOGIN 0 :1:38 admin LOGIN 0 :2:3 admin LOGIN 0 :3:3 admin LOGIN 0 :3:3 admin LOGIN 0 :0:7 SYSTEM BOO Previous 20 Ne	< FROM 192.168.2.1 < FROM 192.168.2.1 < FROM 192.168.2.1 < FROM 192.168.2.1 <td>67 67 67 67 67 67 67 67 167 167 167 167</td> <td></td>	67 67 67 67 67 67 67 67 167 167 167 167	

- 1. Click on the "Device info" button of the Status page to enter the "Device info" screen.
- Click on the "Clear " to erase all of the logs. You may also download the information by clicking "Download".

Using the PPPoE

- 1. Install the XDSL software (obtained from your ISP dealer) in your PC.
- 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.
- Turn off the DHCP function (of the IP camera) if it is "ON".
 NOTE: Turn up the "DIP SWITCH" from "3" to "4", and change the relative network settings, the IP Address, NetMask and Gateway on the image web page (for the IP Box camera only).
- 4. Installing an IP address in your PC or notebook.

Desktop \rightarrow Move the mouse focus to the Network neighborhood and click the right key of the mouse \rightarrow Choose the properties \rightarrow Choose your local connection \rightarrow Choose the properties and select the configuration \rightarrow Select the TCP / IP \rightarrow Choose the properties \rightarrow 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) \rightarrow Click on the mask and the mask input, namely "255. 255. 255. 0" (a fixed formula) \rightarrow Click "OK".

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

- Enter the IP camera home page → Choose the network → Enter "User Name: admin" and "Password: 9999" → Click "OK'.
- Choose PPPoE → PPPoE mode: Select "ON" → Enter "Account" → Enter "Password" → Submit → Unplug the power connection.
- 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.
- 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

- 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".
- 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.
- 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.

6. ADVANCED OPERATION

Question 1:

How do I 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 USB function.

UPnP: Please refer to APPENDIX 1.

IP function: Please refer to 2.6 The USB function.

Question 2:

How to activate UPnP?

- 1. Follow the default settings to set up the related settings, and connect the hardware.
- 2. Activate the Web browser and key in the camera URL.
- 3. SETUP→Network button.
- 4. Select "Enable UPnP presentation".
- 5. Select "Enable UPnP port forwarding"; make the "Forwarding Port" setting.

NOTE:

- 1. Perform the step 4 above; turn on the PC's "My Web Neighbors" and confirm if the camera can be found, and click to go online to the camera's first page.
- 2. Perform the step 5 above; make the Route UPnP port forwarding setting.
- 3. Your PC can connect to the camera webpage via the router.
 - By working with the router, the IP cameras can operate the port mapping (the port forwarding) function. For example, if the router configures a particular port, say port "8080", to your IP camera, you can input the IP address as http://xxx.xxx.8080 on the URL entry box of the web browser to access the IP camera's web setting page.

Question 3:

How to change the Video Profiles 1, 2, 3?

- 1. Plug the power cable into the IP camera power connector.
- 2. Plug the network cable into the IP camera Ethernet terminal.
- 3. Confirm the web-connection status; the connection between the PC & HUB and between the IP camera & HUB is now activated.
- 4. Confirm that the IP addresses of the PC and the IP camera are in the same sub-net.
- 5. Activate the Web browser and key in the IP camera's URL.
- 6. Switch to the front-page of Live; click Profiles 1, 2 & 3.

Question 4:

How do Loot up the motion detection area and its constitutive	
How do I set up the motion detection area and its sensitivity?	
	'

♦Set up the motion detection

1. Activate the Web browser and key in the camera IP Address.

- 2. SETUP \rightarrow Application button \rightarrow Motion Detection button.
- 3. Select "Enable Video Motion".
- 4. Set up the target zone you want and setup the Sensitivity and Percentage.
- 5. Click the **Submit** button to submit the setting.
- When any person or object moves within the target zone under a setting, the Motion Detection will display the response signal in the Live Video and Video Out.

Question 5:

How do I 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.
- Click on the Dynamic DNS button on the left side of the page to enter the "Dynamic DNS" page.
- 3. Tick on the "Enable DDNS" to activate it.
- Enter the DDNS Host Name, DDNS Account and DDNS Password which you created in the <u>www.dyndns.com</u> website.
- 5. Click on the **Submit** button to submit the setting.

NOTE: Please refer to the APPENDIX 2 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" page.
- 3. Choose "Enable" to activate the function.
- 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 5.1.3.8 for more details.

\diamondsuit Use the Sub Hostname to view the IP camera

- 1. Click on the URL block at the top of the PC screen.
- 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 6:

How do I add or modify the users and their authority to use the IP camera?

Entering the setting page

- 1. Click the **System** button in the Setup page.
- 2. Click the **User** button on the left side of the page to enter the "USER" 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: The user who accesses with the admin name and password has the full rights to change the settings of the IP camera.
 - **Operator:** The suggested choice for normal use.
 - Viewer: The user who accesses with just the viewer name and password has only limited rights to view.
- 2. Click the Add/Modify User button to submit the new user's setting.

⊘Modify the user

- 1. Click the user name you want to modify on the USER LIST.
- 2. Enter the password, the confirmed password and choose the authority.
- 3. Click the Add/Modify User button to submit the new setting.

♦ Delete a user

- 1. Click the user name you want to delete on the USER LIST.
- 2. Click the **Delete User** button.

Question 7:

How to create the self-signed certificate manually?

- 1. Accurately connect all the devices.
- 2. Activate the Web browser and key in the device's IP Address.
- 3. Setup→Network button →HTTPS button
- 4. Select "Enable secure HTTPS connection".
- 5. Create certificate settings \rightarrow Create self-signed certificate manually \rightarrow Create.
- 6. Fill in the relevant data in the text boxes of the items titled Country, State or province, Locality, Organization, Organization Unit, Common Name & Validity; click "Create".

Question 8:

How to download the log list?

- 1. Click Set up \rightarrow Status \rightarrow Log.
- 2. The normal display will show the log list page.
- 3. Click First Page, Previous 20 or Next 20 to examine the recording list.
- 4. Click Download; select the storing path; and download the recording list.

7. SPECIFICATIONS

	Image sensor	1/2.7" Omni Vision 2M CMOS sensor				
		The LC-7513 IP box camera: CS-MOUNT				
		The IP mini-dome & the IP bullet camera:				
	Long	· LC-7523D/ LC-7533D/ LC-7553D: 2.8~12mm Vari-foca				
	Lens	board type				
Comoro		The LC-7553F IP bullet camera (fixed lens):				
Califiera		 4.0mm/ F1.5, Fixed Iris. Angle of view:62° horizontal. 				
		 CS-mount – Color: 0.2 Lux @ F1.2; B/W: 0.01 Lux @ F1.2 				
	Minimum illumination	 Vari-focal – Color: 0.2 Lux @ F1.2; B/W: 0.01 Lux @ F1.2 				
		 Fixed Lens – Color: 1.0 Lux @ F1.5; B/W: 0.5 Lux @ F1.5 				
	IR cut filer	Yes				
	Day & Night	Auto / Day / Night / Schedule.				
	Video Compression	H.264 / MPEG4 / MJPEG.				
	·	· 4:3 - "1440x1080", "1280x960", "1024x768", "800x600",				
	Develoption	"640x480", "480x360", "320x240" and "176x144".				
	Resolution	· 16:9 - "1920x1080", "1280x720", "800x450", "640x360",				
		"480x270", "320x176" and "176x144".				
		- Simultaneous H.264, MPEG4 and MJPEG.				
	Video streaming	- Multi-profile: resolution / compression / frame rate / video				
		quality.				
-	Profiles	3 (selectable)				
Image	Frama rata	NTSC: Maximum 30FPS (1920 X 1080)				
inage	Frame rate	PAL: Maximum 25FPS (1920 X 1080)				
		- Adjustable image size, quality, and bit rate.				
		- Day / Night mode.				
		- Flip & Mirror.				
	Image settings	- AGC, AWB, AES.				
		 Time stamp and text caption overlay. 				
		- Privacy masks.				
		- Exposure Mode				
	Video management	SDK including HTTP-APL/ActiveX/ONVIE				
	software					
	Audio streaming	Тwo-way.				
Audio	Compression	G.711u / G.726.				
, luulo	Audio bit rate	G.711u 64kbps / G.726 32kbps.				
	Inputs / outputs:	1 x input / 1 x output (3.5mm earphone jack).				
	Security	Multi-level password protections, IP address filtering, HTTPS				
	Security	encryption, User access log.				
Network	Protocols	IPv4, HTTPS, HTTP, TCP, UDP, RTP/RTCP/RTSP, DHCP, NTP,				
NELWOIK	1 10100015	FTP, SMTP, UPnP, ICMP, ARP, DDNS, PPPoE, SAMBA				
	Users	Access by 10 simultaneous users.				
	Firmware update	SD card / HTTP.				

	Recording	SD card, SAMBA, FTP					
	Pre-alarm recording	Yes.					
	Advanced motion	512 zones. Sensitivity: 0 - 100 %.					
		Motion Detection					
Alarm		Schedule					
	Trigger	Alarm input					
		Ethernet loss					
		Network/Remote digital alarm input					
	Notification	SD card recording, SMTP, FTP, HTTP, alarm output.					
	RJ-45	10 BASE - T / 100 BASE -TX.					
		The LC-7513 IP box camera:					
		Push-in: 1 x Alarm input / 1 x Alarm output / 1 X DC output (12V					
		DC) / 1 x Ground / 2 x RS-485					
	Digital I / O	The LC-7523/ LC-7533/ LC-7553:					
	Ū.	(IP indoor/ outdoor mini-dome & the IP bullet camera)					
. .		Push-in: 2 x digital input / 2 x digital output / 1 X DC output (12V					
Connectors		DC)/1 x ground					
		2 x 3.5 mm (1 x Audio in [mic. in / line in], 1 x Audio out [line					
	Earphone jack	output]).					
		1. AES / 2. DC iris / 3. DHCP / 4.Static IP.					
	DIP Switch	(This DIP Switch for the IP box camera only.)					
	Reset	Reset for factory default.					
	Local storage device	SD / SDHC card slot.					
	LED indicators	Network / SD card.					
	Power consumption	≦10W					
		- 12V DC (DC power jack). Approx 4.8W.					
	Dowor	- 24V AC (2 pin terminal block). Approx 6W.					
	Power	- 802.3af compliant Power over Ethernet					
		(Box: IEEE 802.3af. Class 2; Bullet/ Dome: IEEE 802.3af. Class 3).					
	Processors	TMS320DM368.					
	OS	Linux 2.6 kernel.					
		Box camera: 0°C to 50°C (32°F to 122°F).					
	Operating conditions	Indoor camera: 0°C to 50°C (32°F to 122°F).					
	Operating conditions	Outdoor camera: -40 $^\circ C$ to 50 $^\circ C$ (-40 $^\circ F$ to 122 $^\circ F$).					
General		Outdoor camera (fixed lens): -20°C to 50°C (-4°F to 122°F).					
General	Approval	CE, FCC, RoHS, C-Tick.					
		The LC-7513 IP box camera:					
		56 x 68 x 125 mm.(H x W x L)/ 1 kg					
	Dimensions / Package	The LC-7523/7533 IP indoor/ outdoor mini-dome:					
	Weights	123 x 150 mm.(H x W)/ 2.25 kg					
		The LC-7553 IP bullet camera:					
		92 x 97 x 226 mm.(H x W x D)/ 1.9 kg					
		- Quick Installation Guide.					
		- CD x 1 (includes User's Manual).					
	Accessories included	- Power adapter: (Input: 100-240 VAC, 50 / 60 Hz, Output:					
		12VDC, 1A).					
		- USB cable X 1 (for the IP box camera)					
		- KJ-45 cable x 1 (for the dome & the bullet camera)					

* Design and specifications are subject to change without notice.

8. Functions of client PC

System requirement	Windows XP
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
Client PCs	One camera can supports 10 simultaneous client PCs.

APPENDIX 1. - How to run IP Camera UPnP

The most troublesome issue when you setup an IP Camera is that you have no idea what the IP address of this device is. Now IP Camera 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 IP Camera 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^w 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 an IP Camera^w 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.



Step 2: When Control Panel appears, double-click the Network Connections icon. The

Network Connections dialog box appears. See Figure 3.



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

Edit Vew Favorites Tools Ac	tvanced Help			
Back • 🔘 · 🍠 🔎 Search	E Folders			
ss 🔍 Network Connections				- 00
A	Name		Туре	Status
etwork Tasks 🗷 🚪	Broadband			
Create a new connection	 Hinet 		Broadband	Disconnec
Frewall settings	LAN or Mah Speed In	ternat		
Deable this network	Live seals and		1.83 or High-Speed Internet	Connected
Repair this connection		Disable		
Rename this connection		Status		
Vew status of this		Repar	_	
Change settings of this		Bridge Connections		
connection		Create Shortcut		
		Delete		
Ither Places 8		Rename		
Control Panel	C	Properties		
My faetwork Places	_			
My Documents				

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

	Authenticatio	in Adva	nced						
Conne	ctusing:								
MR	Marvell Yuko	1 Gigabit I	Ethernet '	0/100/1		Config	ure		
This c	onnection use	s the follow	ving item	6:					
2	Client for Mic	rosoft Net	works						
	Eile and Prin	er Sharin	a for Micr	osoft Net	works				
N 8	Internet Prote	icol (TCP)	71F3	>					
	Install		Uninsta	a 🔀		Propert	ies	\triangleright	
Desc	ription						1000		
Tre	nsmission Co	trol Proto	col/Interr	et Protoc	ol. The	default	wide		
divi	erse interconn	acted net	vorks.	commun	cauon	across			
E loi									
Not	tify me when th	is connec	tion bas l	imited or	no con	nectivity			
- · · · · ·									

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.

can get IP settings assigned a	utomatically if your network supports	s this
ability. Otherwise, you need to a ropriate IP settings.	ask your network administrator for the	0
) Obtain an IP address automat	tically	
Use the following IP address	,	
Paddress:	192 168 1 200	
lubnet mask:	255 . 255 . 255 . 0	
Default gateway:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Obtain DNG server eddress e	utomatically	
Use the following DNS server	addresses:	
Preferred DNS server:		
liternate DNS server.		
	Advar	nced

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

erer [Aumenscenon] A	avanced		1
nnect using:			
Marvell Yukon Giga	bit Ethernet 10/100/1	Configure	
s connection uses the fi	sllowing items:		
Client for Microsoft	Networks		
File and Printer Sh	aring for Microsoft Netwo	irks	
a Internet - rotocol (CP31P3		
Install	Uninstall	Properties	
Install	Uninstal	Properties	
Install	Uninstall (Properties The default wide	
Install escription Transmission Control P area network protocol t	Uninstell (Properties The default wide tion ecross	-
Install Jescription Trensmission Control P area network protocol ti diverse interconnected	Uninstal [rotoco/Internet Protocol lat provides communice networks.	Properties The defeult wide tion ecross	
Install Description Trensmission Control P area network protocol ti diverse interconnected Show icon in notification	Uninstal [rotoco/Internet Protocol lat provides communice networks	Properties The default wide tion across	
Install Inscription Trensmission Control P area network protocol II diverse interconnected Show icon in notification Notify me when this con	Unmstal [rotocol/Internet Protocol at provides communice networks. a grea when connected nection has limited or no	Properties The default wide tion ecross	

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: In the Start menu, point to Set Program Access and Default, and then click it. See

Figure 8



Step 2: When the Add or Remove Programs dialog box appears, click the Add/Remove



Windows Components button. See Figure 9.

Step 3: Check the Network Services in the Windows Component Wizard dialog box, and

then click Details.... See Figure10.

You can add or remove components of Windows XP.	F
To add or remove a component click the checkbox. A the component will be installed. To see what's include	shaded box means that only part of d in a component click Details
Componente:	
Strangenering	
MSN Explorer	20.7 MB
A A Networking Services	0.3 MB
Cher Network File and Print Services	0.0 MB
all Outlook Express	0.0 MB 👱
Description: Contains a variety of specialized, netwo	rk-related services and protocols.
7.4.4.4.1	Database
Total disk space required. 56.3 MB	L DOIBIG.

10

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



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

Figure12.

ows Components ou can add or remove components of Windows XP.	R
To add or remove a component, click the checkbox. A ti the component will be installed. To see what's included Components:	shaded box means that only part of in a component, click Details.
Message Queuing	0.0 MB
SN Explorer	20.7 MB
🖬 🏥 Networking Services	0.3 MB
C SOfter Network File and Print Services	0.0 MB
C C Contract	0.0 MB
Description: Contains a variety of specialized, network	related services and protocols.
Total disk space required: 56.3 MB	Dataila
Space available on disk: 24043.2 MB	Details

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

See Figure13.

Windows Components V	Vizard	
E	Completing the Windows Components Wizard	
- A	You have successfully completed the Windows Components Wizard.	
	To close this wizerd, click. Finish.	
	< Box Finish	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: In the Start menu, point to Settings, and then click Control Panel. See Figure 14.



Step 2: When Control Panel appears, double-click the Administrative Tools icon. The Administrative Tools dialog box appears. See Figure 15.



Step 3: Click the Services icon in the Administrative Tools dialog box. See Figure 16.



Step 4: When the Services dialog box shows up, double click the SSDP Discovery Service icon. See Figure 17.



Step 5: Choose Automatic in the Startup type, and click OK to start it. See Figure 18.

ieneral Log On	Recovery Dependencies
Service name:	SSEPSEV
Display name.	SSEIF' Eliscovery Service
Description.	Enables discovery of UPnP devices on your home
Path to executabl	c.
C./WINDOWS/S	/stemsztsvortostexe -k LocalService
C.\WINDOWS\Sy Startup type:	Automatic
C.(WINDOWS\S)	
C.(WINDOWS(S) Startup type: Gervica status:	Automatic Automatic Minnuni Lisabled
C.WINDOWS(S) Startup type: Service status:	Automatic Automatic Autom
C.(WINDOWS(S) Startup type: Service status: Start You can specify t here.	Automatic Image: Comparison of the second

Step 6: When the Services dialog box appears again, double click the Universal Plug and Play Device Host icon. See Figure 19.



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

See Figure20.

oneral Log On	Recovery Dependencies	
Service name:	upnphost	
Display name:	Universal Plug and Play Device Host	
Description:	Provides support to nost Universal Pluq and Play Automatic Automat	
Path to executabl	e:	
Path to executabl C:\WINDOWS\S)	le: /stem32\svchost.exe -k _ocalService	
Path to executabl C:\WINDOWS\Sy Startup type.	le: ystem32(svchost.exe-k_ocalService Automatic	
Path to executabl C:\WINDOWS\S) Startup type.	le: ystem32\svchost.exe -kocalService Automatic Automatic Menorat Disabled Stopper	
Path to executabl C(WINDOWS(S) Startup type. Service status: Start	le: ystem32\svchost.exe -k _ocalService Automatic Automatic Manuai Disabled Stopped Stop Pause Resume	
Path to executabl C:WINDOWS(S) Startup type. Service status: Start You can specify t here.	le: ystem32\svchost.exe -k _ocalService Automatic Automatic Valuation Valuatio Valu	

Step 8: Restart your system.

4. Scan IP Cameras through My Network Place

After you complete the installation and starting services, the UPnP protocol will take effect. You can

scan all IP Cameras $^{\otimes}$ in My Network Place, as in Figure21 and Figure22 below.





Just double click the **UPnP IP Camera** icon, and the video live stream will pop up automatically without assigning any IP address in Microsoft Internet Explorer .

APPENDIX 2. – Register as a DDNS member

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

Registering for a DDNS

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



Create an account

Figure 1

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 <u>Add Dynamic DNS Host</u> 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

	About Servi	ces Account Support News		
My Account	Add New Hostn	ame	that.Second	
My Services				
Account Ubgrades SLA Premier Support	Note: You currently don't have Act buying Account upgrade that make	count Upgrades in your account. You cannot use some of our Host S this form full-functional and will add several other features. Learn Mo	ervice features. Please consider	
Zone Services Host Services	Hostname:	- dırdas.org 💌		
Malitop Outbound	Wildcard:	Ves, alas **.hostname.domain* to same settings.		
Recursive DNS Network Monitoring SSL Centificates	Service Type:	Host with IP address Webricp Redress Or offen Network		
Ranew Services Auto Ranew Settings Sync Explications		0		
Account Settings	IP Address:			
Billing		Van. anto detected 3P. addenia M. 200, 52-2		
My Cart		ALL AND I AD DECIDE: CELTIF.		
Se thes	Mail Routing:	Ves, let me configure Email routing.		
Search				
Search		Create Host		

Figure 5

All we have to set in this page is the "Hostname" item. The user 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.

(/www.dyndne.com/account/services/ho	¢u				e 🔁 😡
				DynONS.com + Dynect	• DymTLD
🔿 Dyn	DNS			Logged in Liter aboliseice Mr. Service - Mr. Cel - Link Out	
	About Servi	es Account	Support	News	
My Account	Host Services			Add New Holtname - Heat Linders Long	
My Services	222/44/11/2				
Accord Upgrades SLA Presser Support Tome Services Host Services Malkiep Oxfound Recurse DAS Network Nototomig SS, Carlinkees Renew Services Auto Innew Services Sync Expensione	Hostname abcdeice.dirdna.org	Service Hert 60.	Uetah 50.12.2	Lat Ubdated Feb. D4, 2009 212 AM	
Account Settings					
Elling					
See these					
Search					

Figure 6