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All specifications are therefore subject to change without notice.

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Inclusion or exclusion is not a judgment on the validity or legal status of the term.

## Warning

To reduce risk of electric shock, do not remove cover. No user service-able parts inside. Refer servicing to qualified service personnel.

**Do not expose this appliance to rain or moisture.**

**Do not install this product in hazardous areas where highly combustible or explosive products are stored or used.**

**Severe impact or vibration may cause malfunction.**

**Do not move this product when VP-500 is working.**

**Position it in an open space with flat surface, and also maintain at least 15 cm between the left and right sides of the body and the wall.**

The lightning flash/arrowhead symbol, within and equilateral triangle, alerts the

user to the presence of a shock hazard within the product's enclosure.

## CE Warning

This is a Class A product, in a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

## FCC Warning

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 undesired operation.



## Important information

Before proceeding, please read and observe all instructions and warnings contained in this manual. Retain this manual with the original bill of sale for future reference and, if necessary, warranty service.

When unpacking your VPON unit, check for missing or damaged items. If any item is missing, or if damage is evident, **DO NOT INSTALL OR OPERATE THIS PRODUCT.** Contact your dealer or us for assistance.

**Table of Content**

**Chapter 1: Introduction**

1.1 Main Features-----2  
 1.2 System Requirements-----2  
 1.3 Quick Installation Procedure -----3  
 1.4 Use VP-500 with xDSL or Cable Modem -----5

**Chapter 2: Getting Start**

2.1 General Description----- 7  
 2.2 UseVP-500 through Intranet----- 8  
 2.3 Use VP-500 through Internet ----- 9  
 2.4 Use VP-500 through TV Out Function----- 10  
 2.5 Physical Description ----- 10  
 2.6 Make the Physical Connection ----- 12  
 2.7 Power on VP-500 ----- 13

**Chapter 3: Use VP-500 under Network Mode**

3.1 First Time Step-by-step Setup----- 14  
 3.2 Browse and view Live Video ----- 16  
 3.3 System Configuration For First-time User----- 22  
     3.3.1 System Information----- 24  
     3.3.2 Camera Setting ----- 24  
     3.3.3 Audio Setting----- 25  
     3.3.4 Set Date and Time ----- 27  
     3.3.5 Further System Configuration----- 27  
     3.3.6 Alarm and Remote Control----- 31  
     3.3.7 Set Names and On-Screen Display ----- 31  
     3.3.8 Set User’s Authority----- 32  
     3.3.9 Set TV Output Configuration-----32  
     3.3.10 Set Record Schedule----- 33  
     3.3.11 Set Motion Detection----- 33  
     3.3.12 Set GPI Trigger Recording ----- 35

3.3.13 Set Pre Alarm -----35  
 3.3.14 Playback -----35  
 3.3.15 Send Mail-----38  
 3.3.16 FTP Upload-----38  
 3.3.17 Back to Home Page -----39  
 3.3.18 View Video Without Plugins-----39  
 3.4 Audio Functions-----39  
 3.5 Remote Camera Control -----40  
     3.5.1 Remote Camera Control Using PTZ Cameras -----40  
     3.5.2 Remote Camera Control Using VP-201 and VP-202 -----41  
     3.5.3 Operation -----42  
 3.6 Recording Video to a File -----44  
 3.7 Using Dial-Up Network Connecting to VP-500-----45  
     3.7.1 Step by Step instructions to utilize Multi-Home function -46

**Chapter 4: Use VP-500 under ISP Mode**

4.1 Getting Start under ISP Mode-----49  
     4.1.1 Modem Installation-----49  
     4.1.2 System Configuration-----54  
     4.1.3 View Live Video via the Browser -----55  
 4.2 Browse and View the Video -----56

**Chapter 5: Use VP-500 Via TV Out Function**

5.1 Wireless Controller -----57  
 5.2 How to operate VP-500 via IR wireless Controller-----59  
     5.2.1 Using the Menu-----61  
 5.3 Main Menu -----62  
     5.3.1 System Setup-----62  
         5.3.1.1 Password Protect-----62  
         5.3.1.2 Video Parameters Setting -----63  
         5.3.1.3 TV Output Setting -----64

5.3.1.4	GPIO Setting-----	65
5.3.1.5	PTZ Setup-----	66
5.3.1.6	TCP/IP Setting-----	67
5.3.1.7	Account Setting -----	67
5.3.1.8	Audio Setting -----	69
5.3.1.9	COM Ports Setting-----	69
5.3.1.10	System Information -----	70
5.3.1.11	Date/Time Setting -----	70
5.3.1.12	ISP Setting -----	71
5.3.1.13	Registry Server Setting-----	71
5.3.1.14	Running Setting -----	71
5.3.1.15	Reboot System-----	72
5.3.2	Record Setup -----	72
5.3.2.1	Record Schedule -----	72
5.3.1.2	Motion Detection-----	73
5.3.1.3	GPI Trigger -----	73
5.3.1.4	Pre-Alarm Function Setting-----	73
5.3.3	Playback-----	74

<b>Appendix A:</b>	<b>LCD Messages -----</b>	<b>I</b>
<b>Appendix B:</b>	<b>WCOMW Usage -----</b>	<b>III</b>
<b>Appendix C:</b>	<b>Guide to revise firmware of VP-500-----</b>	<b>V</b>
<b>Appendix D:</b>	<b>Troubleshooting -----</b>	<b>XII</b>

## Chapter 1: Introduction

VP-500 is a high performance Video Server built-in as a mini web server with real-time video capturing capability. The video is grabbed and compressed for faster transmission to your PC through 100Mbps Ethernet, and the images also can transmission through TV output in local. Besides, VP-500 supports digital recording function. It can record/playback/browse video images simultaneously at least for 168 hours and saves video data by cycle recording avoid disk space shortage issue.

It supports full motion live video footage with its corresponding audio through the Internet, Intranet connection. Up to four video cameras can be hooked up to this 19" rack mountable unit to deliver real-time full-motion Audio/Video transmission to anywhere in the world through a desktop PC, workstation, or laptop. All that is needed is an Internet browser and our proprietary plug-ins software. This system also allows users to record digital video footage continuously onto their computer hard drive. Attached video cameras can be remotely controlled to swivel and zoom in and out, and the unit can be triggered to initiate certain events through our specialized call-back feature by utilizing another Web-Based software NetRecorder. The VP-500 is a completely Plug & Play device to getting up and running as soon as possible without the need for ongoing maintenance or custom hardware/software configurations.

A sample configuration is shown below.

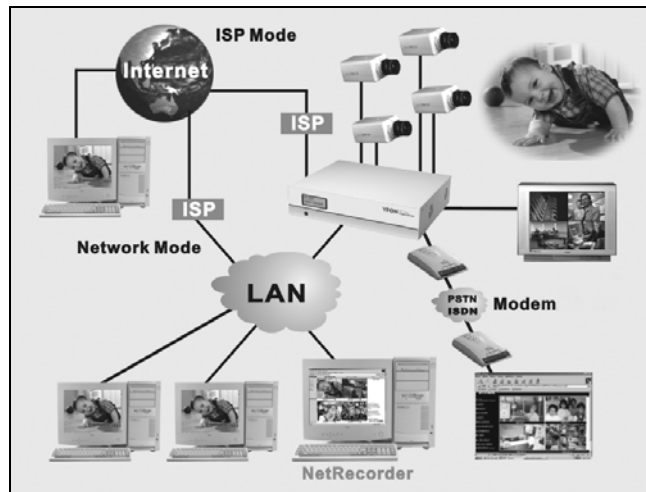


Figure1.1.1 Simple VP-500 Network Configuration

The installation is easy: All you have to do is to plug the power and assign VP-500 an IP address for Internet connection. Then, you can view the video through your browser, Internet Explorer or Navigator, at any time, anywhere in the world. Quick installation procedure is described in section 1.3.

It is perfect for factory/office monitoring, ATM surveillance, children care, security system, tourism, sales presentation and more...

VP-500 is the new era of the network video transmission. It makes you see whatever you want easily!

### 1.1 Main Features

- Build-in channel switching (QUAD) function for local CCTV monitoring.
- Built-in Web Server, video is grabbed, compressed and stored on built-in Hard Disk or transmitted to remote PC via Internet or Intranet.
- Recording/playback/browsing video images simultaneously.
- Continuous recording/saving video data at least for 168 hours.
- Saving video data by cycle recording avoid disk space shortage issue.
- Support motion detection, event trigger recording, schedule recording.
- Support Pre-Alarm function.
- Query recording data by data, time, triggered events via IR remote controller or home page.
- Support replay recorded video on local TV/VGA monitor or remote PC.
- Support smart recording, up to 200:1 compression ratio.
- Easy system configuration via IR remote control, HTTP Home Page or RS-232.
- Uses standard web browser as client application.
- Built-in general purpose I/O for alarm and control.
- Support HTML file upload to FLASH ROM for home page customization.
- Support FTP Server download for customization.
- Industrial 19" 2U Rack Mount or desktop.

### 1.2 System Requirements

- Composite CCD camera, V8 or camcorder... (NTSC or PAL standard)
- The equipment for connecting to network:
  1. Network mode: RJ-45 Ethernet network port connected to Internet and a static Internet IP
  2. ISP Mode: Modem for users to connect to ISP provider.

3. Others: RS-232 Port and a serial cable connected to host PC.  
PC for the configuration / browsing
  1. Pentium336 PC or higher, desktop or notebook
  2. 64MRAM or higher
  3. PCI VGA Card
  4. Microsoft Windows 95/98
  5. Internet Browser (such as Microsoft Internet Explorer 4.0 or higher)

## 1.3 Quick Installation Procedure

Follow the instructions included in this section to install VP-500 into your networking environment. Each phase of the documented installation procedure is summarized as below:

- I. Connecting VP-500 Video Server via TV Output
- II. Connecting VP-500 Video Server via Internet or Intranet
- III. Configuring VP-500 Video Server

### I. Connecting VP-500 Video Server via TV Output

Beside using VP-500 under Network Mode and ISP Mode, users can also operate VP-500 via IR wireless controller and the video images will be displayed on TV set or VGA monitor screen. When users operate VP-500 via IR wireless controller, they have to connect their VP-500 as the following instructions:

#### 1. Connect the video camera(s) to VP-500 Video Server.

Connect the video output of your camera(s) to VP-500 Video Server port(s) using standard 75 ohm coaxial video cable, terminated with a BNC-connector .

#### 2. Connect the power supply to VP-500 Video Server.

Now you will see LCD be lighted. After hearing one short beep sound, VP-500 will start to boot. It takes around 30 seconds. During this period, LCD will keep lighting. When you hear a long beep sound, and “READY” LCD message is displayed, it means VP-500 is ready.

#### 3 Connect the TV set or VGA monitor to VP-500 Video Server.

Before operating VP-500 via IR wireless controller, please make sure that VP-500 has connected to the TV set or VGA monitor via TV Out connector or VGA Out connector.

## II. Connecting VP-500 Video Server via Internet or Intranet

A. To get your VP-500 Video Server up and running on an Ethernet network, follow these instructions:

### 1. Connect the video camera(s), microphone, and speaker to VP-500 Video Server.

- a. Connect the video output of your camera(s) to VP-500 Video Server port(s) using standard 75 ohm coaxial video cable, terminated with a BNC-connector .
- b. Connect the microphone to **Line In port** and connect the speaker to **Speaker port** of VP-500 Video Server.

### 2. Connect the power supply to VP-500 Video Server.

Now you will see LCD be lighted. After hearing one short beep sound, VP-500 will start to boot. It takes around 30 seconds. During this period, LCD will keep lighting. When you hear a long beep sound, and “READY” LCD message is displayed, it means VP-500 is ready.

### 3. Assign a static or dynamic IP address for VP-500 Video Server

Before operating VP-500 under Network Mode, users must make sure that the system administrator has assigned a usable IP address for VP-500, whether the IP address is static or dynamic.

**Note:** When the IP address of VP-500 is dynamic, user should set these parameters for VP-500 to register itself to a registry server, please refer to Chapter3.3.5 to register the IP address of VP-500.

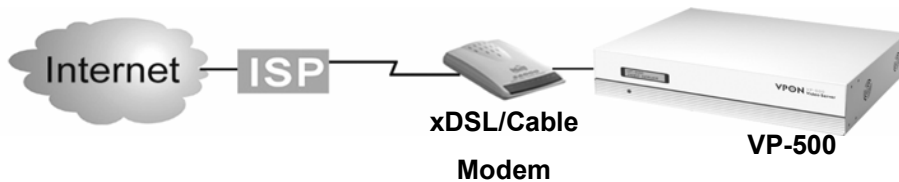
## III. Configuring VP-500 Video Server

Now, VP-500 has completed the startup procedure and is ready. Before you can access it, you have to configure the IP address of VP-500 under Network Mode. And connect VP-500 “TV Out” to “Video In” of TV set for viewing from TV set. Then users can view the live image via web browsers or operate VP-500 via IR wireless controller.

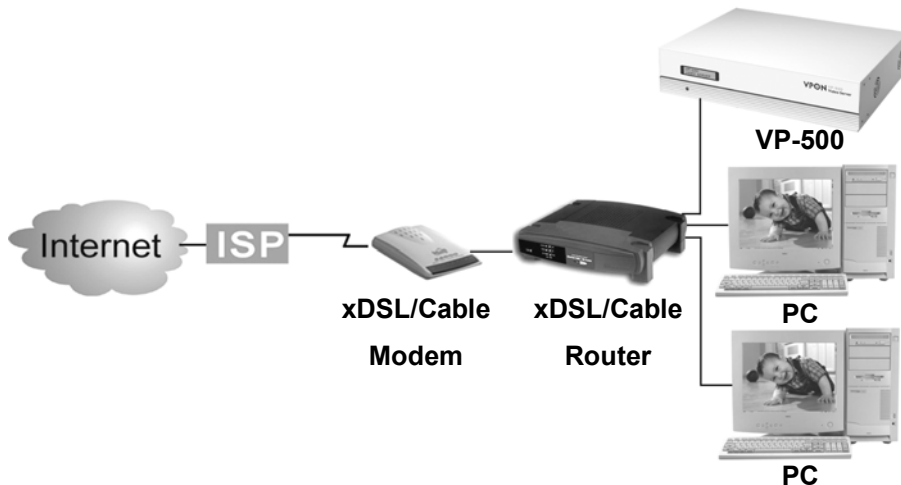
## 1.4 Use VP-500 with xDSL or Cable Modem

Users can connect VP-500 to an xDSL or Cable Modem via an ethernet cable to the RJ-45 port of VP-500 as they will do to their PC. Since VP-500 does not support PPPoE, users have to check out if their xDSL/Cable Modem running PPPoE.

For xDSL or Cable Modem not running PPPoE, users are free to connect VP-500 with xDSL/Cable Modem directly without any other device. If a static public IP is assigned to the xDSL/Cable Modem account, just assign this IP to VP-500 as the following figure.



But if the IP is dynamic, i.e. it is different for each time you dial up, set the IP to be **255.255.255.253**. This will make VP-500 request an IP from DHCP server every time it is turned on as the following figure. And since this IP is dynamic, users have to setup the registry server parameters for register the current IP to registry server. Users then can find their VP-500 on the registry server. Please reference chapter 3.3.5 for instructions.



For xDSL or Cable Modem running PPPoE, since VP-500 does not support PPPoE, an external device is required. The most common device is a Cable/xDSL router with built-in NAT function that supports PPPoE.

1. IP sharing hub has two portions. Configure WAN portion in PPPoE to connect with xDSL Modem. **Connect Cable/xDSL to the WAN port of the router and connect VP-500 to its LAN port.**

**Note:** A 10/100 Mbps LAN port is required for connecting VP-500. Most Cable/xDSL routers support DHCP for sharing the public IP to multiple devices attached to it.

Since most of the DHCP of Cable/xDSL router will not always assign the same IP to the same device, a static private IP must be reserved for VP-500.

2. Re-configure the range of private IP address of DHCP function to avoid VP-500's reserved private, then set this reserved private IP to VP-500. But assign VPON a static private IP and change TCP/IP port of VPON to some value other than 80 (for example 8000)
3. Set the IP Forwarding function to forward the IP that requests standard HTTP port 80 to the reserved IP address. Client PC will have to visit <http://202.145.220.168/registry.htm> to find VPON registry and then access real IP from there.

This will make router forward HTTP requests to VP-500. Configure the standard FTP port 21 mapping to VP-500 also if there is a need to remote access the FTP function of VP-500.

**Note:** Customer can set up their own registry server by visiting the "usyscfg.htm" page to enable this function within a VP-500. Under this situation, the registry server IP address is customer's own public IP of that VP-500.

- End of this chapter -

## Chapter 2: Getting Start

### 2.1 General Description

VP-500 is a plug and play video server and digital video recorder designed for the security industry. It is a stand-alone device and ready to work after power on. It can display and record video data simultaneously, and continuous record data for at least 168 hours.

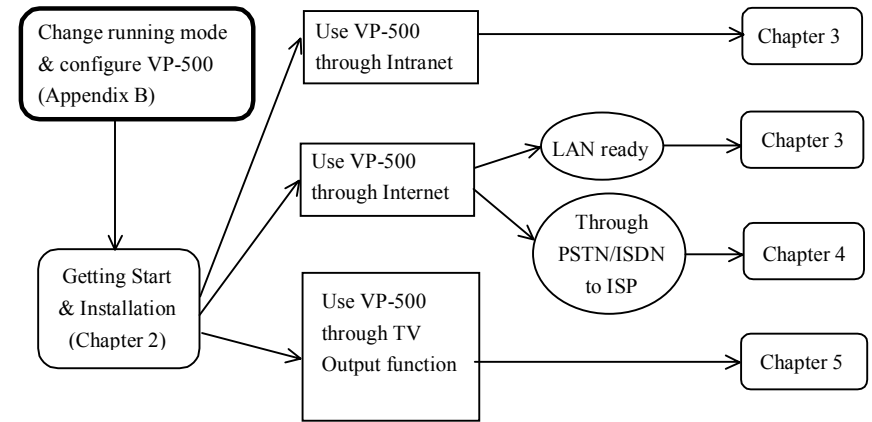
There are two ways for users to view the live images via VP-500, the first one is under network and the second one is via TV output function. To get VP-500 up and running, you have to set the IP of VP-500 under Network Mode or set TV connection under TV Output function. For network access and configuration, the minimum PC system requirement is described in section 1.2.

Under Network Mode, VP-500 connects to a local area network or a network device by an Ethernet cable via the RJ-45 port of VP-500. VP-500 can transmit video/audio data through Internet, and Intranet, and users will view the live images though general browsers.

Under TV output function, connect VP-500 “TV Out” to “Video In” of the TV set. And users can configure VP-500 via wireless controller, and then VP-500 will running and play/record video data at the same time.

To get the best performance, we suggest you reading the following sections to install VP-500, and follow the correct way as shown in Figure 2.0 to use VP-500.

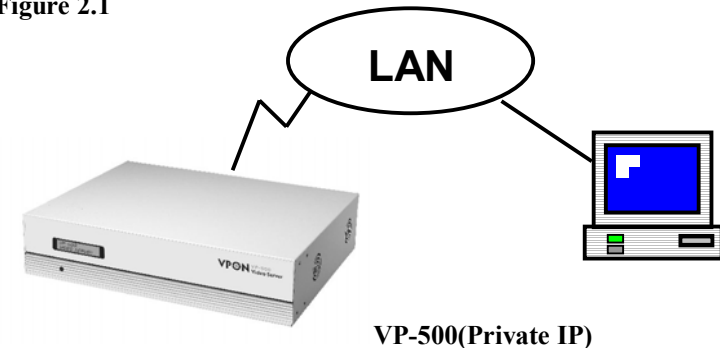
Figure 2.0



### 2.2 Use VP-500 through Intranet

First, make sure that you can assign a private IP to VP-500. Then, read Chapter 3 for a step-by-step setup procedure for installation and usage of VP-500. (Figure 2.1)

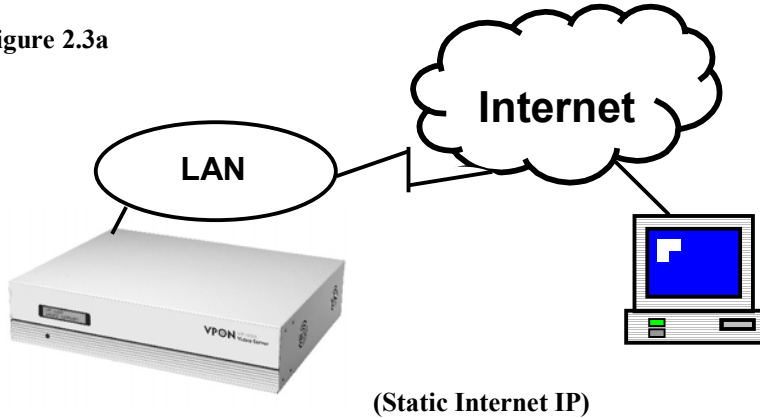
Figure 2.1



## 2.3 Use VP-500 through Internet

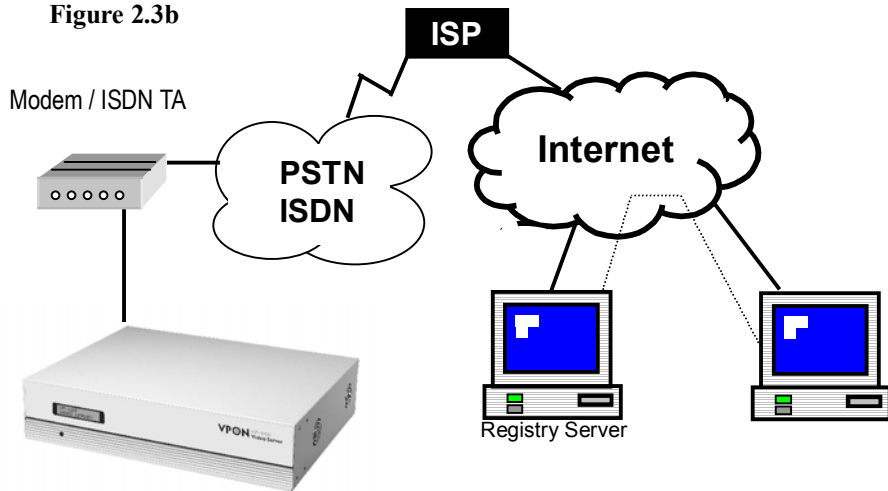
1. If your environment is LAN ready and it is connected to Internet directly (Figure 2.3a). Assign a static public Internet IP to VP-500. Then read Chapter 3 for a step-by-step setup procedure for the usage of VP-500.

Figure 2.3a



2. If you want to connect VP-500 directly to Internet through PSTN/ISDN to ISP (Internet Service Provider) (Figure 2.3b). A public static IP is required. If the IP is dynamic, you have to set parameters for registry server.

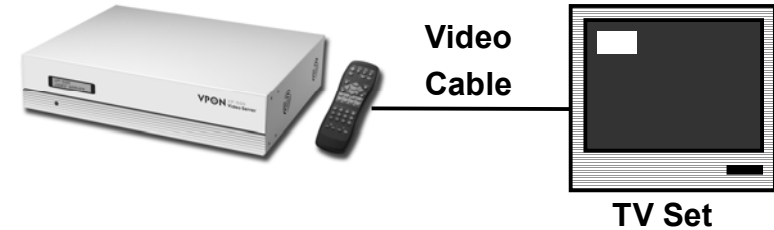
Figure 2.3b



## 2.4 Use VP-500 through TV Out function

Not only via Network, users can also use VP-500 through TV Out function, it supports users to connect video cable to TV set directly, and users can operate VP-500 via IR wireless controller and the video will be displayed on TV screen. (Figure 2.4)

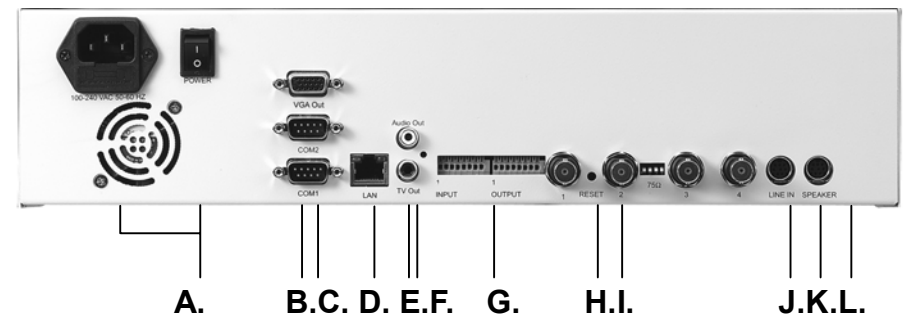
Figure 2.4



## 2.5 Physical Description

Read the following information to be familiar with VP-500, making particular note of where the connectors and indicators are located. This information provides a useful reference during the installation of the product into your networking environment.

### The Rear Panel





## A. Power supply connector and Power switch

The power supply and power switch are in the left side on the rear panel of the unit. Press "I" to turn on the unit, press "O" to shut down the unit

## B. RS-232 serial Port (COM1 and COM2)

Two 9-pin D-sub connectors provide RS-232 serial connection. RS-232 serial ports are next to the power switch. COM1 and COM2 Ports are for configuration or for modem/ISDN TA.

## C. VGA Out connector

VGA Out connector is located upper RS-232 COM1 and COM2 for composite video output to VGA Monitor.

## D. Network connector

Network connector is located between RS-232 serial Ports and Audio-output connector. RJ-45 connector for 100base T Fast Ethernet networks

## E. Audio Output connector

Audio-output connector provides audio data output to the speaker.

## F. TV Output connector

TV-output connector is located under the Audio-output connector for composite video output to TV set.

## G. GPI/O block

GPI/O block is located between video-input connector and TV-out connector. General purpose input and output block provides 4 Remote control in/out points, Photo-couple Digital Input, and 24V/200mA Relay Output.

## H. Reset button

The Reset button is located between the first and the second video input connectors. It provides the reset function to default values.

## I. Video input

VP-500 allows a single video source to be connected via the Video input connector; VP-500 accommodates up to 4 separate video sources.

## J. Line In connector

Line In connector is next to Speaker connector, it provides the function to input audio data via a microphone.

## K. Speaker connector

Speaker connector is located in the right side on the rear panel of the unit. It provides audio output via speaker.

## L. Serial Number

The serial number is in the bottom of unit.

## 2.6 Make the Physical Connection

Before you can make the VP-500 to work, you shall make the following physical connection.

- **Power Supply** (there is a power cord comes with VP-500)
  - 90-264VAC,47-63HZ
- **Video Input** (there are 4 BNC to RCA connectors come with VP-500)
  - Support NTSC/PAL composite video
  - 4 BNC video input connectors
  - Built-in 75 ohm terminator switch
- **TV/Monitor output**
  - Support NTSC/PAL video output
  - One RCA composite Video output
  - One RCA for Audio output
- **GPI/O** (The bare wire shall longer than 12mm)
  - Wire Range:20-26 AWG
  - 4 Remote control in/out points
  - Photo-couple Digital Input
  - 24V/200mA Relay Output
- **Audio Input/Output** (There are 1 one-miniDIN-to-4-RCA cable for audio input and one-miniDIN-to-4-PhoneJack cable for audio output come with VP-500)
  - 4 Audio input/out
  - Speaker output
  - Line-In Input signal

- **Others**
  - One RS-232 serial port
  - One RS-232/422/485 serial port
  - One 100BaseT Ethernet port

## 2.7 Power On VP-500

Before power on VP-500, you should check the followings:

- 2.7.1 Apply correct AC voltage to the external power supply. The AC power input range is 100-240 volts, 50-60 Hz.
- 2.7.2 Connect the appropriate video inputs to the unit. Depends on the composite video standard used at your local area, VP-500 automatically detects NTSC/PAL video when power up. If you did not apply video signals when power up, it will set to default value which is NTSC standard. That will cause VP-500 failed to import video.
- 2.7.3 After power up successfully and get correct messages on LCD, you can refer to Chapter 3, 4 and 5 for further operations.

- End of this chapter -

## Chapter 3: Use VP-500 Under Network Mode

### 3.1 First Time Step-by-step Setup

The default settings of VP-500 at Network Mode are as following.  
 For first time startup, VP-500 is set to default value when it is delivered from factory. The default settings of VP-500 are as follows.

User's Name	WEBMONITOR
User's Password	OYO
Administrator's Name	WEBMONITOR
Administrator's Password	OYO
Custom Modem Init String (COM1)	Nil
COM1 Baud Rate (bps):	115200
COM2 Baud Rate (bps):	9600
COM2 Hardware Flow Control	Enable
Video Encoding Algorithm	H.263
Set Video Resolution	320x240
Camera Control Device	Nil
Enable Video Zoom In/Out	Enable
Camera source	1 (1,2,3,4)
Brightness	50
Contrast	70
Saturation	95
Hue	50
Quality	70
Gain Control	Un-checked
Gain	50
Automatic	Un-checked
Mirror Horizontally	Unchecked
Mirror Vertically	Unchecked
MAX connections for this camera	0
MAX bandwidth for this camera (Bytes/sec)	0
MAX bandwidth of each connection for this camera (Bytes/sec)	0

Audio Source	1
Microphone Gain	50
Speaker Volume	50
Microphone Control Timeout	0
Speaker Control Timeout	60
IP address	192.168.10.10
Gateway IP address	0.0.0.0
Subnet mask	255.255.255.0
Motion Detection	Enable
TV Output	Enable
GPI Trigger	Disable
Pre-Alarm frames	0

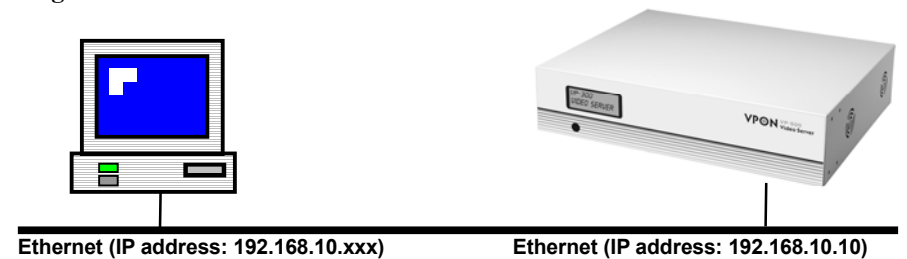
Please follow the instructions step by step for quick getting start.

1. Plug one end of power cord to “**AC Inlet**” on back panel of VP-500 and the other end to an AC wall outlet (100V-240V)
2. Connect video sources (Camera) to “**VIDEO INPUT**” by video cable. You can connect up to 4 video sources. There are 4 BNC to RCA connector come with VP-500 for your convenience.

**Note:** VP-500 can auto-sense the presence and the standard of video sources (NTSC or PAL). But be sure that all video sources are the same standard.

3. Make sure the network cable (RJ45) connect to the socket marked “**LAN**” on the back panel of VP-500 and the other end to the hub of this local area network. (Figure 3.1.1)

**Figure 3.1.1**



4. For first time start up please refer to section 2.8.3 of Power On VP-500 at Chapter 2.

5. Power on cameras first then power on VP-500. You will see LCD be lighted. After hearing one short beep sound, VP-500 will start to boot. It takes around 30 seconds. During this period, LCD will keep lighting. You may see the “INITIALIZING...” and “WEB/FTP SERVER OK” message on the LCD. When you hear a long beep sound, and “READY” message is displayed, it means the VP-500 is ready.

6. When VP-500 is ready. The backlight of LCD will be OFF. You may see the following messages on the LCD.

- “LAN/H263/NTSC”  
STATUS: Display the current information of running mode / code algorithm / video standard
- “FW3.04/HW1.0+DB”  
STATUS: Display the version and information of firmware and hardware, +DB means daughter board is installed.
- “REQUEST: 4”  
STATUS: Display the total HTTP request being serviced.
- “FPS: 30”  
STATUS: Display the current total video frame rate.
- “MIC: 3 SPK: 0”  
STATUS: Display the current occupied microphone and speaker.

7. Now, VP-500 has completed the startup procedure and is ready.

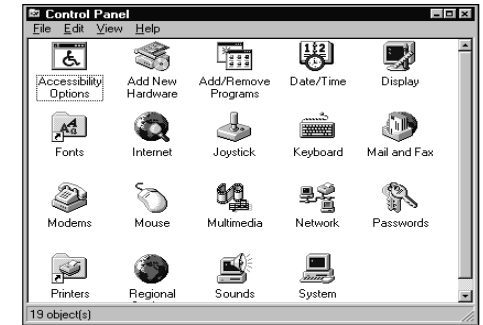
Please see the following section to browse and view the live video.

### 3.2 Browse and View Live Video

The default running mode of VP-500 is Network Mode and the default IP address of VP-500 is 192.168.10.10. If you need to use VP-500 under Network mode, your VP-500 and PC must be in the same LAN. There are two ways to solve this problem. The first one is to change the IP address of your VP-500 and the second one is to change the IP address of the host PC. To use the second method, follow Step 1 to Step 4 preparing to connect to VP-500.

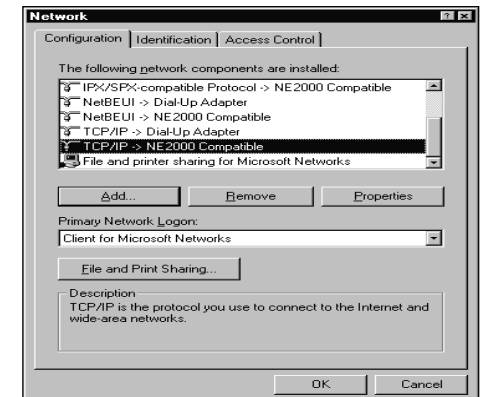
1. To browse VP-500 under the default Network Mode, go to “Network” on “Control Panel” of the host PC.

Figure 3.2.1



2. Choose “TCP/IP” and go to “Properties”

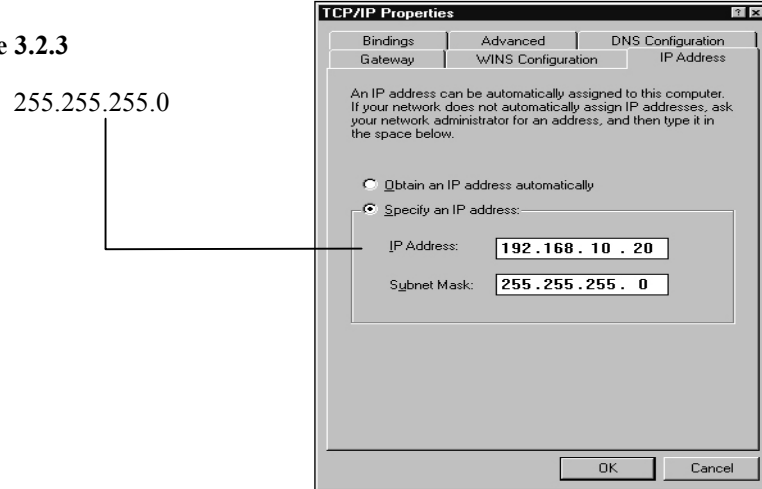
Figure 3.2.2



3. Change IP address of the host PC to: **192.168.10.20**

4. Change Subnet Mask of the host PC to:

Figure 3.2.3



**Note:** Remember the original IP address and Subnet Mask. When the configuration of VP-500 is finished, you need to reset the host PC to these original values.

And reboot the host PC.

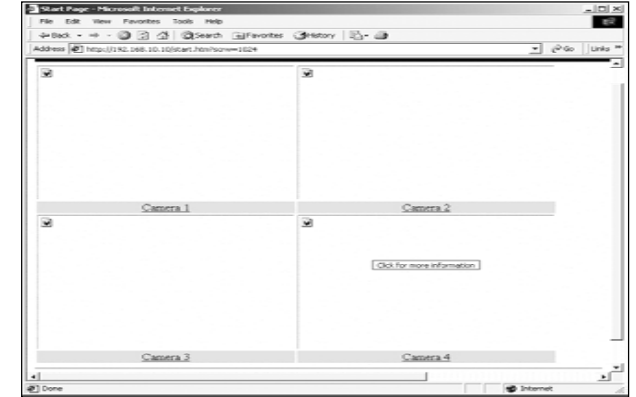
Run a web browser and connect to <http://192.168.10.10> (If you have changed the IP address of VP-500, it shall be the new IP address). When it is connected, you will see a login dialog-box. Enter the default Administrator's name "webmonitor" and Administrator's password "oyo". Click "OK" button. Then you will see the home page of VP-500.

Figure 3.2.4



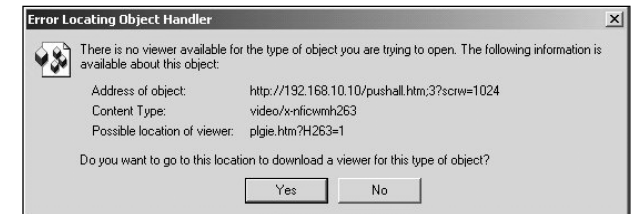
6. In case you didn't install Plug-ins program that comes with a diskette in VP-500 package. You will see the screen as follows.

Figure 3.2.5



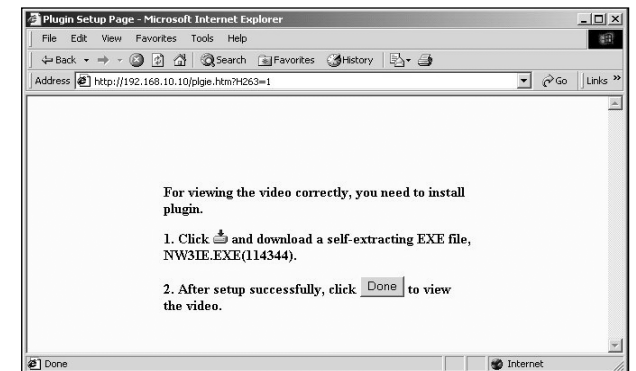
7. Click on any one of four video window areas. You will see a dialog popup.

Figure 3.2.6



8. Click 'Yes' to download plug-in program from VP-500 then you will see the following screen.

Figure 3.2.7




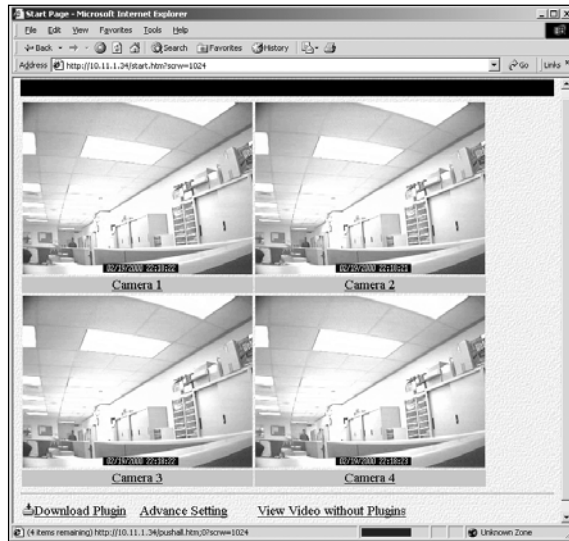
9. Click  to start downloading plug-in and install it. After finishing the jobs, you shall see the following screen.

Figure 3.2.8



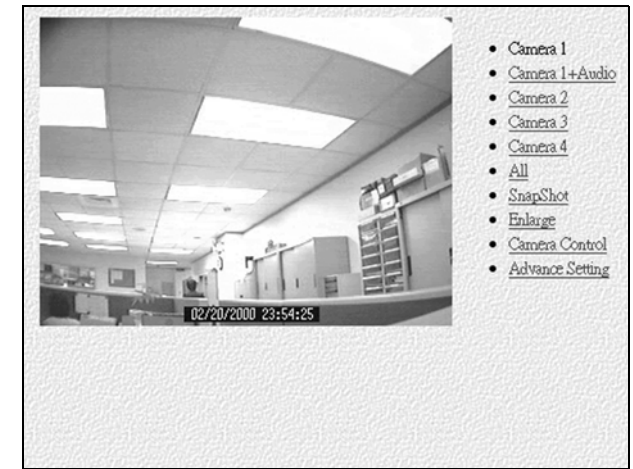
Instead of installing plug-in program in your PC. You can click **“View Video Without Plugins”** on the left side of home page, and you will view the live video by using Java applet. Liveview Java applet utilize JPEG image snapshot from VP-500.

Figure 3.2.9



10. Click ‘Camera 1’ link to switch to the signal camera view screen

Figure 3.2.10



11. On the right side of the page, you can see some links

To view camera 1	→	• <a href="#">Camera 1</a>
To view camera 1 with audio I/O	→	• <a href="#">Camera 1+Audio</a>
To view camera 2	→	• <a href="#">Camera 2</a>
To view camera 3	→	• <a href="#">Camera 3</a>
To view camera 4	→	• <a href="#">Camera 4</a>
To view all cameras	→	• <a href="#">All</a>
Take a image snapshot from this camera	→	• <a href="#">SnapShot</a>
Enlarge the video window	→	• <a href="#">Enlarge</a>
Do the Advance Setting	→	• <a href="#">Advance Setting</a>

12. Please see the following sections for advance configuration.

### 3.3 System Configuration For First-time User

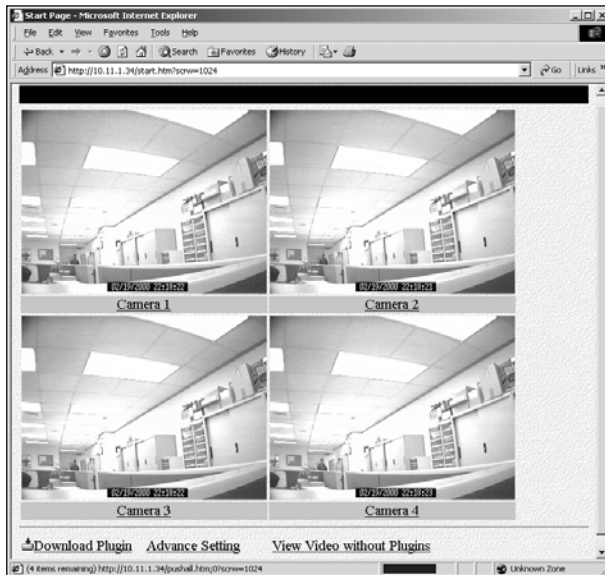
1. Run a web browser and connect to <http://192.168.10.10>. (If you have changed the IP address of VP-500, it shall be the new IP address). When it is connected, you will see a login homepage. Enter the default Administrator’s name “**webmonitor**” and Administrator’s password “**oyo**”. Click the “**OK**” button.

Figure 3.3.1



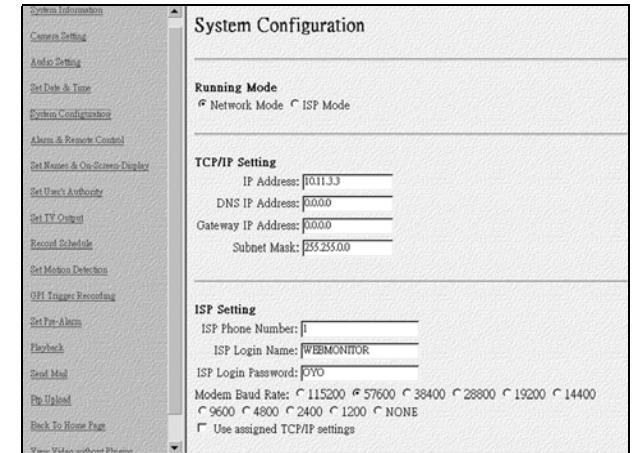
2. Then you will see the home page of VP-500. (You can also see live video when cameras are connected to VP-500.)

Figure 3.3.2



3. Scroll down the above page. On the bottom of this page, Click “**Advance Setting**” then you will see a brand new web page. On the left side of this web page, choose “**System Configuration**” to do the configuration.
4. Input IP Address, Gateway IP Address and Subnet Mask in ‘**TCP/IP Setting**’ segment.

Figure 3.3.4



5. You may change account name and the password. In “**Account Setting**” segment, input User Name, User Password, Administrator’s Name and Administrator’s Password.

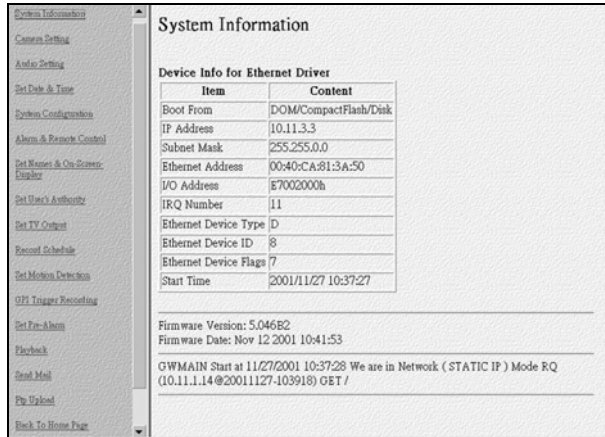
**Note1:** VP-500 provides two layers protection. You can limit users with User Name and Password to login VP-500. To set the configuration of VP-500, you must have Administrator’s Name and Administrator’s Password.

**Note2:** Keep the password carefully and remember it. Once you forget the password, you can reset VP-500. The user name and password will be reset to the default values. It also means you have to set the configuration again.

Remember to change the IP address of your PC to make sure that VP-500 and your PC are on the same network.

### 3.3.1 System Information

Figure 3.3.1-1



Just show some information inside VP-500.

### 3.3.2 Camera Setting

1. On the left side of home page, click “Camera Setting” and you will have a page to set camera.
2. Choose a certain camera to set the video via camera setting interface.

**Note:** 1. You can choose a camera to set the video. Only when users set “Quality”, the parameters will affect all video sources. In the other cases, after the video is set, the parameters are applied to the certain camera. The setting values for the other video sources won’t be affected.

2. Choose one global brightness value carefully among cameras attached, then set Gain values for each camera individually.

3. You can set Brightness, Contrast, Saturation, Hue and Quality.
  - Brightness: Higher value, brighter of the video
  - Contrast: Higher value, stronger contrast
  - Saturation: Higher value, more color saturation
  - Hue: Higher value, higher hue

- Quality: Higher value, better video quality

**Note:** With a higher value of quality, it also means a heavier data transmission.

#### 4. Further Camera setting

- Video Source: Select the Video Source to do the setting. The live video from camera will appear on the left side.
- Brightness, Contrast, Saturation, Hue and Quality: You can set Brightness, Contrast, Saturation, Hue and Quality here. **These parameters are applied to all video sources. To adjust brightness of each camera, use “Gain Control” as described in the following.**
- Gain Control: Check the gain control option will cause VP-300 to do the GAIN effective in the selected video source.
- Gain: Select the value of GAIN. The GAIN ranged from 0 to 100.
- Automatic: Check the automatic option will cause VP-300 to keep the GAIN effective as specified no matter day or night, light or dark. **To check automatic option will force VP-300 to check Gain Control option automatically.**
- Mirror Horizontally: Check this option to mirror the selected video source left and right.
- Mirror Vertically: Check this option to rotate the selected video source up and down.
- Max connections for this camera: Limit the maximum connections allowed to access this camera.
- Max bandwidth for this camera (Bytes/sec): Limit the maximum bandwidth in Bytes/second allocated to access this camera.
- Max bandwidth of each connection for this camera (Bytes/sec): Limit the maximum bandwidth allocated to each connection of this camera.

Click the “Done” button to make the new settings take effect.

**Note:** VP-300 will not save this setting if you didn’t click “Write To FlashROM!”.

### 3.3.3 Audio Setting

On the left side of home page, click “Audio Setting” and choose a certain audio source to set the parameters. You can set following parameter:



### 3-1 Audio Source:

Select an audio input and output source to set parameters

### 3-2 Microphone Gain

Set the value of GAIN for Microphone of Audio input in VP-500.

### 3-3 Speaker Volume

Set the value of GAIN for Speaker of Audio output in VP-500.

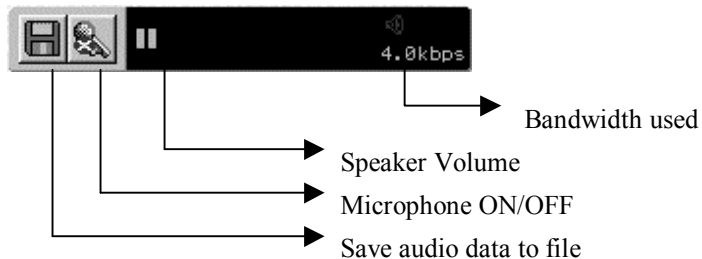
### 3-4 Microphone Control Timeout

At a given time, there is only a user can control the operation of Microphone connected to VP-500. Once users get the control right, they can select the source (1,2,3,4) to control but only one source can be controlled at any time. This timeout value is the maximum period in seconds that user can own the right without any bother. In this period, nobody can rob the control right except the administrator. Once timeout, anybody can ask to gain the control right of Microphone excluding the original owner.

### 3-5 Speaker Control Timeout

At a given time, there is only one user can control the operation of Speaker connected to VP-500. The rule of timeout and grant of control right is the same as the one of Microphone Control described above.

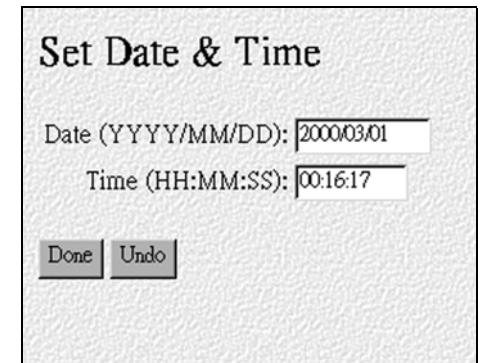
The Audio operation interface:



## 3.3.4 Set Date and Time

1. On the left side of home page, choose “**Set Date & Time**”.
2. Follow the format to enter the date and the time.
3. Click the “**Done**” button and go back to the home page of VP-500. VP-500 will save these parameters as the system date and time. (Figure 3.3.4-1)

Figure 3.3.4-1



## 3.3.5 Further system configuration

1. Running Mode  
Select one of the two modes to run. There are Network mode and ISP mode.
2. TCP/IP setting:  
For Network mode, you need to fill in all of the TCP/IP setting. To gain IP address from a DHCP or BOOTP server, you can assign the IP address of VP-500 to be 255.255.255.253(DHCP) or 255.255.255.255(BOOTP). Since the IP gained through these two methods is dynamic, see 3 and 8 for further information about registering dynamic IP to a registry server.

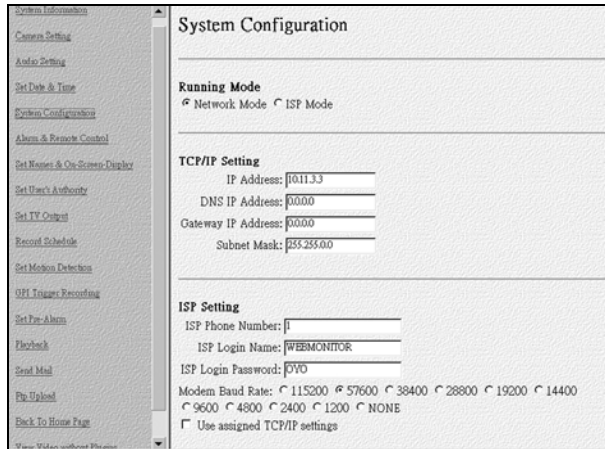
- Note:** 1. If users assign a static IP address for VP-500, users just need to fill in all the TCP/IP setting following the item.  
 2. For a DHCP server, if users need to gain IP address, users can assign the IP address of VP-500 to be **255.255.255.253**. For a BOOTP server, if users need to gain IP address, users can assign the IP address of VP-500 to be **255.255.255.255**.  
 3. For users with ADSL/Cable Modem, please refer to the chapter “**Users with ADSL/Cable Modem**” and follow the instructions to install VP-500.

3. ISP Setting

For ISP mode, you need to fill in all of the ISP setting. If you check ‘Use assigned TCP/IP settings’ then VP-500 will use the above TCP/IP setting as Internet network setting. If it’s not checked, VP-500 will negotiate the network settings with ISP automatically. If the IP assigned to VP-500 is a static IP, you can visit VP-300 by this IP directly. If it’s dynamic IP, VP-500 provides a way to register itself to a registry server. User can visit this registry server and find the IP of VP-500.

Figure 3.3.5-1

Running Mode, TCP/IP setting, and ISP Setting



4. Account Setting:

Set the user’s and administrator’s name and password. To keep the name field empty will cause VP-500 skip checking the authority. **The ‘Set User’s Authority’ Page only takes effective when the user’s name and password are not empty in this page.**

5. COM Port Setting

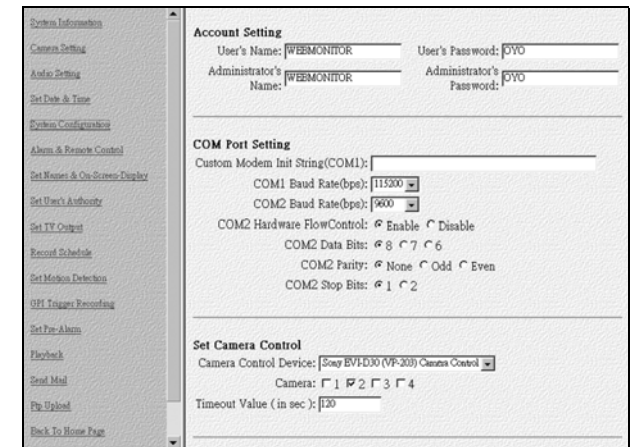
Set the Modem baud rate and initial string. If the initial string is kept empty, VP-500 will use default initial string to send to Modem. In most cases, the default initial string will work well.

**Note:** If the device types of controllable camera are controlled by RS-485 or RS422 cable, users must disable 「COM2 hardware flow control」 in COM Port Setting.

6. Set Camera Control

Select the device type of controllable cameras. There are VP-202, VP-203, Cannon VCC3/VCC4, Li-lin PIH-717X and Acqutek DOM 1200A and Pelco D type camera. You shall check which camera number that device hooked to (from 1 to 6) and the timeout of exclusive control right. At a given time, there is only a user can control the camera connected to VP-500. This time-out value is the maximum period in seconds the user can own the right without any bother. In this period, nobody can rob the control right from that one had own the right except the administrator. After the time expired, the exclusive control right will grant to the others.

Figure 3.3.5-2  
Accounting Setting, COM Port Setting, and Set Camera Control



7. Set IP Registry Host IP Address & Path

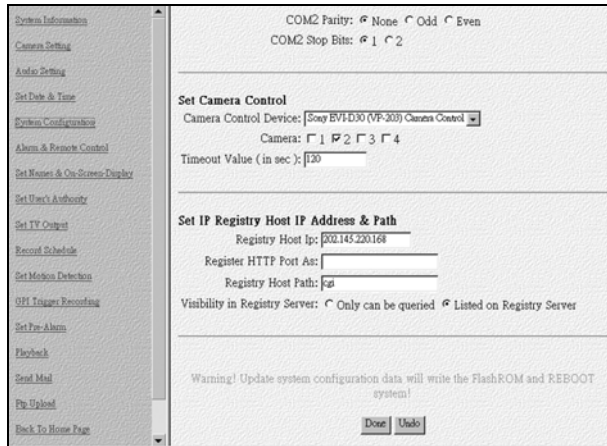
When the IP address of VP-500 is dynamic, user should set these parameters for VP-500 to register itself to a registry server, thus user wants to visit this VP-500 can find it by visiting the yellow page provided by registry server. Contact with your local distributor for configuring these parameters. The IP address of default registry host is **202.145.220.168**, and the default HTTP port for register is left empty, and the value of registry host path is “**cgi**”. Please visit <http://202.145.220.168/registry.htm> to query or browse registered VP-500.

When you are using an NAT to translate a public IP into the local IP of your VP-500, registry server will use the public IP address provided by this NAT instead of the private IP assigned to VP-500. In case this NAT translates a port of a public IP to the private IP of VP-500, users have to explicitly set this port number in the field of "Register HTTP Port as:"

VP-500 will report this value to registry server. If this field is empty, VP-500 will report its current HTTP port number.

**Note:** Please wait at least 30 seconds for VP-500 rebooting for new system parameters

**Figure 3.3.5-3**  
Set IP Registry Home IP Address & Path

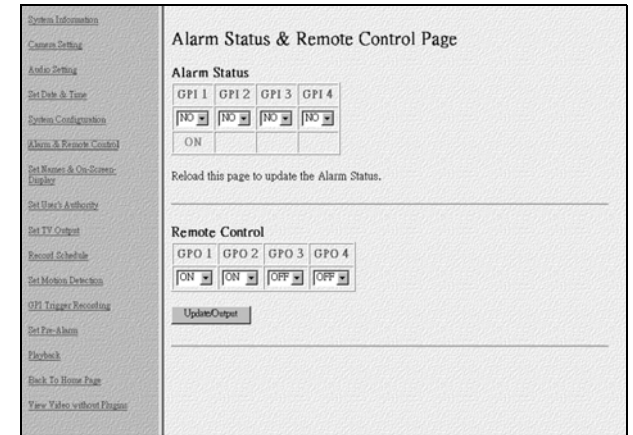


3.3.6 Alarm and Remote Control

You can choose the item "Alarm and Remote Control" from VP-500 home page to enter this page as Figure 3.3.5. The Alarm Status shows the "NO"(Normal Open) or "NC"(Normal Close) state of the GPIs. You can also control the outputs of GPOs by selecting the state of each GPO and clicking the output bottom. The output of the GPOs will latch on the state you selected.

**Note:** If the Alarm Status type is set to “NO”(Normal Open), once this GPI port is close-circuit, it is considered to be triggered. And the Alarm Status will be displayed as “ON” in red word. It’s blank if this GPI is open-circuit which is the non-triggered state of a Normal Open GPI. For “NC” (Normal Close), open-circuit is considered to be a triggered state.

**Figure 3.3.6-1**



3.3.7 Set Names and On-Screen Display

You can choose the item "Set Names and On-Screen Display" from VP-500 home page to enter this page. You can set the server name if you have multiple VP-500 on network. You can also set camera names to indicate the physical location of the cameras or any identification for easy understanding.

You can set a text string for each camera and this text will be overlaid directly on the video like time-stamp. You can specify the content and position of this text

On this page, you can also set the position of the time stamp of each camera. There are 4 pre-defined position, just select the position you like

You can set Timestamp Date Format as MM/DD/YYYY or DD/MM/YYYY in this page also.

### 3.3.8 Set User's Authority

You can choose the item " Set User's Authority" from VP-500 home page to enter this page.

Besides setting the user's and administrator's name and password, you can set up to 16 user's name and password and their authority. For example, enter "USER" and "1234" as the name and password of User 1 and enable camera 1 and 3. Later you can connect to VP-500 and login in using "USER" and "1234" as user 1. After logging in, only camera 1 and camera 3 will be displayed. If the name and password are left blank, this entry then will be removed. If the name and password are both the same word ---"BLANK", user logging without entering password will use this account. Enabling "camera control" will grant the right to control camera. Enabling "Audio 1(2,3,4)" will grant the right to do the audio operation.

### 3.9 Set TV Output Configuration

On the left side of home page, click "Set TV Output" and you can enable or disable the Video Quad function of VP-500. If enabled, you will view the video images from TV set, then you just read instructions as following.

1. Choose the TV standard. VP-500 supports two kinds of choices here for you, "NTSC" and "PAL". In different areas, there may be different standards of the TV set. Please choose the correct standard of your TV set.
2. Choose the Video Quad function. You can choose how the images to be displayed on the TV screen at one time. There are six choices for you.

- "1": only display the images from camera1
- "2": only display the images from camera2
- "3": only display the images from camera3
- "4": only display the images from camera4
- "1-2-3-4": display the images from camera1, 2, 3, and 4 in turn
- "1+2+3+4": display the images from all cameras at the same time

3. Choose Time Stamp and Time Stamp format. You can enable or disable Time stamp and choose the Time stamp Date Format as MM/DD/YYYY or DD/MM/YYYY in this page. Besides, you can choose the locations of the time stamp date format on TV screen.

4. Click "Done" to finish TV Output setting.

### 3.3.10 Set Record Schedule

On the left side of home page, click "Record Schedule" and you can enable or disable "Record Schedule" of VP-500. If enabled, you will set the schedules from Schedule 1 to Schedule 16, then VP-500 will record the certain data following these schedules.

1. Choose the certain schedule that users want to range.
2. Users can choose the schedule from Monday to Sunday, set recording start time and stop time, and cameras resources.
3. Click "Done" to save the setting value.

### 3.3.11 Set Motion Detection

On the left side of home page, click "Set Motion Detection" and you will have a page as Figure 3.3.11

Figure 3.3.11



Choose a certain camera to set the motion detection parameters.

You can enable or disable the motion detection function of one camera. If enabled, a 8x8 red block will be displayed on the top-left corner of the video if motion has been detected.

Set the sensitivity of camera, the value of sensitivity from 5 to 100.

Enable “Show Detect Area” will make the video outside the detection area to be darker. It is convenient for configuration purpose.

Users can move or change the frame area via the mouse in the screen of motion detection setting item to set the **Motion Detection Area** makes VP-500 focus sensing on the restricted area.

**Note 1:** For Internet Explorer, please note that if users set the motion detection area, they need to set the detect area via the mouse operation.

**Note 2:** For Netscape 6.0, if users set the motion detection area, they need to set the detect area by key in the setting value in the text box directly.

### 3.3.12 Set GPI Trigger Recording

On the left side of home page, click “**GPI Trigger Recording**” and users can set four GPI Triggers for remote surveillance.

1. Choose the certain GPI Trigger from GPI 1 to GPI 4.
2. You can enable or disable “**GPI Trigger**” of VP-500. If enabled, users will set the record time in seconds, and set the camera sources from GPI 1 to GPI 4, then click “**Done**” button to save the setting values. VP-500 will record the certain data following these schedules.

### 3.3.13 Set Pre-Alarm

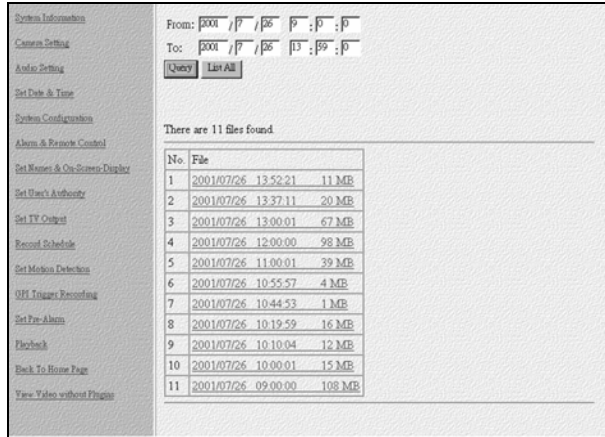
On the left side of home page, click “**Pre-Alarm**” and you will have a page as Figure 3.3.13. Users can set the Pre-Alarm function from camera resources for remote surveillance. When users set the function, VP-500 will start to record the data before triggered events happened or motion has been detected.

You can set the numbers of frames from camera 1 to camera 4, then click “**Done**” button to save the setting values. VP-500 will start to record the certain data before triggered events happened or motion has been detected.

### 3.3.14 Playback

On the left side of home page, click “**Playback**” and you will have a page as Figure 3.3.14-1. Users can query recorded data by recording start and stop time or click “**List All**” button to list the files that conform to the query. Then click the file, and users will view the recorded data.

Figure 3.3.14-1



In case you didn't install Active-X program that comes with a diskette in VP-500 package. You will see the screen as Figure 3.3.14-2.

Figure 3.3.14-2



Click “**Download RPSETUP.EXE**” to start downloading Active-X and install it. After finishing the jobs, you shall see the following screen as Figure 3.3.14-3 and VP-500 is seeking and loading the recorded data.

After loading the recorded data, users will have the page to view the recorded data.

1. **Download & Save**

Besides viewing recorded data via IE browser, users also can download and save the data as a new file in local directories, please click “Download & save” and choose the file directories, users can download the recorded data from all video resources.

2. **“320x240”**

Users can select 320x240, 640x480, 800x600, or 1024x768 size screen to play the recorded data.

3. **“Camera 1(2,3,4)”**

Users can select the video sources from Camera1, Camera2, Camera3, Camera4 or All cameras to play the recorded data.

4. **Scroll Bar**

When users scroll the scroll bar to backward or forward play the recorded data, VP-500 will backward or forward seek the image and play it.

5. **“Save”**

When clicking “Save” icon, the recorded data from certain video source will be saved as a new file.

6. **“Snapshot”**

When clicking “Snapshot” icon, users can take the image snapshot from the camera.

7. **“Play”**

When clicking “Play” icon, the recorded data will start to play.

8. **“Play Forward”**

When clicking “Play Forward” icon, users can forward play the images.

9. **“Stop”**

When clicking “Stop” icon, users can stop the playing data.

10. **“1x”**

Users can select playing speed from Full speed, 2x, 1x, 1/2x, 1/4x, 1/8x to play the recorded data.

11. **“Source”**

Users can select the file status from **“Source”**, **“Motion”**, or **“GPI”** to play the recorded data.

11-1 **“Video Source”**

When selecting **“Source”**, VP-500 will play the recorded data from general camera sources.

11-2 **“Motion Detection”**

When selecting **“Motion”**, VP-500 will play the recorded data from the certain camera sources that the motion has detected.

11-3 **“GPI Trigger”**

When selecting **“GPI”**, VP-500 will play the recorded data from the certain camera sources that the triggered events happened

**3.3.15 Send Mail**

On the left side of home page, click **“Send Mail”** and users can enable or disable the function, if enable, when motion detected or GPI/O event triggered, VP-500 will send a warning mail to users. Users can set the mail address, mail server, mail subject, mail content and choose the snapshot from the camera resources.

**Note:**1. For Motion Detect 1 to 4, not only taking the certain snapshot from the video resource, but users can also mail the snapshots from camera 1 to 4.

2. If users set the global settings, the mail will follow the issue; if users also set the individual settings, then the mail will become the individual one.

**3.3.16 FTP Upload**

On the left side of home page, click **“FTP Upload”** and users can enable or disable the function, if enable, users can upload the recorded data to FTP Server. Users can set the type, directory, filename, and choose the snapshot from the camera resources. Then users also can set the global setting, includes FTP Server name, Account, Password, and FTP Port.

**3.3.17 Back to Home Page**

On the left side of home page, click **“Back to Home Page”** and you will go back to the home page of VP-500 in your browser.

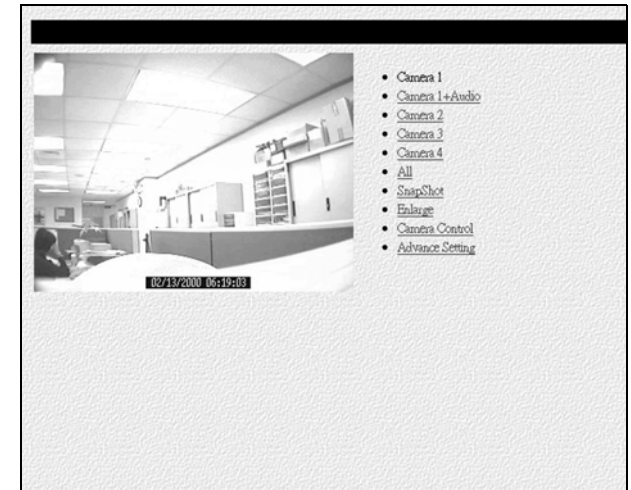
**3.3.18 View Video Without Plugins**

Instead of installing plug-in program in your PC. You can click **“View Video Without Plugins”** on the left side of home page, and you will view the live video by using Java applet. Liveview Java applet utilize JPEG image snapshot from VP-500.

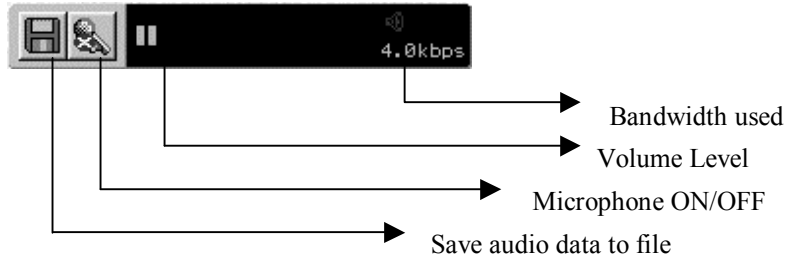
**3.4 Audio Functions**

Start visit VP-500 from Home Page and click ‘Camera 1’ link to view the first camera.

**Figure 3.4.1**



Click **“Camera 1+Audio”** link to the page of both the first video and audio. The Audio operation interface is as follows:



**Note:**  
The audio function of VP-500 supports two-way audio but only one-way audio data recording. That means you cannot record the audio data from host PC and VP-500 at the same time.

### 3.5 Remote Camera Control

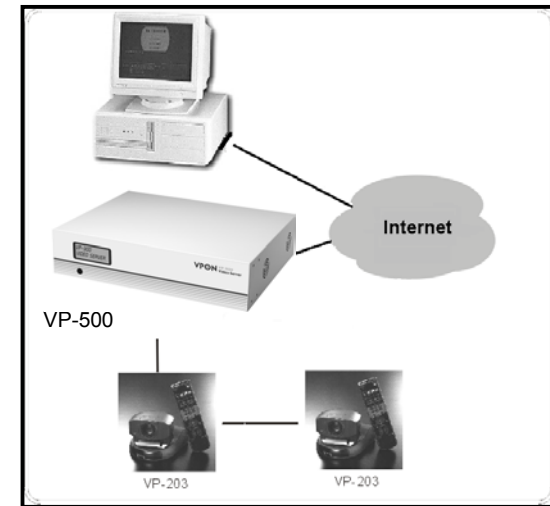
There are two kinds of remote camera control configurations. One is using PTZ cameras with built-in RS232 interface, the other one is using VP-201 and VP-202 camera control interfaces to accomplish the job. VP-500 hardware box, OYO viewer and Internet browsers are transparent to both configurations. VP-201 and VP-202 are considered as external devices to VP-500.

#### 3.5.1 Remote Camera Control using PTZ Cameras

Currently, VP-500 supports those cameras with built-in RS232 control interface. The typical camera model is SONY EVI-D30. The VP-203 camera supplied by Formosa Industrial Computing is functionally compatible with SONY EVI-D30. The configuration diagram is as Figure 3.5.1.

Maximum 6 cameras can be daisy-chained by the above configuration.

Figure 3.5.1

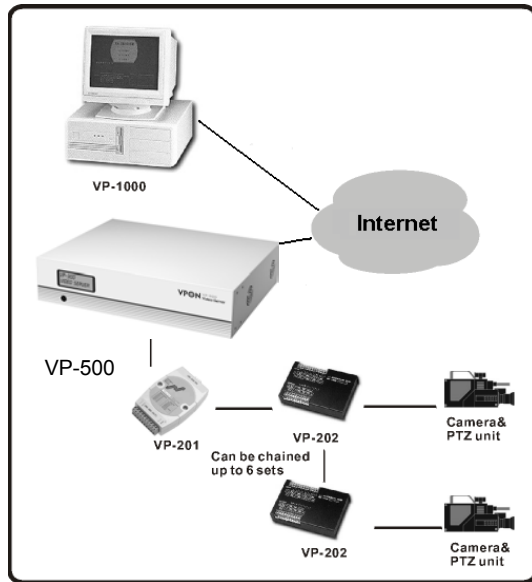


#### 3.5.2 Remote camera control using VP-201 and VP-202

Please refer to Figure 3.5.2 for system configuration VP-201 converts RS232 signals from VP-500 into RS485 then connect to VP-202. There are 8 pairs of power I/Os which can survive at 0.5A/120ac or 1A/24VDC for attaching to PTZ device. Please check the correct voltage ratings of your PTZ device and make the right connections, Select **“Remote Camera Control”** function at system configuration and choose the correct type of camera control. Operation procedure is the same as section 3.5.2 except there is no **“Preset”** and **“Recall”** functions.



Figure 3.5.2



### 3.5.3 Operation

If you have equipped a camera control device with VP-500, you can use the camera control interface to control a camera (Figure 3.5.3-1).

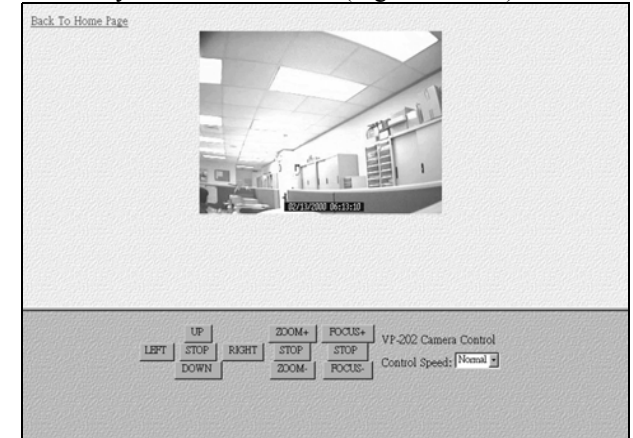
Figure 3.5.3-1

#### Camera Control Interface

- [Camera 1](#)
- [Camera 1+Audio](#)
- [Camera 2](#)
- [Camera 3](#)
- [Camera 4](#)
- [All](#)
- [SnapShot](#)
- [Enlarge](#)
- [Camera Control](#)
- [Advance Setting](#)

1. Select the proper camera control device in the 'system configuration' page (refer to section 3.3) and the camera it is attached and you can use UP/DOWN/LEFT/RIGHT to make the camera move a little bit toward the direction you clicked. Also you can use ZOOM and FOCUS buttons to zoom or focus in and out. Due to the network transmission delay, the video may not response as soon as you click the button. (Figure 3.5.3-2)

Figure 3.5.3-2



2. If the device has built in preset function, you can use the buttons described above to move the camera to where you want and use Preset button to make the camera control device to remember the position. After presetting, you can use Recall buttons to make the camera move to a preset position.
3. Click on the buttons on the Pan/Tilt, Zoom blocks will force the camera to operate following the corresponding commands. But please be patient to allow enough time for the video to transmit back from the remote side. Don't click the buttons too fast or it may be difficult to get the right view you want remember "click and wait" is the most efficient operation.
4. The 6 preset buttons allow you to tell the camera to remember 6 positions that you prefer. When the camera is located at some position and you click the preset button, this position will be kept inside the camera's memory. After a while, if you move the camera to another position and you want it to move back to the previous preset position, just click the corresponding recall button and it will move back to that position automatically. This function is handy when it is difficult to adjust the camera to the right position. You can preset it locally and then recall it remotely. But one thing bad is that after power off the camera, previous preset values will be lost. In this case you have to do the presetting from the beginning.

### 3.6 Recording Video to a File

Step by Step to record video to a file:

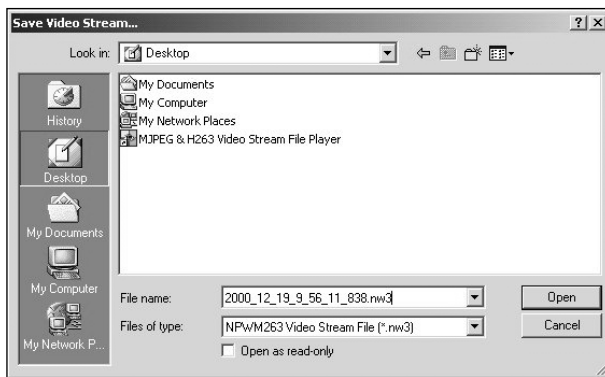
1. Move mouse over the video window
2. Click the right button of mouse and you will have prompted out Figure 3.6.1

Figure 3.6.1



3. Click the “File” Icon and you will have prompted out Figure 3.6.2. Please specify the filename to save the video.

Figure 3.6.2



4. To stop the recording, move the mouse over the video window and click the right button of mouse. You will have prompted out Figure 3.6.3. Click the “Stop” Icon to stop the recording.

Figure 3.6.3

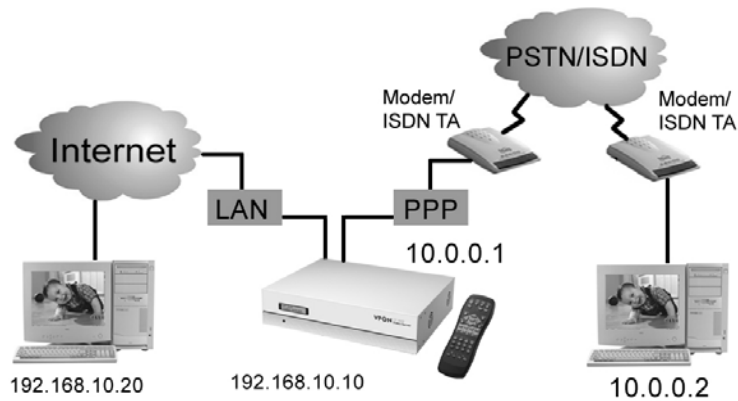


### 3.7 Using Dial-Up Network Connecting to VP-500

Since FW5.045 for VP-500, a new function called “Multi-homed” is supported. This feature enable users to dial up to VP-500 with modem and thus users can use browser to access VP-500. This feature is added to Network Mode of VP-500. That is, users can connect to VP-500 thru Ethernet or modem at the same time. It's specially useful when users have no network or internet and still want to remotely access VP-500.

For VP-500, users can both browse the image through internet and via multi-home function at the same time as figure 3.7.1.

Figure 3.7.1



### 3.7.1 Step by step instructions to utilize Multi-Home function

#### A. Prepare VP-500 ready for Dial-In

1. Check the FW 5.045(or later) version for VP-500. VP-200 does not support this feature.
2. Make sure VP-500 is running under Network Mode.
3. Connect VP-500 with a modem on its COM1 port.
4. In general, there's no need of setup modem driver for the modem which is used to accept incoming call. But if you experience trouble in call setup of modem, try to setup driver for the modem as the following steps indicate.
5. To setup modem driver to VP-500, connect a RS-232 cable between your PC and VP-500.
6. Install the modem driver coming from the manufacturer of the modem onto your PC ( no need to attach modem to your PC).
7. Run WCOMW (ver 1.7 or later) on your PC, turn on VP-500.

8. When configuration menu is popped-up, press "5. Setup Modem". Choose "Modem" in "Tool" of WCOMW's menu and select the driver you just installed and press OK. This will generate some text of the modem driver settings to WCOMW.
9. Press Enter, this will make the settings of modem driver configured to VP-500. Choose "Exit" to make VP-500 continue to boot.
10. Remove RS-232 cable, and attach modem to COM1 port of VP-500. Now you have done the modem driver setup to VP-500.
11. When VP-500 is ready, it's ready for connections coming from both Ethernet and modem.

#### B. Dial-up to VP-500

1. Click on the "Dial-Up Networking" folder at the top level of "My Computer", double-click "Make New Connections" to build a new dial-up setting.
2. Open the property of the new connection and choose the type of protocol to be "PPP: Internet, Windows NT Server, Windows 98".
3. Clear all the options of "Advanced options" and "Allowed network protocols" except "TCP/IP". That is, make sure only "TCP/IP" option is checked in this page.
4. Click "TCP/IP Settings" button. Specify the IP address to be "10.0.0.2". You can use other IP as long as it is in the same group with "10.0.0.1". The "10.0.0.1" is fixed inside VP500.
5. Check "Server assigned server address". And make sure "Use IP header compression" and "Use default gateway on remote network" are both UNCHECKED.
6. Click OK to finish the procedure.
7. Please set up the telephone number of VP-500, user name, and user password in "Dial-up Network". Then click "OK" to save the settings. The default user name and password are "webmonitor" and "oyo."

8. Now you can use this connection to dial-up to VP-500.

9. When you have dialed up to VP-500, use browser to view the address "10.0.0.1" which is the IP address of VP-500 on this dial-up connection. Since this is only a point-to-point connection, users are limited to access VP-500 site only.

*- End of this chapter -*

## Chapter 4: Use VP-500 Under ISP Mode

If users don't have Internet/Intranet connection as required in the default Network Mode, they still can use a modem or ISDN TA to dial up to ISP and make an internet connection. Then users can use their browser to view the video transmitted from VP-500. Besides viewing the video, users can also record the video, play them back, make a snapshot of picture or print it out and make VP-500 callback on a trigger of GPI port and transmit the video to the preset PC when event happens...just as under Network mode.

If you want to connect VP-500 to Internet through PSTN/ISDN to ISP (Internet Service Provider), first configure VP-500 to run under ISP Mode. A public static IP is required. If the IP is dynamic, you have to set parameters for registry server.

### 4.1 Getting Start under ISP Mode

Before users run ISP mode, please make sure the modem was already completely installed. VP-500 is configured to Network mode as the factory default, if users want to connect the internet through a modem or ISDN TA under ISP Mode, users have to change the running mode first. We suggest users switch to Modem/RS-232 Mode first and configure modem setting via OYO Viewer. Then users can switch to ISP Mode through WCOMW or OYO Viewer. Refer to Appendix B for a step-by-step procedure to change the running mode via WCOMW and Chapter 3 for the usage of VP-500.

The installation procedure for VP-500 under ISP Mode was as following.

#### 4.1.1 Modem Installation

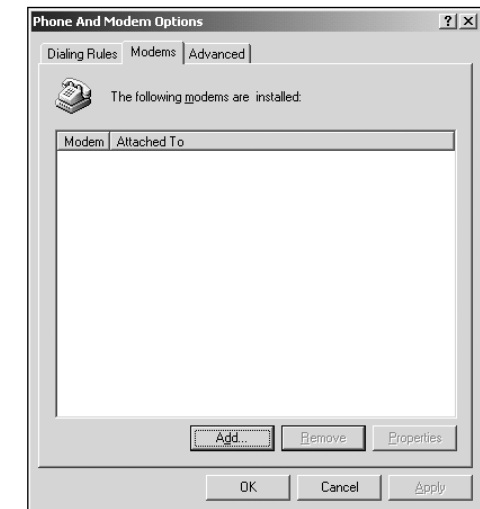
1. To install modem device first under the default Network Mode, go to "Phone and Modem options" on "Control Panel" of the host PC.

Figure 4.1.1.1



2. Select "Modems" and go to "Add" to install new modem device.

Figure 4.1.1.2



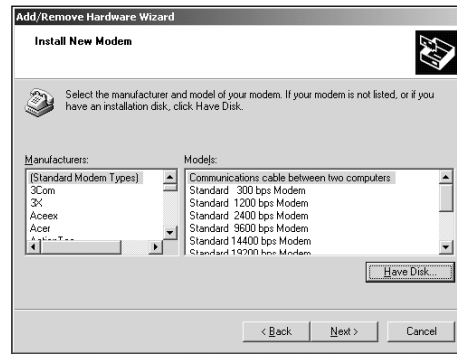
3. Install New Modems, please check "Don't detect my modem; I will select it from the list."

Figure 4.1.1.3



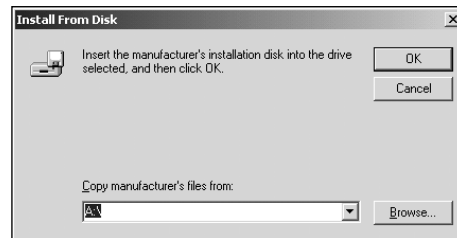
4. Select the manufacturer and model of the modem. If the modem is not listed, or if users have an installation disk, please click "Have Disk".

Figure 4.1.1.4



5. If users click "Have Disk", then please insert the manufacturer's installation disk into the drive selected, and click "OK".

Figure 4.1.1.5



6. Select the file location of the modem driver and click "Done" and make sure the resource that copy the manufacturer's file.

Figure 4.1.1.6

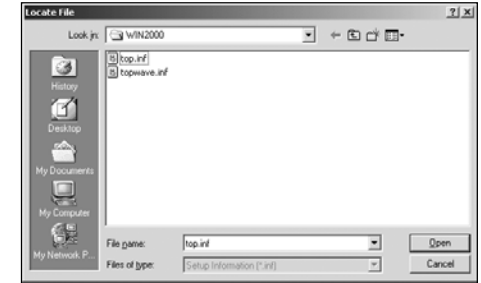
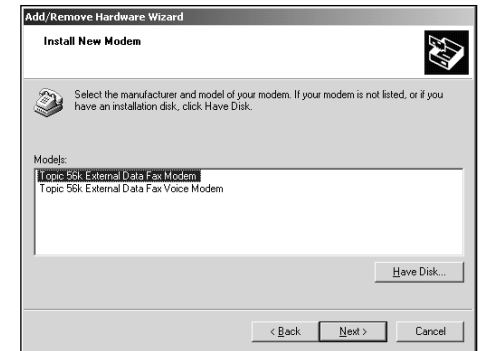


Figure 4.1.1.7



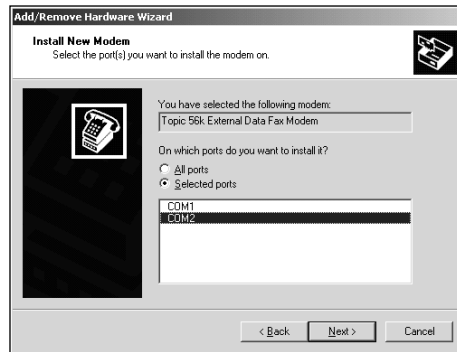
7. Select the correct modem model and click "Next" to be continued.

Figure 4.1.1.8



8. Select the port you want to install the modem on. Users can select one of the ports, because the modem didn't connect to the host PC physically.

Figure 4.1.1.9



- The modem installation is finished. Please continue do the configuration of modem setting in OYO Viewer.

Figure 4.1.1.10



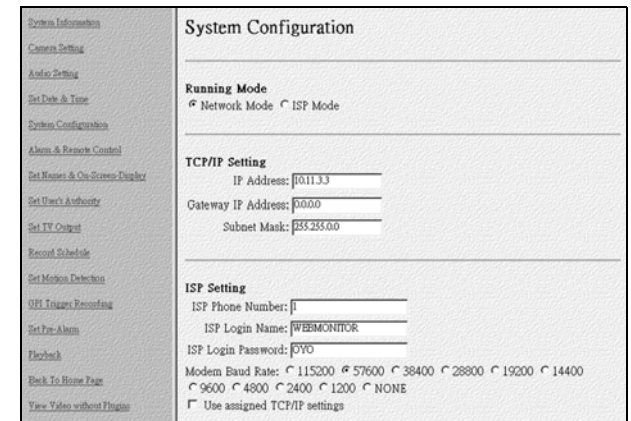
**Note:** Before running VP-500 under ISP Mode at first time, we strongly recommend users to change the running mode and do system configuration under **Network Mode, WCOMW or via TV operation** first.

### 4.1.2 System Configuration

After setting up the modem for ISP Mode, users can set system configuration of VP-500 in Network mode, via IR wireless controller, or using WCOMW.

When users select “Advance Setting” at the bottom of the webpage and click on “System Configuration”. Here the function is running mode changing and ISP setting for ISP mode.

Figure 4.1.2



Users can change the running mode of VP-500. For ISP mode, users need to fill in all of the ISP setting, including the **ISP Phone Number, ISP Login Name, ISP Login Password and Modem Baud Rate**. Most of modern modems can communicate with host on 115200 bps. After VP-500 reboot from current modem mode into ISP mode, it will automatically connect to ISP as you specified. If users check “**Use assigned TCP/IP settings**” then VP-500 will use the above TCP/IP setting as Internet network setting.

In most of cases, users do not have to check this setting, and VP-500 will negotiate the network settings with ISP automatically. If the IP assigned to VP-500 is a static IP, users can visit VP-500 by this IP directly. If it’s dynamic IP, VP-500 provides a way to register itself to a registry server. User can visit this registry server and find the IP of VP-500.

Then check the “Done” button. Now VP-500 will be disconnected and reboot. It may take a few seconds.

**Note:** Before running VP-500 under ISP Mode at first time, we strongly recommend users to change the running mode and do system configuration under **Network Mode** or **WCOMW** first.

### 4.1.3 View live video via the browser

Before running VP-500 under ISP mode, users must plug the modem serial cable to com1 port. If the IP assigned to VP-500 is a static IP, users can visit VP-500 by this IP directly. If it's dynamic IP, VP-500 provides a way to register itself to a registry server. User can visit this registry server and find the IP of VP-500. Please enter the registry host homepage first, the default IP address of registry host is **202.145.220.168/registry.htm**. (Figure 5.1.3.1) Users can choose search by MAC ID (Ethernet Address) or search by name to find their own VP-500 IP location. Besides, users can browse all records in this registry server to find the IP address of their own VP-500. (Figure 5.1.3.2)

**Note:** For dynamic IP, users must check the IP address for the registry host to find out the assigned dynamic IP.

Figure 4.1.3.1

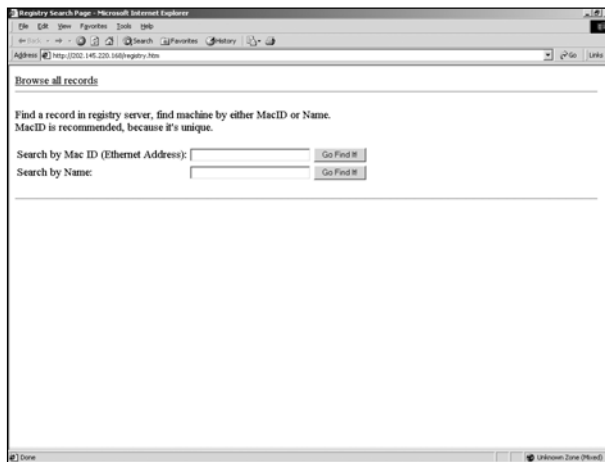


Figure 4.1.3.2

No.	IP Address	Name	Ethernet Address	Login Date & Time
1	202.145.220.168	VPON Camera Server	00:40:CA:81:1F:8A	2001/04/12 18:01:30
2	202.39.37.211	00:40:CA:81:0E:24	00:40:CA:81:0E:24	2001/04/12 18:04:45
3	64.3.157.58	VPONDEMO	00:40:CA:81:1E:E8	2001/04/12 17:59:00
4	63.237.55.162	00:40:CA:81:24:F5	00:40:CA:81:24:F5	2001/04/12 18:00:14
5	64.172.201.67	00:40:CA:81:1D:13	00:40:CA:81:1D:13	2001/04/12 18:01:30
6	203.208.16.218	00:40:CA:81:0F:AE	00:40:CA:81:0F:AE	2001/04/12 17:08:29
7	163.30.14.191	00:40:CA:81:0F:AD	00:40:CA:81:0F:AD	2001/04/11 15:29:09
8	211.22.13.21	00:40:CA:81:1F:B7	00:40:CA:81:1F:B7	2001/04/12 15:16:43
9	163.30.14.138	00:40:CA:81:25:59	00:40:CA:81:25:59	2001/04/12 18:07:57

### 4.2 Browse and view the video

Users can view the live video by click the IP address now, and the operations of ISP mode is the same as Network mode, please refer to the usage of VP-500 in chapter 3.

- End of this chapter -

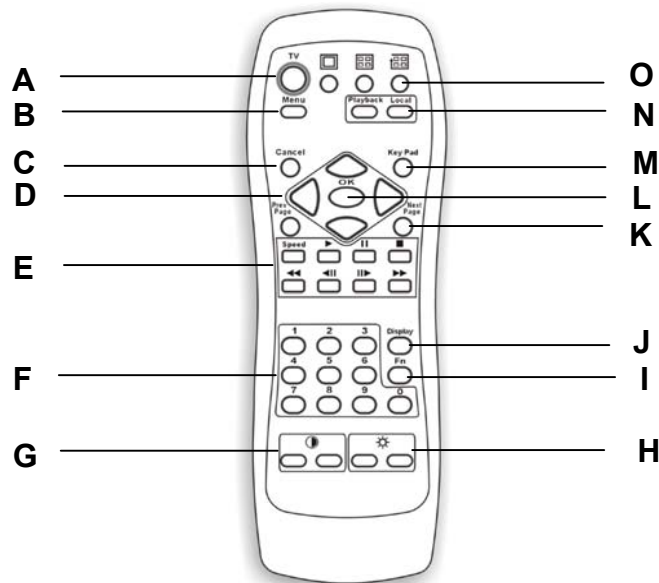


## Chapter 5: Using VP-500 Via TV Out Function

### 5.1 Wireless Controller

Beside using VP-500 under Network Mode, users can also operate VP-500 via IR wireless controller and the video images will be displayed on TV set or VGA monitor screen. Before operating VP-500 via IR wireless controller, please make sure that VP-500 has connected to the TV set via TV Out connector or VGA Out connector.

To get VP-500 up and running via wireless controller, IR wireless controller is require, users will find it in the package of VP-500. The interface of wireless controller is as following.



#### A. TV button

Supplying the function to enable or disable TV Output.

#### B. Menu button

Supplying main menu display function. When users press this button, it will display the main menu on the screen.

#### C. Cancel button

Supplying cancel and close function. When users press this button, it will close the menu in the setting menu and returns you to the previous level.

#### D. Up/Down/Left/Right button

When pressing the wireless controller in the direction, users can control the directions of cameras or adjust the parameters of the setting menu.

#### E. Speed/Play/Pause/Stop/Seek Backward/Seek Forward/Step Backward/Step Forward button

These buttons are all for **playback** functions.

Speed: Users can switch the playing speed of the recorded data.

- ▶ (Play): When pressing “Play”, the recorded data will start to play. Users also can press “Play” to skip the crash video image and play next time period continuously.
- ⏸ (Pause): When pressing “Pause”, users can pause the playing data.
- (Stop): When pressing “Stop”, users can stop the playing data.
- ◀◀ (Seek Backward): When pressing “Seek Backward”, users can backward seek the images.
- ▶▶ (Seek Forward): When pressing “Seek Forward”, users can forward seek the images.
- ◀◀◀ (Step Backward): When pressing “Step Backward”, users can backward the images step by step frame.
- ▶▶▶ (Step Forward): When pressing “Step Forward”, users can forward the images step by step frame.

#### F. Number button

When pressing the number buttons, users can select the camera when multiple cameras are used.

#### G. Bright Setting buttons

When pressing “+” or “-” button of bright setting, users can brighten or darken images from different cameras on the monitor.

**H. Contrast Setting buttons**

When pressing “+” or “-” button of contrast setting, users can increase or decrease contrast values of the images from different cameras on the monitor.

**I. Fn button**

This button is not used .

**J. Display button**

When pressing this button in playback mode, users can view the status of Recorded data , GPI, Motion Detection, Progress in bar chart at the bottom of the screen.

**K. Prev / Next Page button**

In the setting menu, users can press Prev / Next page button to skip to the previous or the next page in the setting menu.

**L. OK button**

This button is used to store the setting values in the setting menu.

**M. KeyPad button**

When pressing the button, it will pop up a keypad for users to input in the setting menu.

**N. Mode Switch button**

“Playback” and “Local” buttons supply users to switch the status of VP-500 displaying. When pressing “Playback” button, users can select the time period of recorded data, when pressing “Local” button, users can view the live image immediately.

**O. Display Status Switch**

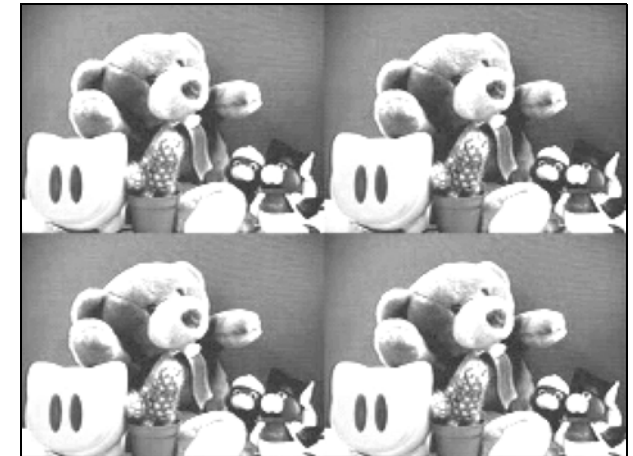
These three buttons supply the function to switch the mode of images displaying. Users can press “Single”, “Quad”, or “In Turns” buttons to change the way to display on the screen.

**5.2 How to operate VP-500 via IR wireless Controller**

Before you can make the VP-500 to work, users must make sure that all physical connection of VP-500 are finished. Please read Chapter 2.7 for the reference. When users want to operate VP-500 via IR wireless controller, follow these instructions:

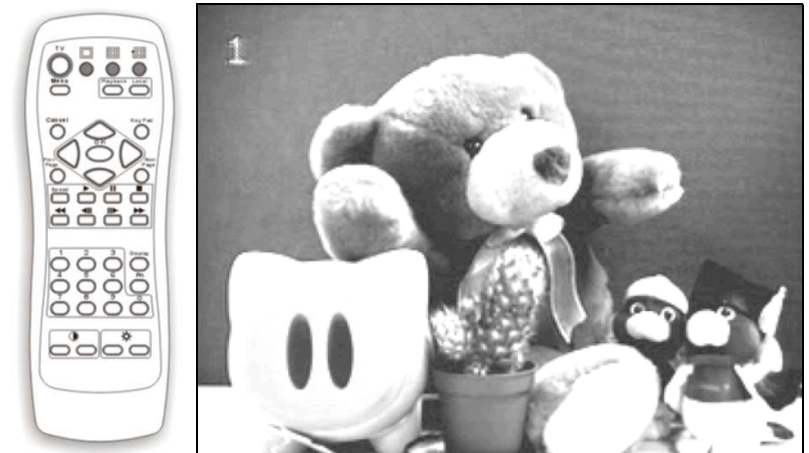
1. Connect your VP-500 to “Video In” connector of TV Set via TV Output connector.
2. Power on VP-500 and the TV Set.
3. Now, users can view the live video image on the screen on TV and they can operate VP-500 via IR wireless controller directly. (Figure 5.2.1)

**Figure 5.2.1**



Users can press the display status buttons to switch the status of video displaying on the screen. (Figure 5.2.2) And start to view the image locally.

**Figure 5.2.2**



### 5.2.1 Using the Menus

There are some keys for users to operate the menus via IR wireless controller.

#### Use the Menus

When VP-500 is working, users can press “**Menu**” button to see the main setting menu. After pressing “**Menu**” and the main menu pop up, users can press **Up/Down button** to select “**System Setup**”, “**Record Setup**”, or “**Playback**” and enter the menu.

#### Enter the Menus

After pressing “**Menu**” and the main menu pop up, users can press Up/Down button to select the function, then please press “**Right**” button to enter the next level setting menu or press “**Cancel**” button to exit the setting menu and go back to the view screen.

#### Operate the Menus and Change the setting Parameters

Users can select the setting values by pressing **Up/Down** button and change the setting value by pressing **Left/Right** button. Then press “**OK**” to save the setting value or press “**Cancel**” to cancel the setting and go back to the previous level setting menu.

For some cases, users also need to key in some characters via IR wireless controller. Users can press “**Keypad**” button to setting the characters then press “**OK**” to save the setting value or press “**Cancel**” to cancel the setting and go back to the previous level setting menu.

#### View the Previous/Next Page

In the setting menu, users can press **Prev/Next page** button to skip to the previous or the next page in the setting menu.

#### Exit the Menus

After changing the setting values, users can press “**OK**” to save the setting value or press “**Cancel**” to cancel the setting and go back to the previous level setting menu. Or users also can press “**Menu**” button to go back to the main menu.

### 5.3 Main Menu

When VP-500 is working, users can press “**Menu**” button to see the main setting menu.

Figure 5.3



#### 5.3.1 System Setup

After pressing “**Menu**” and the main menu pop up, users can press Up/Down button to select “**System Setup**”, then please press “**Right**” button to enter the next level setting menu or press “**Cancel**” button to exit the setting menu and go back to the view screen.

##### 5.3.1.1 Password Protect

VP-500 provides password to avoid invalid user to access VP-500 using IR wireless controller. Users can enable or disable the function. Beside, users can press “**Keypad**” button to setting “**Password**”, “**Auto Lock Time**”(sec), and “**Lock now**”. Then press “**OK**” to save the setting value or press “**Cancel**” to cancel the setting and go back to the previous level setting menu.

## 5.3.1.2 Video Parameters Setting

1. Press “**Menu**” and select “**System Setup**”. Choose “**Video**” and press “**Right**” button to enter the setting of video resources.
2. Users can increase or decrease the values of Brightness, Contrast, Saturation, Hue and Quality of each camera on the video window by pressing “**Left**” or “**Right**” button and choose the other video resource by pressing “**Prev**” or “**Next**” button as shown on Figure 5.3.1.2.

Figure 5.3.1.2



3. Then press “**OK**” to save the setting value or press “**Cancel**” to cancel the setting and go back to the previous level setting menu.
4. **PTZ Control:**  
When users enter PTZ Control setting, they can press “**Up**”, “**Down**”, “**Left**” and “**Right**” button to make the camera move a little bit toward the direction you clicked. And press “**Next**” to enter the other PTZ camera control setting .

In the second page, users also can press “**Up**” and “**Down**” button to zoom in or zoom out then press “**OK**” to save the setting value or press “**Cancel**” to cancel the setting and go back to the previous level setting menu and press “**Prev**” and “**Next**” button to enter the other PTZ camera-control setting page.

In the third page, users also can press “**Up**” and “**Down**” button to focus in or focus out then press “**OK**” to save the setting value or press “**Cancel**” to cancel the setting and go back to the previous level setting menu and press “**Prev**” and “**Next**” button to enter the other PTZ camera control setting page.

In the fourth page, users can press “**Left**” and “**Right**” button to adjust the playing speed then press “**OK**” to save the setting value or press “**Cancel**” to cancel the setting and go back to the previous level setting menu and press “**Prev**” and “**Next**” button to enter the other PTZ camera-control setting page.

In the fifth page, users can press Number key 1 to 6 to switch the preset camera location and press “**Prev**” and “**Next**” button to enter the other PTZ camera-control setting page.

In the last page, users can press “**Up**”, “**Down**”, “**Left**” and “**Right**” button to make the camera move a little bit toward the direction and press Number key 1 to 6 to set the preset camera location and press “**Prev**” button to enter the other PTZ camera-control setting page.

## 5.3.1.3 TV Output Setting

1. Press “**Menu**” and select “**System Setup**”. Choose “**TV Output**” and press “**Right**” button to enter the setting of TV Output setting.
2. Users can select TV output to TV set or VGA monitor. And then choose the TV standard. VP-500 supports two kinds of choices here for users, “**NTSC**” and “**PAL**”. In different areas, there may be different standards of the TV set. Please choose the correct standard of your TV set.
3. Choose time delay in seconds. For example, , when users set time delay for 10 seconds under “**In Turns**” mode, the TV set will display the images from camera 1, 2, 3, and 4 in turn every 10 seconds.
4. Choose Time Stamp and Time Stamp format. You can enable or disable Time stamp and choose the Time stamp Date Format as MM/DD/YYYY or DD/MM/YYYY in this page.

- Users can adjust the setting value by pressing “**Left**” or “**Right**” button and press “**OK**” to save the setting value or press “**Cancel**” to cancel the setting then go back to the previous level setting menu as shown on Figure 4.3.1.3.

Figure 5.3.1.3



## 5.3.1.4 GPIO Setting

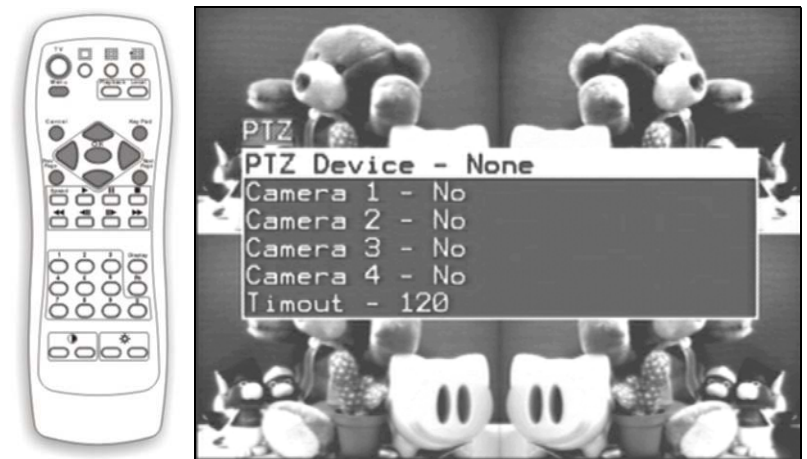
You can choose the item “**GPIO**” from VP-500 system setup menu to enter this page. The Alarm Status shows the “**NO**”(Normal Open) or “**NC**”(Normal Close) state of the GPIOs. You can also control the outputs of GPOs by selecting the state of each GPO and clicking the output bottom. The output of the GPOs will latch on the state you selected.

- Press “**Menu**” and select “**System Setup**”. Choose “**TV Output**” and press “**Right**” to enter the setting of TV Output setting.
- Users can adjust “**N.O.**” or “**N.C.**” status in GPI setting and set “**ON**” or “**OFF**” in GPO status by pressing “**Left**” or “**Right**” button. Then press “**OK**” to save the setting value or press “**Cancel**” to cancel the setting, go back to the previous level setting menu.

## 5.3.1.5 PTZ Setup

- Press “**Menu**” and select “**System Setup**”. Choose “**PTZ Setup**” and press “**Right**” button to enter the setting of TCP/IP address.
- Select the device type of controllable cameras by pressing “**Left**” and “**Right**” button. There are VP-202, VP-203, Cannon VCC3/VCC4, Li-lin PIH-717X and Acqutek DOM 1200A and Pelco D type camera. You shall check which camera number that device hooked to (from 1 to 4) and the timeout of exclusive control right.  
  
At a given time, there is only a user can control the camera connected to VP-500. This time-out value is the maximum period in seconds the user can own the right without any bother. In this period, nobody can rob the control right from that one had own the right except the administrator. After the time expired, the exclusive control right will grant to the others.
- Then press “**OK**” to save the setting value or press “**Cancel**” to cancel the setting, go back to the previous level setting menu as Figure 4.3.1.5.

Figure 4.3.1.5





## 5.3.1.6 TCP/IP Setting

1. Press **“Menu”** and select **“System Setup”**. Choose **“TCP/IP”** and press **“Right”** button to enter the setting of TCP/IP address.
2. Input IP Address, Gateway IP Address, Subnet Mask, and DNS IP Address in **“TCP/IP Setting”** segment. Users can press the number key to enter the numbers and then press **“OK”** to save the setting value or press **“Cancel”** to cancel the setting, go back to the previous level setting menu.

## 5.3.1.7 Account Setting

1. Press **“Menu”** and select **“System Setup”**. Choose **“Account”** and press **“Right”** button to enter the setting of users’ account.
2. You may change account name and the password. In **“Account Setting”** segment, input Admin Name, Admin Password, User Name, User Password and set more user accounts as following figures.
3. At First, Users can select Admin Name, Admin Password, User Name, User Password items of VP-500 by pressing **“Up”** or **“Down”** button and then press **“Right”** button to enter the setting menu as following figures.

Users can press **“Keypad”** button to setting **“Admin Name”**, **“Admin Password”**, **“User Name”**, and **“User Password”**. Users select the characters by pressing **“Up”**, **“Down”**, **“Left”**, and **“Right”** button; then press **“OK”** to save the character or press **“Cancel”** to exit the keypad and return the setting menu.

Figure 5.3.1.7-1

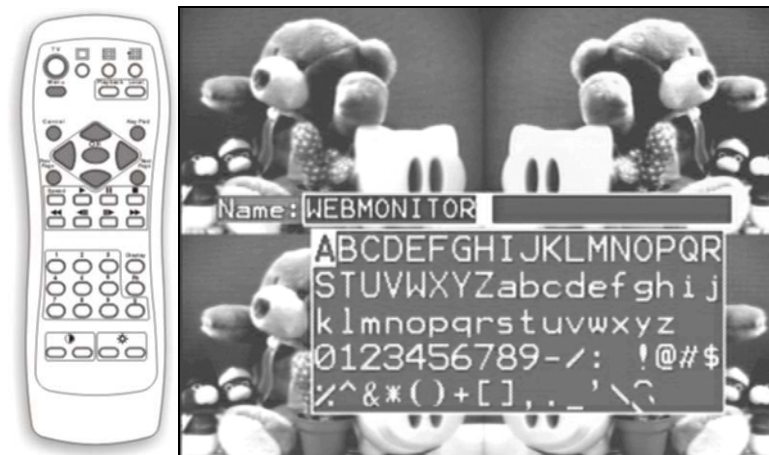


Figure 5.3.1.7-2



Not only via the keypad, users can also input **“Admin Password”** and **“User Password”** via number keys.

Administrator also can set user’s authority in this item. Besides setting the user’s and administrator’s name and password, you can set up to 16 user’s name and password and their authority.

For example, enter “**USER**” and “**1234**” as the name and password of User 1 and enable camera 1 and 3. Later you can connect to VP-500 and login in using “**USER**” and “**1234**” as user 1. After logging in, only camera 1 and camera 3 will be displayed. If the name and password are left blank, this entry then will be removed. If the name and password are both the same word --“**BLANK**”, user logging without entering password will use this account.

Enabling “**PTZ**” will grant the right to control camera. Enabling “**Audio 1(2,3,4)**” will grant the right to do the audio operation.

### 5.3.1.8 Audio Setting

1. Press “**Menu**” and select “**System Setup**”. Choose “**Audio**” and press “**Right**” button to enter the setting of Audio.
2. Users can increase or decrease the volume of microphones, and speakers by pressing “**Left**” or “**Right**” button and then press “**OK**” to save the setting value or press “**Cancel**” button to cancel the setting, go back to the previous level setting menu as shown on Figure 4.3.1.8.
3. Set Microphone Control Timeout  
At a given time, there is only a user can control the operation of Microphone connected to VP-500. Once users get the control right, they can select the source (1,2,3,4) to control but only one source can be controlled at any time. This timeout value is the maximum period in seconds that user can own the right without any bother. In this period, nobody can rob the control right except the administrator. Once timeout, anybody can ask to gain the control right of Microphone excluding the original owner.
4. Set Speaker Control Timeout  
At a given time, there is only one user can control the operation of Speaker connected to VP-500. The rule of timeout and grant of control right is the same as the one of Microphone Control described above.

### 5.3.1.9 COM Ports Setting

1. Press “**Menu**” and select “**System Setup**”. Choose “**COM Ports**” and press “**Right**” button to enter the setting menu of COM Port setting.

2. Set the Modem baud rate and initial string. If the initial string is kept empty, VP-500 will use default initial string to send to Modem. In most cases, the default initial string will work well.

**Note:** If the device types of controllable camera are controlled by RS-485 or RS422 cable, users must disable “**COM2 hardware flow control**” in COM Port Setting.

3. Users can change COM Port setting by pressing “**Left**” or “**Right**” button and then press “**OK**” to save the setting value or press “**Cancel**” to cancel the setting, go back to the previous level setting menu.

### 5.3.1.10 System Information

Press “**Menu**” and select “**System Setup**”. Choose “**System Info**” and press “**Right**” button to enter the page of system information. Just show some information inside VP-500 as Figure 5.3.1.10.

Figure 5.3.1.10



### 5.3.1.11 Date/Time Setting

1. Press “**Menu**” and select “**System Setup**”. Select “**Date/Time**” and press “**Right**” button to enter the menu of Date/Time setting.

2. Users can set date and time by pressing “**Left**” or “**Right**” button and then press “**OK**” button to save the setting value or press “**Cancel**” button to cancel the setting, go back to the previous level setting menu.

### 5.3.1.12 ISP Setting

1. Press “**Menu**” and select “**System Setup**”. Select “**ISP**” and press “**Right**” button to enter the menu of ISP setting.
2. For ISP mode, users need to fill in all of the ISP setting, including the **ISP Phone Number**, **ISP Login Name**, **ISP Login Password**. After VP-500 reboot from current modem mode into ISP mode, it will automatically connect to ISP as you specified. If users check “**Use assigned TCP/IP settings**” then VP-500 will use the above TCP/IP setting as Internet network setting.

### 5.3.1.13 Registry Server Setting

1. Press “**Menu**” and select “**System Setup**”. Select “**ISP**” and press “**Right**” button to enter the menu of ISP setting.
2. When the IP address of VP-500 is dynamic, user should set these parameters for VP-500 to register itself to a registry server, thus user wants to visit this VP-500 can find it by visiting the yellow page provided by registry server. Contact with your local distributor for configuring these parameters. The **IP address of default registry host is 202.145.220.168**, and the **default registry host domain name is Null**, and the value of registry host path is “**cgi**”. Please visit <http://202.145.220.168/registry.htm> to query or browse registered VP-500.

### 5.3.1.14 Running Mode

1. Press “**Menu**” and select “**System Setup**”. Select “**Running Mode**” and press “**Right**” button to enter the menu of running mode setting.
2. Select one of the two modes to run. There are Network mode and ISP mode.

### 5.3.1.15 Reboot System

1. Press “**Menu**” and select “**System Setup**”. Select “**Reboot System**” and press “**Right**” button to reboot VP-500.
2. Users can press “**OK**” to reboot VP-500 now, or press “**Cancel**” button to cancel the setting, go back to the previous level setting menu.

### 5.3.2 Record Setup

After pressing “**Menu**” and the main menu pop up, users can press Up/Down button to select “**Record Setup**”, then please press “**Right**” button to enter the next level setting menu or press “**Cancel**” button to exit the setting menu and go back to the view screen.

#### 5.3.2.1 Record Schedule

1. Press “**Menu**” and select “**Record Setup**”. Select “**Record Schedule**” and press “**Right**” button to enter the record schedule list of VP-500 setting.
2. You can enable or disable “**Record Schedule**” of VP-500 by pressing “**Left**” or “**Right**” button. If enabled, you will set the schedules from Schedule 1 to Schedule 16, then VP-500 will record the certain data following these schedules.
3. Choose the certain schedule that users want to arrange, users can press “**Prev**” or “**Next**” button to arrange the other record schedules.
4. Users can choose the schedule from Monday to Sunday, set recording start time and stop time, and cameras resources.
5. Press “**OK**” to save the setting value or press “**Cancel**” button to cancel the setting value and return to the previous level setting menu.

**Note:** VP-500 will record according to the assigned schedule. If motion detection and GPI trigger recording are both not enable, VP-500 will record continuously. Otherwise, VP-500 will record when motion is detected or an event is triggered. Please refer to Chapter 5.3.2.2 and 5.3.2.3 for configuring motion detection and GPI trigger recording.



### 5.3.2.2 Motion Detection

1. Press “**Menu**” and select “**Record Setup**”. Select “**Motion Detection**” and press “**Right**” to enter the menu of motion detection setting from camera 1 to camera 4.
2. Choose a certain camera to set the motion detection parameters by pressing “**Prev**” or “**Next**” button.
3. You can enable or disable the motion detection function of one camera by pressing “**Left**” or “**Right**” button. If enabled, a 8x8 red block will be displayed on the top-left corner of the video if motion has been detected.
4. Set the sensitivity of camera, the value of sensitivity from 5 to 100.
5. Set the Motion Detection Area makes VP-500 focus sensing on the restricted area and then press “**OK**” to save the setting value or press “**Cancel**” button to cancel the setting value and return to the previous level setting menu..

### 5.2.3 GPI Trigger

1. Press “**Menu**” and select “**Record Setup**”. Select “**GPI Trigger**” and press “**Right**” button to enter the menu of Date/Time setting. Users can set four GPI Triggers for remote surveillance.
2. Choose the certain GPI Trigger from GPI 1 to GPI 4 by pressing “**Prev**” or “**Next**” button..
3. You can enable or disable “**GPI Trigger**” of VP-500. If enabled, users will set the record time in seconds, and set the camera sources from GPI 1 to GPI 4 by pressing “**Left**” or “**Right**” button., then click “**OK**” button to save the setting values. VP-500 will record the certain data following these schedules.

### 5.3.2.4 Pre-Alarm Function Setting

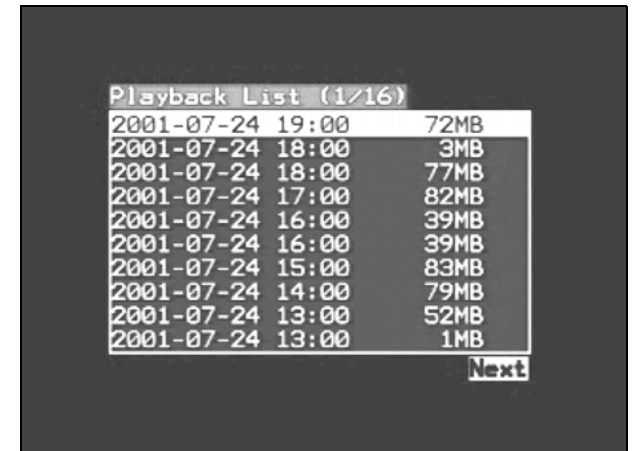
1. Press “**Menu**” and select “**Record Setup**”. Select “**Pre-Alarm**” and press “**Right**” button to enter the menu of Pre-Alarm function setting.

You can set the numbers of frames from camera 1 to camera 4 , then click “**OK**” button to save the setting values. VP-500 will start to record the certain data before triggered events happened or motion has been detected. This function has to be worked with motion detection and GPI trigger function. It will enable VP-500 to save frames before motion has been detected or triggered events happened.

### 5.3.3 Playback

1. After pressing “**Menu**” and the main menu pop up, users can press Up/Down button to select “**Playback**”, then please press “**Right**” button or press “**Playback**” button directly to enter the file list.
2. Via pressing “**Up**” and “**Down**” button to select the file, and then pressing “**Right**” to seek the recorded data, users will view the recorded data as Figure 5.3.3.
3. About the operation of function keys for playback, please refer to Chapter 5.1.

Figure 5.3.3



- End of this chapter -

## Appendix A: LCD Messages

"INITIALIZING..."

STATUS: System is initializing.

"VIDEO HW FAILED"

ERROR: Video hardware self-test failed.

"VIDEO OK"

STATUS: Video hardware self-test succeeded.

"NETWORK FAILED"

ERROR: Network hardware self-test failed.

"WEBSERVER FAILED"

ERROR: Web server startup failed.

"FTPSERVER FAILED"

ERROR: FTP server startup failed.

"WEB/FTPSERVER OK"

STATUS: Web/FTP server has been startup successfully.

"TCPIP ERROR"

ERROR: TCP/IP Protocol Stack Error.

"READY."

STATUS: System Ready.

"SYSTEM REBOOT"

STATUS: System now is rebooting.

"FW5.043/HW1.1+DB"

STATUS: Display the version and information of firmware and hardware,  
+DB means daughter board is installed.

"FPS:30"

STATUS: Display the current total video frame rate.

"REQUEST:4"

STATUS: Display the total HTTP request being serviced.

"MIC:3 SPK:0"

STATUS: Display the current occupied microphone and speaker.

"LAN/H263/NTSC"

STATUS: Display the current information of  
running mode / codec algorithm / video standard

"MAC=0040CA810683"

STATUS: Display the current MAC address (Ethernet address)

"IP ="

"192.168.10.10"

STATUS: Display the current IP address

"SUBNET MASK ="

"255.255.255.0"

STATUS: Display the current subnet mask

"GATEWAY IP ="

"0.0.0.0"

STATUS: Display the current Gateway IP address

- End of this chapter -

## Appendix B: WCOMW Usage

### B.1 Prepare To Use WCOMW

1. Connect COM2 port (or one empty serial port) in PC and COM1 port of VP-500 via an RS-232 Cable (come with VP-500).
2. Insert the Setup Disk come with VP-500 into your floppy driver and copy all of those files to a directory of the PC and unzip the TeleWriter.zip.
3. Launch WCOMW.EXE on PC (double click on the icon of that file while you are in Windows 98 File Explorer)
4. If you are using other COM port of your PC to connect VP-500, please select it from File Menu.



### B.2 Set IP address under Network Mode

1. If you have press X in loader menu and keep the RS232 cable connected, jump to 3.
2. Prepare the configuration as indicated in B.1, then power on VP-500.
3. Wait until you see this menu as follows:

```

---- Network Mode Configuration Menu ----
[1] Set IP/Subnet Mask/GW
[2] Set Registry Server(IP/Domain/Path)
[X] Exit
Choose ?
    
```

Press 1 to set IP address, subnet mask and the gateway IP address for VP-500. A valid and unused IP address is required.

Press 2 to set the parameters for registry server, please reference section 3.8.8.

Press X to exit and continue to boot.

Remove the RS-232 cable from VP-500.

*- End of this chapter -*

## Appendix C: Guide to Revise Firmware of VP-500

### NOTICE

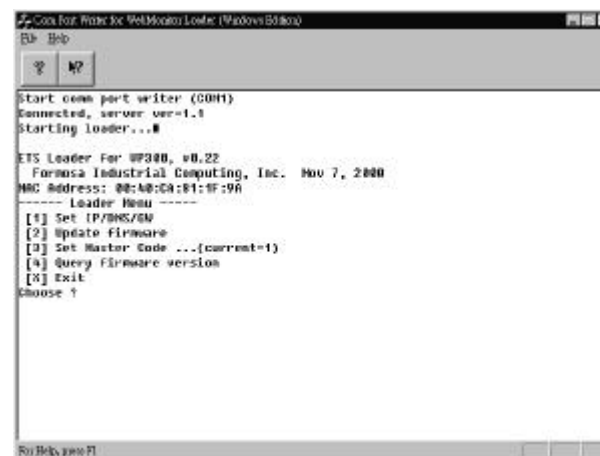
For FW 5.043 and prior version, we strongly recommend users to use WCOMW as the only way to revise firmware, and after revision, remember to restore default factory settings.

### Step-by-step instructions for revising firmware of VP-500

1. See Section 1 to use WCOMW connecting to VP-500
2. See Section 2 to check the version of loader and revise it if necessary.
3. See Section 3 to revise firmware

### C.1 To Use WCOMW

- A. Use WCOMW connect to VP-500
1. Connect COM2 port (or one empty serial port) of PC and COM1 port of VP-500 using an RS-232 cable (comes with VP-500).
  2. Insert the Setup Disk come with VP-500 into your floppy driver and copy all of those files to a directory of the PC and unzip the file: **TeleWriter.zip**.
  3. Launch **WCOMW.EXE** on PC (double click on the icon of that file while you are in Windows File Explorer)
  4. If you are using other COM port of your PC, please select it from File Menu.
  5. Power on VP-500.
  6. When you see "**Starting Loader..?**" in WCOMW, press **ESC** key in 2 seconds and a loader information and menu will be displayed, and if you failed to press **ESC** key in 2 seconds, just restart VP-500 to do it again. If you don't see "Starting Loader..." in WCOMW and the menu is displayed directly, just go ahead.



(WCOMW Menu Displayed)

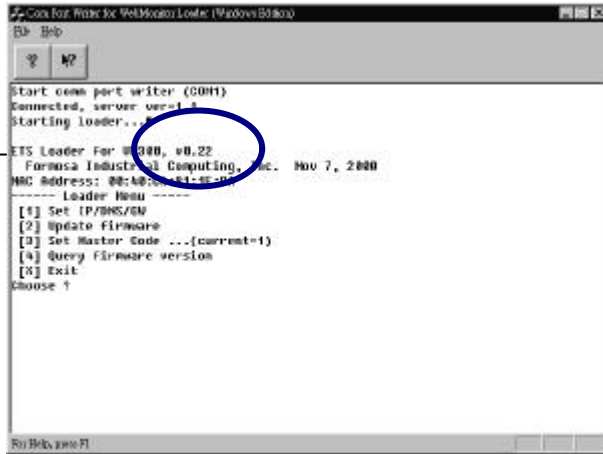
- ETS Loader for VP300, v0.22
- [1] Set IP/DMS/GW
- [2] Update firmware
- [3] Set Master Code ...
- [4] Query firmware version
- [X] Exit
- Choose ?

← loader information  
← loader menu

## C.2 To Check the Version of Loader and Upgrade Loader

- The loader information would be displayed as following. You can also check the version of loader.

When you see “ETS Loader for VP-500, v0.22” in loader information, it means that the version of loader for VP-500 is v0.22.



Loader versions and files for VP-500:

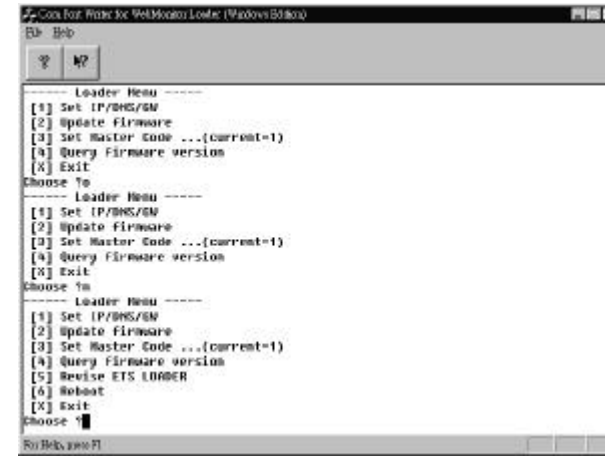
loader version 0.22 file: ldr300.exe.022

**Notice:**

Before revising firmware, make sure the loader version of your VP-500 is v0.22 (or later).

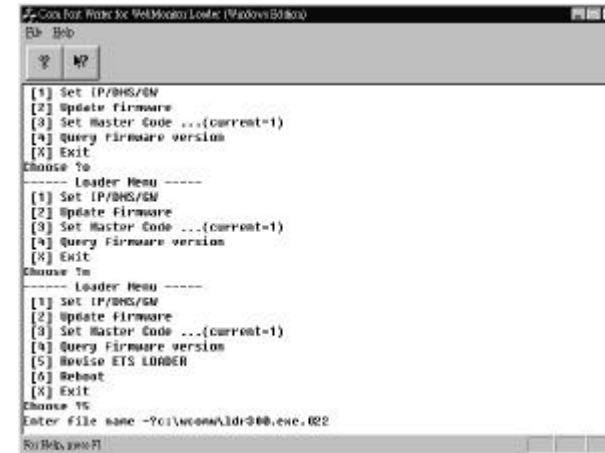
- Press 'W', 'E', 'B', 'M', 'O', 'N' will pop up additional menu items as:

- [5] Revise ETS LOADER
- [6] Reboot
- [X] Exit



(Additional Menu Popped up)

- Press 5 to revise loader, enter the full path and filename of the new loader.



(Full Path and Filename of the New Version of Loader Entered)

- WCOMW is now uploading loader file to VP-500 for revision.

```

C:\> con for prog to \\192.168.1.100\ets_loader_loader (Windows B100)
E:\> H:\b
Send 179200 bytes (Accumulated)
Send 180224 bytes (Accumulated)
Send 181248 bytes (Accumulated)
Send 182272 bytes (Accumulated)
Send 183296 bytes (Accumulated)
Send 184320 bytes (Accumulated)
Send 185344 bytes (Accumulated)
Send 186368 bytes (Accumulated)
File transfer completed
Transfer data rate=18850 bytes/sec
Server received 186368 bytes
Start to update loader...
Update loader successfully
----- Loader Menu -----
[1] Set IP/DHCP/GW
[2] Update firmware
[3] Set Master Code ...[current=1]
[4] Query Firmware version
[5] Revise ETS LOADER
[6] Reboot
[X] Exit
Choose ?
    
```

(ETS Loader Updated Successfully)

- After revision, you have to restart VP-500. Just switch the power of VP-500,

### C.3 To Revise firmware

- Press 2 to revise firmware.
- Enter the full path and filename of the new firmware.

```

C:\> con for prog to \\192.168.1.100\ets_loader_loader (Windows B100)
E:\> H:\b
Start com port writer (COM1)
Connected, server ver=1.1
Starting loader...#
ETS Loader For WF300, v0.22
Formosa Industrial Computing, Inc. Nov 7, 2000
MAC Address: 00:10:0A:01:0F:00
----- Loader Menu -----
[1] Set IP/DHCP/GW
[2] Update firmware
[3] Set Master Code ...[current=1]
[4] Query Firmware version
[X] Exit
Choose ?2
Enter file name =C:\wcom\gmain.bin.301
    
```

(Full Path and Filename of the New Version of Firmware Entered)

- WCOMW is now uploading firmware file to VP-500 for revision.

```

C:\> con for prog to \\192.168.1.100\ets_loader_loader (Windows B100)
E:\> H:\b
Server received 182324 bytes
Start to update firmware...
Send 217 bytes (Accumulated)
File transfer completed
Transfer data rate=1764 bytes/sec
Server received firmware information as follows:
File information:
File name=C:\wcom\gmain.bin.301
File size=182324
File date=12-15-2000 11:35:54p
File last 4 bytes= 00 00 0e cf (hex)
This information is collected by comdll.dll, 3-5-2001 10:56:04a
Update firmware successfully
----- Loader Menu -----
[1] Set IP/DHCP/GW
[2] Update firmware
[3] Set Master Code ...[current=1]
[4] Query Firmware version
[5] Revise ETS LOADER
[6] Reboot
[X] Exit
Choose ?
    
```

(Firmware Updated Successfully)

- After revision, press X to continue booting from the new firmware.
- After VP-500 is ready, push and hold default settings button until VP-500

- stops beeping.
6. VP-500 will restore default setting and reboot.
  7. You have completed updating firmware of VP-500, you can now continue to configure it and use the new firmware.

- End of this chapter -

## Appendix D: Troubleshooting

### D.1 General

**Q: LCD is not lit when power on.**

1. Check power cable if it is well connected.

**Q: Network indicator is not lit.**

1. Check the network cable connection
2. Verify the network is working, you can ping an existing device on the network.
3. Power off VP-500, wait at least 20 seconds, power on VP-500 and verify again.

**Q: LCD backlight is lit and the display of text is freezed.**

1. Switch power to check again
2. Revise the latest workable FW by WCOMW.

**Q: Bad video quality.**

1. Raise the video quality setting.
2. Check video quality from cameras.
3. Adjust VGA color to be at least 65536 color.
4. Try adjusting 75Ohm terminating resister.

**Q: No video**

1. Check video cable, connector, power of camera. Use a TV set to verify the functionality of cameras.
2. Check the corresponding Q&A of each running mode of VP-500 for this problem.

**Q: Cannot control PTZ camera**

1. Check cable connection and power of the camera.
2. COM2 parameters are not correct, or not accommodate with the PTZ device.
3. ID of the PTZ camera is not set correctly.
4. Switch the power of both VP-500 and PTZ camera.
5. VP-500 do not support this type of PTZ camera.

## D.2 Network Mode

**Q: Cannot access VP-500 from browser.**

1. Verify network cable is well connected to hub and the network is good.
2. Make sure you are using IP in the same subnet of VP-500.
3. Clear the ARP list.
4. If you are running MS Proxy Client on your PC, and the IP assigned to VP-500 is not a valid local IP on the network. Try to allocate a valid local IP to VP-500 or disable MS Proxy Client from the Control Panel.
5. If you can ping the IP of VP-500, disconnect VP-500 from network and ping this IP again. If there is a response, then you have a duplicated IP address on the network.
6. Clear your browser's cache and make browser to check if there is newer version of web page at every visit.
7. If you still cannot access VP-500, try disable proxy in your browser.

**Q: You can access VP-500 in intranet, but failed to access it in internet.**

1. Verify your intranet is connected to internet.
2. Verify if a valid public IP is assigned to VP-500 or a valid public IP is mapped to a valid local IP assigned to VP-500.

**Q: No Video.**

1. Reload this page.
2. Check the General Q&A about this problem.
3. Clear your browser's cache and make browser to check if there is newer version of web page at every visit.

**Q: If you can access video of VP-500 in intranet, but failed to access video from internet:**

1. Check the settings of firewall and proxy server. VP-500 use standard HTTP protocol and port 80. It might be necessary to enable those video MIME types (video/x-nficwmh263 and video/x-nficwmhjpeg ) of VP-500 to be granted by your firewall or proxy server. Also check if they allow large data transmission.
2. Disable proxy server settings of your browser.

**Q: Browser stops responding on mouse click**

1. You are opening too many video strings.
2. You are opening more than one video string from the same camera.
3. Your PC is too slow, upgrade and accelerate your system.

**Q: READY message is not present or LCD backlight is always lit.**

1. Check network connection.

*- End of this chapter -*