

*** USER'S MANUAL ***

FCC ID : UTBHLC830W

The Federal Communication Commission Statement

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of more of the following measures: -

- **Reorient or relocate the receiving antenna.**
- **Increase the separation between the equipment and receiver.**
- **Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.**
- **Consult the dealer or an experienced Radio/TV technician for help.**

Use only shielded cables to connect I/O devices to this equipment. You are cautioned that change or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.

1. This device may not cause harmful interference and
2. This device must accept any interference received, including interference that may cause undesired operation.

User Manual v.1.2

HLC-830W



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I. Preface

HLC-83 is a CMOS IP camera. It builds in web server. User views real-time video via IE browser. HLC-83 supports MPEG-4 video compression which provides smooth and high quality video. The video can be stored in the SD card, and can be playback remotely.

HLC-83 is an easy-to-use IP camera which is designed for home security application.

II. Product Specifications

- MPEG4 compression
- Supports SD card for local recording
- Wireless network connection (Optional)
- 2-way audio
- Online firmware upgrade
- Real-time video recording
- Compatible with Microsoft Windows Media Player

Hardware		
CPU		ARM 9 ,32 bit RISC
RAM		64MB
ROM		8MB
Image sensor		1/4" CMOS
Microphone		Built-in
Network		
Ethernet		10/ 100 Base-T
Network Protocol		HTTP, TCP/ IP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP
Wireless (Optional)		
	Wireless	802.11b/g
	WEP	64/ 128 bit
System		
Video Resolution		640x480, 320x240, 160x120
Video adjust		Brightness, Contrast, Saturation, Hue
Image snapshot		Yes
Full screen monitoring		Yes
Compression format		MPEG-4
Video bitrate adjust		CBR, VBR
Motion Detection		Yes, 3 different areas
Triggered action		Mail, FTP, Save to SD card
Pre/ Post alarm		Yes, configurable
Security		Password protection
Firmware upgrade		HTTP mode, can be upgraded remotely
Simultaneous connection		Up to 10
Audio		Yes, 2-way
SD card management		
Recording trigger		Motion Detection, Network break down
Video format		AVI
Video playback		Yes
Delete files		Yes
Web browsing requirement		
OS		Windows 2000, XP, 2003
Internet browser		Microsoft IE 6.0 or above

III. Product Installation

A. Hardware Installation

- i. Connect power adaptor



- ii. Connect ethernet cable



- iii. Set up the network configurations according to the network environment. For further explanation, please refer to chapter VI, "Network Configuration for HLC-83".

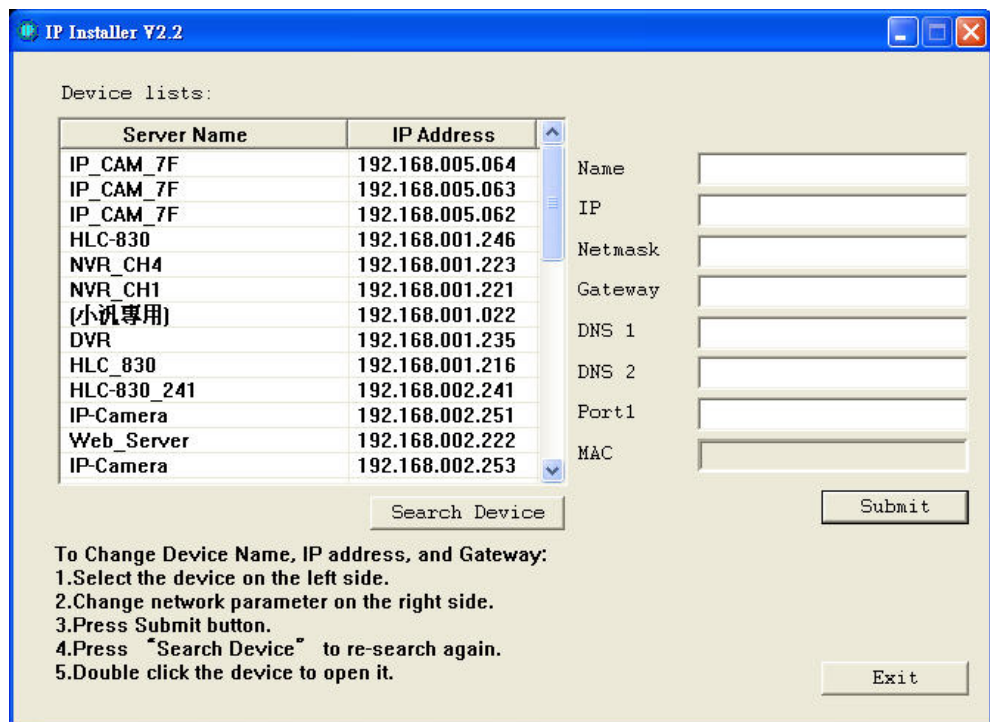
B. IP Assignment

- i. Use the software, "IP Installer" to assign the IP address of HLC-83. The software is in the attached software CD.
- ii. There are two languages for the IP installer
 - a. IPInstallerCht.exe: Chinese version
 - b. IPInstallerEng.exe: English version
- iii. There are 3 kinds of IP configuration.
 - a. Fixed IP (Public IP or Virtual IP)
 - b. DHCP (Dynamic IP)

- c. Dial-up (PPPoE)
- iv. Execute IP Installer
- v. For Windows XP SP2 user, it may popup the following message box. Please click "Unblock".

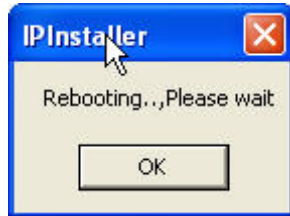


- vi. The GUI of the IP Installer:



- vii. IP Installer searches all the IP cameras which connect to the intranet and lists on the left side of the IP Installer. Just click the "Search Device" to re-search again.
- viii. Click one of the IP camera listed on the left side. The network configuration of this IP camera will show on the right side. Change the

parameter and click “Submit”. The following dialogue box will show. Just click “OK”. It will change the IP and reboot the camera.



- ix. Click “Search Device” to research the IP camera. Double click the IP camera listed on the left side. It will open an IE browser and connect to this IP camera directly.

C. Install ActiveX control:

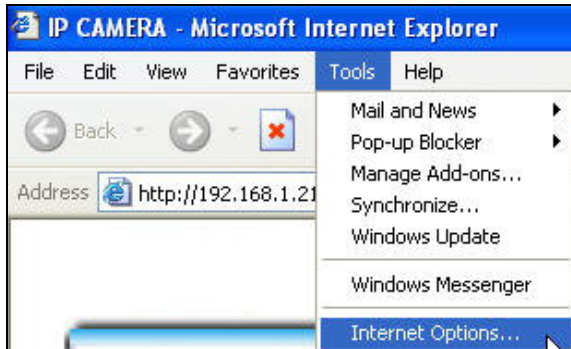
For the first time to view the camera video via IE, it will ask you to install the ActiveX component.



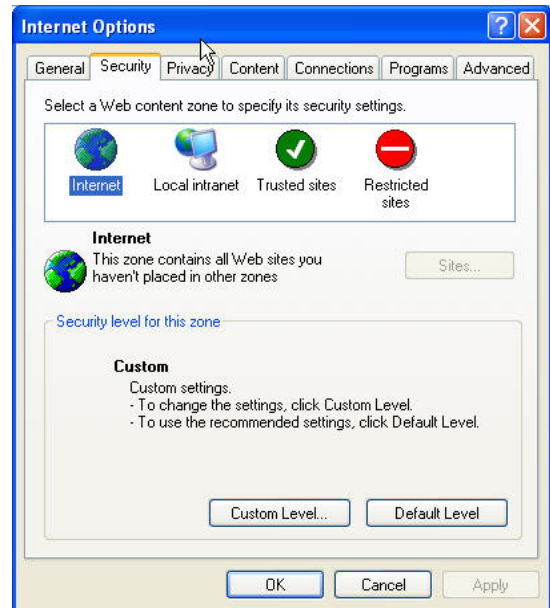
If the installation failed, please check the security setting for the IE browser.

- i. IE → Tools → Internet Options... → Security Tab → Custom Level... → Security Settings → Download unsigned ActiveX controls → Select “Enable” or Prompt.
- ii. IE → Tools → Internet Options... → Security Tab → Custom Level... → Initialize and script ActiveX controls not marked as safe → Select “Enable” or Prompt.

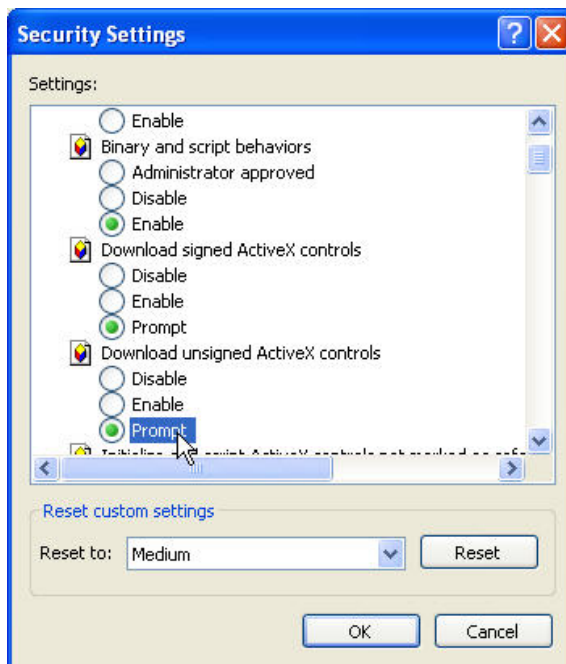
1



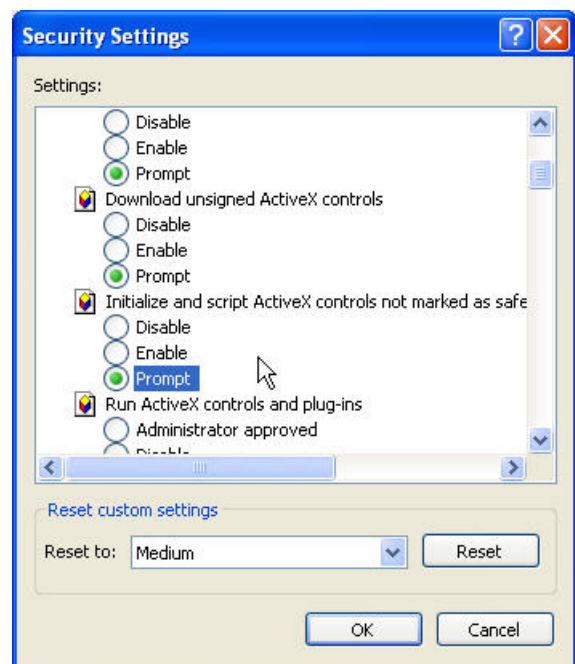
2



3

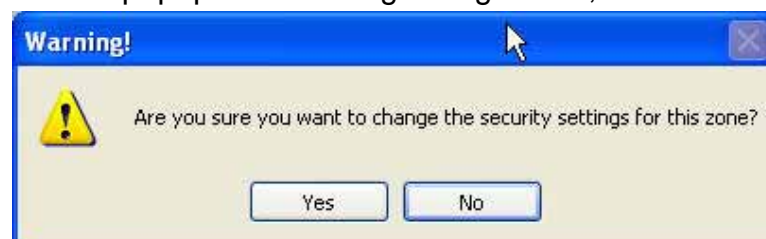


4



5

When popup the following dialogue box, click "Yes".





IV. Live Video

Start a IE browser, type the IP address of the IP camera in the address field. It will show the following dialogue box. Key-in the user name and password. The default user name and password are “admin” and “admin”.



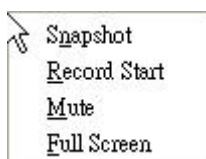
When connect to the HLC-83. The following GUI shows.



1.  : Get into the administration page
2.  : Video Snapshot
3. Shows how many people connect to this IP camera
4. Show system time, video resolution, and video refreshing rate
5. HLC-83 supports 2-way audio. Click the “Chatting” check box. The you can use microphone which connect to the PC to talk to server side, which is HLC-83 side.

Double-click the video, it will change to full screen mode. Press “Esc” or double-click the video again, it will change back to normal mode.

Right-Click the mouse on the video, it will show a pop-up menu.




1. Snapshot: Save a jpg picture
2. Record Start: Record the video in the local PC. It will ask you where to save the video. To stop recording, right-click the mouse again. Select “Record Stop”. The

video format is AVI. Use Microsoft Media Player to play the recorded file.

3. Mute: Turn of the audio. Click again to turn on it.
4. Full Screen: Full-screen mode.

V. HLC-83 Configuration

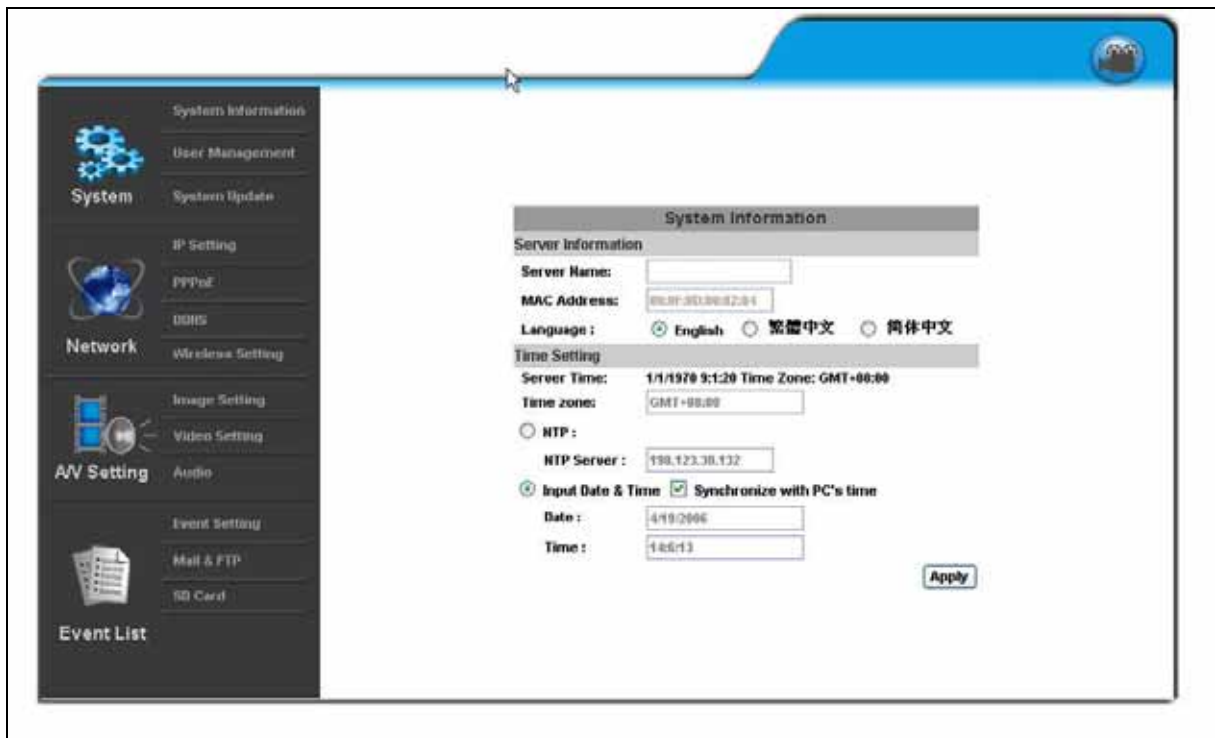


Click  to get into the administration page. Click



to back to the live video

page.



A. System

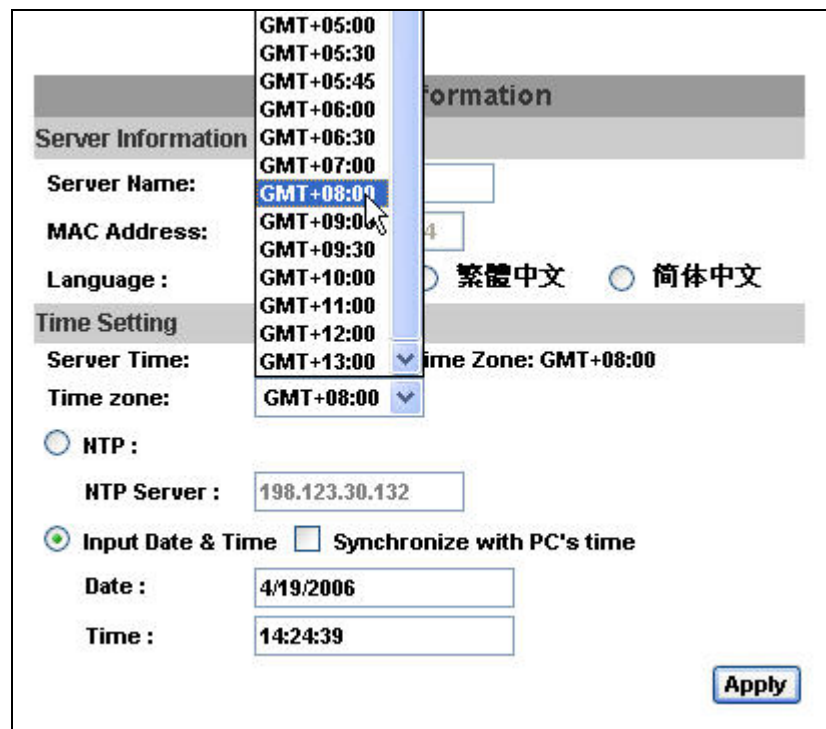
i. System Information

Set up the camera name, select language, and set up the camera time.

- a. Server Name: This is the Camera name. This name will show on the IP Installer.
- b. Select language: There are English, Traditional Chinese, and Simple Chinese to select. When change, it will show the following dialogue box for the confirmation of changing language.

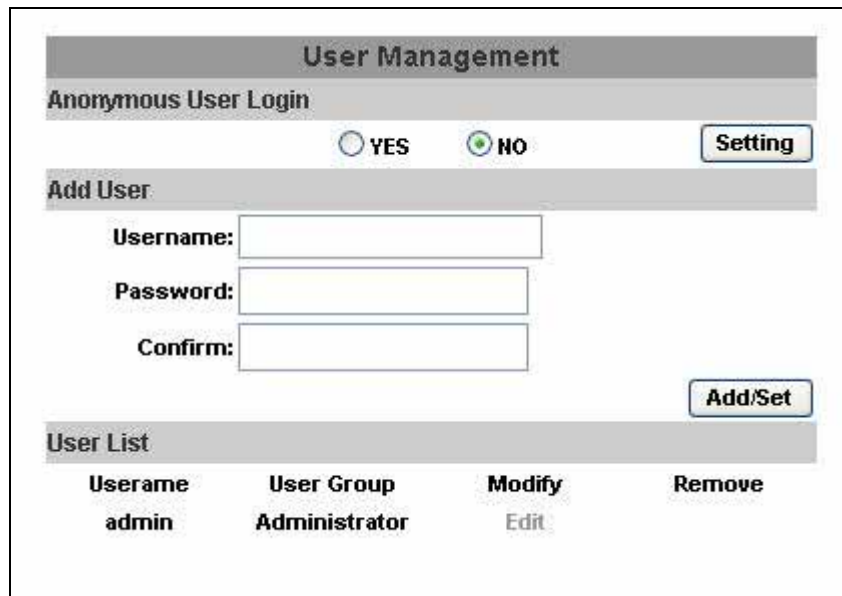


- c. Server time setting: Use NTP or Input Date & Time manually.

A screenshot of a web-based configuration page for an HLC-83 device. The page has a sidebar with "Server Information" and "Time Setting" sections. The "Time Setting" section is active, showing a dropdown menu for "Time zone" with options from GMT+05:00 to GMT+13:00. The "Server Time" is set to GMT+08:00. Below this, there are radio buttons for "NTP" and "Input Date & Time". The "Input Date & Time" option is selected, and it includes fields for "Date" (4/19/2006) and "Time" (14:24:39). There is also a checkbox for "Synchronize with PC's time". An "Apply" button is at the bottom right.

- ii、 User Management

HLC-83 supports three different users, administrator, general user, and anonymous user.



The screenshot shows a web interface titled "User Management". It has three main sections: "Anonymous User Login", "Add User", and "User List".

Anonymous User Login: Contains two radio buttons, "YES" and "NO". The "NO" button is selected. There is a "Setting" button to the right.

Add User: Contains three text input fields labeled "Username:", "Password:", and "Confirm:". There is an "Add/Set" button to the right.

User List: Contains a table with the following data:

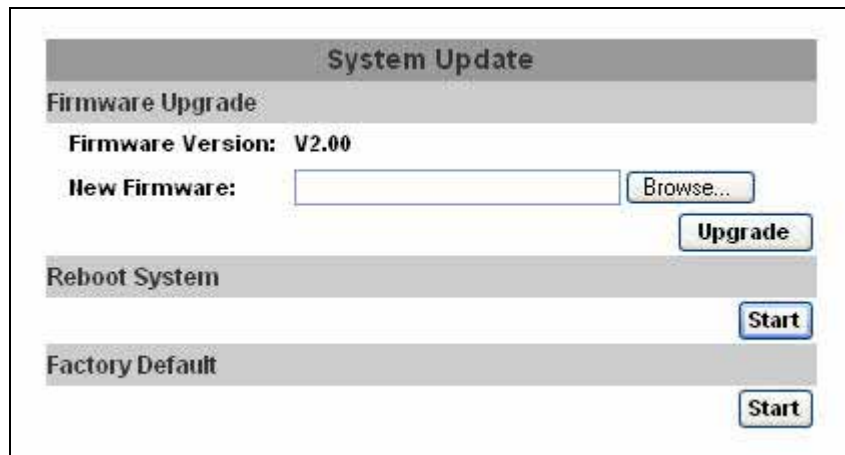
Username	User Group	Modify	Remove
admin	Administrator	Edit	

- a. Anonymous User Login:
Yes: Allow anonymous login
No: Need user name & password to access this IP camera
- b. Add user:
Type the user name and password, then click "Add/Set".
- c. Click "edit" or "delete" to modify the user.



The screenshot shows a dialog box titled "User_Setting - Microsoft Internet Explorer". It contains a "User Setup" section with three text input fields: "Username:" (containing "admin"), "Password:", and "Confirm:". There is an "OK" button to the right of the "Confirm" field.

- iii. System update:



The 'System Update' interface contains three main sections. The first section, 'Firmware Upgrade', shows the current 'Firmware Version: V2.00'. It includes a 'New Firmware:' label followed by a text input field and a 'Browse...' button. Below this is an 'Upgrade' button. The second section, 'Reboot System', features a 'Start' button. The third section, 'Factory Default', also features a 'Start' button.

To update the firmware online, click “Browse...” to select the firmware. Then click “Upgrade” to the procedure.

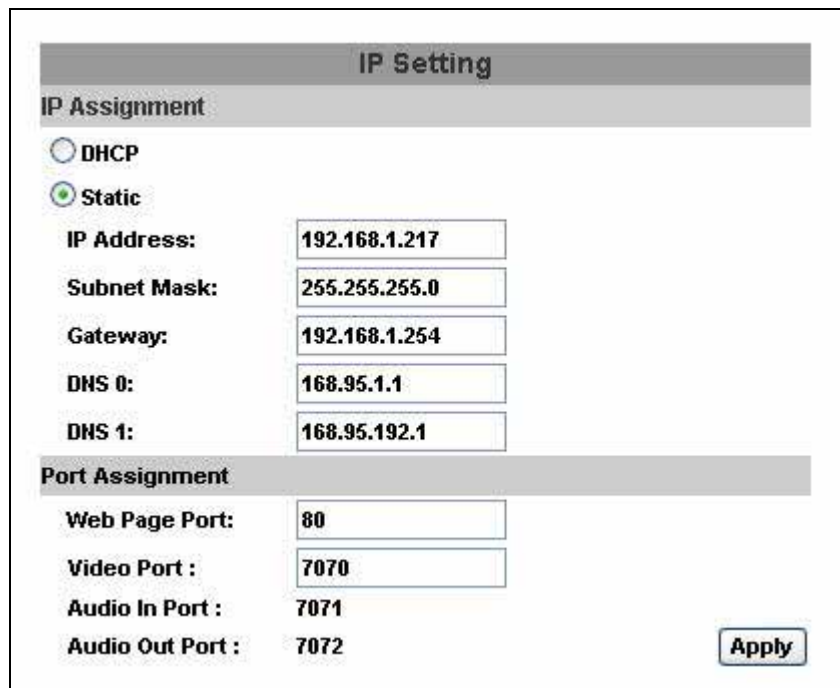
Reboot system: re-start the IP camera

Factory default: delete all the settings in this IP camera.

B.Network

i. IP Setting

HLC-83 supports DHCP and static IP.

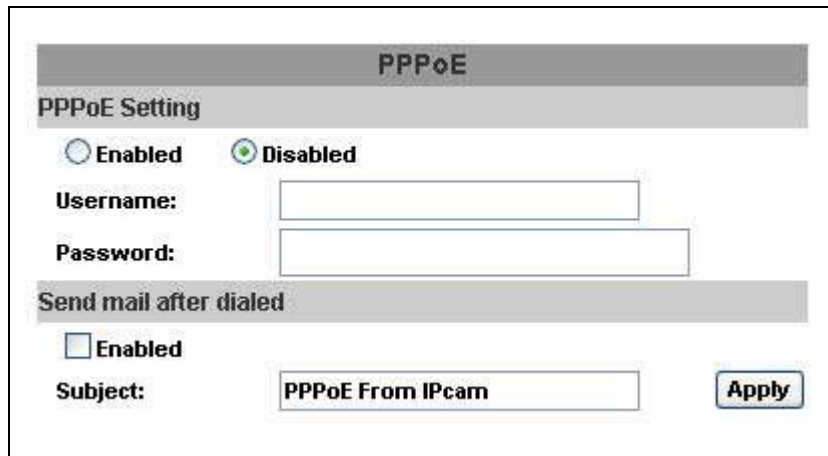


The 'IP Setting' interface is divided into two main sections. The 'IP Assignment' section has two radio buttons: 'DHCP' and 'Static'. The 'Static' option is selected. Below these are five input fields for static IP configuration: 'IP Address' (192.168.1.217), 'Subnet Mask' (255.255.255.0), 'Gateway' (192.168.1.254), 'DNS 0' (168.95.1.1), and 'DNS 1' (168.95.192.1). The 'Port Assignment' section contains four input fields: 'Web Page Port' (80), 'Video Port' (7070), 'Audio In Port' (7071), and 'Audio Out Port' (7072). An 'Apply' button is located at the bottom right of the form.

- a. Static IP : Type IP address, subnet mask, gateway, and DNS manually.

- b. DHCP : Using DHCP, HLC-83 will get all the network parameters automatically.

1.1.1 PPPoE:



The PPPoE Setting form includes a title bar 'PPPoE', a section header 'PPPoE Setting', and two radio buttons for 'Enabled' and 'Disabled'. Below these are text input fields for 'Username:' and 'Password:'. A section titled 'Send mail after dialed' contains a checkbox for 'Enabled' and a 'Subject:' field with the text 'PPPoE From IPcam'. An 'Apply' button is located at the bottom right.

Select “Enabled” to use PPPoE.

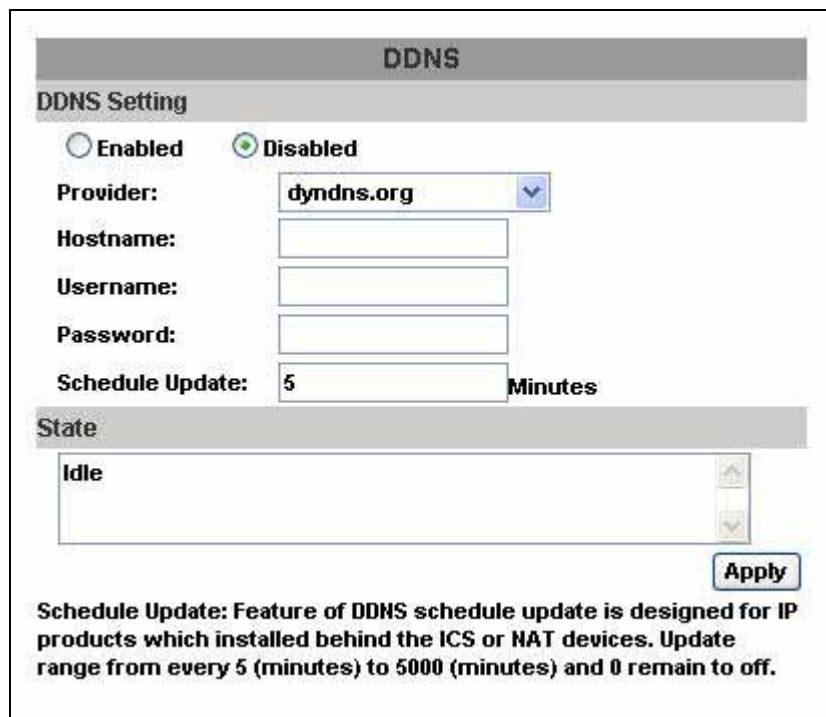
Key-in Username and password for the ADSL connection.

Send mail after dialed: When connect to the internet, it will send a mail to a specific mail account. For the mail setting, please refer to “Mail and FTP” settings.

ii、 DDNS:

HLC-83 supports DDNS (Dynamic DNS) service.

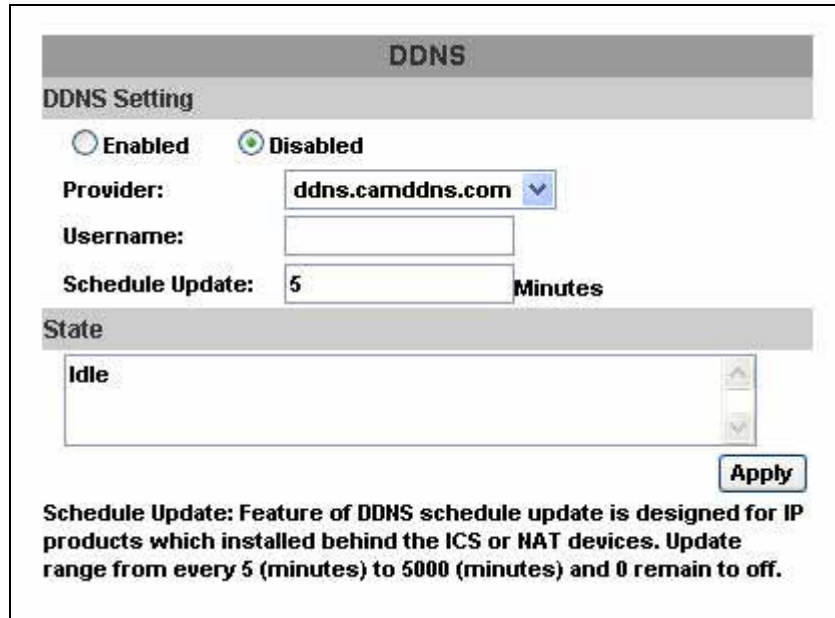
- a. DynDNS ;



The DDNS Setting form includes a title bar 'DDNS', a section header 'DDNS Setting', and two radio buttons for 'Enabled' and 'Disabled'. Below these are a dropdown menu for 'Provider:' (set to 'dyndns.org'), and text input fields for 'Hostname:', 'Username:', and 'Password:'. A 'Schedule Update:' field is set to '5' with the unit 'Minutes'. A 'State' section shows 'Idle' with up/down arrows. An 'Apply' button is at the bottom right. A note at the bottom states: 'Schedule Update: Feature of DDNS schedule update is designed for IP products which installed behind the ICS or NAT devices. Update range from every 5 (minutes) to 5000 (minutes) and 0 remain to off.'

1. Enable this service

2. Key-in the DynDNS server name, user name, and password.
 3. Set up the IP refreshing rate.
 4. Click “Apply”
- b. Camddns service:



DDNS

DDNS Setting

☐ Enabled ☒ Disabled

Provider: ddns.camddns.com

Username:

Schedule Update: 5 Minutes

State

Idle

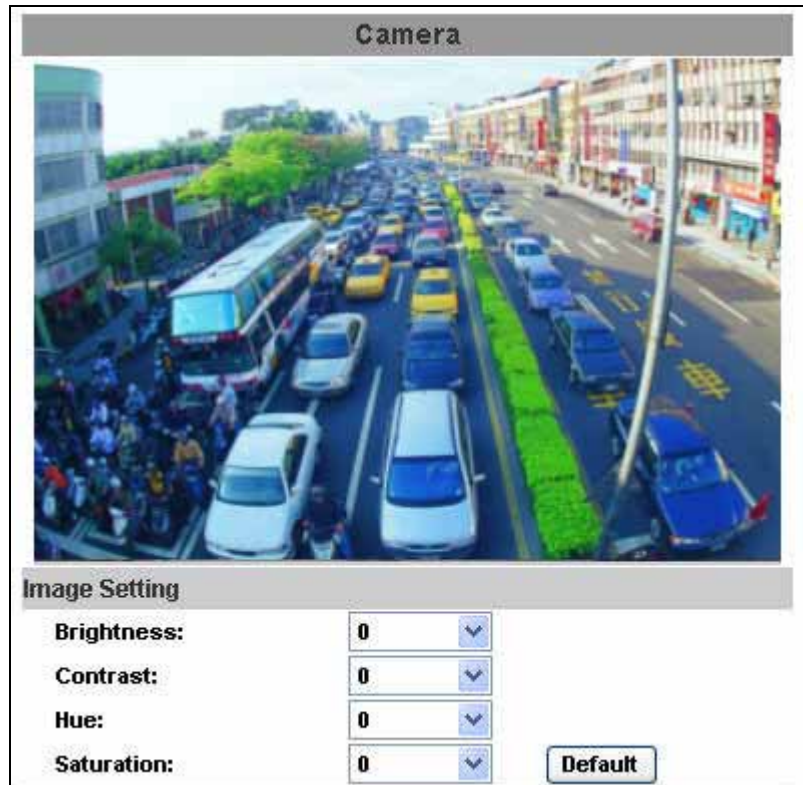
Apply

Schedule Update: Feature of DDNS schedule update is designed for IP products which installed behind the ICS or NAT devices. Update range from every 5 (minutes) to 5000 (minutes) and 0 remain to off.

1. Key-in user name.
 2. Click “Apply”.
- c. DDNS Status
1. Updating: Information update
 2. Idle: Stop service
 3. DDNS registration successful, can now log by
<http://<username>.ddns.camddns.com>: Register successfully.
 4. Update Failed, the name is already registered: The user name has already been used. Please change it.
 5. Update Failed, please check your internet connection: Network connection failed.
 6. Update Failed, please check the account information you provide: The server, user name, and password may be wrong.
- iii、 Wireless Setting (This section is for HLC-83W only)

C.Multimedia

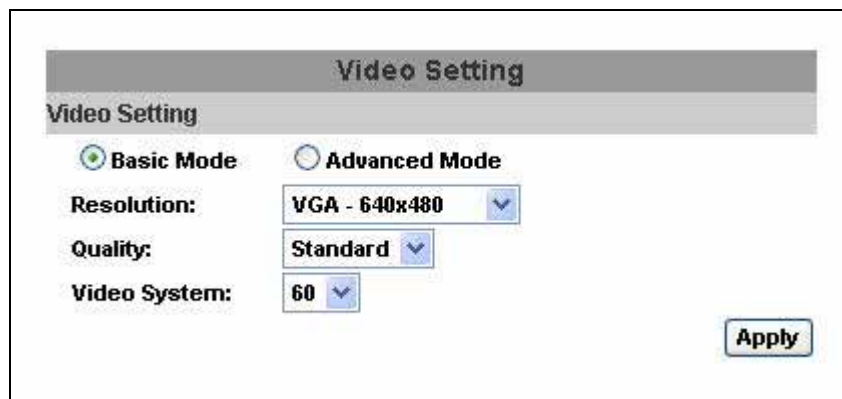
- i、 Image Setting



Adjust “Brightness”, “Contrast”, “Hue”, and “Saturation” to get clear video.

ii、 Video Setting

a. Basic Mode:



1. Resoultion:

There are 3 resolutions to choose.

VGA – 640X480

CIF – 320X240

QCIF – 160X120

2. Quality:

There are 5 levels to adjust, The higher the quality is, the

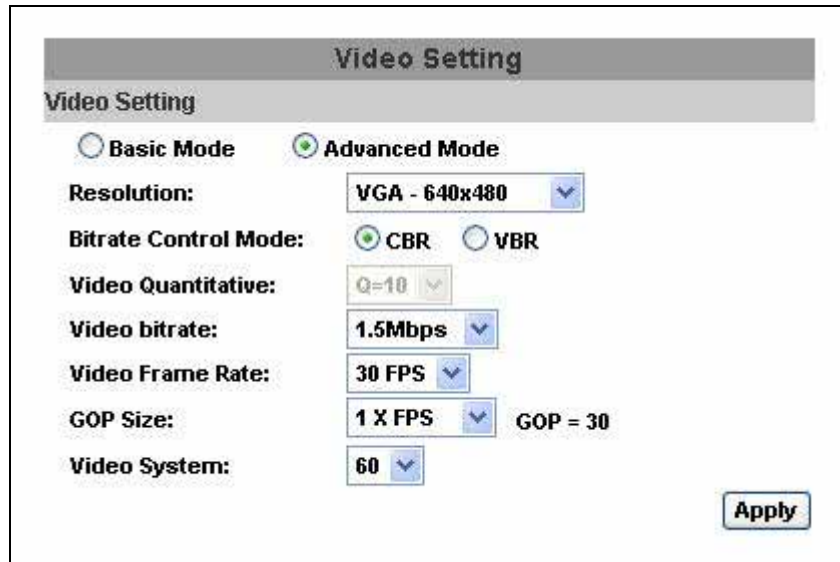
bigger the file size is.

3. Video System:

Please select 60 (Hz) if you are in America, Taiwan...

Please select 50 (Hz) if you are in Europe, China...

b. Advanced Mode:



Video Setting

Video Setting

☐ Basic Mode ☒ Advanced Mode

Resolution: VGA - 640x480

Bitrate Control Mode: ☒ CBR ☐ VBR

Video Quantitative: Q=10

Video bitrate: 1.5Mbps

Video Frame Rate: 30 FPS

GOP Size: 1 X FPS GOP = 30

Video System: 60

Apply

1. Resolution:

There are 3 resolutions to choose.

VGA – 640X480

CIF – 320X240

QCIF – 160X120

2. Bitrate Control Mode

There are CBR (Constant Bit Rate) and VBR (Variable Bit Rate) to use.

CBR : 64Kbps~4Mbps.

VBR : Q=3~30.

3. Video Frame Rate

The video refreshing rate per second.

4. GOP

It means "Group of Pictures". The higher the GOP is, the better the quality is.

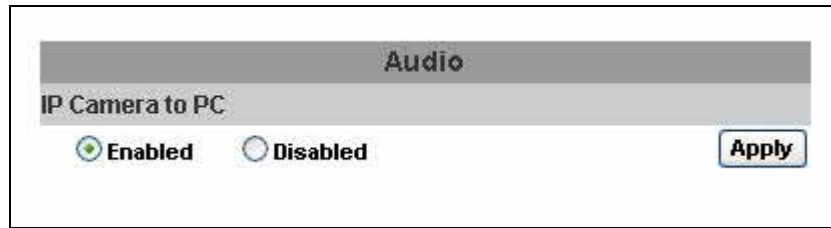
5. Video System:

Please select 60 (Hz) if you are in America, Taiwan...

Please select 50 (Hz) if you are in Europe, China...

iii、 Audio:

HLC-83 supports 2-way audio. Select "Enable" to start this function.

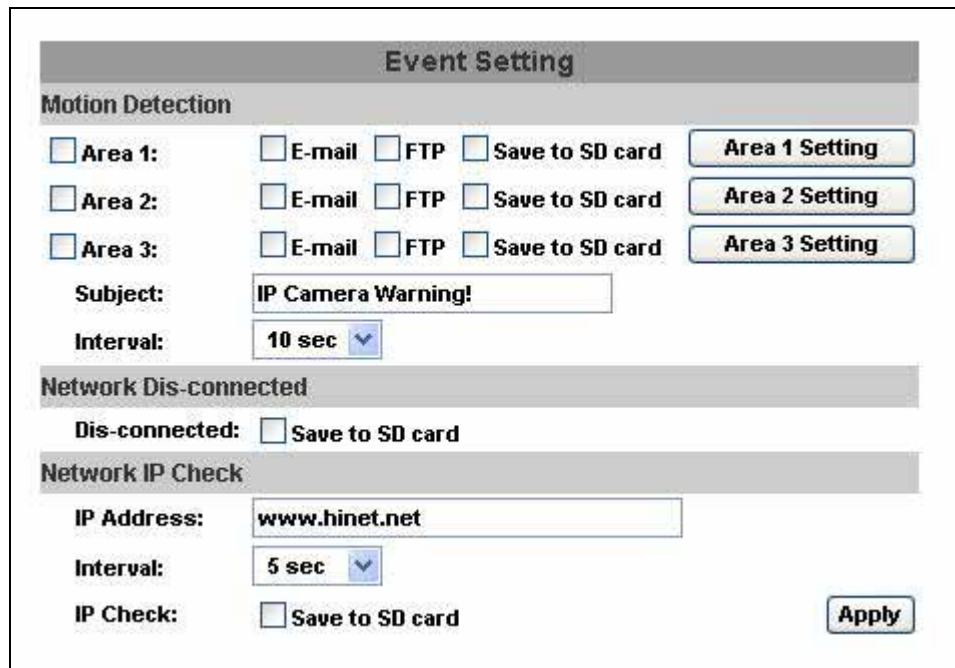


The interface shows a section titled "Audio" with a sub-header "IP Camera to PC". Below this, there are two radio buttons: "Enabled" (which is selected) and "Disabled". To the right of these buttons is an "Apply" button.

D.Event

HLC-83 provides multiple event settings.

- i. Event Setting
 - a. Motion Detection



The interface is titled "Event Setting" and contains three main sections:

- Motion Detection:** This section allows configuring three motion detection areas. Each area (Area 1, Area 2, Area 3) has a checkbox to enable it and three checkboxes for actions: "E-mail", "FTP", and "Save to SD card". To the right of each area's settings is a button labeled "Area 1 Setting", "Area 2 Setting", and "Area 3 Setting" respectively. Below these are a "Subject:" field with the text "IP Camera Warning!" and an "Interval:" dropdown menu set to "10 sec".
- Network Dis-connected:** This section has a "Dis-connected:" label and a checkbox for "Save to SD card".
- Network IP Check:** This section has an "IP Address:" field containing "www.hinet.net", an "Interval:" dropdown menu set to "5 sec", and an "IP Check:" label with a checkbox for "Save to SD card".

An "Apply" button is located at the bottom right of the interface.

HLC-83 allows 3 areas motion detection. When motion is triggered, it can send the video to some specific mail addresses, transmit the video to remote ftp server, and save video to local SD card. To set up the motion area, click "Area Setting". It will pup up a new window. Using mouse to drag the area, then click "OK".



- b. Network Dis-connected

When the network is down, it will save the video to local SD card.

- c. Network IP check

For the use of recording software, HLC-83 supports the detection of this connection. Whenever the connection is down, it records the video to SD card. Make sure the video recording is continuous. To use this function, key in the IP address of the PC which is installed the recording software, enable the function of "Save to SD card", then click "Apply".

- ii、 Mail & FTP

To send out the video via mail of ftp, please set up the configuration first.

Mail & FTP

Mail Setting

Mail Server:

Username:

Password:

Sender's Mail:

Receiver's Mail:

Bcc Mail:

FTP Setting

FTP Server:

Username:

Password:

Port:

21

Path:

/

Apply

iii、SD card

Please Insert SD card before use it. Make sure pushing SD card into the slot completely.



a. Playback:

Playback

19700101

20060417

SD Card: << 878M / 982M >>

1. It will show the capacity of the SD card. Click the date listed on this page. It will show the list of the video.

2006/04/17			Del
Time	Video	Event Type	<input type="checkbox"/>
09:05:22	090522f.avi	Network Dis-connected	<input type="checkbox"/>
09:05:52	090552f.avi	Network Dis-connected	<input type="checkbox"/>
09:06:22	090622f.avi	Network Dis-connected	<input type="checkbox"/>
09:06:52	090652f.avi	Network Dis-connected	<input type="checkbox"/>
09:07:22	090722f.avi	Network Dis-connected	<input type="checkbox"/>
09:07:52	090752f.avi	Network Dis-connected	<input type="checkbox"/>
09:08:22	090822f.avi	Network Dis-connected	<input type="checkbox"/>
09:08:51	090851f.avi	Network Dis-connected	<input type="checkbox"/>
09:09:21	090921f.avi	Network Dis-connected	<input type="checkbox"/>
09:09:51	090951f.avi	Network Dis-connected	<input type="checkbox"/>
1 2 3 4 5			

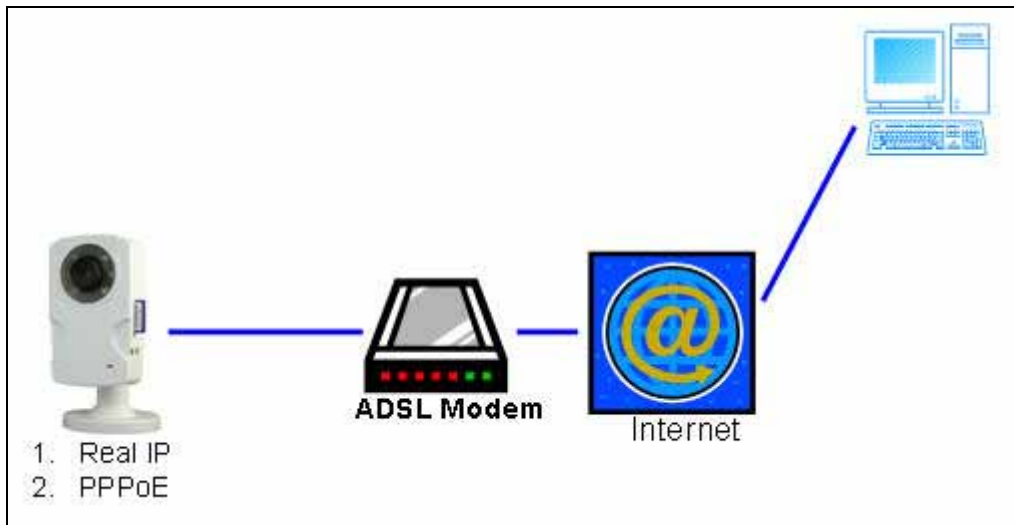
2. The video format is AVI. Click the video to start Microsoft Media Player to play it.
 3. To delete the video, check it, then click **Del**. When the SD card is full, it will remove the oldest video automatically.
- b. Record Setting

Record Setting	
Record Setting	
Pre Alarm:	5 sec <input type="button" value="v"/>
Post Alarm:	5 sec <input type="button" value="v"/>
<input type="button" value="Apply"/>	

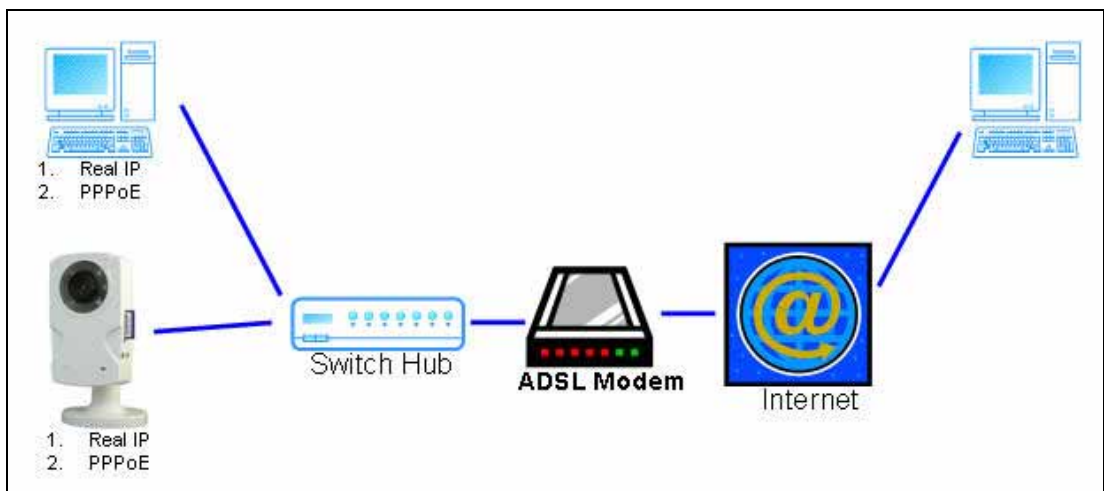
The Pre/ Post Alarm are adjustable in HLC-83.

VI. Network Configuration

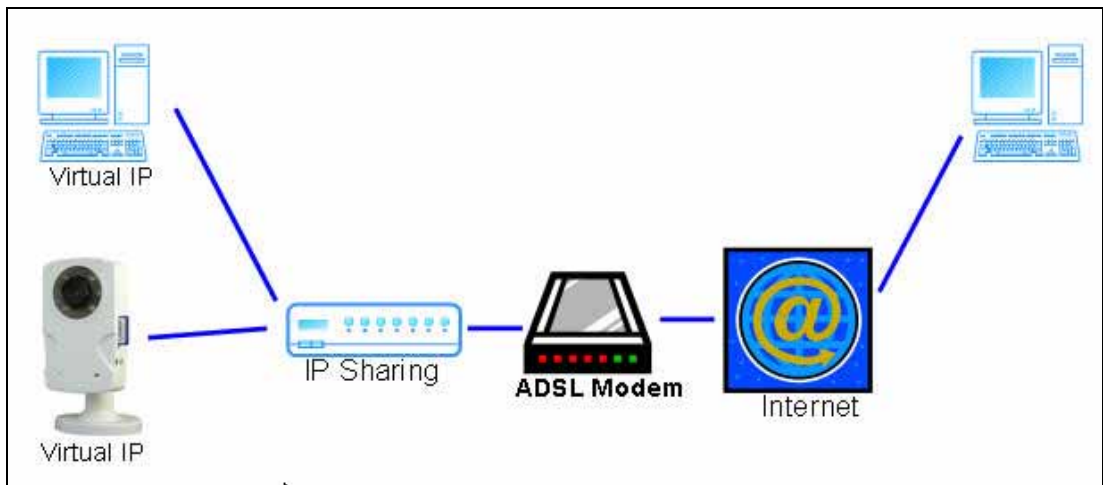
1. Configuration 1:



- A. Internet Access: ADSL or Cable Modem
 - B. IP address: One real IP or one dynamic IP
 - C. Only HLC-83 connects to the internet
 - D. For fixed real IP, set up the IP into HLC-83. For dynamic IP, start PPPoE.
2. Configuration 2:



- A. Internet Access: ADSL or Cable Modem
 - B. IP address: More than one real IP or one dynamic IP
 - C. HLC-83 and PC connect to the internet
 - D. Device needed: Switch Hub
 - E. For fixed real IP, set up the IP into HLC-83 and PC. For dynamic IP, start PPPoE.
3. Configuration 3:



- A. Internet Access: ADSL or Cable Modem
- B. IP address: one real IP or one dynamic IP
- C. HLC-83 and PC connect to the internet
- D. Device needed: IP sharing
- E. Use virtual IP, set up port forwarding in IP sharing.

VII. Package contents

- 1. HLC-83 Network Camera
- 2. Adaptor
- 3. Ethernet Cable
- 4. CD title (User manual, IP installation Utility)