VPON

Network DVR System

Your best choice for digital video recording and remote surveillance

VP-408/412/416
User Manual

(Version:V2.0)

VPON

Preface

Notice
The information in this manual was current when published. The manufacturer reserves the right to revise and improve its products. All specifications are therefore subject to change without notice.
Note: Formosa21 will not be obligated to the responsibility outside the scope of VPON DVR.

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Trademarked names are used throughout this manual. Rather than place a symbol at each occurrence, trademarked names are designated with initial capitalization. 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 VPON 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.

GUARANTEE
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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.

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1. Overview

This manual will guide you through the features and functions of the VP-416 Network Digital Video Recorder (DVR) system. Read this section to get an overview of the product.

1.1 Introduction
The VP-416 Network DVR System is a high performance digital video recorder and web server all in one. Features include a real time video capture utility, and video compression that allows efficient transmission of moving images over a network. Video can also be displayed on a local VGA monitor. The VP-416 can record and play back digital video simultaneously while continuing to display live video. Video footage is saved to a removable hard disk.

Up to 16 cameras can be connected to a single VP-416 unit. Full motion video with audio over Internet or intranet is supported. Video output can be viewed using a standard PC and web browser with custom plug-in software. Camera pan, tilt, zoom, and focus functions can be controlled over the network, and the unit can be configured to react a particular way to when certain events occur. An IR remote control unit is included to make setup and operation as trouble free as possible.

1.2 System requirements
Cameras
- Composite CCD, V8, or camcorder
- NTSC or PAL standard

Network equipment
- RJ-45 Ethernet port and connection to Internet or intranet (network mode)
- Public or private IP address (Network mode and Internet access)
- VGA monitor for local display

PC for configuration for remote viewing
- Pentium IV 1.7GHz CPU or better
- 256MB RAM or more
- AGP VGA card
- Microsoft Windows XP/2000/ME/98 operating system
- Standard Internet browser such as Internet Explorer

1.3 Features
Video & audio live surveillance
- Plug and recording, VPON Network DVR Firmware in a DOM.
- Two-way audio transmission and multiple audio channels support.
- 1 / 4 / 6 / 7 / 8 / 9 / 10 / 13 / 16 split-screen display.
- Control well known brand PTZ Cameras.
- Different PTZ devices can work on same serial bus.
- System log and Operation log support.
- Record / display / playback simultaneously.
- High video quality and low data rate.
- Multiple video compression engines: MPEG4, H.263, JPEG, M-JPEG

Recording & Playback
- Water mark to prevent fraud image modification
- Adjustable recording rates and resolution for each camera
- Motion detection / Alarm trigger / Cyclic / Schedule / Weight recording
- Pre-motion or pre-alarm and post-motion or post-alarm recording
- Adjustable recording frame rates when motion or alarm was triggered
- Brightness, color adjustment and Digital Zoom-in during playback.
- Thumbnail browsing and bookmark function support

- SCSI/USB/IDE RAID and NAS storage system support

Alarm function
- System audio alarm warns when alarm is triggered
- System automatically displays corresponding enlarged image when alarm is triggered
- Snapshot images through E-mail or FTP server when alarm is triggered.

Network
- Browser-based, no remote viewing software needed.
- Access prohibition for pre-defined hosts through IP network
- Dynamic IP support for Internet access
- Direct Dial-up available and Low-bandwidth support

Easy to use
- Non-Windows embedded Linux system, no system crash and virus infected concerns
- Easy configuration via local keyboard, IR Control, Home Page or Mouse
- Compatible with most of Motherboards

Customization
- Replaceable Graphic User Interface to meet OEM need.
- Provides URL syntax for Web Page customization
- Support control morning software and POS /ATM solution

1.4 Product Specifications

Model	VP-408	VP-412	VP-416
Video Standard	Support NTSC / PAL composite video, BNC video input		
Video Input	8	12	16
Audio Input	One channel		
IR Remote Control	Built-in IR receiver		
HDD Mobile Rack	1 or 2		
Sensor Input/ Relay Output(Optional)	Through COM port or add-on card		
Compression Standard	Support H.263, M-JPEG, JPEG , MPEG4 standards		
Image Size	320x240, 640x480		
Total Record/ Playback Frame Rate	240fps		
Maximum Live Display Frame Rate	240fps(NTSC) 200fps(PAL)	360fps(NTSC) 300fps(PAL)	480fps (NTSC) 400fps (PAL)
System Configuration	P4-2.66G CPU 512 MB DRAM 2S1P, 4USB AGP VGA 10/100Mb LAN		
Browser Compatibility	Win 98/ ME / 2000 / XP running MS IE 6.0 or above		
Communication Protocol	Support TCP/IP, DHCP, HTTP , FTP		
Power Supply	100-240 VAC, 50-60HZ		
Size Weight	51.2 cm (L) x 43.5cm (W) x 17.5 cm (H) 20Kg		

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1.5 Front panel
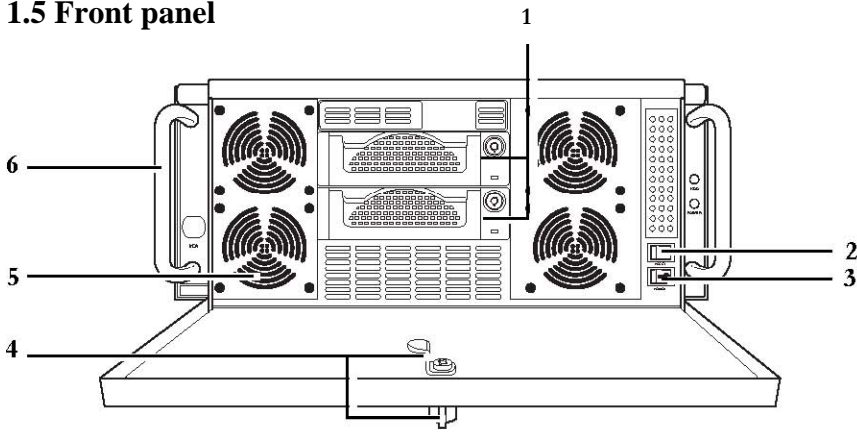
1	Removable hard disks	2	Reset switch
3	Power switch	4	Lock
5	Cooling fans	6	Handle

1.5.1 Back panel
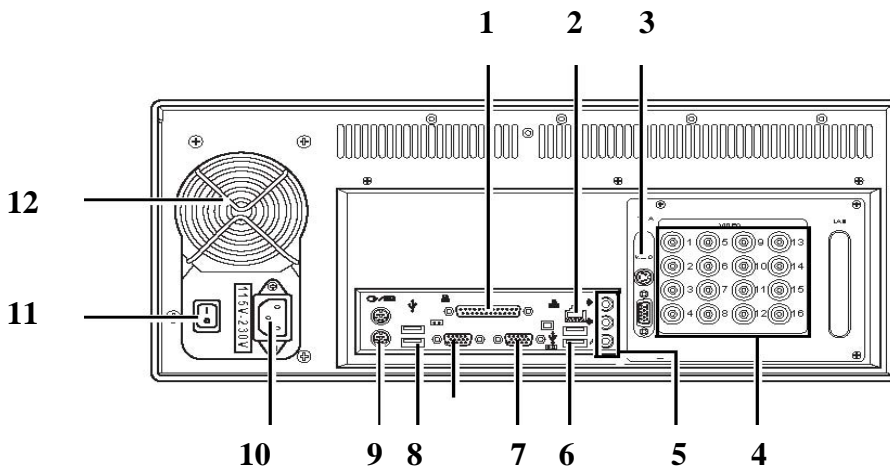
1	Printer port	2	LAN port
3	Video out ports (VGA, S-video)	4	Video in ports (composite)
5	Audio ports	6	USB 2.0 ports
7	COM ports	8	USB 2.0 ports
9	Keyboard and mouse ports (PS/2)	10	Power input
11	Power switch	12	Case exhaust fan

1.6 About the GUI

The VP-408/412/416 can be configured and operated using either the local GUI, or over a network.

1.6.1   The local GUI

1.6.2   The network GUI

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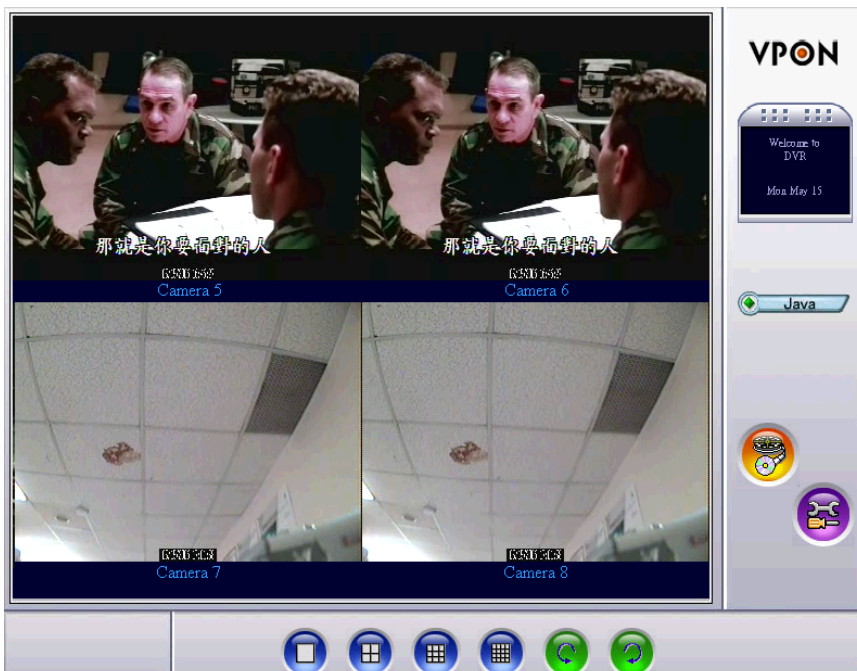
2. Getting Started

Read this section to get your VP-408/412/416 up and running. This section assumes that the VP-408/412/416 is already connected and cameras are attached. For more information, see the user manual supplied with the unit.

Live footage can be viewed either on the local screen connected to the VP-408/412/416 or over a network if a connection exists.

2.1 Running modes

Images can be viewed on the screen attached to the VP-408/412/416. You can control the number of images displayed on the screen and configure the VP-408/412/416 using either mouse control, or IR remote controller(optional).

Turn the VP-408/412/416 on using the power switch on the rear of the unit and the switch on the front panel.
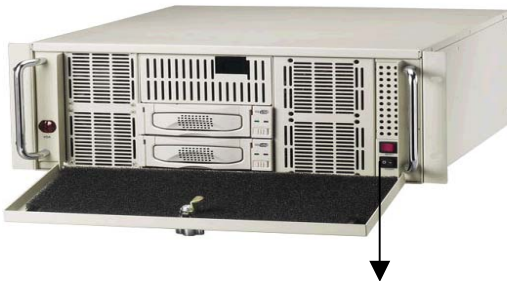
Front panel power switch
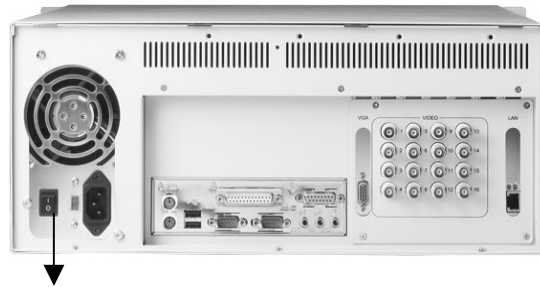
Rear power switch

The VP-408/412/416 will boot up in either IR control or mouse control running mode.

Note: The default startup mode for the VP-408/412/416 is mouse control mode. Setting the Running Mode option as described later in this section can change this.

If the VP-408/412/416 is in **mouse** running mode, a graphical user interface (GUI) with clickable buttons will be displayed on screen as shown below. In this running mode, the IR remote control will not function. When the VP-408/412/416 is in **IR remote control** running mode, no GUI is displayed, only feeds from the connected cameras.

Follow these instructions to switch from mouse running mode to IR remote control running mode.

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1. Click the **SET UP** button on the GUI to display the setup menu.
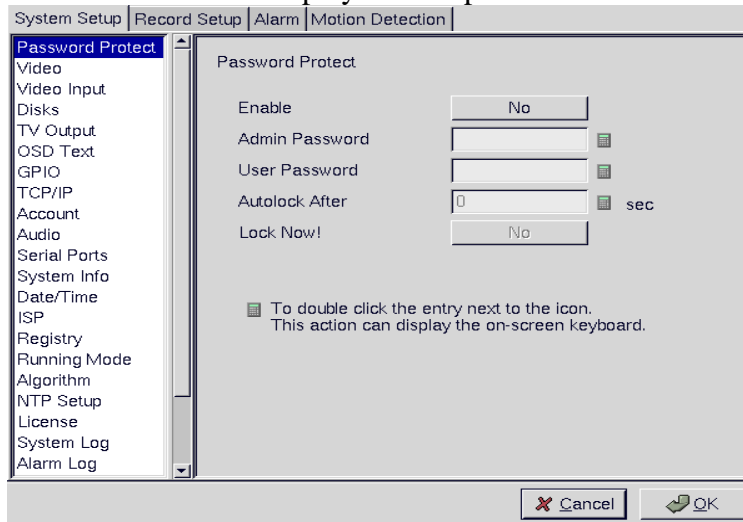
2. From the list on the left of the screen, click the **Running Mode** heading to display the running mode menu.
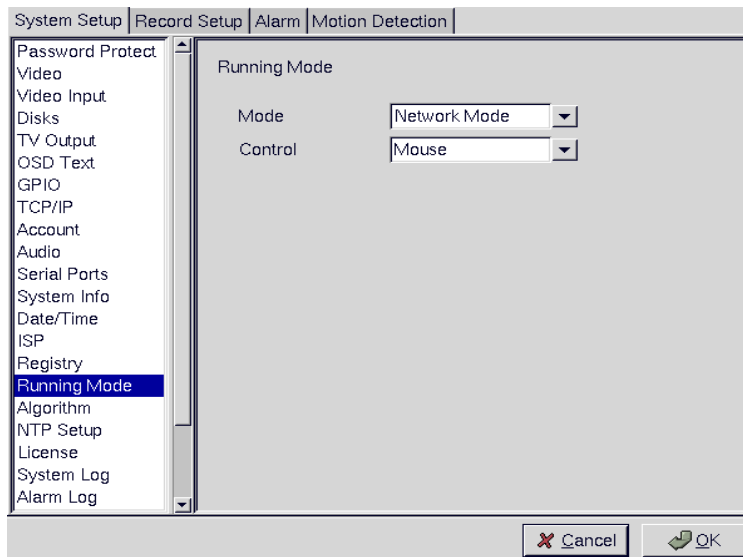
3. From the **Control** dropdown box, choose **IR Control**.
4. **From the Mode** dropdown box, choose either **ISP mode** if you are connected using an ISP type connection, or **Network Mode**, if you are connected to a network.
5. Click **OK.**

The system will automatically reboot in IR remote control mode.
Follow these instructions to switch from IR remote control running mode to mouse running mode.
1. Press the **Menu** button on the remote control to display the setup menu on screen.

Menu button
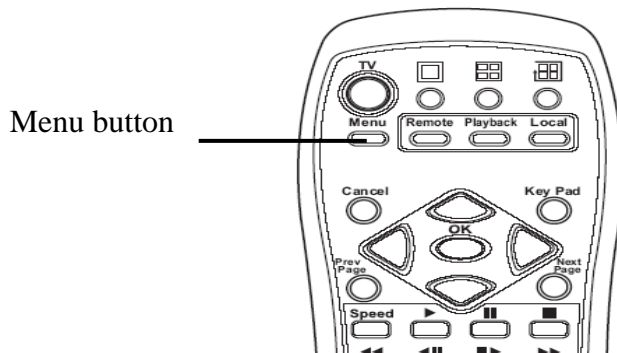
2. Use the up and down arrow buttons to highlight the **Running Mode** option and press the **OK** button to confirm your choice.

The running mode menu will be displayed on screen.

```
Running Mode
Mode-Network Mode
Control-IR Control
```

3. Use the up and down arrow buttons to highlight the **Control – IR Control** field.
4. Use the left and right arrow buttons to toggle between **Control – IR** and **Control – mouse**.
5. Press the **OK** button when the control field is set to mouse.

The unit will reboot when the **OK** button is pressed. It will restart in mouse running mode.

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3. Graphic User Interface (GUI)

3.1 Introduction

VP-408/412/416 can be configured using either the supplied remote control unit (or a keyboard) or a mouse. This chapter covers mouse operation. The VP-408/412/416 must be in GUI mode for mouse operation. Under GUI mode, keyboard is used ONLY for data entry.

Local surveillance GUI:

DVR basic information

Camera status

Playback

System configuration

Split-screen / Live surveillance

Full screen monitoring / I/O button
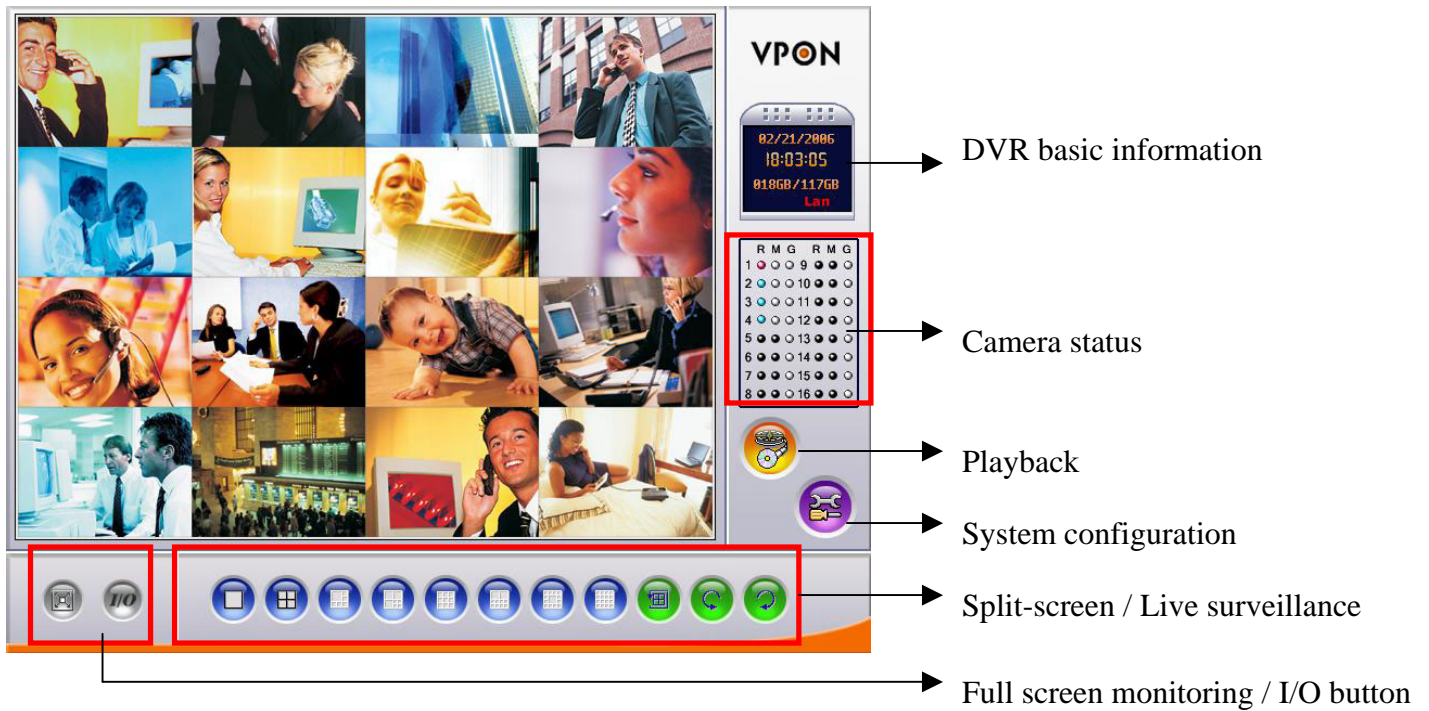
DVR basic information: including date, time, total hard disk size and LAN status.

Camera status:

R

Color	Recording Mode
Gray	No video signal
Blue	No recording
Red	Full recording

M

Color	Motion detection Status
Gray	Motion not detected
Yellow	Motion detected

G

Color	Status of each DI and DO device.
Gray	DI or DO not detected
Red	DI or DO was detected

3.2 Surveillance screen panel

The Surveillance Screen Panel enables you to define which live images are displayed on screen.

A   B C

8
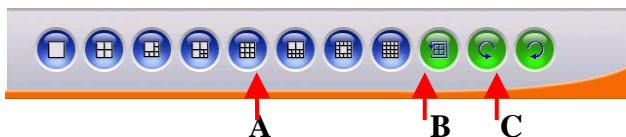
A. Selectable 1 / 4 / 6 / 7 / 9 / 10 / 13 / 16 split-screen display

B. Use the sequence button to automatically cycle through all the connected cameras

C. The arrow buttons to get previous or next camera

Enlarge button

Click the enlarge button to switch to full screen live video display.

Double click mouse right button to switch back normal live video.

3.3 Setup Video Quality

Use the video quality button to set all the video parameters for the cameras connected to the VP-408/412/416.

1. First, please change to single screen as following .

Select camera

Video quality button / I/O button / POS button

Back to live surveillance / Enlarge video / System setup

2. Press the set quality button , you can see the **Brightness** , **Contrast** , **Saturation** , **Hue** , **Quality (All) control** panel.

Brightness- adjusts the amount of light or brightness for the selected camera according to your preference.

Contrast - adjusts the difference between light and dark areas or contrast for the selected camera according to your preference.

Saturation - adjusts the amount of color for the selected camera.

Hue - adjusts the dominant color for the selected camera.

Quality (All) - adjusts the video quality for all cameras. The default setting is 80. We recommend that you do not set this to 100 to avoid slow video transmission rate and using up too much hard disk space.

3.4 I/O button   **or**

Click the "I/O" button to display the I/O panel.
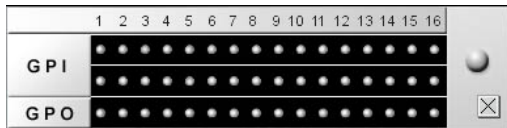
When an alarm is triggered, the GPI and GPO that are connected will show the status of the input or output device. Colors will change on the GPIO panel when the corresponding GPIO points are activated.

3.5 POS button

Click the "POS" button and the screen will show as below.

1. Firstly, please change to single screen as following .
2. After the "POS" button is pressed, the POS panel will appear at bottom of the screen.
3. POS transaction data with video will show on the screen and data ONLY on pos panel.

POS transaction data

3.6 PTZ Control

PTZ panel

After setting PTZ in the camera setup section , user can use the PTZ panel to control PTZ (Pan, Tilt, Zoom) cameras. This panel is displayed when change to single screen.
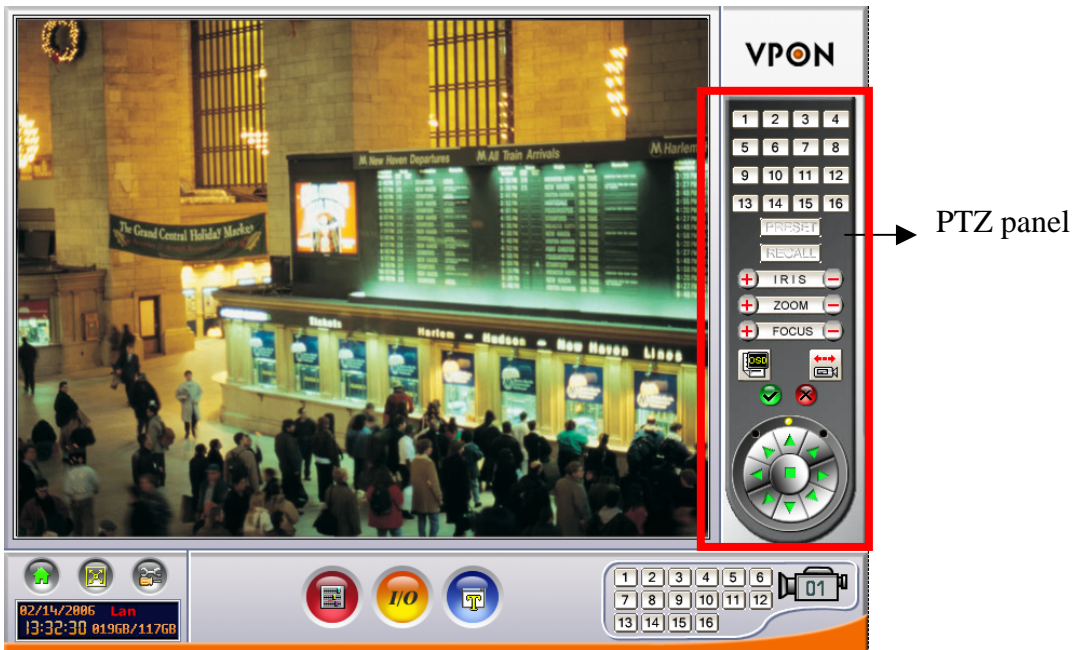
PTZ panel

PTZ panel: You can do preset and recall, zoom in/out, focus, iris control to current camera.

Preset buttons- Save current camera position. You can save totally16 preset positions

Recall buttons- Move the camera to the selected preset position.

 ZOOM buttons - adjust the zoom to provide a more closer or wider view of the subject.

 FOCUS buttons - adjust the focus of the camera.　　　　　PTZ panel

 Speed buttons - Adjust the moving speed of the selected PTZ camera.

 PTZ OSD menu / patrol / auto pan – Using OSD menu to control PTZ .The "" button is ok,"" button is cancel.

 Pan and tilt buttons - Adjust the pan and tilt of the selected camera include 45 degree directional PTZ control at upper right, upper left, button right, button left of PTZ control panel

To set a camera configuration:

1. Select a camera using the numbered buttons (1~16) on the Surveillance Panel.
2. Adjust the Zoom, Focus, Speed, Pan and Tilt buttons until the camera is configured correctly.
3. Press a Set button to save the configuration.

The configuration you have saved can now be recalled with the corresponding Call button.

3.7 PLAY button

Click the PLAY button for playback the recorded files in the hard disk.

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Watermark

Calendar

Function buttons

Play buttons

Split-screen buttons

Recording data status information

Lock file

Back to live surveillance
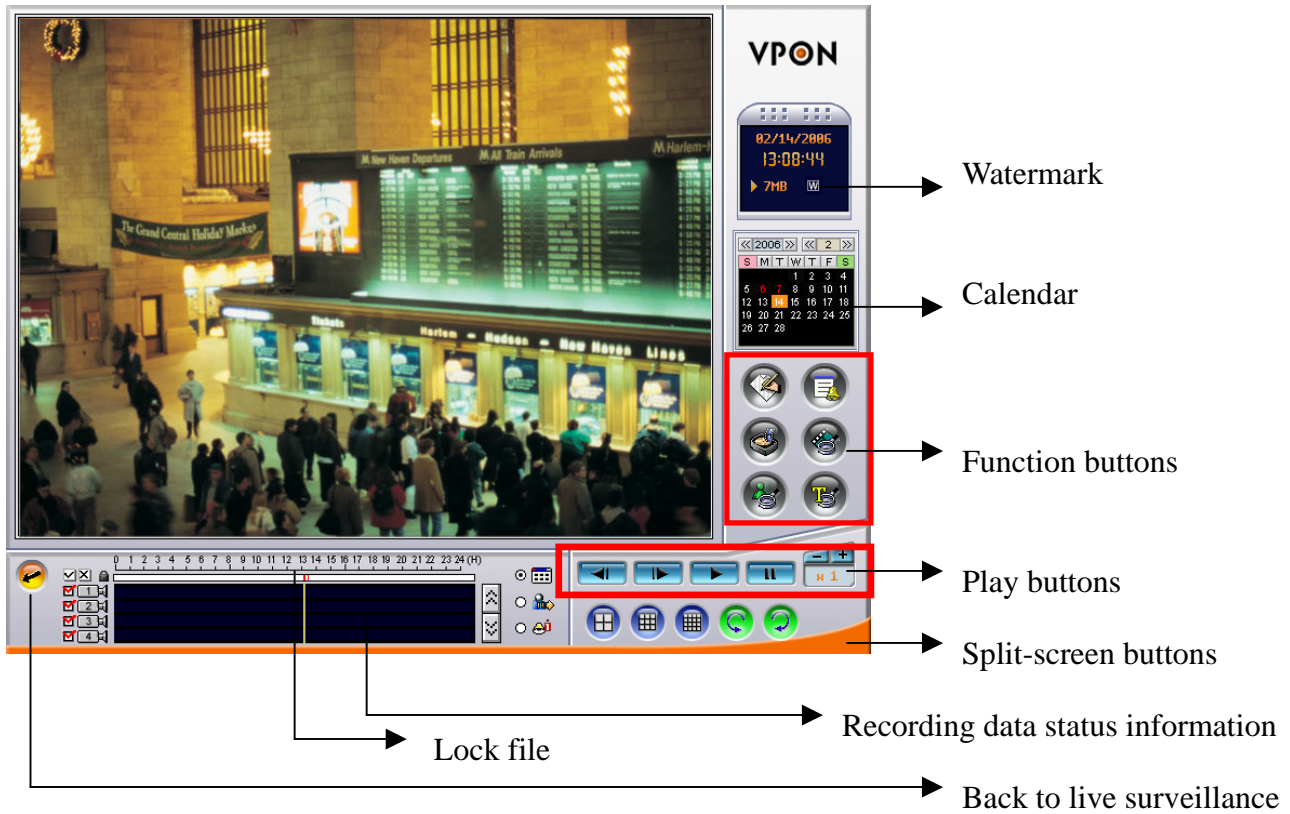
Function buttons:

1. Bookmark   2. Alarm log   3. Backing up the data

4. Thumbnail Browse   5. Search by Event   6. Search by Text

How to play recording file:

Step3: Select camera to playback.

Step2: Select an hour from time line.

Step4: Click anywhere on recording data score bar to start playback from the required point.

Step1: Select a date from calendar.

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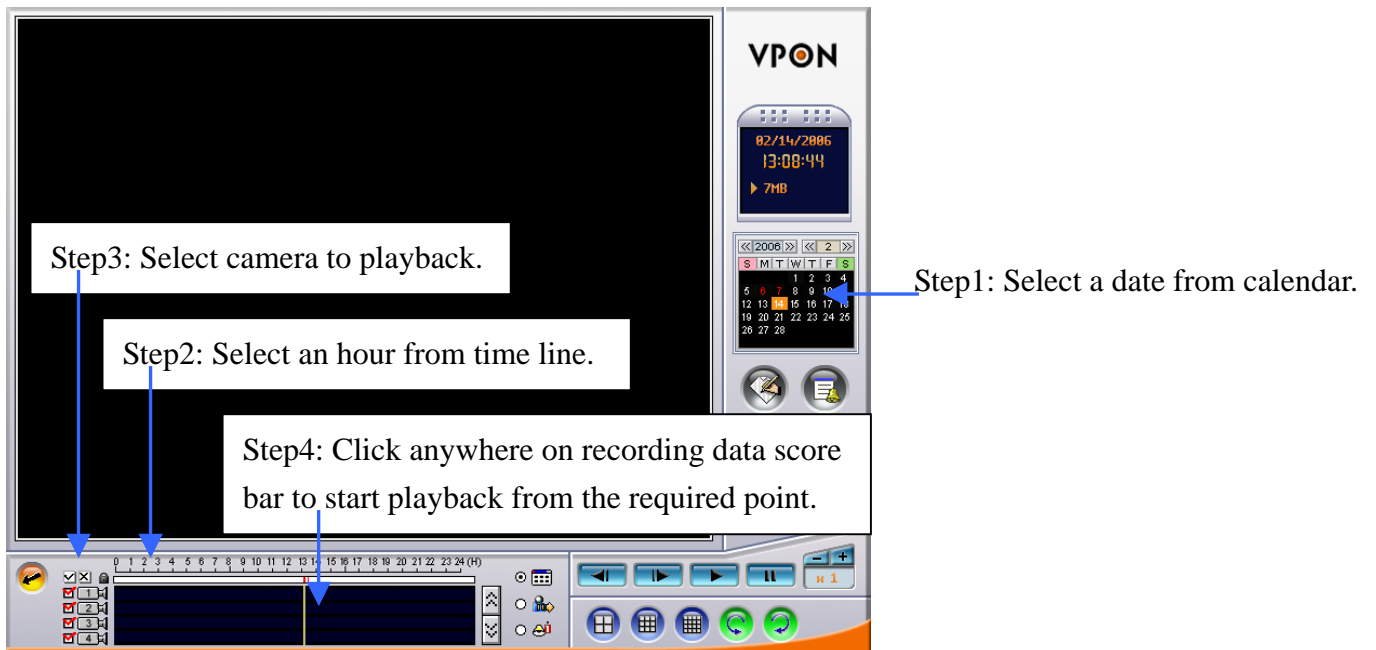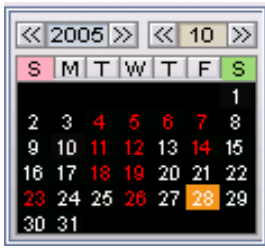
Date Color	Meaning
Red	Have recording data
White	No recording data
Square	Today's date
Orange	The day that was selected for playback

Lock file: click the score bar under time line can lock file to keep the file not been erased by HDD cycle back writing

Click to show normal recording status
Click to show motion detection recording status
Click to show alarm trigger recording status

Recording data status: click anywhere on score bar to start playback from the required point.

Select camera: enables you to select which camera images to display on screen.

1. Play buttons:

Use the Play buttons to control playback of stored footage from the cameras.
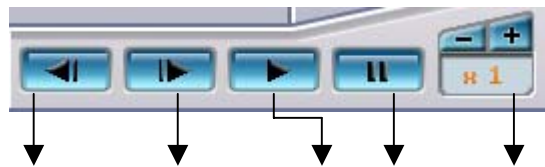
Step backward   Step forward   Play   Pause   Control playback speed(1/8x ~ 4x)

The fastest speed of the single image playback is 4x; slowest speed is 1/8x. Click "+" button once to double playback from normal. Click "-" button will decrease playback speed.

2. Split-screen display buttons:

Split-screen display buttons enables you to define which split-screen is displayed on screen.

Selectable 4 / 9 / 16 split-screen display.   The arrow buttons to cycle through all connected cameras.

3. Brightness/Contrast / Sharpness / Digital Zoom in playback – When pause playback, the brightness; contrast or sharpness of the image can be adjusted. User can also zoom in specific point of the image to get clear view.

Brightness   Contrast   Sharpness   Smoothness   Zoom-in   Restore
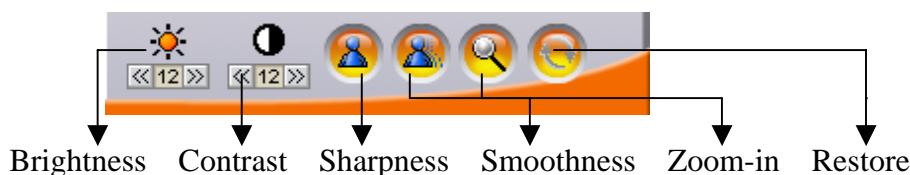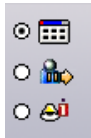
4. Status Button

The status panel displays the playback status of the current recording. The aqua line (**Data**) indicates record data over an one hour time interval. The yellow bars (**Motion**) indicate the instance when motion was detected. The (**GPI**) indicate when a GPI event was detected. The moving orange line indicates current playback status. Click anywhere on the Data, Motion, or GPI lines to start playback from that point.

3.8   Bookmark

User can have bookmarks at the specific time during playback.
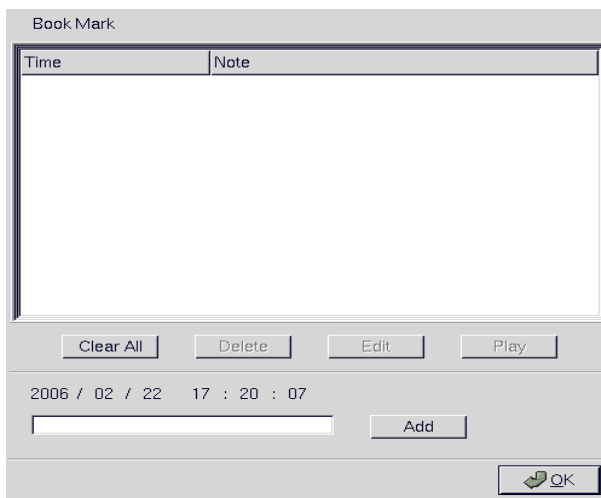
Bookmark:

1. During playing recording file user can click "bookmark" button to mark the specific time point.
2. User can write down the note and click "Add" button to save it.
3. Select one of the lists of recording file in bookmark field and click "play" button to playback.

3.9   Alarm log

Any alarm will be written into alarm log including motion trigger、GPIO trigger、Disk error、Video loss、POS event…...etc. User can search alarm log by specific time and double click one of the alarm log on the list to playback the video.
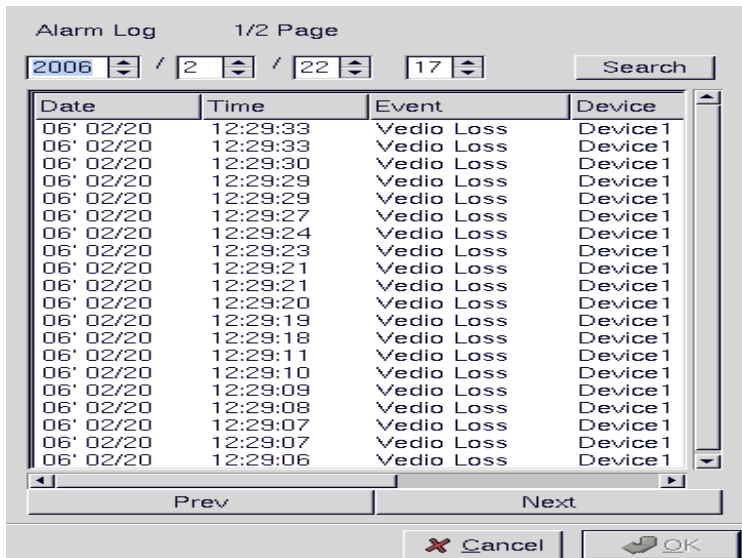
3.10 Backing up the recorded files

If the DVR is equipped with CD/RW, DVD+RW drive, you can back up your recorded files to a CD, DVD, or USB hard drive.

Note: The DVR will take some time to collect data before it can start back up process.

3.11 Thumbnail Browse

Finds video images and selects them for processing individually, in whole folders, using a simple time selector and built-in image viewer .you can check out the results with the built-in viewer.

1. Select search starting time and camera.
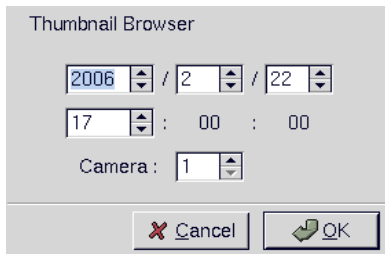
2. Using a simple time selector and built-in image viewer .you can check out the results with the built-in viewer.
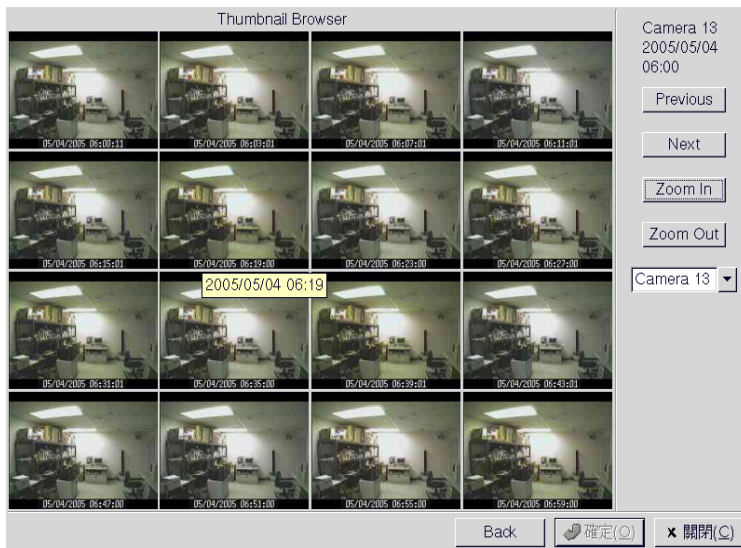
Previous - Search forward

Next - Search backward

Zoom in - The whole Thumbnail search was divided to three layers. The first layer is hourly based. Each picture on the windows is the first picture of that hour。When select a specific hour to do Zoom in, it goes into second layer. The second layer displays 16 pictures based on evenly divided time slots in this hour。Then if any one of these pictures is selected to do Zoom in，it goes into the third layer. This layer displays 16 pictures from left to right, that are most close to the time slot of layer two。

Zoom out - Back to one layer up。

Back- Back to Thumbnail Browser window

Ok - Start playback recorded file

3.12 Search by Event

Searches the list of recorded files for the specified event such as a specific area of motion or a GPI Trigger that occurred within the specified time interval.

Search by GPI Trigger:

1. Rule Selection- choose one of **GPI 1~16**.
2. All Time Range- Select "All Time Range"、"Today"、"Yesterday" or "User Define" for quicker searching.
3. Click "ok" to start search GPI Trigger files in the specific time.
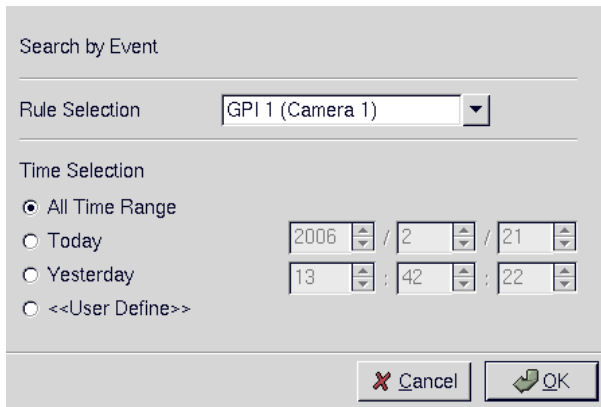
4. Search results are as follow:

Previous search result / Next search result / Search result list / repeat

Search by Motion:

1. Selection Rule – Select from one of Motion **1~16**. All Time Range- Select "All Time Range"、"Today"、"Yesterday" or "User Define" for quicker searching.

2. Click "ok" to start search motion files in that specific time.
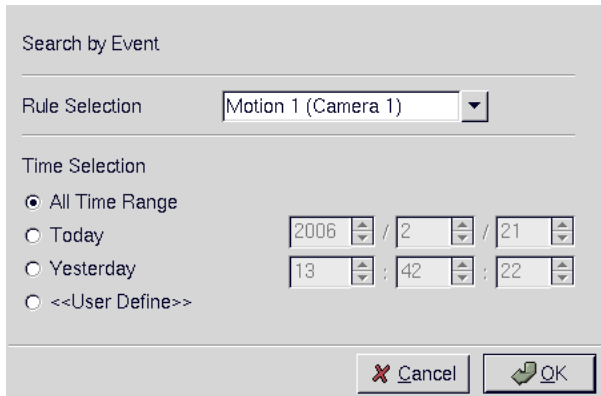
3. And then define search area .
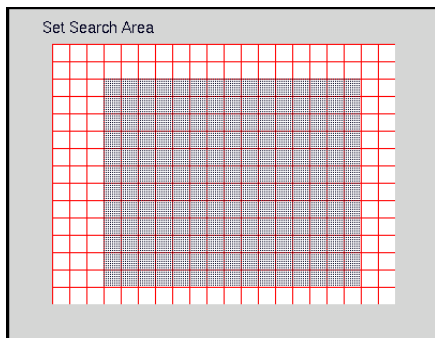
4. Click "ok" to start searching motion files in that specific area.

5. Search results are as follow:

Previous search result / Next search result / Search result list / repeat

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3.13   Search by Text

Searches recorded files that contain POS information of specified text.

1. After define POS text , select search starting time and camera .
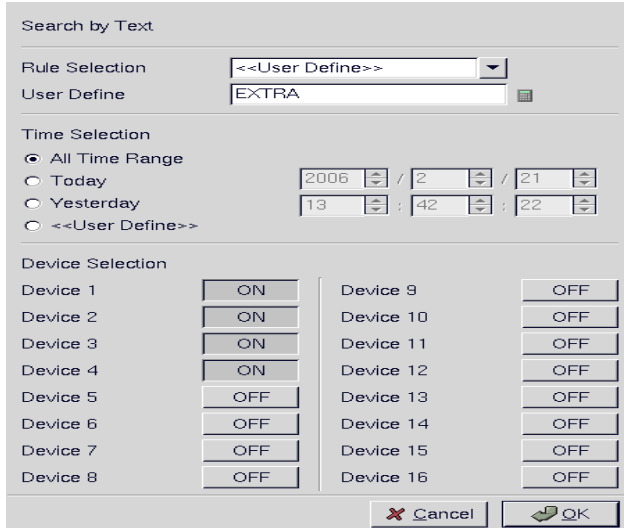
2. Search results are as follow:
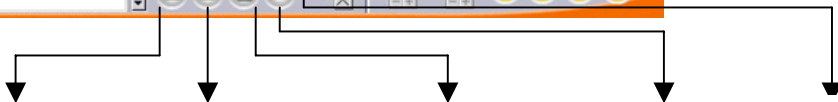
Previous search result / Next search result / Search result list / repeat / Enable or disable pos data

Note : Click the   "search result list" button to playback the pos data.

Date / Time		Device
2006-03-16	18:21:04	Device 1
2006-03-16	18:20:25	Device 1
2006-03-16	18:20:22	Device 1

✗ Cancel   ✔ OK

3.14   Close playback screen

Stop playback recording file and back to the recording file list menu.

[System setup]

3.15   Setup

Click the Set Up button to show VP-408/412/416 configuration set up the menu. There are three parts to the Set Up menu - **System Setup, Record Setup, Alarm and Motion Detection.**

| System Setup | Record Setup | Alarm | Motion Detection |

Password Protect
Video
Video Input
Disks
TV Output
OSD Text
GPIO
TCP/IP
Account
Audio
Serial Ports
System Info
Date/Time
ISP
Registry
Running Mode
Algorithm
NTP Setup
License
System Log
Alarm Log

System Information

Boot	DOM/CF/Disk
IP	10.11.100.81
Mask	255.255.0.0
MacID	00:40:F4:17:43:DD
Start	2006/02/21 18:02:34
FW Ver	1.4
FW Date	Feb 14 2006 10:15:10
Model	100/400
Sysbin Ver	100.2
Disk Size	120 GB
Disk Used	19 GB (15%)

✗ Cancel   ✔ OK

This section explains each of the menu pages in turn.

3.15.1   Password Protect

The Password Protect screen helps you to enable password protection, set administrator and user passwords, set the auto lock period and lock the system immediately. Enabling password protection prevents unwanted users from accessing or configuring the VP-408/412/416.
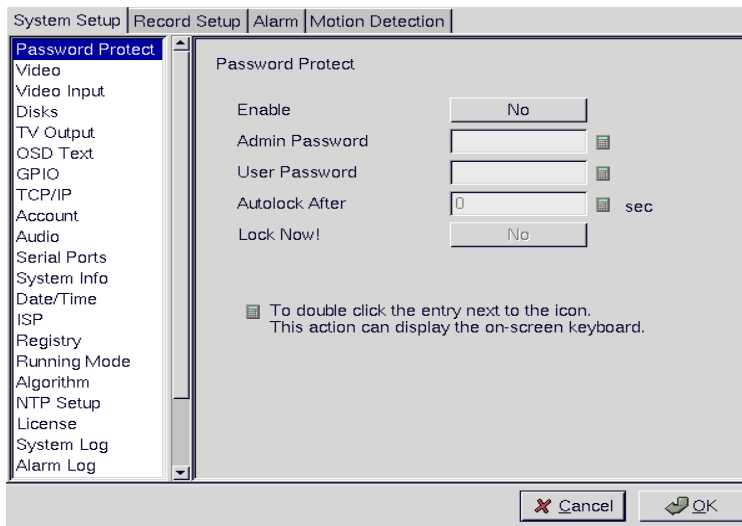
Enter new passwords for Admin and User in the corresponding fields. Set an auto lock time if required in the Auto lock after field. The auto lock function locks the system after a given time and a password is required to unlock it. Click Lock Now! to lock the system immediately.

Note: If you do not have a keyboard connected to the system, you can use the on-screen keyboard to enter your passwords. All the fields that can be edited using the on-screen keyboard are indicated by the on-screen keyboard icon. Double-click the field to display the on-screen keyboard. Use mouse to enter characters for the required field.

3.15.2   Video

The Video menu enables you to set video parameters such as the video standard and so on for each of the connected cameras. Select the camera from the Camera drop-down box and fill in the details in each field as required using mouse.
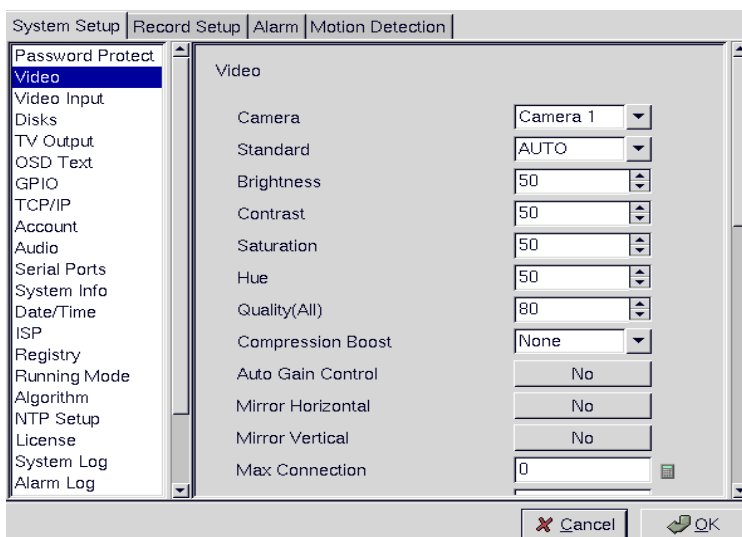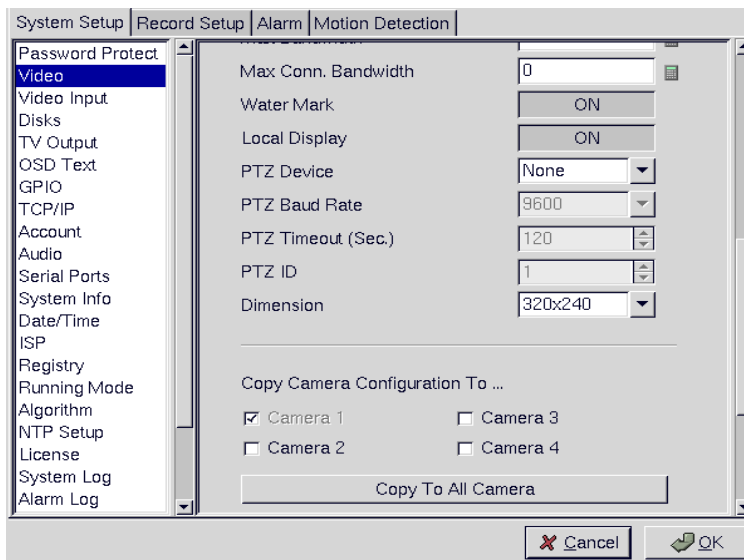
Standard: sets the video signal format. Choose NTSC in the US, or PAL in Europe and most Asian countries. If you are not sure about this option, select Auto. VP-408/412/416 will detect the video standard automatically.

Brightness: adjusts the amount of light or brightness for the selected camera according to your preference.

Contrast: adjusts the difference between light and dark areas or contrast for the selected camera according to your preference.

Saturation: adjusts the amount of color for the selected camera.

Hue: adjusts the dominant color for the selected camera.

Quality: adjusts the video quality for each camera. The default setting is 80. We recommend that you do not set this to 100 to avoid a slower rate of video transmission and using up a significant amount of hard disk space.

Compression Boost: enables you to compress the video signal to save disk space and thus extend recording time. It is recommended to keep this setting to None. The higher the compression boost, the lower the video data rate. For a significantly lower data rate, we recommend you use the H.263 algorithm.

Auto Gain Control: enables automatic gain control to adjust the video signal strength.

Mirror Horizontal: flips the video signal from the selected camera along the horizontal axis.

Mirror Vertical: flips the video signal from the selected camera along the vertical axis.

Max Connection: limits the maximum number of connections allowed to access the VP-408/412/416 over the Internet. Set to zero to allow the maximum number of connections.

Max Bandwidth: sets the maximum bandwidth in bytes/second that can be used by users connecting to the VP-408/412/416 over the Internet.

Max Conn. Bandwidth: sets the maximum bandwidth allocated for each connection to the VP-408/412/416. This is the maximum bandwidth divided by the maximum connections.

Water Mark: Sets water mark on the video image.

Local Display: enables viewing the selected camera video signal on the local display. If this option is set to Off, the camera is still optional and its video can be recorded if needed.

PTZ Device: Choice one PTZ from our support list. If user can't find out PTZ camera, please contact us.

PTZ baud rate: each camera have different baud rate, please set correctly.

PTZ time out: The timeout value represents the time given to the cameras to respond to a command.

PTZ ID: each camera can define different ID, please set correctly when you have up to 2 PTZ cameras in one system.

Dimension: sets 320 x 240 or 640 x 480 resolution for each camera.

Copy Camera Configuration To : User can select cameras and press "ok" button to copy the configuration of current camera to the selected cameras.

3.15.3 Video input

To map physical camera inputs onto video window positions on the display screen. You don't have to map camera#1 to position#1 as in the example below. You can map camera#1 to any position from #1 to #12.
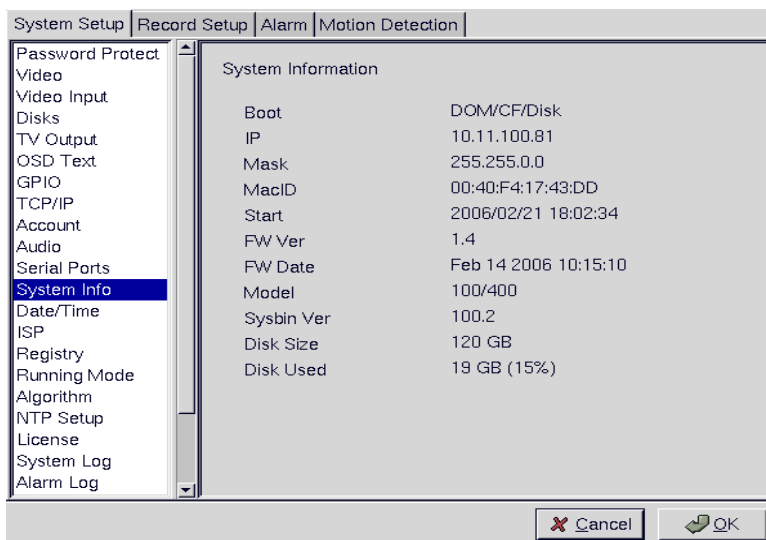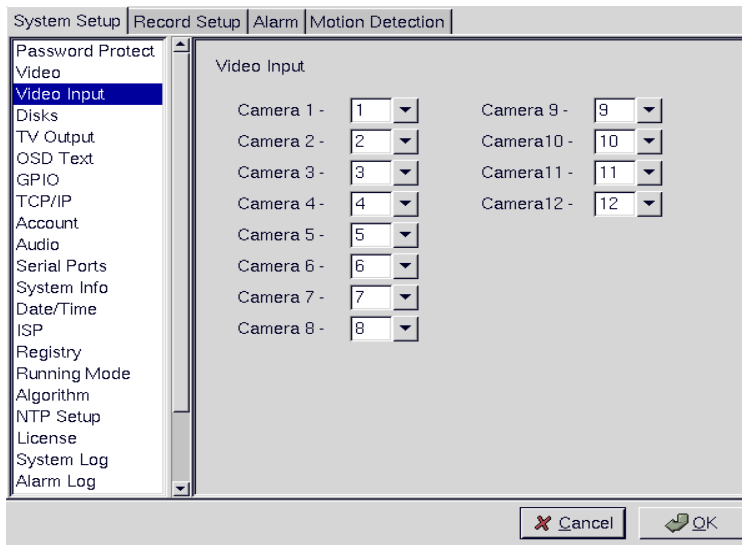
3.15.4 Disks

Use the Disks menu to configure network disks that the DVR uses to record data. If no disk is connected, (No Device) appears in the Disk Device field.
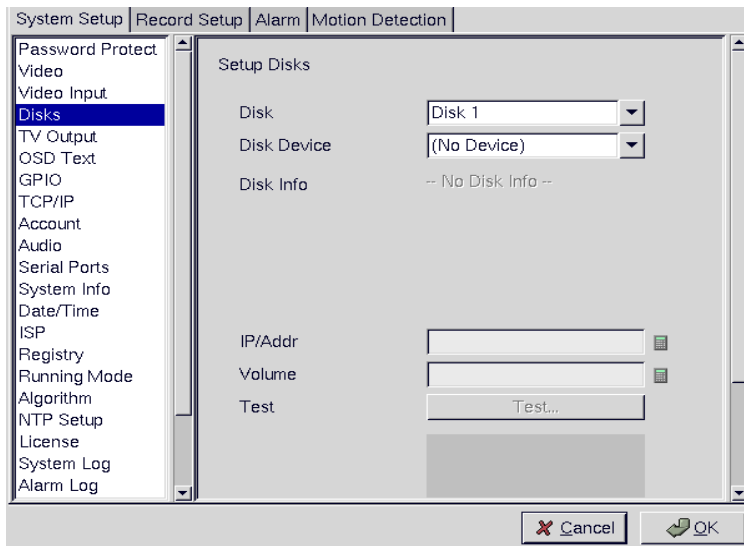
Use keyboard or mouse to enter the IP address and Volume of any connected network disk. Click on the Test button to test if the drive is working correctly.

3.15.5 TV output

Use the TV Output menu to configure the video output for the VPON DVR. The VPON DVR can support standard VGA computer monitors or TV type screens. Set the device type, standard, outputs and other parameters. Set the Camera (From) and Camera (To) options to specify the range of cameras that are displayed in the cyclic display mode. Software based De-interlace support.
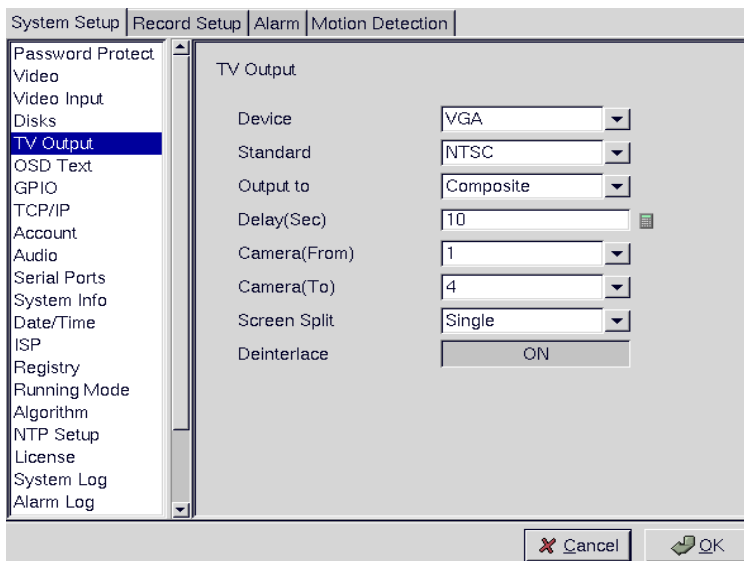
Use mouse to set each field. Ensure each field is set correctly before clicking OK. If parameters are set incorrectly it could result in the display becoming unreadable and very difficult to correct.

3.15.6 OSD Text

Use the OSD Text menu to assign text for each of the connected cameras. For instance, you may like to have text saying "c1" on the image from a camera installed in the c1.
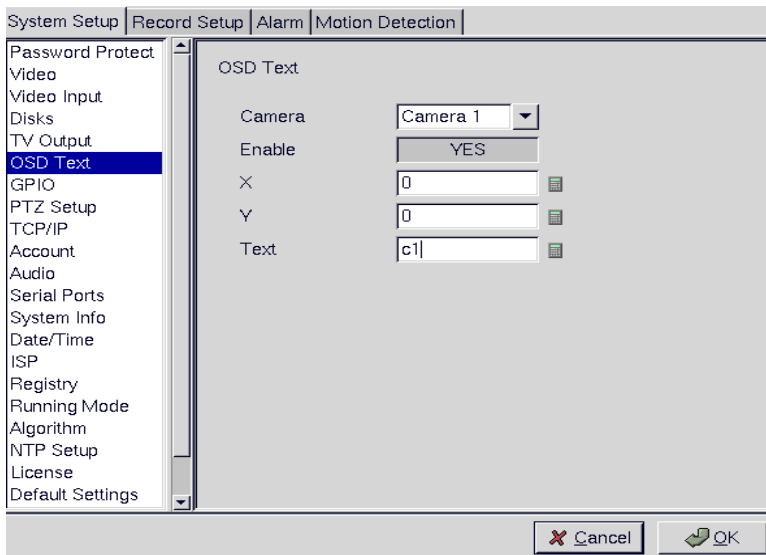
To display the OSD text:

1. Select the desired camera from the Camera drop-down box.
2. Click the Enable field to display the text.
3. Adjust the position of the text display on the image using the X and Y parameters. A value of X=0 and Y=0 would result in the text appearing at the top left corner of the camera image. Increasing the value of Y moves the text down the screen. Increasing the value of X moves the test the right. Enter the text to be displayed in the Text field.
4. Use the mouse to complete the fields and click OK to save changes.

3.15.7   GPIO

The GPIO (general purpose input output) menu enables you to view the status of the input and output devices such as switches, sensors, LEDs, and so on and view their status. These devices can be attached to the unit to turn external alarms (outputs) on or off when the specified input changes. When an alarm has been triggered, the GPI and GPO that are connected will show the status of the input or output device. GPI devices will show NC (normally closed) or NO (normally open) as the status of the switch. Depending on the input, you can change the status of the GPO devices to On or Off as required.
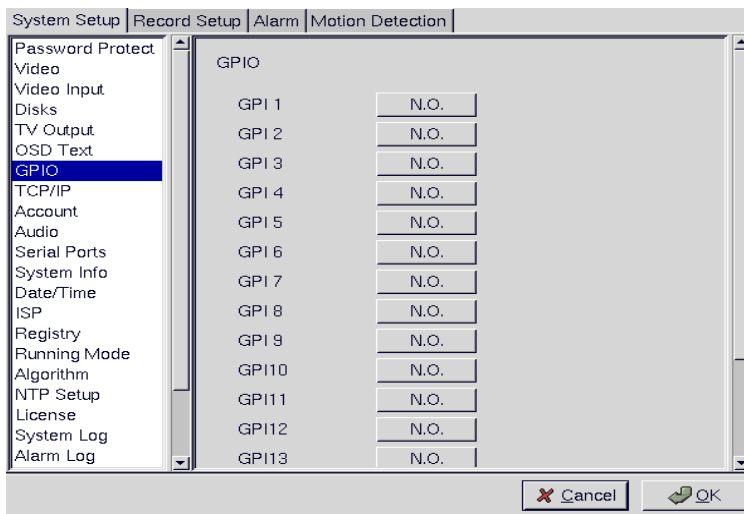
Change the GPO status as needed. Make sure that the devices are working by checking the actual physical

status of the inputs and outputs after making changes in this menu.

3.15.8   TCP/IP

Use the TCP/IP menu to enter TCP/IP address details for the VP-408/412/416.
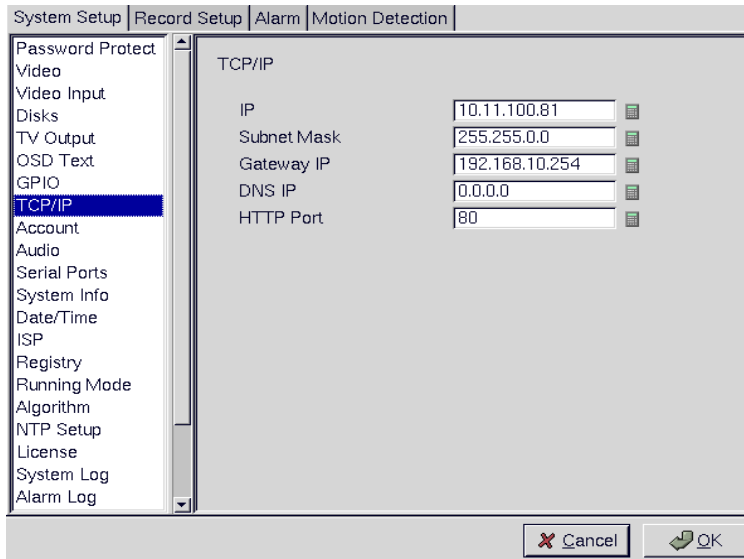
3.15.9   Account

Use the Account menu to set up an administrator name and password as well as the super user name and passwords. You can also use this menu to set up to 256 additional users, their passwords and their permissions on the system. Select the user number and assign a Name and password to it. Click the PTZ, Playback, and Audio fields to enable access to these properties for the selected user. Select the cameras that you want the user to have access to and set them to **Yes**.
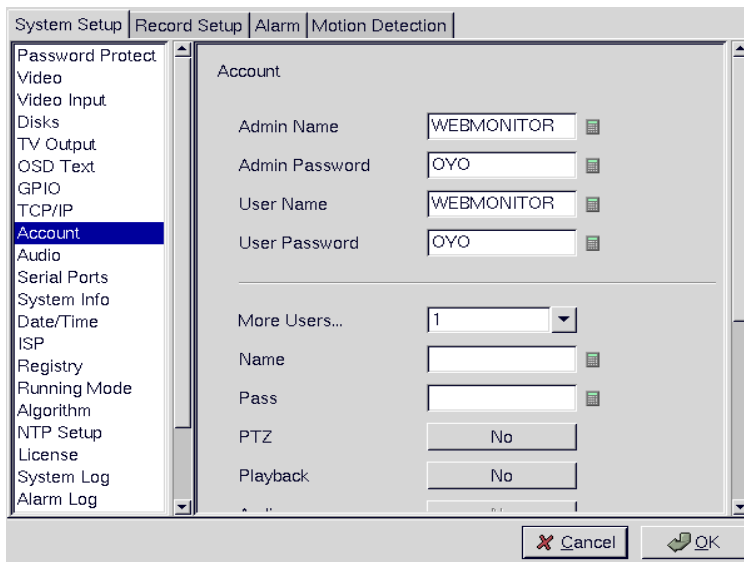
Note: It is important that you set up the super user name and password. The super user is different from the administrator and has access to only live videos and playback files. Use the More Users field to change the authorities of Internet users.

3.15.10　Audio

Use the Audio menu to set parameters such as Mic Gain, Speaker, Mic Timeout and Speaker Timeout. You can also perform a self test to test if the microphone and speaker are working correctly.

There are multiple audio inputs, user can define which audio mapping to which camera. "Audio1" is audio input from motherboard. Other audio inputs are from video capture cards. Audio out is from motherboard.
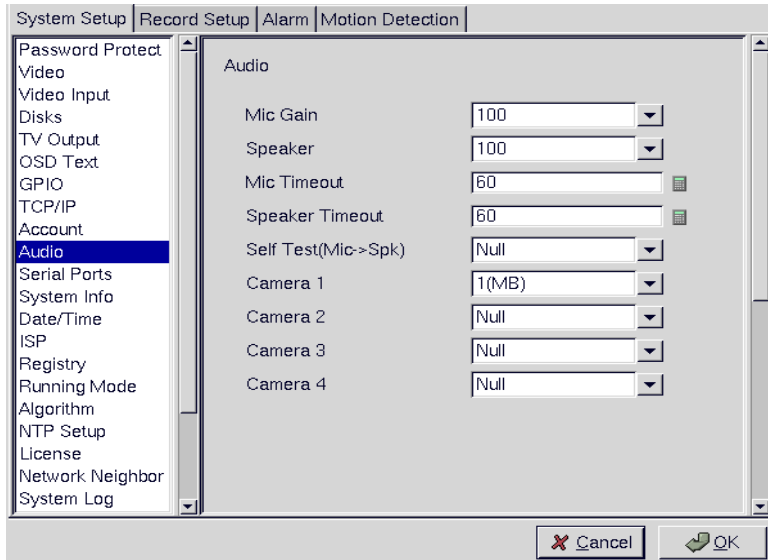
3.15.11　Serial ports

The RS232 serial ports (COM1 and COM2) are used to attach PTZ camera control cables, external modems, cash register or GPIO modules to the VPON DVR. Use the Serial Port menu to set parameters for the two serial ports.
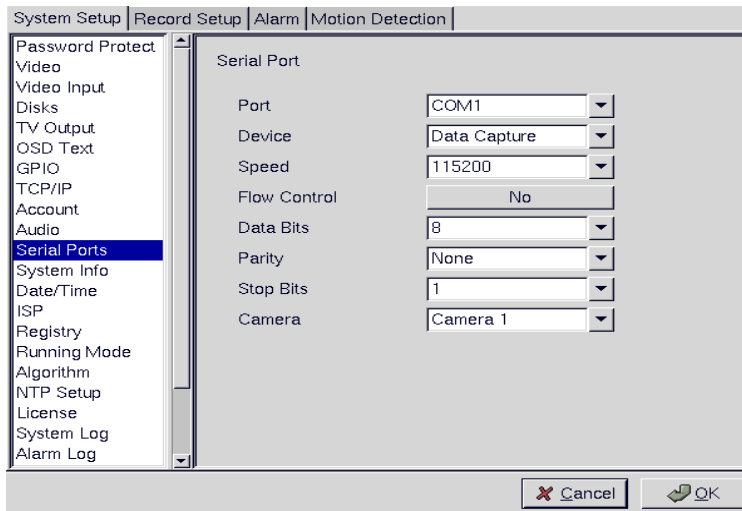
3.15.12　System info

Use the System Info menu to display the system information such as disk parameters, TCP/IP properties, firmware information, and so on, on the screen.

![VPON logo]

System Setup | Record Setup | Alarm | Motion Detection

Password Protect
Video
Video Input
Disks
TV Output
OSD Text
GPIO
TCP/IP
Account
Audio
Serial Ports
System Info
Date/Time
ISP
Registry
Running Mode
Algorithm
NTP Setup
License
System Log
Alarm Log

System Information

Boot	DOM/CF/Disk
IP	10.11.100.81
Mask	255.255.0.0
MacID	00:40:F4:17:43:DD
Start	2006/02/21 18:02:34
FW Ver	1.4
FW Date	Feb 14 2006 10:15:10
Model	100/400
Sysbin Ver	100.2
Disk Size	120 GB
Disk Used	19 GB (15%)

✗ Cancel   ✎ OK

There are no configurable fields on this page. Click OK or Cancel to leave the screen.

3.15.13   Date/Time

Use the Date/Time menu to set the precise time and date on the system. You can also set the local time zone in the T.Zone field.

System Setup | Record Setup | Alarm | Motion Detection

Password Protect
Video
Video Input
Disks
TV Output
OSD Text
GPIO
TCP/IP
Account
Audio
Serial Ports
System Info
Date/Time
ISP
Registry
Running Mode
Algorithm
NTP Setup
License
System Log
Alarm Log

Date/Time

T.Zone   (GMT) Greenwich Mean Time: Dublin, E ▼

Year 2006   Month 02   Day 21

Hour 18   Minute 10   Second 48

✗ Cancel   ✎ OK
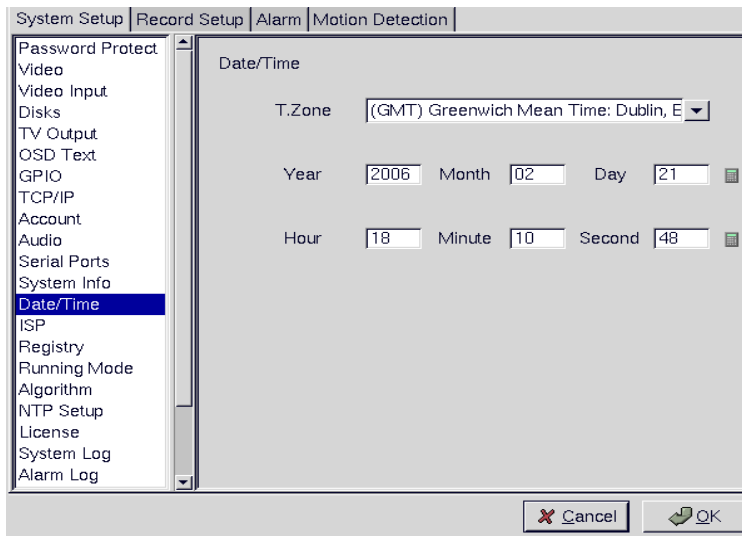
3.15.14   ISP

If you are using dial-up access to the Internet, use the ISP menu to enter details of your Internet Service Provider.
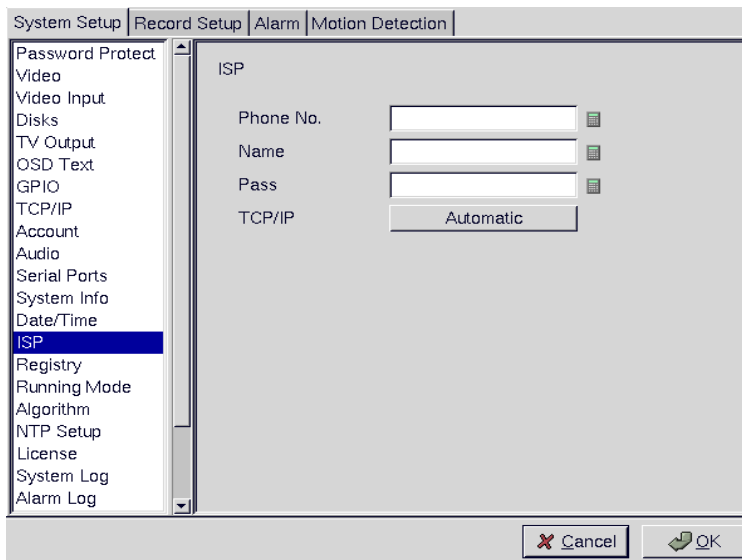
3.15.15 Registry

The Registry menu enables you to set up the registry server for your device. If you are using a dynamic IP address for the VP-408/412/416, you can set up the device to post its IP address to the VPON registry server. You can then look up your IP from the MAC address or server name.
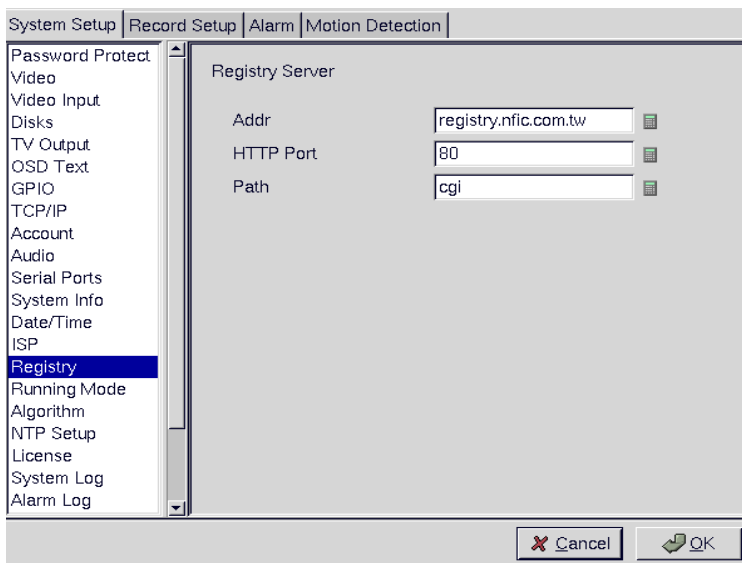
3.15.16 Running mode

Use the Running Mode menu to switch between Network Mode and ISP Mode, and between Mouse Mode and IR Remote Control Mode.
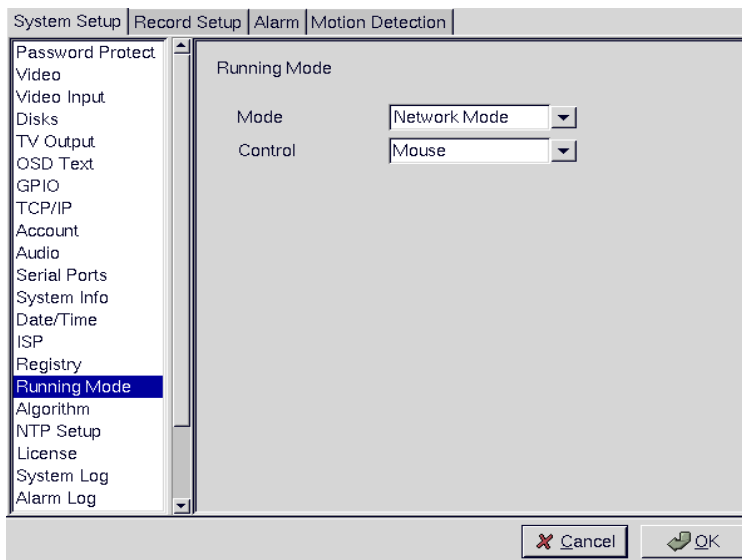
3.15.17 Algorithm

H.263: frame size is small and suitable for Network surveillance.

MPEG4: Video quality good and frame size small.

JPEG: Video quality best but frame size big.
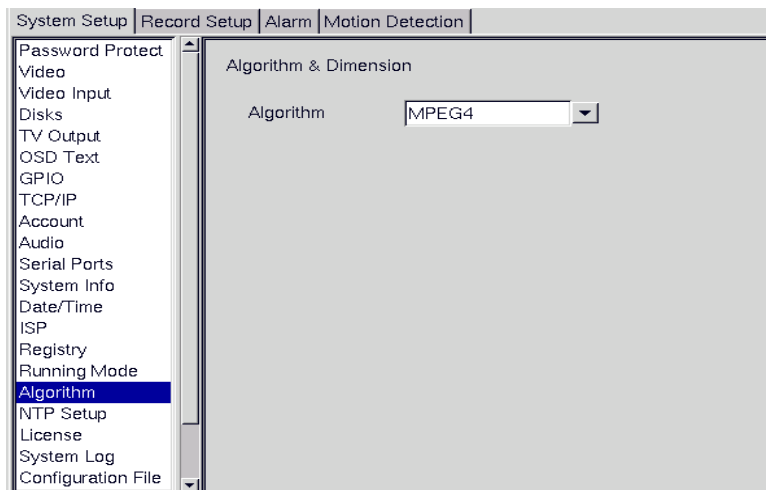
3.15.18 NTP setup

Use the NTP Setup menu to enter details of the Network Time Protocol (NTP) server used to synchronize the time of the device with the network.
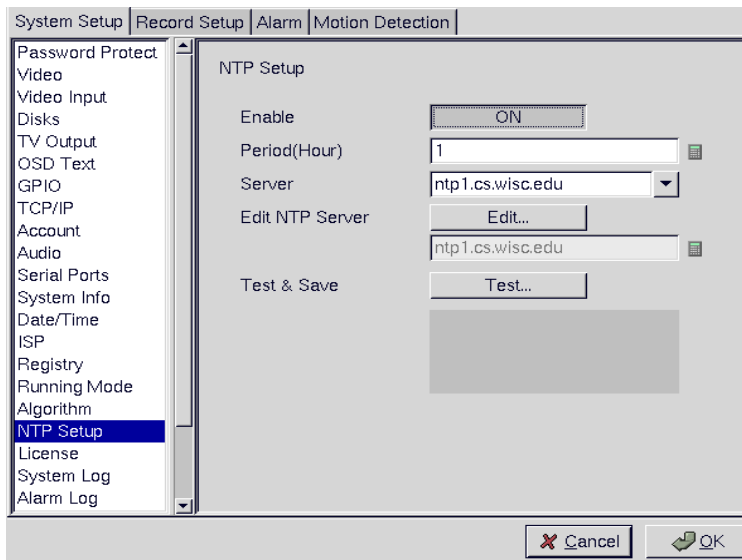
After making the changes, click on the Test & Save button to verify that the server is operational. Click **OK** to save changes.

3.15.19   License information:

1. There are two ways to grant POS license. One is key-in license key; the other one is plug-in a key-pro. So if you plug-in a key-pro you don't need to key in the license number again in the license setup menu.

2. There are three POS License to three levels:

      Level 1: Single POS unit – Can connect ONLY one cash register.

            Single POS only one cash register. This level pos function doesn't need to register.

      Level 2. 4 POS units   -- Can connect maximum 4 cash registers.

      Level 3. Full functions – Can connect maximum 16 cash registers.

3. Click "system setup"   button to display the <u>System Setup</u> menus and select the <u>License</u> section.

> **Note: The license in the following is an example only. Each DVR should have different license number. Please contact us for getting a license.**
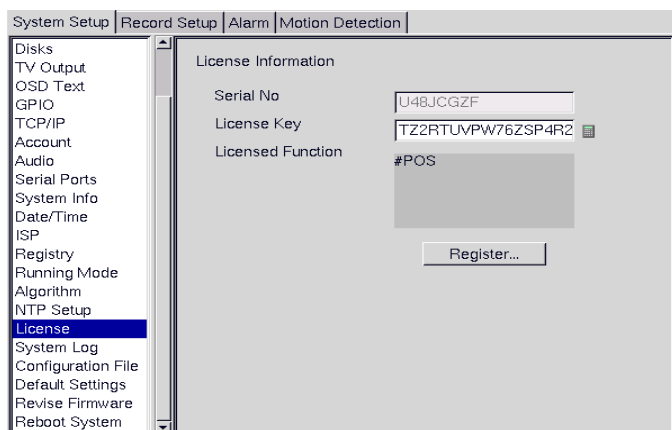
4. Key in your own license key.

VPON

> Note: If you don't have a keyboard connected to the system, you can use the on-screen keyboard to enter your license key. Double-click the field to display the on-screen keyboard .Use the mouse to enter characters for the required field.

5. Click the Register button when you see the "**#POS**" , it mean register successful.
6. Back to the live display. Click <u>POS</u> button to display the POS Panel. You can try to send out some data from POS machine then POS text should show up with video.

3.15.20 Network Neighbor

User can copy the recorded files of VP-408/412/416 to other PC through network neighbor.

1. Enable the Network Neighbor function.
2. After define the server name, workgroup and WINS server, user can find out the DVR recording files from Microsoft windows network neighbor.

Note: when you setup server name and workgroup, please key-in English characters or numbers only.
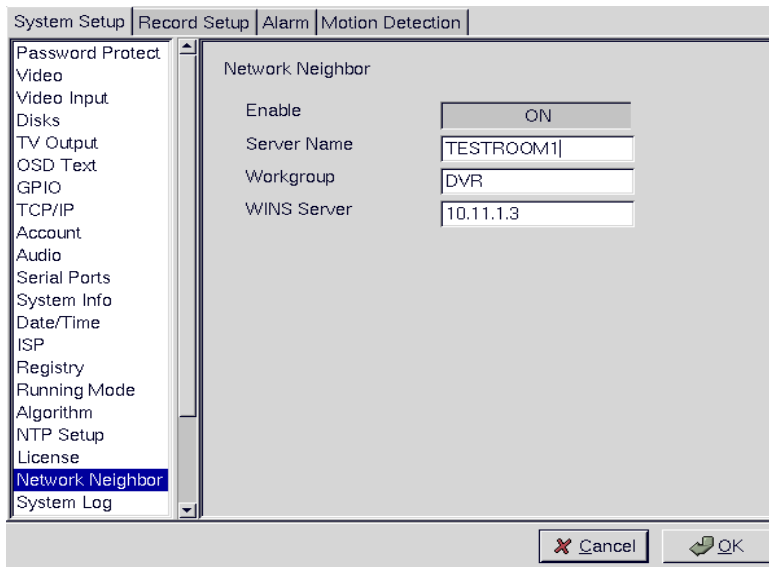
3.15.21 System Log:

Any operation will be written into system log include local operation and remote operation. User can search system log by specific time.
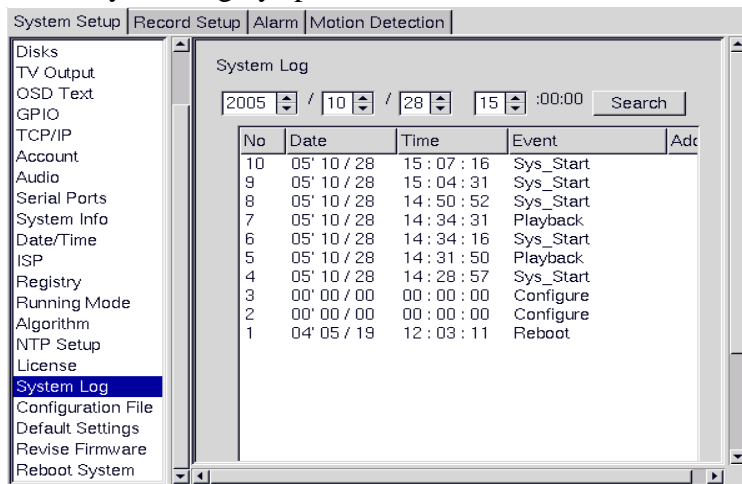
3.15.22 Alarm Log

Any alarm will be written into alarm log including motion trigger、GPIO trigger、Disk error、Video loss 、POS event.…..etc. User can search alarm log by specific time.
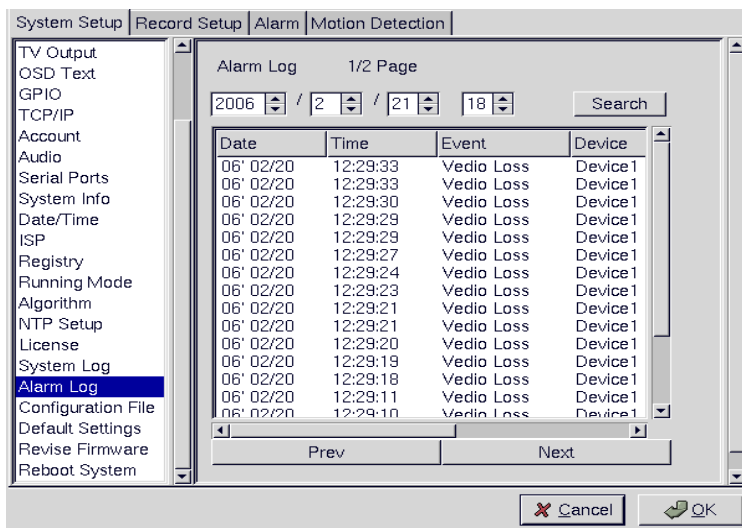
3.15.23 Export system configuration:

User can backup or restore system, record, alarm and motion detection setup data.

Backup configuration data:

1. Connect a USB flash to DVR for backup or restore configuration data. DVR will auto detect flash.
2. Select backup section and click a device, which is shown in the field.
3. Click **"Backup"** button to start to backup configuration data.
4. When user sees "**vpcfg _ your DVR name _ Mac ID.bin**" was saved in the field, it mean the backup was done.
5. Click **"ok"** button to leave system setup menu.

VPON
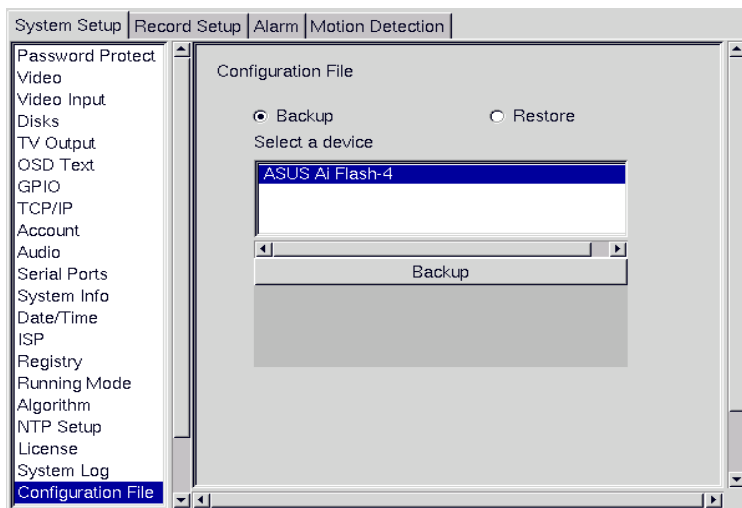
Restore configuration data:

1. Select restore section and click a device, which is shown in the field.

2. Select one "*.bin" in the field

3. Click **"Restore"** button will pup-up a menu to ask you to over write data. Select "ok" to start to restore configuration data.

4. When restore data action was done, system will ask you to reboot DVR. Press "ok" to reboot DVR.

5. After restart DVR, user will get the configuration setup data back.
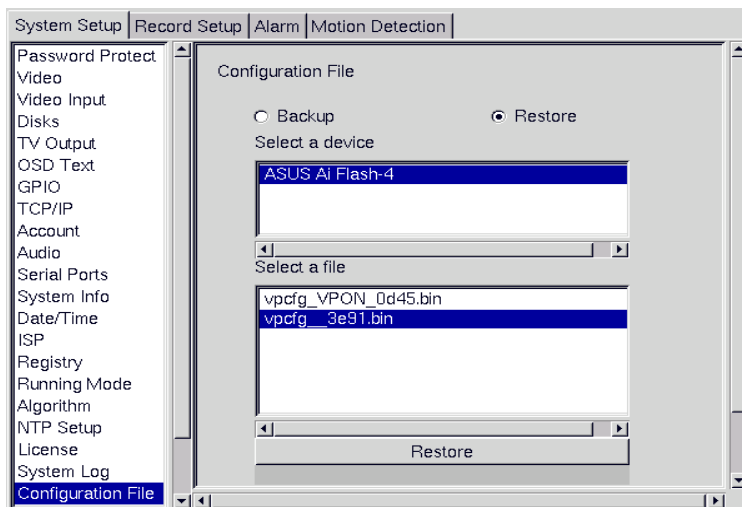
3.15.24 Default settings

Use the Default Settings menu to reset all configurable parameters to their factory default settings.
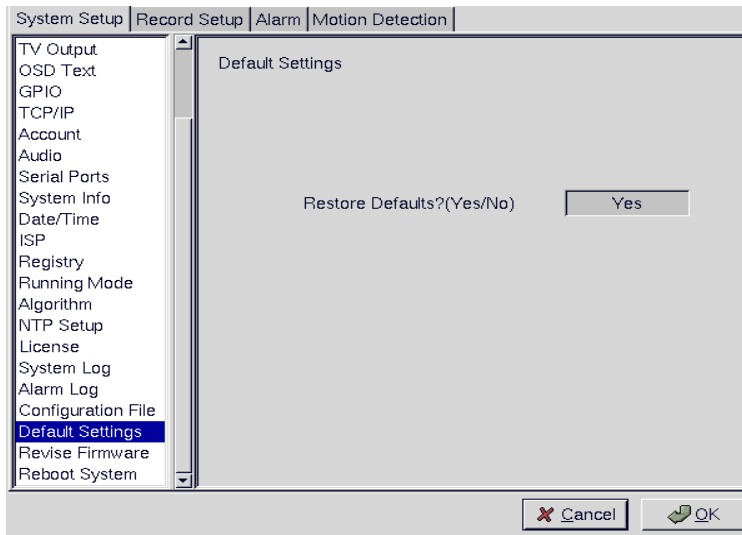
Click Restore Defaults?(Yes/No) to restore defaults. Click Cancel or No to retain the current settings.

3.15.25   Revise firmware

Use the Revise Firmware menu to upgrade the VP-408/412/416 firmware.
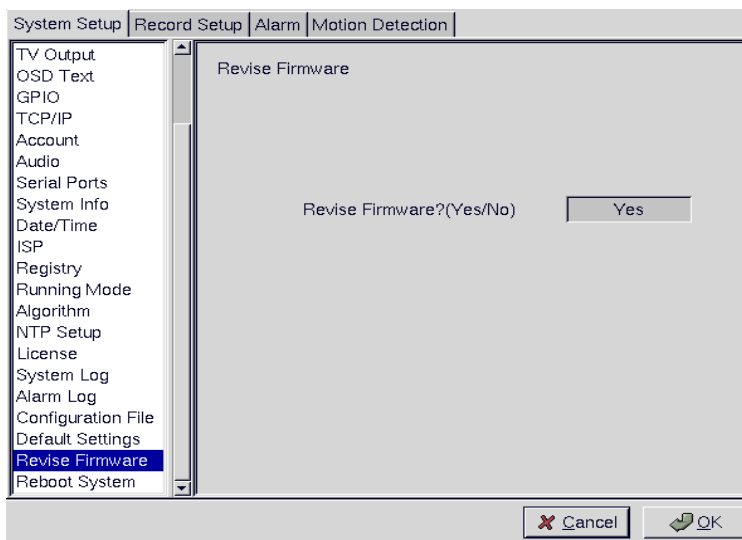
Click Revise Firmware?(Yes/No) to start the firmware upgrade process. Click Cancel or No to abort the attempt.

3.15.26   Reboot system

Use the Reboot System menu to reboot or shutdown the system.
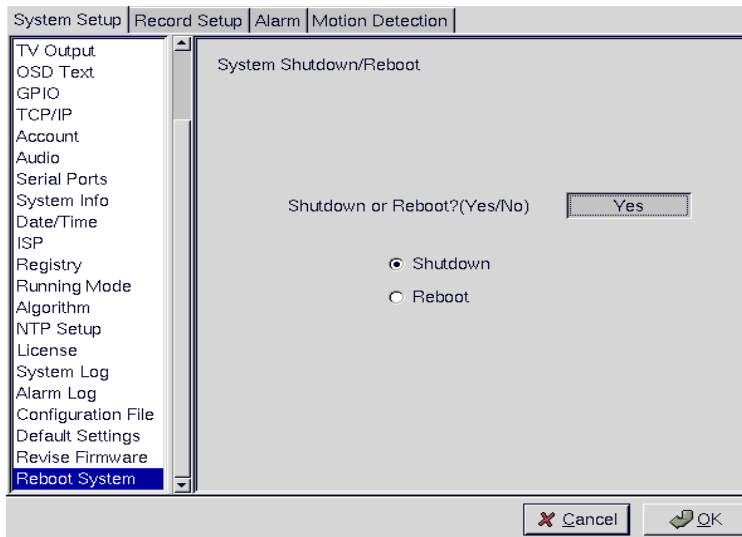
Use the keyboard or mouse (recommended) to select either Shutdown or Reboot. Click OK to perform the operation. Click Cancel or No to abandon.

[Record Setup]

3.16.1 DVR setup

Use the DVR menu under the Record Setup tab to set the Digital Video Recorder parameters.
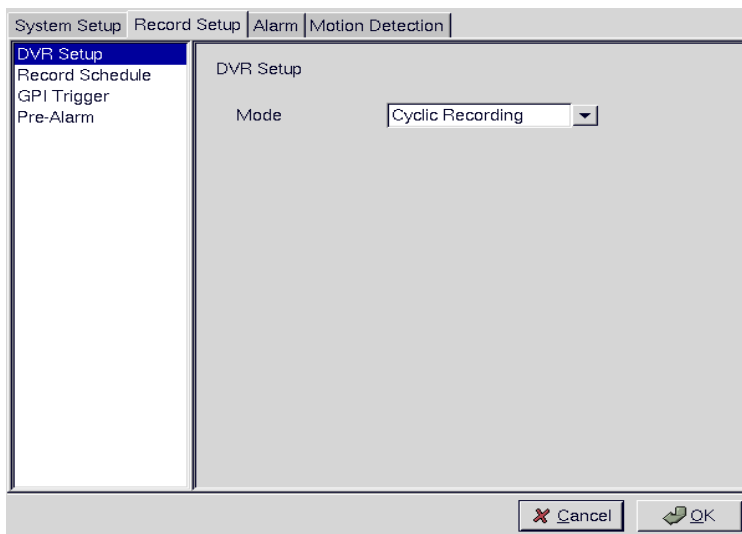
Select either Auto Stop or Cyclic Recording.   Auto Stop recording stops when disk space runs out. Cyclic Recording continues to record until disk space runs out and then overwrites the oldest records. Click OK to save changes.

3.16.2 Record schedule

Use the Record Schedule menu under the Record Setup tab to set up automatic recording schedules for each camera and audio. You can set up to 16 record schedules that automatically record at given times and days even frame rate just remember to close auto speed setting. Weighted recording is for setting special recording frame rate when event triggers.

35
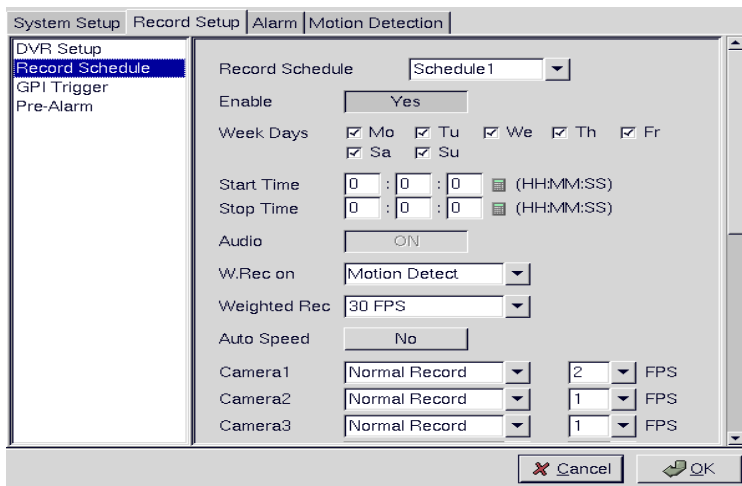
3.16.3 GPI Trigger

Use the GPI Trigger menu under the Record Setup tab to enable recording video from specified cameras when triggered by an external alarm(GPI) connected to the system. For instance, you may want to record video from a camera installed at your front door when the door lock is opened. In this case, connected an alarm module (not provided) to lock and set the front door camera to start recording.
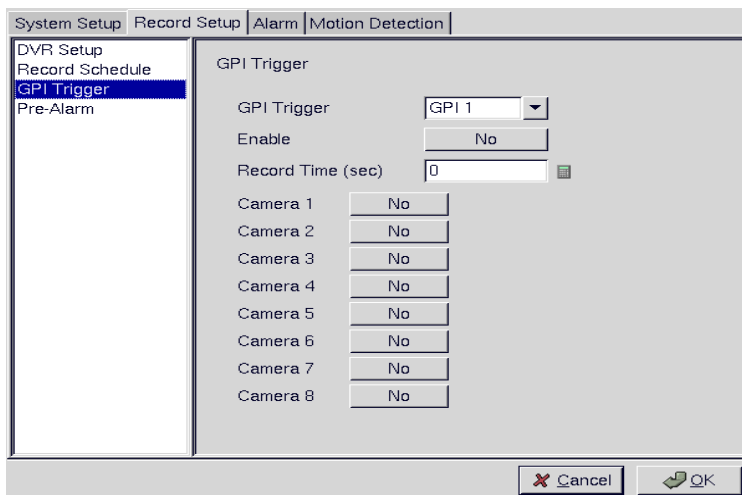
3.16.4 Pre-alarm recording

Use the pre-alarm menu under the record setup tab to determine how many frames are record before an alarm event occurs. Each camera can be set separately and you can record up to 300 frames.
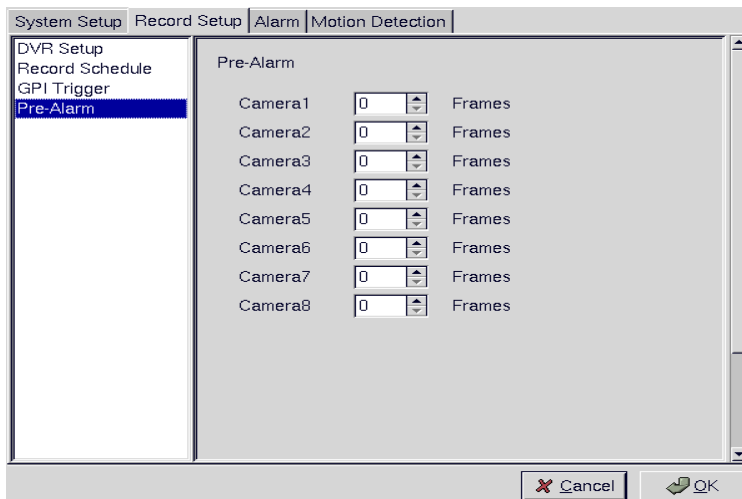
[Alarm]

3.17.1   Alarm setup

Use the Alarm Setup menu under the Alarm tab to define what action is taken when an alarm is triggered. Through this menu, you can set up an E-mail address to which an E-mail is sent when the alarm is generated, or set up the device to display a video popup message on your monitor, or place a voice call.
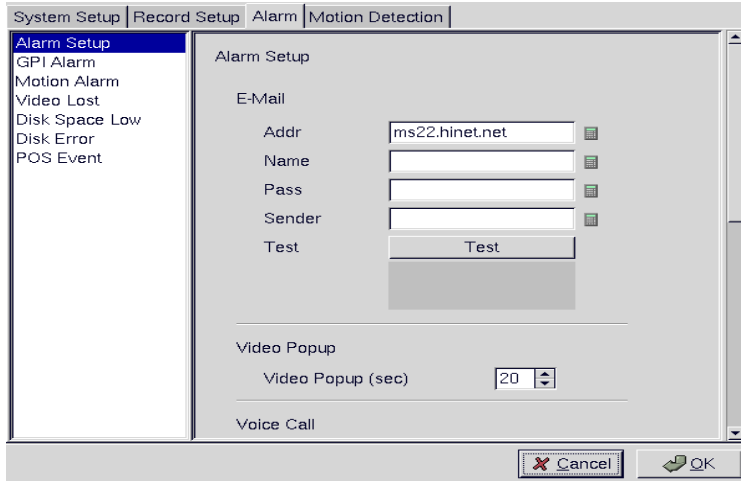
The Voice Call options enable you to set up a voice modem that will make a call when the selected event (such as a GPI alarm, or video lost from a camera) occurs. Set the following options:

Redial -sets the number of times the voice modem will redial

Voice Repeat -sets the number of times the voice message is repeated on the voice call

Rec. Time -sets the time for which audio is recorded

Modem Speaker -sets the internal or external speaker to be used

Voice File -selects the voice file to be sent

Edit File Name -enables you to change the file name of the voice file

Use the keyboard or mouse (recommended) to complete all fields and click OK to save changes. Refer to the following sections to see how to select the voice call as the action for specific events such as GPI alarm and so on.

Note: The Voice Call options will be grayed out in the menu system if the voice modem function is not selected in the serial port setup menu. Make sure that a voice modem is enabled in device field in the Serial Ports menu item in order to place voice calls.

Voice call features

• A voice call message can be recorded using an internal or external microphone, and can be played back using an internal or external speaker.

• Up to 60 voice messages can be recorded and stored on the VP-408/412/416 and used for different alarm events.

• Messages recorded for the voice call function must be between 5 and 10 seconds.

Known issues with the voice call function

• There will be three seconds silence between a voice call being answered and the start of the message.

• If the voice call function calls a phone with an automatic answering machine, the VP-408/412/416 will behave as if the phone has been answered.

• The VP-408/412/416 does not support non-standard ringing tones. If the VP-408/412/416 calls a

phone and an unexpected tone is received, an error message will be generated.

POS event:

User can specify any keyword in the transaction data For Data Event Alerting. Such as VOID and NO SALE

1. Click Setup button on the screen and select <u>Alarm</u> then enter <u>Alarm setup</u> function.
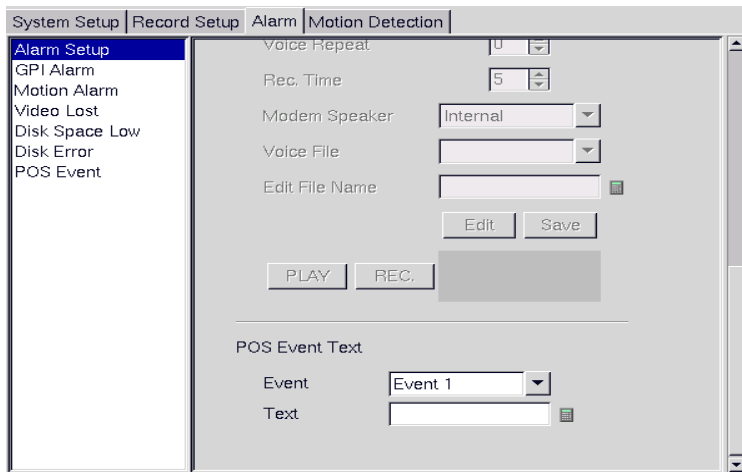
2. You can define events by numeric characters such as selling prices or abnormal text such as "VOID" or "NO SALE".

3. You can enter at most 20 POS events. Once the captured POS data contains one of the defined POS events, VPON triggers actions for the event. For example, you can enter VOID and NO SALE in the POS Event respectively.

4. Select the <u>POS Event</u> function and start to set up reaction when receiving the text data from POS machine.

5. You can define how the VPON DVR reacts when receiving the text data from POS machine.
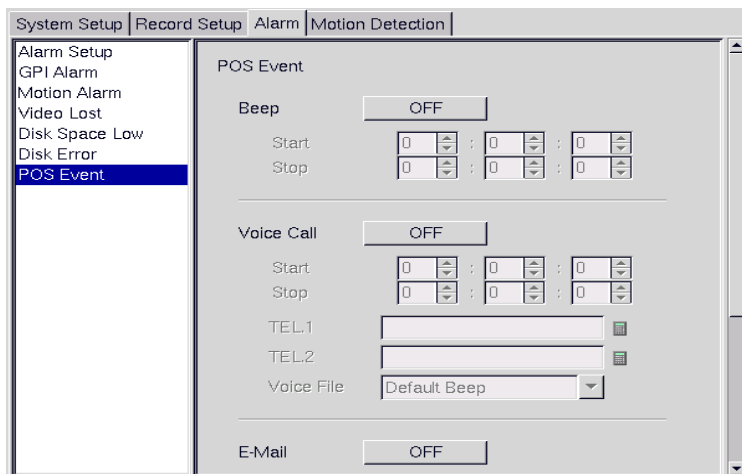
6. **Beep**- beeps when the event was occurred.

7. **E-mail**- sends e-mail to the specified address when the event was occurred.

8. **Voice call**- dial a voice call to the specified number when the event was occurred

9. Back to the live video after setting alarm. You can try to cancel a transaction from the POS machine and VPON DVR should alerts.

> Note: The text was captured from the POS machine; you should check what text will be sent from the POS machine, then set appropriate text in POS Event.

3.17.2 GPI alarm

Use the GPI Alarm menu under the Alarm tab to set what actions are taken when a GPI alarm is generated. You can set up the alarm through a message, a beep, a video popup, or E-mail.
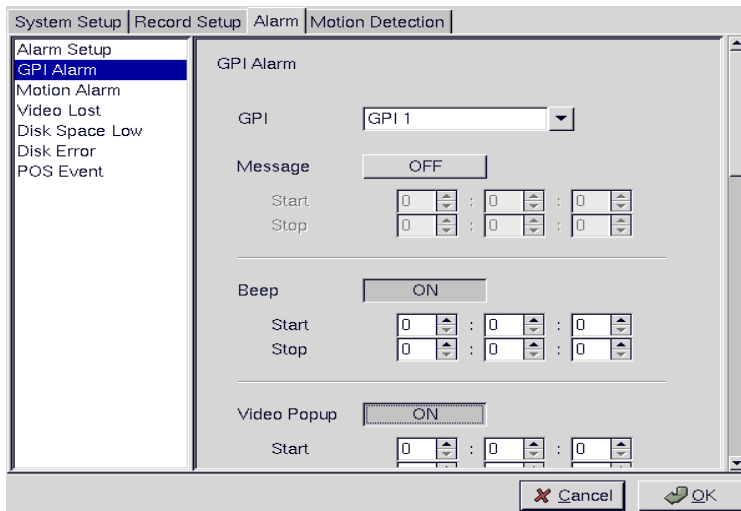
3.17.3 Motion Alarm

Use the Motion Alarm menu under the Alarm tab to set what actions are taken when a motion detection alarm is generated. You can set up the alarm through a message, a beep, a video popup, a voice call, or E-mail.
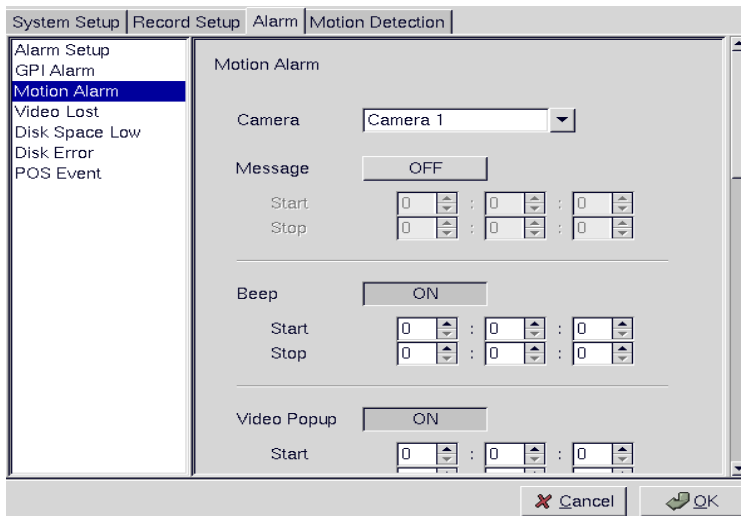
Use the keyboard or mouse (recommended) to select the required GPI from the GPI drop-down box and complete all fields. For each action, you can specify the time interval over which the GPI is monitored for an alarm to be generated. For the Voice Call option, specify two telephone numbers where the call may be placed along with the voice file.   For the E-mail option, specify the recipient, subject, and text of the E-mail along with which of the cameras." status" is sent in the E-mail and the start and stop times. Click OK to save changes.

3.17.4 Video lost

Use the Video Lost menu under the Alarm tab to set what actions are taken when video signal from a camera is not available. You can set up the alarm through a message, a beep, a video popup, a voice call, or E-mail.
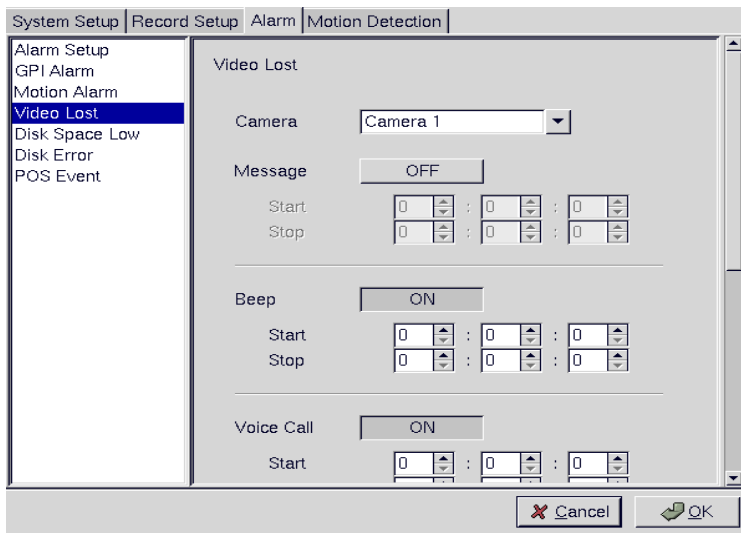
Use the keyboard or mouse (recommended) to select the required camera for video lost from the Camera drop-down box and complete all fields as described in GPI alarm. Click OK to save changes.

3.17.5 Disk space low

Use the Disk Space Low menu under the Alarm tab to set what actions are taken when the disk space is insufficient to record data. This alarm is generated only when the DVR mode is set to Auto Stop. You can set up the alarm through a message, beep, voice call, video popup, or E-mail.
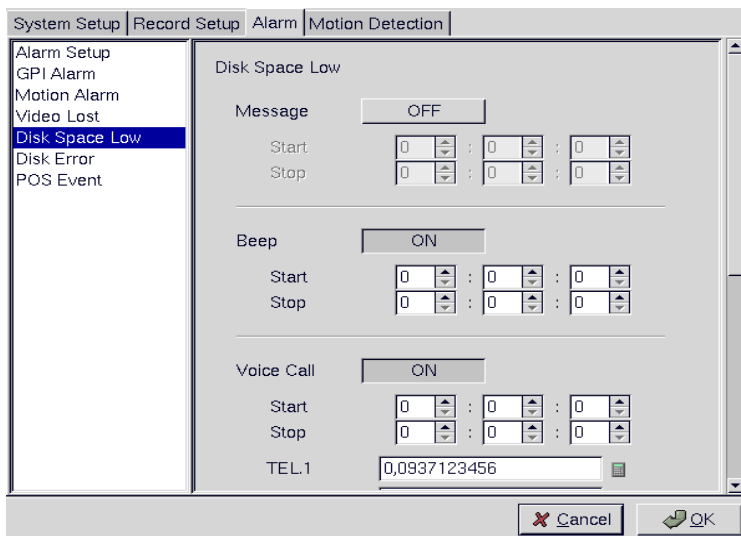
Use the keyboard or mouse (recommended) to complete all fields as described in GPI alarm. Click OK to save changes.

3.17.6 Disk error

Use the Disk Error menu under the Alarm tab to set what actions are taken when there is an error while accessing the disk. You can set up the alarm through a message, a beep, a video popup, or E-mail.
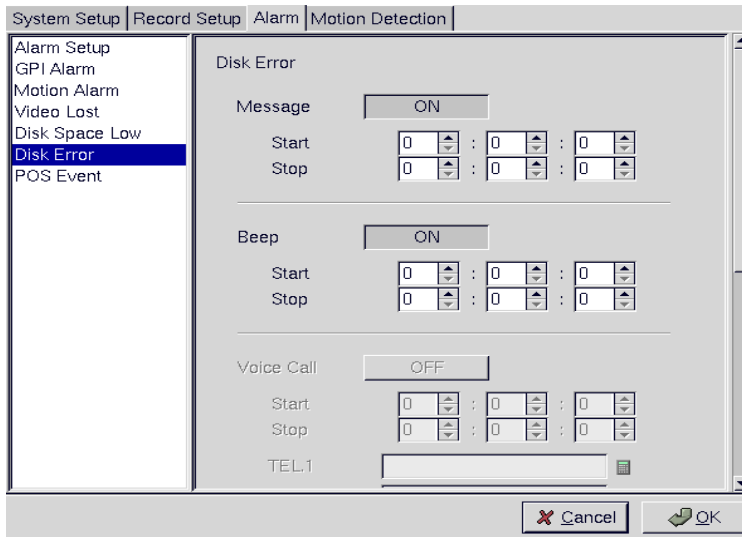
Use the keyboard or mouse (recommended) to complete all fields as described in GPI alarm. Click OK to save changes.

3.17.7   POS event

Select the POS event function and start to sep up reaction when receiving the text data from POS machine. You can set up the alarm through a beep, a voice call, or E-mail.
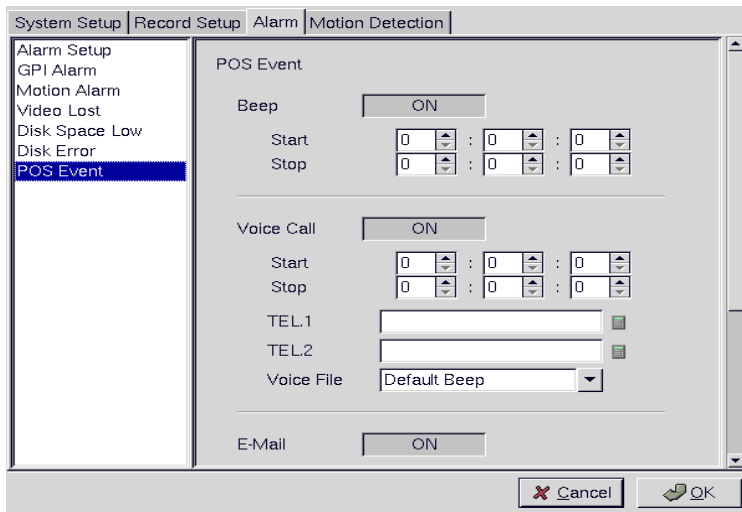
3.18   Motion Detection

Use the Motion Detection page to set motion detection parameters for each camera.
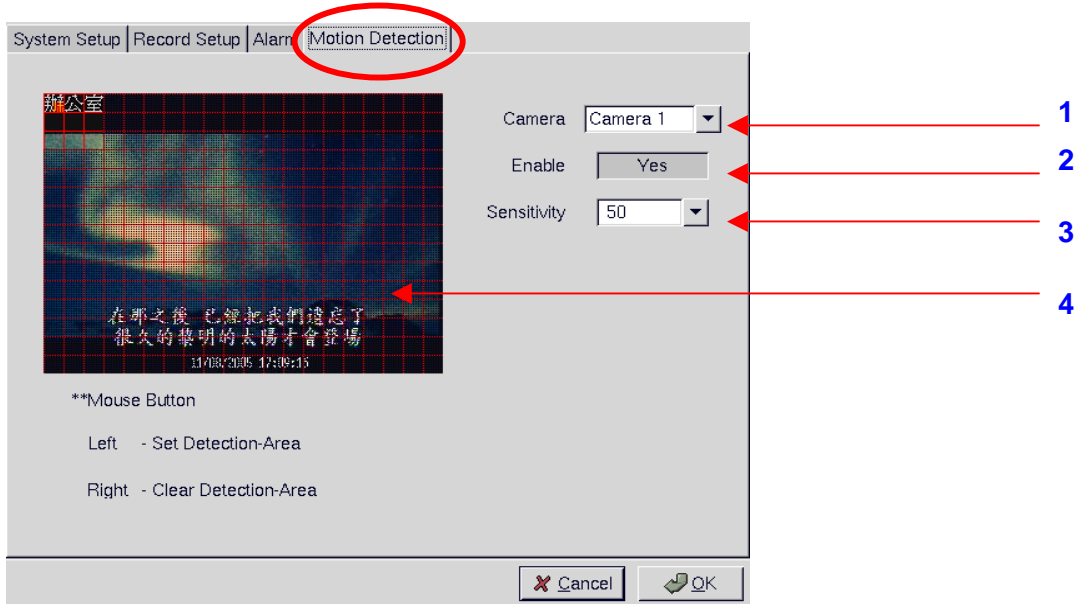
Motion Detection Setup Procedure

1. Camera: Select the camera for setting motion detection.
2. Enable (Yes/No): Turn On/Off the motion detection.
3. Sensitivity: Select motion sensitivity level.
4. Directly drag the square on the screen to a desired & location for Motion Detection.

Each small square on the displayed grid can be set to detect motion. Use the left mouse button to make a square sensitive to motion. Use the right mouse button to make it insensitive. Click **OK** to save changes.

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4. IR Remote Control Operation

4.1 Introduction

This chapter covers remote control operation using IR remote controller. The VP-408/412/416 must be in IR remote control running mode for this operation.

4.2 Main menu

Press the **Menu** button on the remote control to display the main menu on screen.


```
Menu
System  Setup
Record  Setup
Playback
Maintenance
System  Shutdown
```
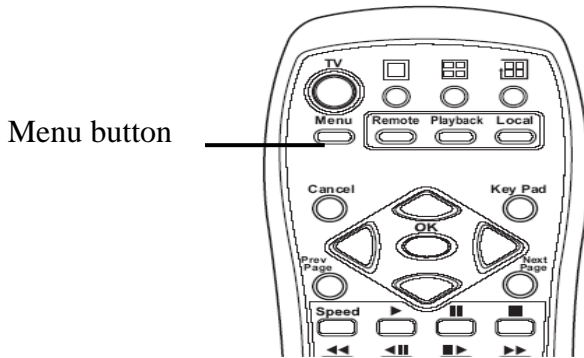
Use the **Up** and **Down** arrow buttons to select one of the four options and press **OK** button to confirm your choice.

4.3 System setup

The **System Setup** menu enables you to change many different parameters of the VP-408/412/416. This section describes each option in the **System Setup** menu.

```
System  Setup  (1/2)
Password  Protect
Video
Video  Input
Disks
TV  Output
OSD  Text
TCP/IP
Account
Audio
Serial  Ports
System  Info
Date/Time
Alarm
ISP
Registry
Running  Mode
Algorithm
NTP  Setup
                    Next
```
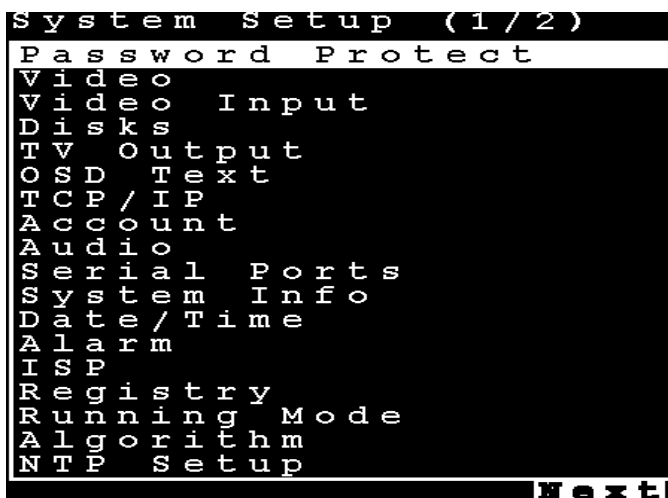
Use the **Up** and **Down** arrow buttons to highlight an option, and use the **OK** button to confirm your choice. You can move between pages using the **Prev** Page and **Next Page** buttons on the remote control.

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Up and Down arrow buttons

OK button

Prev Page

Next Page
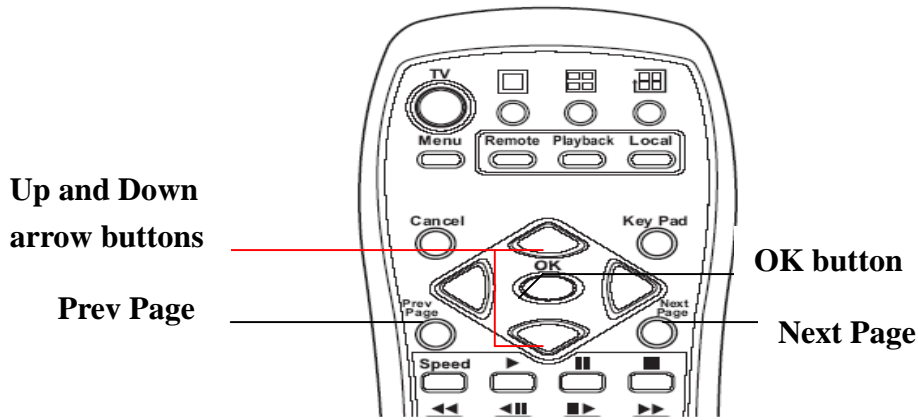
4.3.1 Password protect

Use the **Password Protect** option to enable password protection, set administrator and user passwords, set the auto lock period and lock the system immediately. Enabling password protection prevents unwanted users from accessing or configuring the VP-408/412/416. The **Password Protect** menu has the following choices:

Enable - enables password protection.

Admin Pass - sets the admin password.

User Pass - sets the user password.

Auto lock After - enables password protection after the specified time interval.

Lock Now! - enables password protection immediately.

To set the user or admin password:

1. Use the **Up** and **Down arrow** buttons on the remote control to highlight the **Admin Pass** option to set the administrator password or the **User Pass** option to set the user password.


```
Password Protect
Enable-No
Admin Pass-
User Pass-
Autolock After-0 sec
Lock Now!
```

2. Press the **Right** arrow button to display the password entry screen.

`Admin Pass:password`

3. Press the **keypad** button on the remote control to display the on-screen keyboard.

Keypad button


```
0123456789~!@#$%^&*(
)_+|-=\{}[]:";'<>?,.
/ abcdefghijklmnopqr
stuvwxyzABCDEFGHIJKL
MNOPQRSTUVWXYZ
```
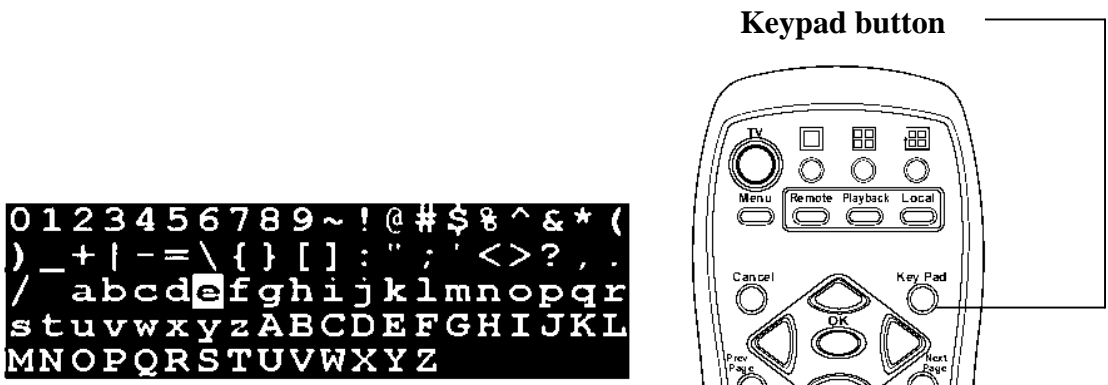
4. Use the **Arrow** buttons on the remote control to choose a letter and use the **OK** button to confirm you choice.

5. When the new password has been entered correctly, press the **keypad** button on the remote control to turn off the on-screen keyboard.

6. Press the **OK** button to confirm the new password.

When user or admin passwords are set and enabled, you will be prompted for a password before going on further functions. Use the on-screen keyboard to set user or admin passwords as described.

To set the password protects function:

1. Select the **Enable** option from the **Password Protect** menu.
2. Use the **Left** and **Right** arrow buttons to toggle between **Yes** and **No.**
3. Press the **OK** button to confirm your choice.

The autolock function in the Password Protect menu will lock the system after the specified period of inactivity.

To set the period of inactivity before the system is locked:

1. Highlight the autolock option in the **Password Protect** menu.
2. Use the **Left** and **Right** arrow buttons to increase or decrease the period of inactivity.
3. Press the **OK** button to confirm your choice.

To lock the system immediately:

1. Highlight the **Lock Now!** Function in the **Password Protect** menu.
2. Use the **Left** or **Right** arrow buttons to confirm the operation.

4.3.2   Video

Use the **Video** menu to set all the video parameters for the cameras connected to the VP-408/412/416. There is one video screen for each camera with the following parameters:

Standard - sets the video signal format. Choose NTSC in the US, or PAL in Europe and most Asian countries. If you are not sure about this option, select Auto. VP-408/412/416 will detect the video standard automatically.

Brightness- adjusts the amount of light or brightness for the selected camera according to your preference.

Contrast - adjusts the difference between light and dark areas or contrast for the selected camera according to your preference.

Saturation - adjusts the amount of color for the selected camera.

Hue - adjusts the dominant color for the selected camera.

Quality (All) - adjusts the video quality for all cameras. The default setting is 80. We recommend that you do not set this value to 100 to avoid slow video transmission and using up hard disk space easily.

Compression Boost- enable you to compress the video signal to save disk space and thus extend recording time. It is recommended to keep this setting to None. The higher the compression boost, the

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___

lower the video data rate. We recommend you use the H.263 or MPEG4 algorithm for low data rate applications..

Auto Gain Control-enables automatic gain control to adjust the video signal strength.

Mirror Horizontal – flips the video signal from the selected camera along the horizontal axis.

Mirror Vertical – flips the video signal from the selected camera along the vertical axis.

Max Connection - limits the maximum number of connections allowed to access the VP-408/412/416 over the Internet. Set to zero to allow the maximum number of connections.

Max Bandwidth - sets the maximum bandwidth in bytes/second that can be used by users connecting to the VP-408/412/416 over the Internet.

Max Conn. Bandwidth - sets the maximum bandwidth allocated for each connection to the VP-408/412/416. This is the maximum bandwidth divided by the maximum connections.

Dimension- sets 320x240 or 640x480 resolution for each camera.

Water Mark-Sets water mark on the video image.

Local Display- enables viewing the selected camera video signal on the local display. If this option is set to Off, the camera is still optional and its video can be recorded if needed.

PTZ Device- Chose one PTZ from our support list. If user can't find out PTZ camera, please contact us.

```
Video (1/12)
Standard-AUTO
Brightness-40
Contrast-50
Saturation-75
Hue-50
Quality(All)-80
Compression Boost-None
Auto Gain Control-No
Mirror Horizontal-No
Mirror Vertical-No
Max Connection-0
Max Bandwidth-0
Max Conn. Bandwidth-0
Dimension-320x240
Water Mark-OFF
Local Display-ON
PTZ Control
                        Next!
```

To change the video parameters:

1.   Use the **Up** and **Down** arrow buttons on the remote control to highlight the option.
2.   Use the **Left** and **Right** arrow buttons to change the value assigned to the setting.
3.   Press the **OK** button to confirm the new settings.

Each camera has its own video screen. To move between the screens for each camera, use the **Prev** Page and **Next** Page buttons on the remote control.

PTZ Control

Select the type of PTZ cameras used and set each camera that has one connected to Yes. The timeout value represents the time given to the cameras to respond to a command. Don't forget to setup PTZ ID.

```
PTZ
PTZ Device-VP-202
PTZ ID-1
Baud Rate-9600
Timeout(Sec)-120
PTZ Control
```

To set the timeout value for PTZ cameras connected to the VP-408/412/416:

1. Use the **Up** and **Down** arrow buttons to highlight the **Timeout** field.
2. Use the **Right** arrow key to increase the value and the **Left** arrow key to decrease the value.
3. Press the **OK** button to confirm the new value.

You can set and recall up to 6 preset configurations for each camera using the following buttons in the PTZ control section:

Preset - save the current pan, tilt, zoom, and focus settings in one of 6 preset configurations.

Recall - recall the selected preset configuration.

ZOOM - adjust the zoom to provide a more closer or wider view of the subject.

FOCUS - adjust the focus of the camera.

Speed - Adjust the speed of the selected PTZ camera.

Pan and tilt - Adjust the pan and tilt of the selected camera.

4.3.3 Video input

This function is to map physical camera video inputs on VP-408/412/416 cards to the video positions on local display. Normally, video input#1 is map to position #1. But you actually can set video inputs to any position from #1 - #16, (depends on how many VP-408/412/416 cards you install) on the screen as long as there is vacancy.

```
Video Input
Camera1-  1
Camera2-  2
Camera3-  3
Camera4-  4
```

4.3.4 Disks

Use the **Disks** menu to add and remove network disks from the system. Network disks can be used to provide more storage space for long time recording .

```
Setup Disks
  1
  2
  3
  4
  5
  6
  7
  8
  9
 10
 11
 12
 13
 14
 15
 16

-- Save & Reboot --
```

To add a network disk:

1. Highlight the disk you want to add and press the **OK** button.
2. When the **Add Disk** screen is displayed, press the **OK** button.

Add Disk

Network Disk (NFS)

The Add Network Disk menu is displayed, enabling you to set the IP address and volume size of the disk, test its validity, and save the disk parameters.

Add Network Disk
IP/Addr-
Volume-
Test!
Save!

To enter an IP address:

1.   Use the **Up** and **Down** arrow buttons on the remote control to highlight the **IP/Addr** option and press the **Right** arrow button to confirm the choice.

2.   Enter an IP address using the number buttons on the remote control.

Note: You cannot enter a period (dot) between the fields in the IP address using the remote control keypad. Use the on-screen keypad to enter the dots.

3.   Press the **OK** button to confirm the new address.

To enter a volume name for the new disk:

1.   Use the **Up** and **Down** arrow buttons on the remote control to highlight the **Volume** option and press the **Right** arrow button to confirm the choice.

2.   Use the on-screen keyboard to enter a volume label for the new disk.

To test a network disk:

1.   Use the **Up** and **Down** arrow buttons on the remote control to highlight the Test! option.

2.   Press the **OK** button to confirm the choice.

The test result will appear on the screen.

To save disk parameters:

1.   Use the **Up** and **Down** arrow buttons on the remote control to highlight the **Save!** option.

2.   Press the **OK** button to confirm the choice.

4.3.5   TV output

The VP-408/412/416 can be connected to a VGA monitor or a TV to view the camera video signal. Use the **TV Output** menu to set the following parameters for the video output port:

Device - sets the output to VGA or TV.

Standard - sets the signal format for the output device. Select from NTSC, PAL, SECAM, and so on.

Output to - sets the video output to the composite or S-Video signal.

Delay - sets the delay between consecutive camera signals when displaying all the camera signals automatically.

Camera (From) - specifies the first camera signal displayed in the automatic cyclic camera mode.

Camera (To) - specifies the last camera signal displayed in the automatic cyclic camera mode.

Screen Split - sets the number (1, 4, 9, or 16) of cameras to be shown on the local screen.

Time Stamp - Enables and specifies the position of the time stamp on the screen.

Time Format - Specifies the format of the time stamp.

Deinterlace - Software –> based De-interlace support.

```
TV Output
Device-VGA
Standard-NTSC
Output to-Composite
Delay(Sec)-10
Camera(From)-1
Camera(To)-12
Screen Split-Single
Time Stamp-Disable
Time Format-MM/DD/YYYY
Deinterlace-ON
```

Use the **Up** and **Down** arrow buttons on the remote control to select any one of the displayed parameters and use the **Left** and **Right** buttons to cycle through the available options. Press the **OK** button when parameters are set correctly.

4.3.6 OSD text

A line of text can be displayed with the video from each camera connected to the VP-408/412/416. Use the **OSD Text** menu to enable the text and alter it. You can also set the position of the text using the X and Y parameter values. Increasing the value of Y moves the text down the screen. Increasing the value of X moves the text to the right.

```
OSD Text (1/16)
Enable-NO
X-0
Y-0
Text-Alexander Writes
                    Next
```

To alter the text position:

1. Use the **Up** and **Down** arrow buttons on the remote control to highlight **X** or **Y.**
2. Use the **Right** button to increase the value and the **Left** button to decrease the value.
3. Press the **OK** button when the value is correct.

Use the on-screen keyboard to alter the OSD text as follows:

1. Use the **Up** and **Down** arrow buttons on the remote control to highlight the **Text** option.
2. Use the **Right** arrow button to confirm.
3. Press the **keypad** button on the remote control to display the on-screen keyboard.

Keypad button

```
0123456789~!@#$%^&*(
)_+|-=\{}[]:";'<>?,.
/ abcdefghijklmnopqr
stuvwxyzABCDEFGHIJKL
MNOPQRSTUVWXYZ
```
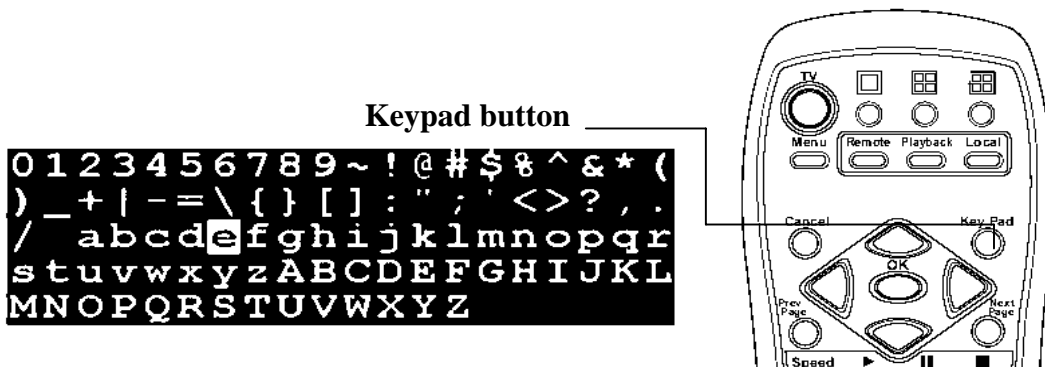
4. Use the **Arrow** buttons to highlight the letters you need for your text and press the **OK** button to choose them.

5.   When your text is complete, press the **Keypad** button to remove the on-screen keyboard.

6.   Press the **OK** button to save the new text.

4.3.7   TCP/IP

Use the **TCP/IP** menu to set the IP address of the VP-408/412/416, the gateway, the subnet mask, the DNS server IP address, and the HTTP port. If you want to use the VP-408/412/416 on your network, see your network administrator to obtain a valid IP address for the VP-408/412/416.

Network Neighbor function: User can see VP-408/412/416 recording directory from other PC through Microsoft Windows network neighbor. Then user can copy files in that directory to PC or do remote back up automatically, if user has the proper software installed on the PC.

Note: when you setup server name and workgroup, please key-in English characters or numbers only.

To change the TCP/IP parameters:

1.   Select the field to change using the **Up** and **Down** arrow buttons.

```
TCP/IP
IP-10.11.100.81
Gateway IP-10.11.100.1
Subnet Mask-255.255.0.0
DNS IP-168.95.1.3
HTTP Port-80

Network Neighbor-OFF
```

```
Network Neighbor
Enable-OFF
Server Name-DVR
Workgroup-DVR
WINS Server-0.0.0.0
Save
```
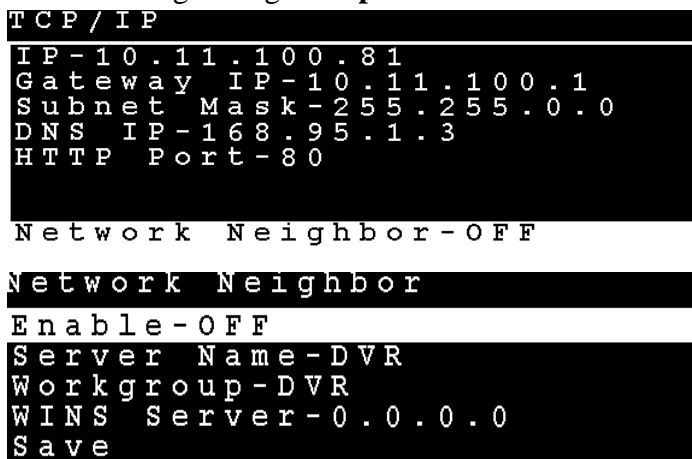
2.   Press the **Right** arrow button to confirm.

3.   Use the number pad on the remote control to enter a new value

4.   Press the **OK** button to confirm the new value.

Network Neighbor function:

After define the server name, workgroup and WINS server, user can find out the DVR recording files from Microsoft windows network neighbor. See as following picture.
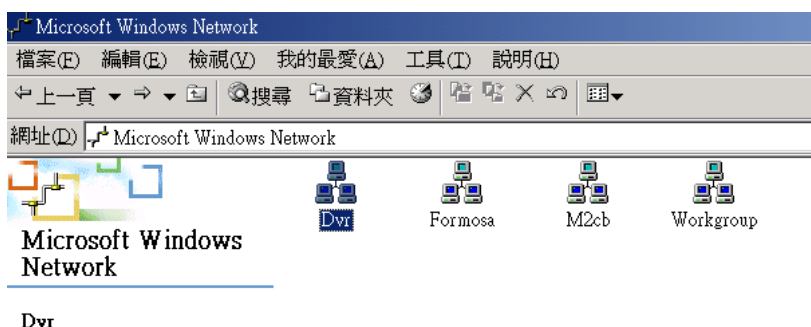
4.3.8 Account

Use the **Account** menu to set up an administrator name and password as well as user name and passwords. The default administrator name is **Webmonitor** and the default password is **OYO**. You can also use this menu to set up to 16 additional users, their passwords and their permissions on the system.

Note: It is important that you set up a user name and password. The user is different from the administrator and has access to only the video. Use the **More Users** function to alter the authorities of users who access the VP-408/412/416 from the Internet.

To set an Admin/User name or password:

1. Use the **Up** and **Down** arrow buttons to select the field to change.

```
Account
Admin Name
Admin Password
User Name
User Password
More Users...
```

2. Press the **Right** arrow button to confirm.
3. Press the **Key Pad** button on the remote control to display the on-screen keyboard.
4. Use the **Arrow** buttons to select the letters you require and the **OK** button to confirm.
5. When the field is correct, press the **Key Pad** button to turn off the on-screen keyboard.
6. Press the **OK** button to confirm.

To set up additional users and their permission rights:

1. Use the **Up** and **Down** arrow buttons to select the **More Users** choice.

```
Name-23
Pass-
Camera1-Yes
Camera2-Yes
Camera3-Yes
Camera4-Yes
Camera5-Yes
Camera6-Yes
Camera7-No
Camera8-No
Camera9-No
Camera10-No
Camera11-No
Camera12-No
Camera13-No
Camera14-No
Camera15-No
Camera16-No
PTZ-No
Playback-No
Audio-No
```
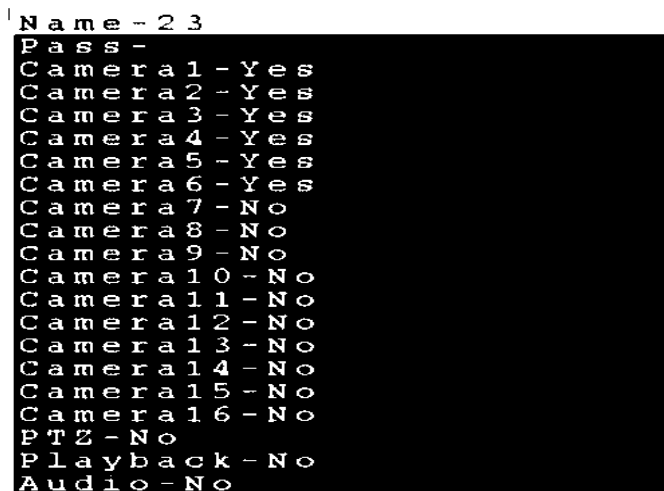
2. Press the **Right** arrow button to confirm.
3. Use the **Arrow** buttons to select the **Name** and **Pass** options and modify these fields in the same manner as in the previous procedure.
4. Use the **Up** and **Down** buttons to select any cameras from **Camera1** through **Camera16.**
5. Press the **Right** arrow to select **Yes** to allow the user to access and control the selected camera.
6. Use the **Up** and **Down** buttons to select the **PTZ** option.
7. Press the **Right** arrow button to select **Yes** to enable PTZ control of the selected cameras for the user.
8. Use the **Up** and **Down** buttons to select the **Playback** option.

9. Press the **Right** arrow button to select **Yes** to enable the user to record and play back the signal from the selected cameras.

10. Use the **Up** and **Down** buttons to select the **Audio** option.

Note: Audio can be disabled for live viewing and playback of recordings using the Audio Disable function.

11. Press the **Right** arrow button to select **Yes** to enable the user to hear the live audio from the selected cameras.

4.3.9 Audio

Use the **Audio** menu to set up the audio parameters for the VP-408/412/416. The configurable parameters areas follow:

• **Mic Gain** – adjusts the gain of the microphone.

• **Speaker** – adjusts the speaker output level (volume).

• **Mic Timeout** – sets the timeout for the microphone.

• **Speaker Timeout** – sets the timeout for the speakers.

• **Self Test (Mic -> Spk)** – performs a self-test to ensure correct operation of the microphone and speaker.

• **Camera -** setup which camera mapping to which audio channels. Audio1 is the audio input from motherboard. The other audio inputs are from video capture card.

Note: Make sure that audio is enabled when recording signals from the cameras attached to the VP-408/412/416.

To set the audio parameters:

1. Use the **Up** and **Down** arrow buttons to select a field to change.

```
Audio
Mic Gain-100
Speaker-100
Mic Timeout-60
Speaker Timeout-60
Self Test(Mic->Spk)-OFF
Camera 1-Audio 1
Camera 2-Null
Camera 3-Null
Camera 4-Null
Camera 5-Null
Camera 6-Null
Camera 7-Null
Camera 8-Null
Camera 9-Null
Camera 10-Null
Camera 11-Null
Camera 12-Null
```

2. Use the **Right** arrow button to increase the value and the **Left** arrow button to decrease the value.

3. Press the **OK** button to confirm.

4. Use the **Up** and **Down** arrow buttons to select the **Self Test (Mic -> Spk)** option.

5. Press the **Right** arrow button to set the option to on to make sure that the microphone and speaker is working correctly.

4.3.10 Serial ports

The VP-408/412/416 can be connected to other serial devices such as external modems, GPIO (General Purpose Inputs and Outputs), Voice Call devices, PTZ cameras, camera control devices, text input devices, or USB serial ports, using two serial ports - **COM1** and **COM2**. The RS232 standard is used for these

ports. Use the **Serial Ports** menu to set the following parameters:

```
Serial Port (1/2)
COM1 Device-Modem
COM1 Speed-9600
COM1 Flow Control-Yes
COM1 Data Bits-8
COM1 Parity-None
COM1 Stop Bits-1
                          Next
```

COM1 Device - selects the type the serial device. You can select external modems, GPIO, voice call modems, etc.

COM1 Speed - sets the speed (1200 to 115200 bps) for the serial device.

COM1 Flow Control - enables or disables the flow control for the device.

COM1 Data Bits - Sets the number of data bits (6, 7, or 8) for the device.

COM1 Parity - Sets odd or even parity.

COM1 Stop Bits - Sets 1 or 2 stop bits for the device.

To change the serial port parameters:

1. Use the **Up** and **Down** buttons to select the field to change.
2. Use the **Left** and **Right** arrow buttons to cycle through the available options for that field.
3. Press the **OK** button when the field is set correctly.

Note:

1. You can use the **Prev Page** and **Next Page** buttons on the remote control to toggle between the **COM1** menu and **COM2** menu.

2. When an optional GPIO module is connected to the serial port, the VP-408/412/416 detects it automatically and provides GPIO options in the system menu.

4.3.11   System information

Use the **System Information** option to display the System Information screen and view information about the boot disk, TCP/IP parameters, the MAC ID of the device, firmware version and date of installation, model number, and hard disk properties.

```
System Information
Boot-DOM/CF/Disk
IP-10.11.100.81
Mask-255.255.0.0
MacID-00:40:F4:17:43:DD
Start-2006/02/22 18:07:12
FW Ver-1.4
FW Date-Feb 14 2006 10:15
Model-100/400
Sysbin Ver-100.2
Disk Size-120GB
Disk Used-20GB(16.6%)
Rec Period-24 hr
```

4.3.12   Date/Time

Use the **Date/Time** option to set the year, month, day, hour, minute, second, and time zone in which the VP-408/412/416 is installed.

To set the time or time zone:

1.   Use the **Up** and **Down** arrow buttons to select the field to change.

```
Date/Time
Year-2004
Month-7
Day-19
Hour-14
Minute-31
Second-16
T.Zone-+7:00 Bangkok,Hanoi,J
```

2.   Use the **Left** arrow to decrease the value and the **Right** arrow to increase the value for that field.

3.   Press the **OK** button when the values are set correctly.

Note: The VP-408/412/416 reboots to save the changes, if you modify the time zone.

4.3.13 Alarm

Use the **Alarm** menu to define what constitutes an alarm condition and how the VP-408/412/416 reacts when such a condition occurs. You can configure an alarm condition to be generated when motion is detected by the camera, if the video signal is lost from a camera, if the disk space is too low, if there is a disk error or if pos event. Once the alarm is generated, you can set the alarm notification through a beep, a message, a video popup, voice call, or E-mail.

The Alarm menu has the following submenus:

E-Mail - enables you to set up an E-mail address and verify it is working correctly.

Video Popup (sec) - sets the time for which a camera is displayed on your monitor when an alarm is generated.

Voice Call - enables you to set conditions that generate a voice call when an alarm is triggered.

Set Action - sets the action that will generate an alarm condition for each camera.

```
Alarm Setup
Motion Detection
E-Mail
Video Popup(sec)-5
Voice Call
Set Action
```

Note: The **Voice Call** option will only be displayed in the menu if the voice modem function is selected from the serial port menu.

To enter E-mail details:

1.   Select the **E-Mail** option from the **Alarm** menu.

2.   Press the **Right** button to confirm. The E-Mail submenu is displayed.

```
E-Mail
Addr-
Name-
Pass-
Sender-
Test
```

3.   In the **E-Mail** menu, use the **Up** and **Down** buttons to select a field from the following:

Addr - Type the name of your mail server. See your network administrator for details about the address of your mail server.

Name - Type your user name.

Pass - Type your password.

Sender - Type the e-mail address of the sender.

Test - Checks the validity of the provided E-mail address by sending E-mail.

5.   Press the **Right** arrow button to confirm your selection.

6.   Press the **Key Pad** button on the remote control to display the on-screen keyboard.

7.   Use the **Arrow** keys to select the letters you need to complete the field and press the **OK** button to confirm.

8.   When the field is complete, press the **Key Pad** button to turn off the on-screen keyboard.

9.   Press the **OK** button to save your changes.

Video Popup

Use the **Video Popup** menu to set up the time period for which the video from the selected camera is displayed on your screen. The default screen is 20 seconds.

To set the video popup time:

1.   Use the **Up** and **Down** arrow buttons to select the **Video Popup** option from the Alarm menu.

2.   Use the **Left** arrow button to decrease the popup time and the **Right** arrow button to increase the time

3.   Press the **OK** button to save your settings.

The Voice Call options enable you to set up a voice modem that will make a call when the selected event (such as a GPI or motion alarm, or video lost from a camera) occurs.

You must install a voice/fax modem on one of VP-408/412/416 COM ports, configure the COM port as a voice Call/device, and make its protocol the same as that of the voice/fax modem for the voice call function to work.

Voice call features:

•   A voice call message can be recorded using an internal or external microphone, and can be played back using an internal or external speaker.

•   Up to 60 voice messages can be recorded and stored on the VP-408/412/416 and used for different alarm events.

•   Messages recorded for the voice call function must be between 5 and 10 seconds.

To set the Voice call function:

1.   Use the **Up** and **Down** arrow buttons to select the **Voice Call** option from the Alarm menu.

2.   Use the **Up** and **Down** arrow buttons to highlight the **Redial** option.

3.   Use the **Left** and **Right** arrow buttons to set the number of Redial attempts (0-9).

4.   Use the **Up** and **Down** arrow buttons to highlight the **Voice Repeat** option.

5.   Use the **Left** and **Right** arrow buttons to set the number of times the message is repeated (0-9)

6.   Use the **Up** and **Down** arrow buttons to highlight the **Time for Rec.** option.

7. Use the **Left** and **Right** arrow buttons to set the duration of the recording (5-10 seconds)

8. Use the **Up** and **Down** arrow buttons to highlight **the Modem Speaker** option.

9. Use the **Left** and **Right** arrow buttons to select either **Internal** or **External** speaker.

10. Use the **Up** and **Down** arrow buttons to highlight the **Voice File** option.

11. Use the **Left** and **Right** arrow buttons to select a voice file to use.

12. Use the **Up** and **Down** arrow buttons to highlight the **Rename** option.

13. Press the **OK** button to rename the current file to the file named in the **Voice File** field.

14. Use the **Up** and **Down** arrow buttons to highlight the **Record** option.

15. Press the **OK** button to make a recording.

Known issues with the voice call function

- There will be three seconds silence between a voice call being answered and the start of the message.

- If the voice call function calls a phone with an automatic answering machine, the VP-408/412/416 will behave as if the call has been answered.

- The VP-408/412/416 does not support non-standard ringing tones. If the VP-408/412/416 calls a phone and an unexpected tone is received, an error message will be generated.

Set Action

Use the **Set Action** option to define what action is taken by the VP-408/412/416 when an event occurs. The following options are available:

Video Lost - generates an alarm when the video from the selected camera is not available.

Disk Space Low - generates an alarm when the disk space is insufficient.

Disk Error - generates an alarm if there is an error while accessing the disk.

POS Event - generates an alarm if there is an error while integrate pos data with video.

```
Event List
GPI
Motion Detection
Video Lost
Disk Space Low
Disk Error
POS
```

To configure events using the Set Action option:

1. Use the **Up** and **Down** arrow buttons to select an event from the list.

2. Press the **Right** arrow button to display the submenu for the event with the following options:

Message - displays a message on screen when the event occurs.

Beep - sounds a beep when the event occurs.

E-Mail - sends an E-mail to the specified address when the event occurs.

Voice Call - sends a voice call to a specified number when an event occurs.

Video Popup - displays the video from the selected camera on your screen.

3. Use the **Up** and **Down** buttons to select the desired action from the following options:

4. Press the **Right** arrow button for the required action to view the submenu.

5. After enabling the action, set up the **Start** and **End Hour**, **Minute**, and **Second** to make the feature active during the specified time interval of the day. The default settings have the feature enabled

throughout the whole day.

6. If you selected the **E-Mail** option as the desired action, you have to set up the recipient of the E-mail, the subject and the text matter of the E-mail. You can specify which of the 16 cameras status is in the E-mail.

4.3.14   ISP

If you are connecting to the Internet using dial-up, enter your ISP details using the **ISP** option from the System Setup menu. Set up the following options:

Phone No. - enter the telephone number that is dialed by the dial-up modem.

Name - enter the user name of your dial-up account.

Pass - enter the password for your dial-up account.

TCP/IP - set up automatic or manual TCP/IP. If the VP-408/412/416 is connecting through a DHCP server, an IP address is assigned to it automatically. If you want to set the IP address of the device manually, select the **Manual** option.

To enter ISP details:

1.   Use the **Up** and **Down** arrow buttons to select a field to change.

```
ISP
Phone No.-
Name-
Pass-
TCP/IP-Automatic
```

2. Press the **Right** arrow button to confirm.

3. Press the **Key Pad** button on the remote control to display the on-screen keyboard.

4. Use the **Arrow** buttons to select letters and numbers from the on-screen keyboard and use the **OK** button to confirm.

5. When the field is correct, press the **Key Pad** button to turn off the on-screen keyboard

6. Press the **OK** button to confirm the new field.

4.3.15   Registry server

The **Registry Server** menu enables you to set up the registry server for your device. If you are using a dynamic IP address for the VP-408/412/416, you can set up the device to post its IP address to the VPON registry server. You can then look up your IP from the MAC address or server name.

To enter Registry Server details:

1. Use the **Up** and **Down** arrow buttons to select a field to change.

```
Registry Server
Path-cgi
HTTP Port-80
Addr-registry.nfic.com.tw
```

2. Press the **Right** arrow button to confirm.

3. Press the **Key Pad** button on the remote control to display the on-screen keyboard.

4.   Use the **Arrow** buttons to select letters and numbers from the on-screen keyboard and use the **OK** button to confirm.

5.   When the field is correct, press the **Key Pad** button to turn off the on-screen keyboard.

6.   Press the **OK** button to confirm the new field.

4.3.16   Running mode

Use the **Running Mode** menu to switch between Network Mode and ISP Mode, and between Mouse Mode and IR Remote Control Mode.

```
Running Mode
Mode-Network Mode
Control-IR Control
```

4.3.17   Algorithm

You can change the compression algorithm used by the VP-408/412/416 to record video. The VP-408/412/416 supports MPEG, JPEG, MJPEG, and H.263 ,MPEG4 algorithms for compression. For the JPEG and MJPEG algorithms, the video quality is better but the data rate is also high. The H.263 and MPEG4 algorithm provides a good video quality with low data rate .

To set up the algorithm:

1.   Use the **Up** and **Down** arrow buttons to select a field to change from the **Algorithm** menu.

```
Algorithm
Algorithm-MPEG4
```

2.   Use the **Right** and **Left** arrow buttons to toggle the available options.

3.   Press the **OK** button when the fields are set correctly.

4.3.18   NTP setup

Use the **NTP** (Network Time Protocol) **Setup** function to synchronize the real-time clock on the VP- 101 with the atomic clock. Before using this feature, make sure that the correct date, time and time zone have been set up. Also make sure that the DNS IP number has been set up under the TCP/IP settings.

The following options are available in the submenu:

Enable - enables the NTP function to synchronize the real-time clock.

Period (Hour) - sets up the time interval after which the time is re-synchronized.

Server - selects the NTP server from several pre-defined choices.

Edit NTP Server - enables you to choose your own NTP server.

Test&Save? - tests the server and saves the changes.

To change NTP settings:

1.   Use the **Up** and **Down** arrow buttons to select a field to change from the NTP menu.

```
NTP Setup
Enable-ON
Period(Hour)-1
Server-ntp1.cs.wisc.edu
Edit NTP Server
Test&Save?(OK/Cancel)
```

2. Press the **Right** button to confirm.
3. Press the **Key Pad** button on the remote control to display the on-screen keyboard.
4. Use the **Arrow** buttons to select letters from the on-screen keyboard and use the OK button to confirm.
5. When the field is set correctly, press the **Key Pad** button on the remote control to turn off the on-screen keyboard.
6. Press the **OK** button to save changes.

4.3.19   License Setup

There are two ways to grant POS license. One is key-in license key; the other one is plug-in a key-pro. So if you plug-in a key-pro you don't need to key in the license number again in the license setup menu. Use the **License** menu to key in the license number.

There are three POS License to three levels:

Level 1: Single POS unit – Can connect ONLY one cash register.

Single POS only one cash register. This level pos function doesn't need to register.

Level 2. 4 POS units   -- Can connect maximum 4 cash registers.

Level 3. Full functions – Can connect maximum 16 cash registers.

```
License Setup
Serial No-KKBBBBKK
License Key-
Register Now...
Licensed Func.
    POS
```

4.4   Record setup

Use the **Record Setup** menu to set all the record options for the VP-408/412/416. There are four **Record Setup** submenus - **DVR**, **Record Schedule**, **Motion Detection**, **GPI Trigger** and **Pre-Alarm**. This section covers each submenu in turn.

```
Record Setup
DVR Setup
Record Schedule
Motion Detection
GPI Trigger
Pre-Alarm
```

4.4.1   DVR Setup

Use the **DVR** menu to set the DVR (Digital Video Recorder) mode. Choose **Cyclic Recording** to keep recording on the hard disk continuously. Choose **Auto Stop** to stop recording when the disk is full.

```
DVR Setup
Mode-Cyclic Recording
```

```
DVR Setup
Mode-Auto Stop
```

You can set an alarm to be generated when the hard disk is full and send notification through a beep, E-mail, or text message.

To change the DVR mode:

1. Select the **Mode** option from the **DVR** submenu using the **Up** and **Down** arrow buttons on the remote control.

2. Use the Left and Right buttons to select either **Cyclic Recording**, or **Auto Stop.**

3. Press the **OK** button to save changes.

4.4.2   Record schedule

You can set up to 16 record schedules that automatically record at given times and days.

To configure a record schedule:

1. From the **Record Schedule** menu, pick a schedule to change from the displayed list, using the **Up** and **Down** arrow buttons.

```
Record Schedule
Record  Schedule   1
Record  Schedule   2
Record  Schedule   3
Record  Schedule   4
Record  Schedule   5
Record  Schedule   6
Record  Schedule   7
Record  Schedule   8
Record  Schedule   9
Record  Schedule  10
Record  Schedule  11
Record  Schedule  12
Record  Schedule  13
Record  Schedule  14
Record  Schedule  15
Record  Schedule  16
```

2. Press the **Right** button to display the parameters for that schedule.

```
Edit Schedule # 1 (1/4)
Enable-No
Mon-OFF
Tue-OFF
Wed-OFF
Thu-OFF
Fri-OFF
Sat-OFF
Sun-OFF
Start  Hour-00
Start  Minute-00
Start  Second-00
Stop  Hour-00
Stop  Minute-00
Stop  Second-00
Camera  1-Normal  Record
Camera  2-Normal  Record
                      Next
```

3.	Use the **Up** and **Down** arrow buttons to select a field to change, from the following options:

Enable -enables the recording schedule.

Mon through Sun - enables recording on the specified days of week.

Start Hour/Minute/Second - sets the exact time when the recording starts.

Stop Hour/Minute/Second - sets the exact time when the recording ends.

Camera 1 through 16 - sets the recording mode for the selected camera. Select Normal Record to record continuously. Select Motion Detect to record only when motion is detected. Select OFF to disable recording.

Audio - enables recording of sound along with the video signal.

Frame Rate Setup - sets the frame rate for recording. Set Auto Speed to Yes and the device evenly divides the recording frame rate amongst all cameras. If set to No, you can manually set up the individual frame rates for each camera.

Weight recording- weight recording is setting special recording frame rate when an alarm of one of camera was triggered.

4.	Use the **Right** and **Left** arrow buttons to change the value of that parameter.

5.	Use the **Prev** Page and **Next Page** buttons to move to the previous or next page.

6.	Press the **OK** button when all parameters are set.

### 4.4.3	Motion Detection

To set motion detection conditions:

1. Use the **Up** and **Down** arrow buttons to select the **Motion Detection** option from the **Alarm** menu and press the **OK** button.

2. When the motion detection menu appears, uses the **Up** and **Down** Arrow buttons to select one of the following options:

• **Enable** – configures the motion detection feature for each camera.

• **Sensitivity** – sets the sensitivity value for detecting motion.

• **Set Detect Area** – sets the area in the camera's field of vision over which motion is detected. This option is displayed only after you set the **Enable** option to **Yes**.

• **Enable all area** – sets the all area is motion detect area.

• **Disable all area** –set no area is motion detect area.

3. Select the **Enable** field and use the **Left** and **Right** arrow buttons to toggle between **Yes**, to enable the motion detection feature, and **No,** to disable it.

4. Select the **Sensitivity** choice and use the **Left/Right** arrow buttons to decrease/increase the sensitivity. We recommend that you keep the sensitivity level to its default setting. If the sensitivity level is adequate, an orange square is displayed in the upper left-hand corner of the screen when motion is detected.

5. Select the **Set Detect Area** option and press the **Right** arrow button to configure the area as follows:
   i. The highlighted area in red is the area monitored by motion detection. Use the **Arrow** buttons to move the cursor.
   ii. Press the **OK** button to cut off any areas where you want to disable motion detection. If you want motion detection enabled in the entire field of vision of the camera, leave the screen completely red.

iii. Press the **Cancel** button to return to the previous menu when done.

6. Select the **Save** option and press the **OK** button to save all your changes.

7. Use the **Prev Page** and **Next Page** buttons to move to the motion detection menus for all connected cameras.

8. Press the **OK** button when settings are correct. You need to provide E-mail details if you want an E-mail to be sent when an alarm occurs.

```
Motion Detection (1/12)
Enable-Yes
Sensitivity-5
Set Detect Area
Enable All Area
Disable All Area
Save
                        Next
```

4.4.4   GPI Trigger

Use the **GPI Trigger** function to enable recording video from specified cameras when triggered by an external alarm (GPI) connected to the system.

```
GPI Trigger # 1 (1/16)
Enable-Yes
Record Time (sec)-0
Camera1-No
Camera2-No
Camera3-No
Camera4-No
Camera5-No
Camera6-No
Camera7-No
Camera8-No
Camera9-No
Camera10-No
Camera11-No
Camera12-No
                        Next
```

4.4.5   Pre- Alarm

Use the **Pre-Alarm** function to determine how many frames are recorded before an alarm event occurs. Each camera can be set separately and you can record up to 300 frames.

To set the Pre-Alarm frame capture:

1. Use the **Up** and **Down** arrow buttons to select **Pre-Alarm** option from the **Record Setup** menu.

```
Pre-Alarm
Camera1- 300 Frames
Camera2- 0 Frames
Camera3- 0 Frames
Camera4- 0 Frames
Camera5- 0 Frames
Camera6- 0 Frames
Camera7- 0 Frames
Camera8- 0 Frames
Camera9- 0 Frames
Camera10- 0 Frames
Camera11- 0 Frames
Camera12- 0 Frames
```
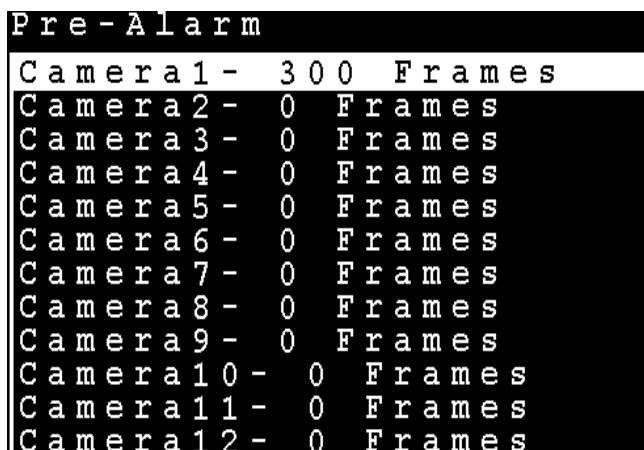
2. Press the **OK** button to display the Pre-Alarm menu.

3. Use the **Up** and **Down** arrow buttons to select the camera to change from the list.

4. Press the **Right** arrow button to confirm.

5. Use the number buttons on the remote control to enter a new value.

6. Press the **OK** button when the value is set correctly.

4.5 Playback

Use the **Playback** function to display a list of all recordings stored on the VP-408/412/416. Use the **Up** and **Down** arrow buttons to select a recording to play back and press the **OK** button to confirm. The chosen track is played. Use the **Prev Page** and **Next Page** buttons on the remote control to move between pages.

4.5.1 Playback list

Use the **Playback list** function to display a list of all recordings stored on the VP-408/412/416 as follows.

```
Playback list (13/22)
 2004-07-15 16:00        0M
 2004-07-15 15:00        0M
 2004-07-15 14:00        0M
 2004-07-15 13:00        0M
 2004-07-15 12:00        0M
 2004-07-15 11:00        0M
 2004-07-15 11:00        0M
 2004-07-15 10:00  M    80M
 2004-07-14 19:00  M   578M
 2004-07-14 18:00  M   754M
Prev                   Next
```

1. Use the **Up** and **Down** arrow buttons to select a recording to play back. The alarm condition which caused the file to be recorded is indicated in the list. For instance, in the screen shot shown here, the letter **M** next to a file indicates that the file was recorded after motion was detected by the camera. "**A**" indicates that the file was recorded after a GPIO event. An asterisk (*) before the date indicates that the file is locked.

2. Press the **OK** button to confirm. The chosen recording is played back.

2. Press the **Display** button on the remote control to display various properties of the recorded file. The date and time of recording are displayed in the upper right corner.

Progress - A one hour time line is displayed at the bottom of the screen with the moving orange line indicating the status of playback.

Recorded Data - The aqua colored portion is where there is recorded data in that hour . A full blue line means that the whole hour interval was recorded.

GPI - The screen shows where alarm triggers were generated. The red bar shows the trigger. To move to the next motion detection or alarm trigger event, press the **Right/Left** arrow buttons.

Motion Detection – The yellow bars represent where motion detection was set off.

Searching for a file:

The VP-408/412/416 playback list can be searched for a specific file. You can conduct the search based on time, event, or text.

4.5.2 To search for a recorded file:

1.   While viewing the play list, press the **Menu** button to display the menu.

```
Playback  Menu
Search  by  Time
Search  by  Event
Search  by  Text
Lock  File!
Backup
```

2.   Select one of the following options using the **Up** or **Down** arrow buttons:

Search by Time - searches the list of recorded files for the specified recording time.

Search by Event - searches the list of recorded files for the specified event such as a GPIO trigger that occurred within the specified time interval.

Search by Text - searches the list of files recorded with POS information for specified text that was recorded within the specified time interval.

3.   Press the **Right** arrow button to view the submenu for the selected option.

```
Search  by  Time
Year-2004
Month-8
Day-17
Hour-17
Minute-11
Second-9
```

4.   Select each of the options such as **Year, Month, Day,** and so on using the **Up** or **Down** arrows.

5.   Modify the settings as required using the **Left** and **Right** arrow buttons.

Note: If you select the **Search by Event** option, choose an event from **GPI 1~16**. If you choose the **Select by Text** option, enter the text using the **Key Pad** button.

6.   Press **OK** when done to conduct the search.

4.5.3   Locking files

To prevent accidental deletion of recorded files, you can lock a file. This also prevents over-writing of the file when the recording mode is set to **Cyclic.**

To lock a file:

1.   While viewing the play list, use the Up/Down arrow buttons to select the desired file.

2.   Press the **Menu** button to display the menu.

```
Playback  Menu
Search  by  Time
Search  by  Event
Search  by  Text
Lock  File!
Backup
```

3.   Select the **Lock File!** option using the **Up** or **Down** arrow buttons:

4.   Press the **OK** button to confirm.

The file is locked and cannot be deleted or over-written. There is an asterisk (*) ahead of the file name. To unlock a file, follow the same procedure and select the **Unlock File!** option from the menu.

4.5.4   Backing up the data

If the VPON VP-408/412/416 is equipped with CD/RW, DVD+RW drive, you can back up your recorded files to a CD, DVD, or USB hard drive.

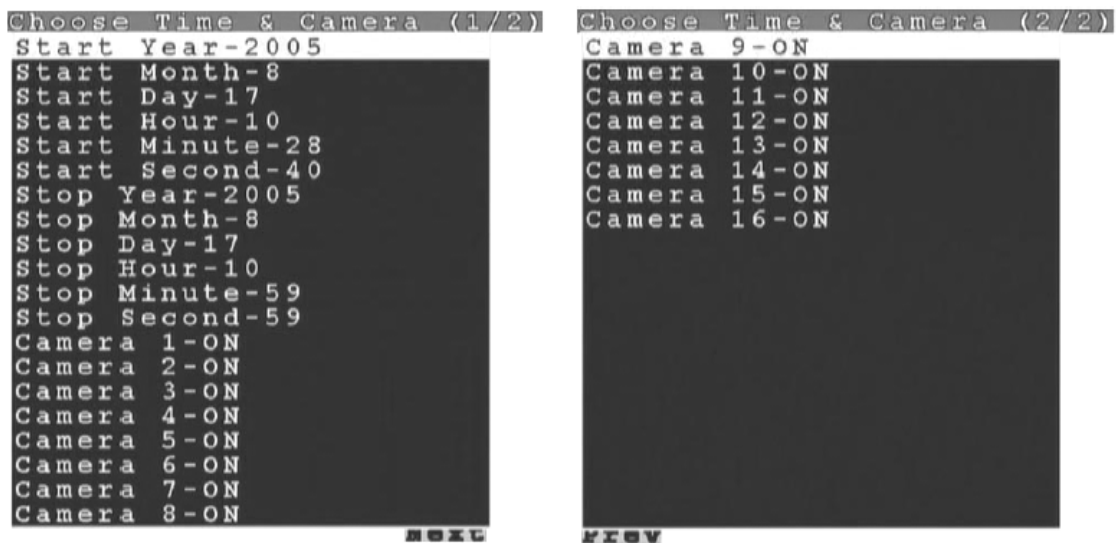**To back up your data:**

1.   While viewing the play list , press the **Menu** button to display the menu.

2.   Select the **Backup** option using the **Up** or **Down** arrow buttons.

3.   Press the **OK** button to confirm.

```
Select Device
         USB Device(8MB)

Clear All Data? (OK/Cancel)
```

The VP-408/412/416 detects if there is a backup device connected to it and starts backing up data.

```
Choose Time & Camera (1/2)      Choose Time & Camera (2/2)
Start  Year-2005                Camera  9-ON
Start  Month-8                  Camera  10-ON
Start  Day-17                   Camera  11-ON
Start  Hour-10                  Camera  12-ON
Start  Minute-28                Camera  13-ON
Start  Second-40                Camera  14-ON
Stop   Year-2005                Camera  15-ON
Stop   Month-8                  Camera  16-ON
Stop   Day-17
Stop   Hour-10
Stop   Minute-59
Stop   Second-59
Camera  1-ON
Camera  2-ON
Camera  3-ON
Camera  4-ON
Camera  5-ON
Camera  6-ON
Camera  7-ON
Camera  8-ON
                        next    prev
```

Note: The VP-408/412/416 will begin to collect data as soon as the above screens are displayed. When the required data has been collected, the backup can begin.

4.6 System Maintenance

Press the **Menu** button on the remote control to display the main menu on screen. Use the **Up** and **Down** arrow buttons to select one of the five options and press the **OK** button to confirm your choice.

```
System Maintenance
Alarm Log
System Log
Default Settings
Configuration File
Revise Firmware
```

4.6.1   Alarm log

Any alarm will be written into alarm log include video loss, disk error….etc. User can search alarm log by specific time.

1. Press "ok" button on "alarm log" option

2. There are many ways to quickly reach alarm log information. Include search by time, directly list all log, or only GPI, GPO or motion triggered log….

3. After selected one of the searching way, user can see the log and press "ok" button to enter submenu to get more detail information of log.

```
Search
Search by Time
List  ALL
List  None
List  GPI
List  GPO
List  Motion
List  Vedio Loss
List  HD Error
List  No Hard Disk
List  Pos Event
```

```
Alarm Log (1/26)
20060302  16:10  Motion
20060302  16:10  Motion
20060302  16:09  Motion
20060302  16:09  Motion
20060302  16:09  Motion
20060302  16:09  Motion
20060302  16:09  Motion
20060302  16:09  Motion
20060302  16:09  Motion
20060302  16:09  Motion
20060302  16:09  Motion
20060302  16:09  Motion
20060302  16:09  Motion
20060302  16:09  Motion
20060302  16:09  Motion
                              Next
```

```
Detail
Time  -  20060316  18:48:55
Event  -  Motion
Device  -  1
Text  -  N/A
Addr  -  N/A
```

4.6.2 System log

Any operation will be written into system log include local operation and remote operation. User can search system log by specific time.

```
System Log(1/48)
060302  16:07:29  Pre_Alarm
060302  16:07:19  GPI_Trigge
060302  16:07:07  GPI_Trigge
060302  16:02:44  ISP
060302  16:01:53  Camera
060302  16:01:31  Serial_Por
060302  15:53:42  Video_Inpu
060302  15:47:52  Sys_Start
060302  15:47:27  Run_Mode
060302  15:47:02  Sys_Start
060302  15:43:24  Playback
060302  15:41:20  Playback
060302  15:40:12  Playback
060302  15:37:22  Sys_Start
060302  15:35:49  Sys_Start
060302  15:34:04  Sys_Start
060302  15:30:25  Playback
060302  15:29:49  Playback
060302  15:28:51  Playback
060302  15:28:19  Rec_Schedu
```

4.6.3   Default settings

Use the **Default Settings** option to reset all configurable parameters to their factory default settings. When the **Default Settings** option is chosen from the **System Setup** menu, a message is displayed asking you to confirm. Press the **OK** button to confirm, or the **Cancel** button to cancel the operation.

4.6.4   Configuration file

User can backup or restore system configuration values to or from a file. Use Up and Down arrow buttons to select either **Backup** or **Restore** Configuration.

```
Backup / Restore
Backup Configuration
Restore Configuration
```

4.6.5   Revise firmware

Use the **Revise Firmware** option to upgrade the firmware in the VP-408/412/416. The firmware can be revised through an external read-write CD drive, a USB flash drive, or a USB thumb drive. Connect the device to the VP-408/412/416 and then use this option.

```
Select Device
Kingston DataTraveler 2.

File List
system.bin.en.600b1_031
```

4.7 System Shutdown

Use the **System Shutdown** option to shut down or reboot the system. To shut down or reboot the system:

1.   Use the **Up** and **Down** arrow buttons to select either Shutdown or Reboot.

```
System Shutdown
 Shutdown
Reboot
```

2.   Press the OK button to confirm.

3.   Press the **OK** button to confirm the operation again, or press the Cancel button to cancel the operation.

## 5. VPON Network Operation

5.1 Introduction

VP-408/412/416 can also be configured over a network using a PC running a standard web browser. This chapter covers network operation.

5.2 Connecting

The VP-408/412/416 GUI can be viewed from a standard internet browser when the device is connected on the same network as your PC or if it is connected through a cable or xDSL modem to the Internet. Refer to the hardware manual for more information about making connections using the RJ-45 Ethernet (LAN) port. Make sure that the VP-408/412/416 is configured for **Network** running mode.

**To access the VP-408/412/416 from remote browser:**
1. Open a browser window on a terminal that has network access to the VP-408/412/416.
2. Type the IP address of the VP-408/412/416 in the browser address bar.

Default User Name: webmonitor
Default Password: oyo
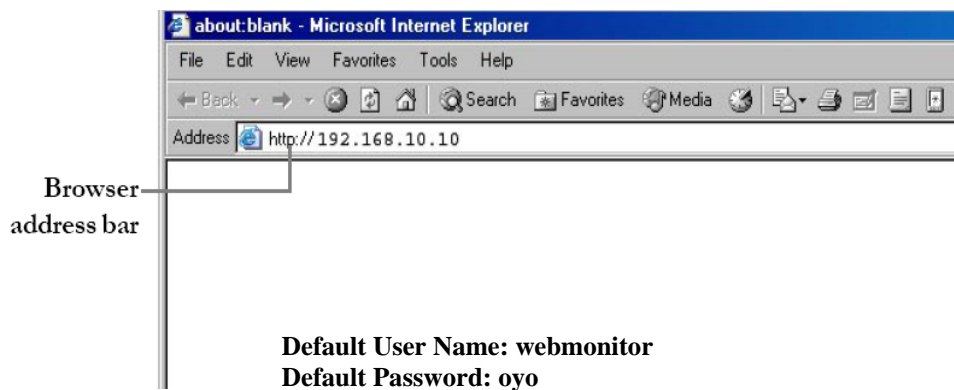
The first time you attempt to view the VP-408/412/416 user interface using a web browser, an ActiveX installation procedure will begin automatically. When the following window appears, click on the **Download LVSETUP.EXE** link. The download will begin and the following window will appear.
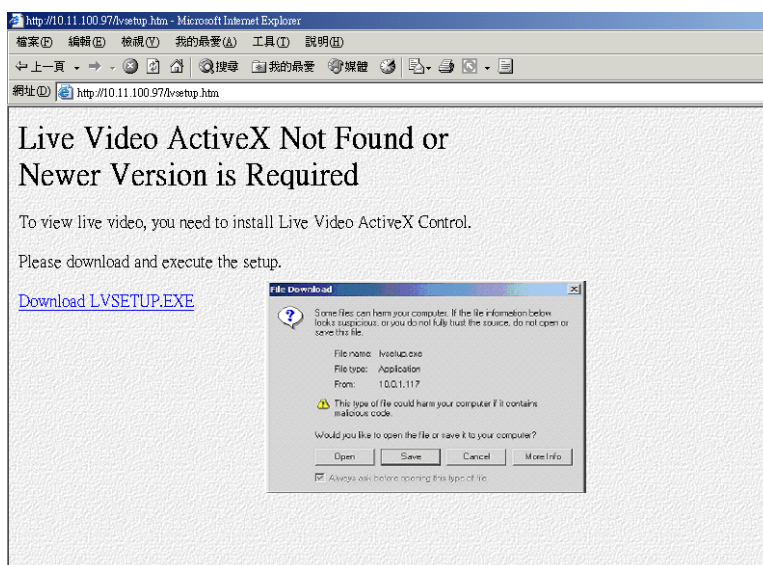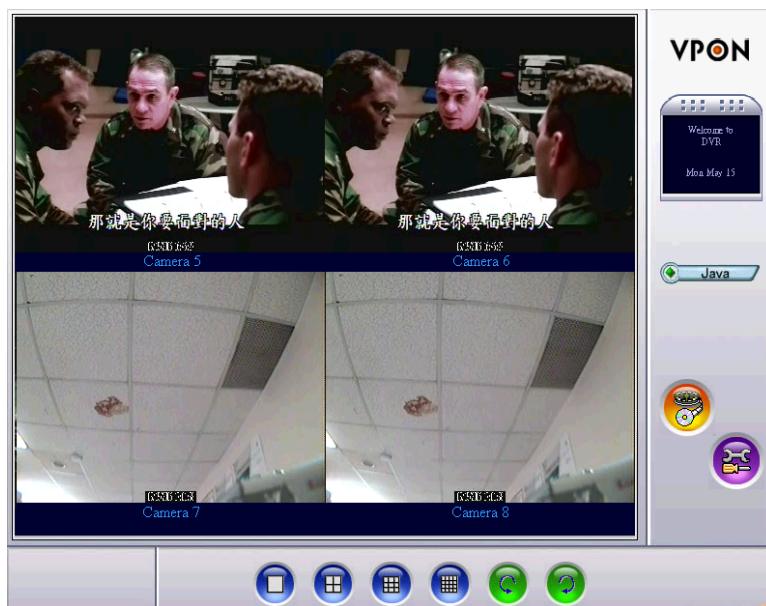

Click **Open** to download and install the new plug-in. The download status is displayed and you are prompted for an installation location.
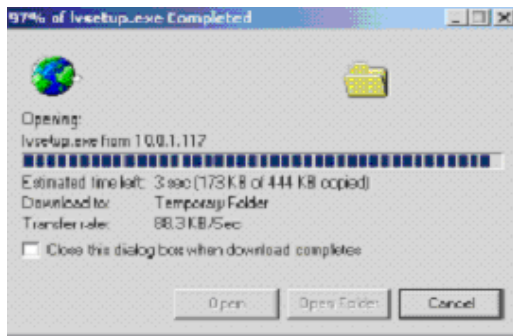
Click **OK** to complete the installation. The following message will appear.
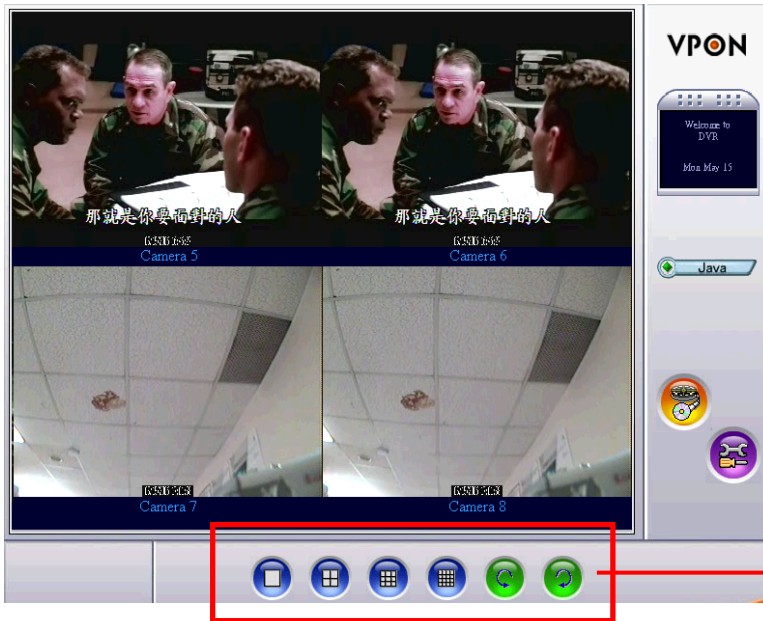

When installation is complete you will be able to view the VP-408/412/416 Home Page.

The ActiveX installation is necessary only at first time.

5.3 Surveillance screen panel
The **Surveillance Screen Panel** is very similar to the one on the local GUI. See **Surveillance screen panel** on page 8.
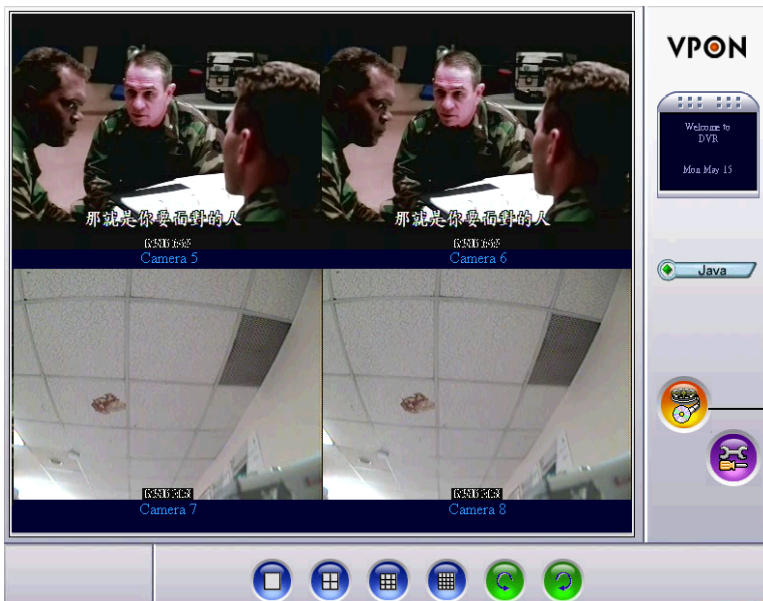
Surveillance screen panel

There is no Sequence button on the network GUI. This feature is only available on the local GUI.
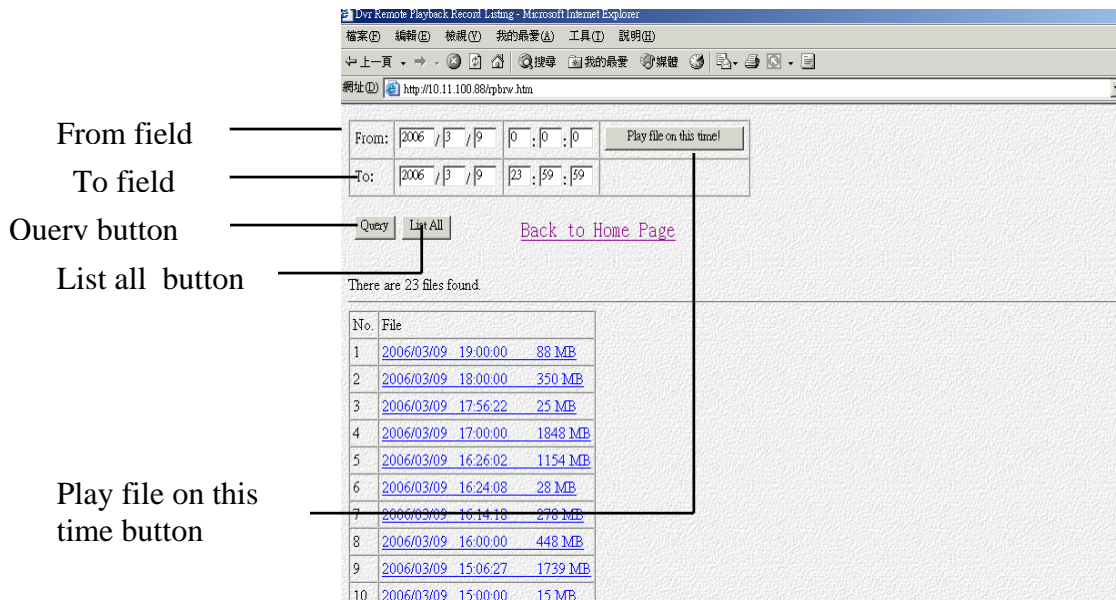
5.4 Play button

Click the **Play** button to display a list of all the available recordings stored on the VP-408/412/416 in a new browser window.

Play button

Click **List All** to display the entire list.

VPON

From field

To field

Ouerv button

List all button

Play file on this
time button

Click on a video recording to play it in a separate browser window.

Play a recorded video from a specific time and date by entering the time and date in the **From** field and clicking **Play file on this time.**

Search for files between particular times and dates by entering the dates in the To and **From** fields and clicking **Query**.
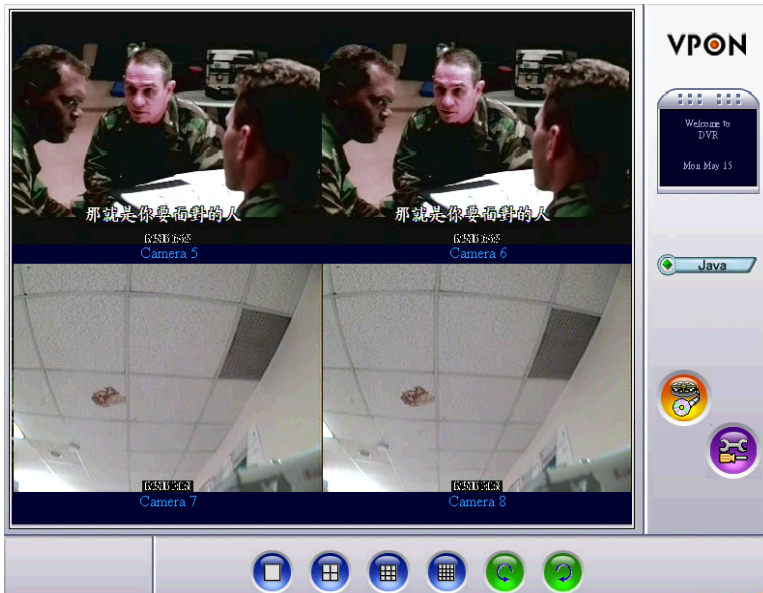
5.5 PTZ panel
The network GUI PTZ panel is exactly the same as the local GUI PTZ panel. See **PTZ panel** on page 10.
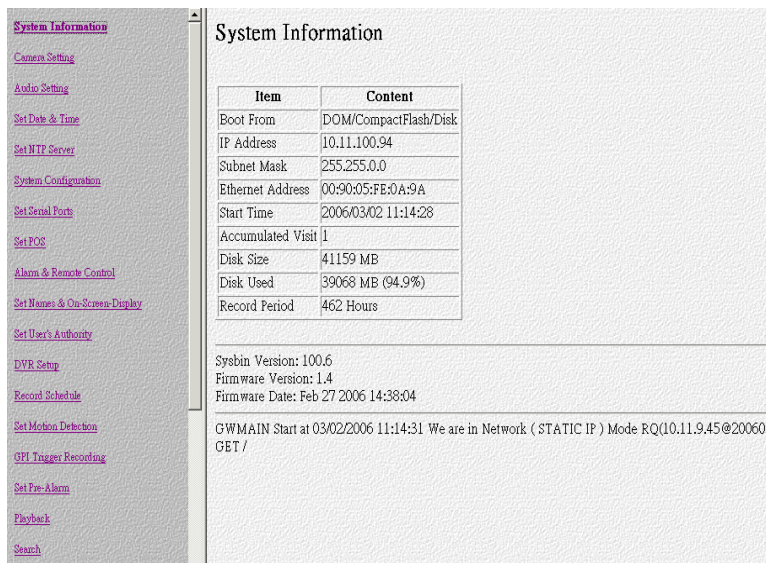

5.6 System Setup
Click the SETUP button to display the setup screen.

Use the setup screen to change user definable parameters for the VP-408/412/416. Choose a submenu from the list on the left and click the link to display it.

5.6.1 System information
Click the **System Information** link to display the **System Information** page.


No information on this page is changeable.

5.6.2 Camera setting
Use the **Camera Setting** page to change the video settings for each of the connected cameras. Refer to **Video** on page 20 for more information about the parameters. Each setting can be changed using the drop down menus and check boxes.
• **Set Camera Control** – sets PTZ control for the cameras. See **PTZ control** on page 21 for more details.


You can also enter a maximum number of connections allowed for each camera and maximum bandwidths.
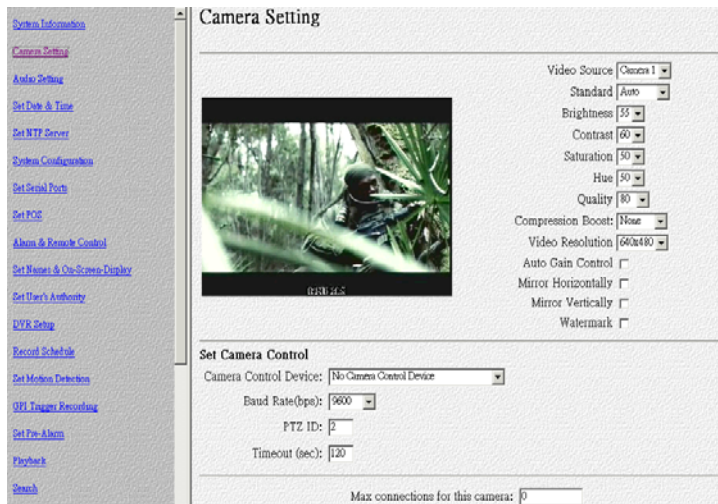
5.6.3 Audio setting

Use the **Audio setting** menu to set parameters such as Mic Gain, Speaker, Mic Timeout and Speaker Timeout. You can also perform a self test to test if the microphone and speaker are working correctly. There are multiple audio inputs, user can define which audio mapping to which camera. "Audio1" is audio input from motherboard. Other audio inputs are from video capture cards. Audio out is from motherboard.
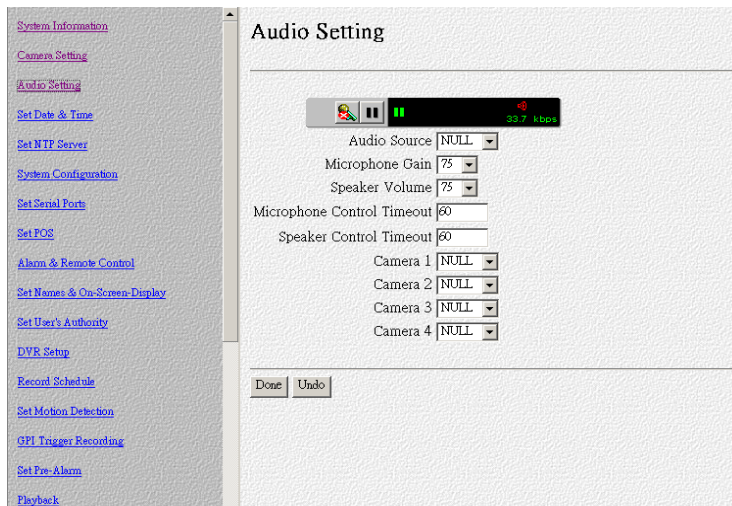

5.6.4 Set time and date

Use the **Set Time and Date** page to set the time and date. Select a time zone from the drop down menu and enter new local time and date using the keyboard. Click **Done** when all fields are updated. Click **Undo** to revert to original settings. If you change the time zone, the system will reboot.

74
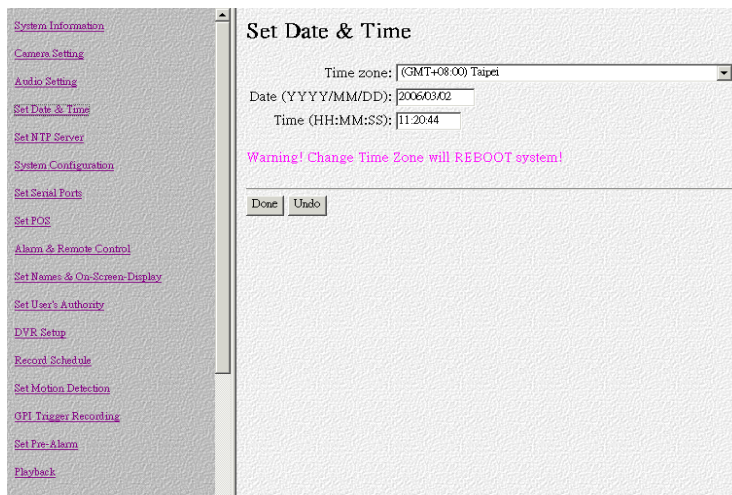
5.6.5 Set NTP server

Use the **Set NTP Server** page to set parameters for a NTP (Network Time Protocol) server to synchronize the device time with the atomic clock.

Select a server and enable it using the drop down menus. Enter a time period using the keyboard to indicate the period after which the time is resynchronized. Click **Done** when all parameters are entered correctly. Click **Undo** to revert to original settings.
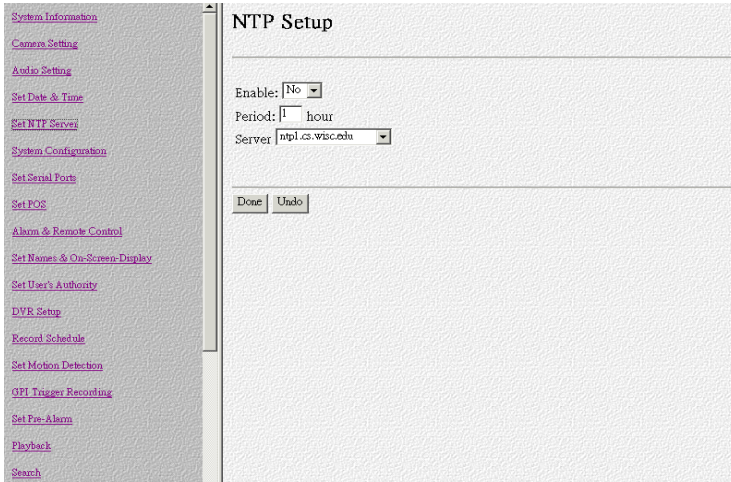
5.6.6 System configuration

Use the **System Configuration** page to set the following parameters for the VP-408/412/416.

• **Running mode** – sets the operation and control mode.
• **TCP/IP setting** – configures TCP/IP. Fill in the IP address and subnet mask settings.
• **ISP setting** – sets up dial-up parameters for sending E-mails.
• **Account Setting** – sets up the administrator and user, and their passwords.
• **COM1/2 Port Setting** – sets up the serial ports.
• **Set IP Registry Host IP Address & Path** – sets up the registry server.
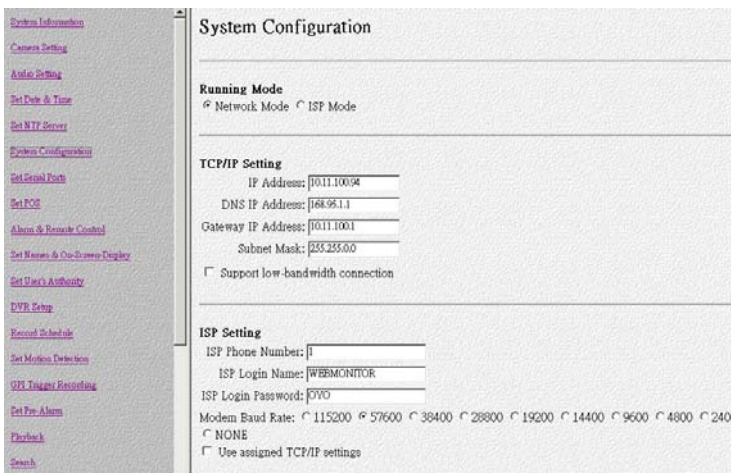
5.6.7 Set serial ports

The RS232 serial ports (COM1 and COM2) are used to attach PTZ camera control cables, external modems, or GPIO modules to the VP-408/412/416. Use the Serial Port menu to set parameters for the two serial ports.
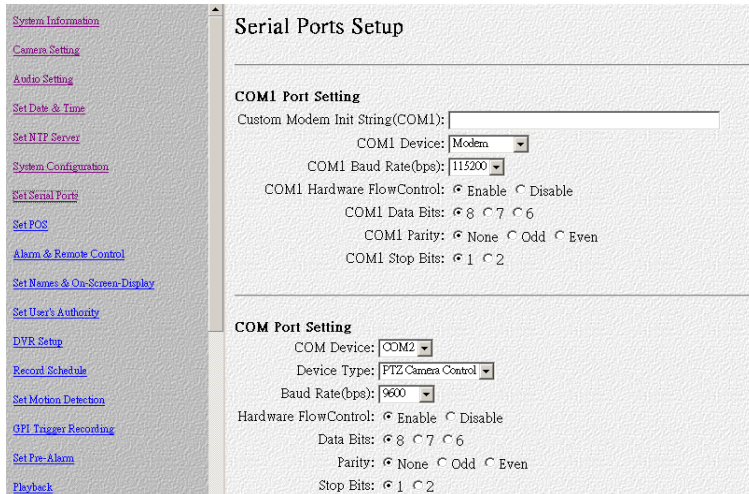
5.6.8 Set pos

Use the Set POS page to set the color and front size for each of the connected cameras. Use the serial Ports menu to set the following parameters. Click the "Done" button to save the new settings.
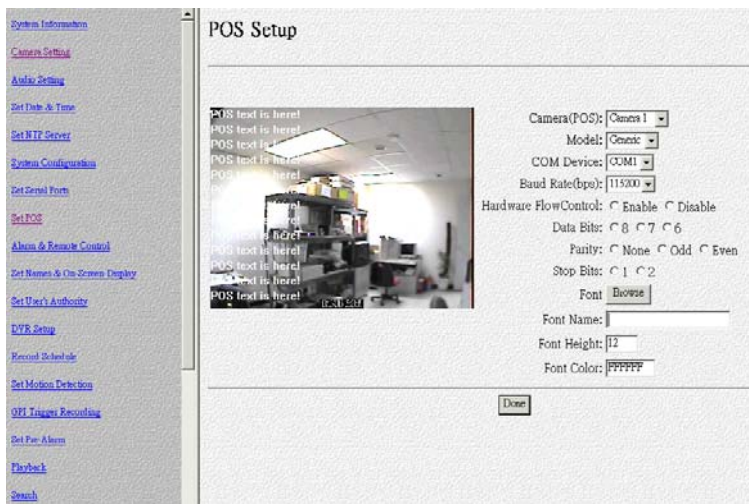
5.6.9 Alarm and remote control

GPI devices will show NC (normally closed) or NO (normally open) as the status of the switch. Depending on the input, you can change the status of the GPO devices on On or Off as required.

VPON
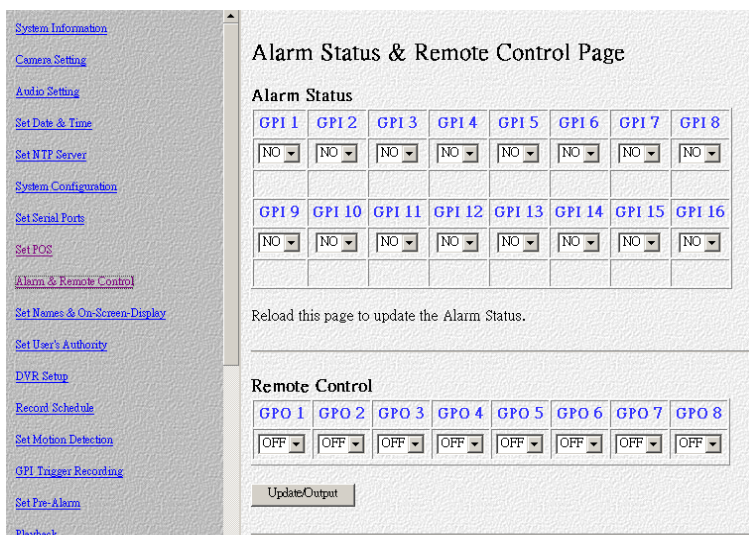
5.6.10 Set names and on-screen display

Use the **Set Names and On-Screen Display** page to set names for the server and all cameras. You can also use this page to enter the text to be displayed on screen with each camera under the **Set Overlay Text** option. Use the **x** 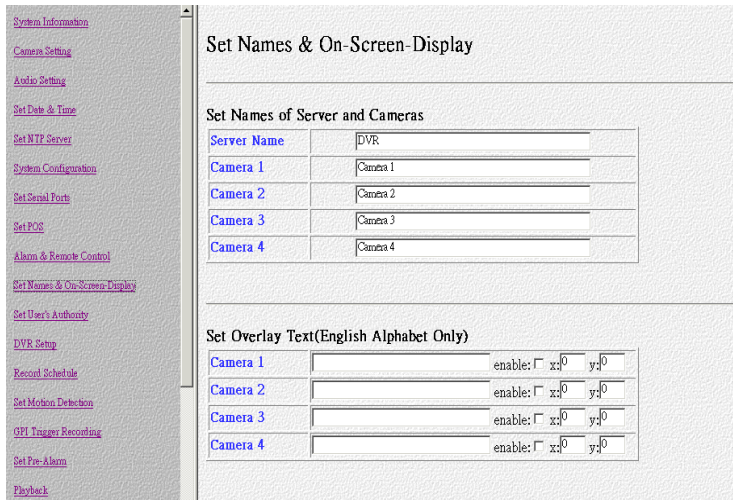and **y** fields to define the position of the displayed text. Use the **Set Time Stamp** option to define the format of the time stamp and where it appears on the display for each camera.

5.6.11 Set user's authority

Use the **Set User's Authority** page to set the individual privileges of up to 256 users. Enter the user number in the **User** field. Assign a name and password in the respective fields. To restrict users from viewing particular cameras, select the required cameras from **Camera 1~16**. Enable **Camera Control**, and **Playback** of the video recording as needed.

5.6.12 DVR setup

Use the **DVR Setup** page to set the recording mode to either **Auto Stop** (stops when disk space runs out) or **Cyclic Recording** (overwrites oldest recordings when disk space runs out).
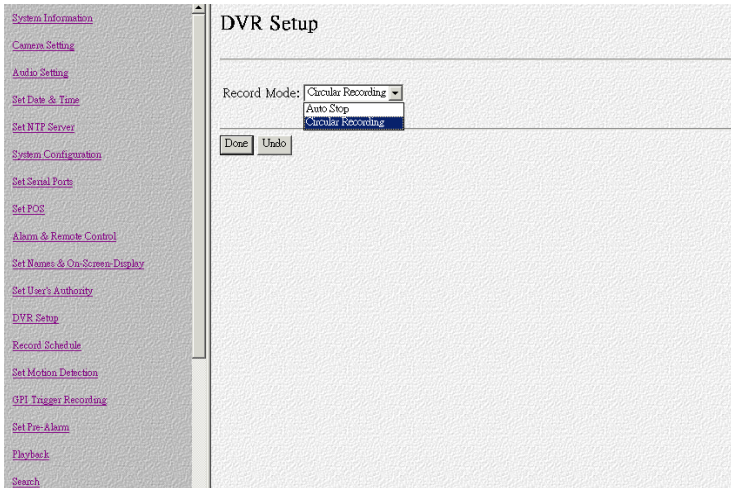
5.6.13 Record schedule

Use the **Record Schedule** page to set up to 16 automatic recording schedules. For each record schedule, select the day, and start and stop times for recording. For each camera, select **off**, **Normal Recording**, **Motion Detection Recording , GPI Trigger Recording or MD&GPI Trigger Recording** to record only when motion is detected. Enable Audio if you want to record audio also. Weight recording is setting special recording frame rate when an alarm of one of camera was triggered. Select a Frame Rate of recording for each camera.
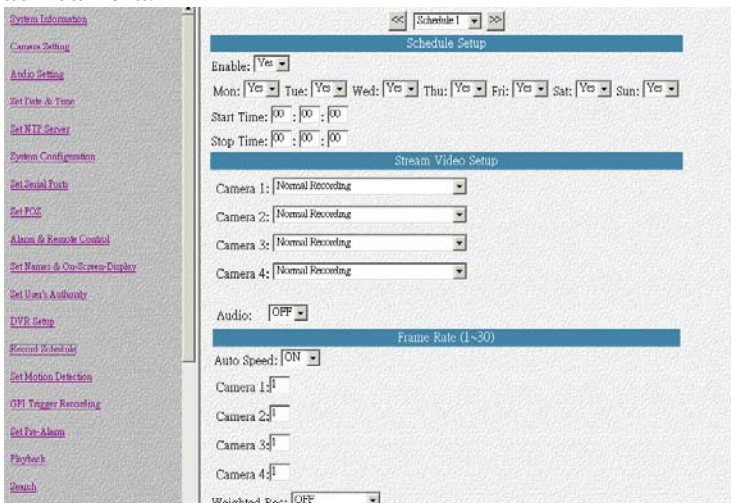
5.6.14 Motion detection

The **Motion Detection** page enables you to set the motion detection feature for each camera. You can adjust the area in the camera's field of vision that will checked for motion. Click on the grid to enable or disable motion detection. The red rectangle in the upper left corner indicates that
motion is being detected.

VPON
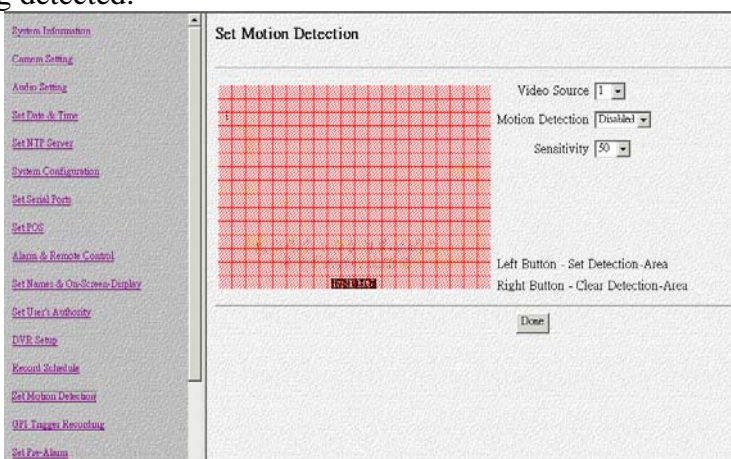
5.6.15 GPI Trigger Recording

Use the **GPI Trigger Recording** to set up to 8 automatic GPI recording schedules. Clink the "Enable" item box to start the GPI Trigger, and then set the timetable for recording the Trigger. Click "Done" button to save the new setting.
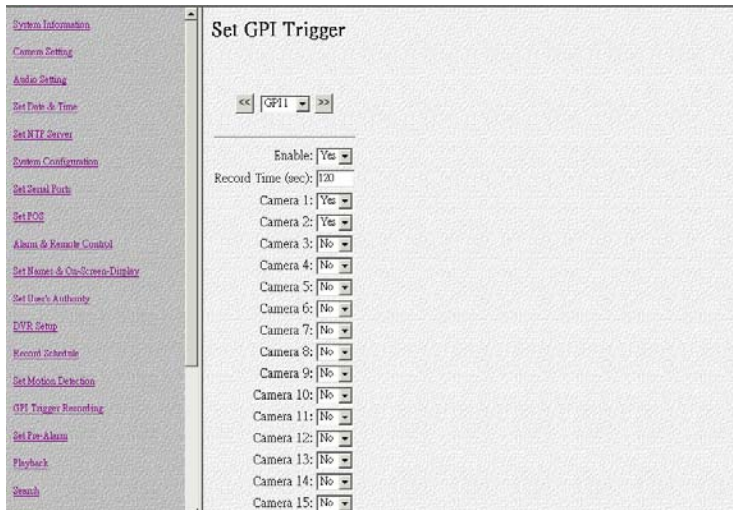
5.6.16 Set Pre-Alarm

The Set Pre-Alarm page on the network GUI enables you to set the number of frames that are recorded from each camera before a trigger is generated. Up to 300 frames can be recorded.
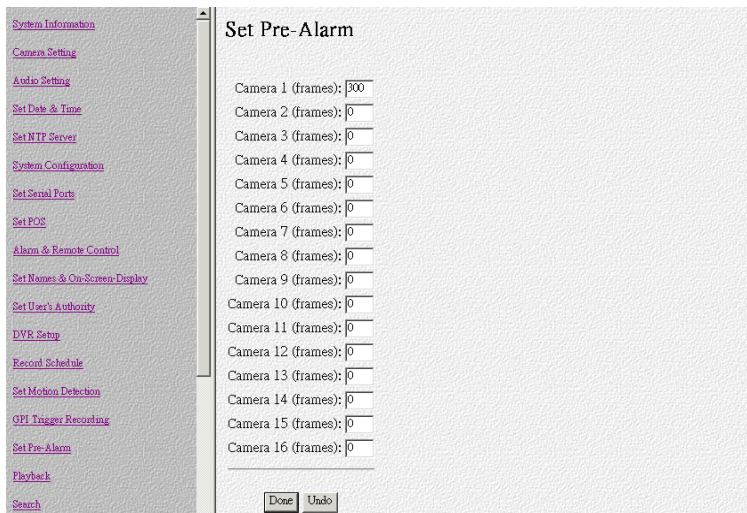
5.6.17 Playback

The **Playback** page enables you play back a video recording of your choice. Specify the day and time in the **To** and **From** fields and click the **Play file on this time!** field to play back files in the specified time duration. Click **List All** to list all recorded files. Click **Query** to search for a particular file based on **Event** or **Text**. Click a file to play it back.

The file plays back in the browser window with the status at the bottom. Specify the resolution in the **Dimension** field. Select the camera whose video you want to watch in the **Camera** field and select the number of cameras (1, 4, 9, or 16) in the **Display** field. Specify a high or low **Bandwidth** and click **Download&Save** to save the video recording to your local disk. Select **Data**, **Motion**, or **GPI** to view the status of the recorded file and the instances where the recording was triggered by motion detection or GPI.
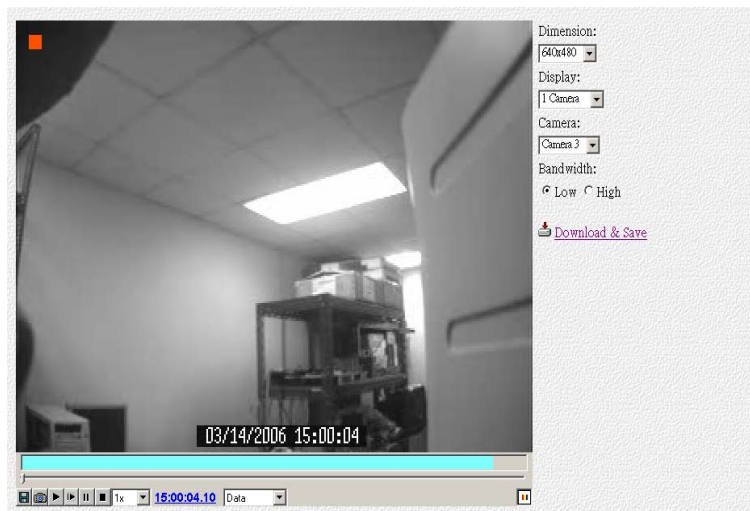
Snapshot   Playback speed

Note: The **playback start** time can be changed to jump to any time during the recording. Click on the **playback start** time and change the time using the keyboard.

5.6.18 Search
Search video clips based on text(POS transaction data).
1. Click search button and enter the submenu.
2. You can search by any key word base on POS transaction data (text).
3. If you want to find out data faster, we recommend you to narrow down searching day, time and cameras to get faster response.
4. Press Query button when done to conduct the search.
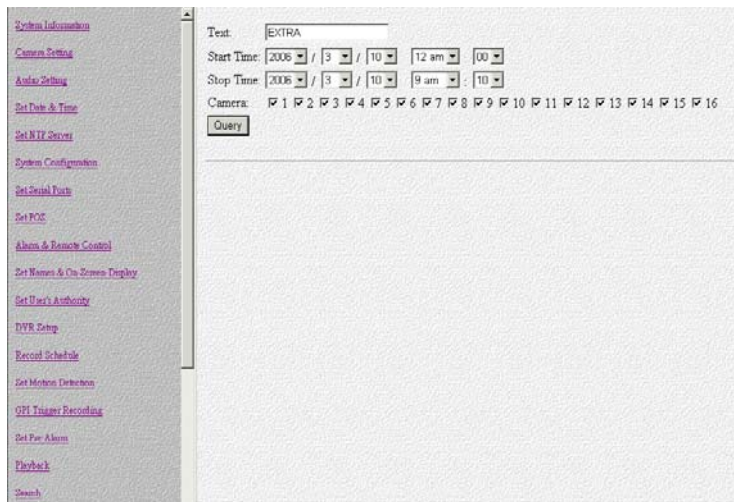
5.6.19 Send Mail

The VP-408/412/416 can send a snapshot by E-mail when triggered by an alarm. Use the **Send Mail** page to set E-mail details for each camera.
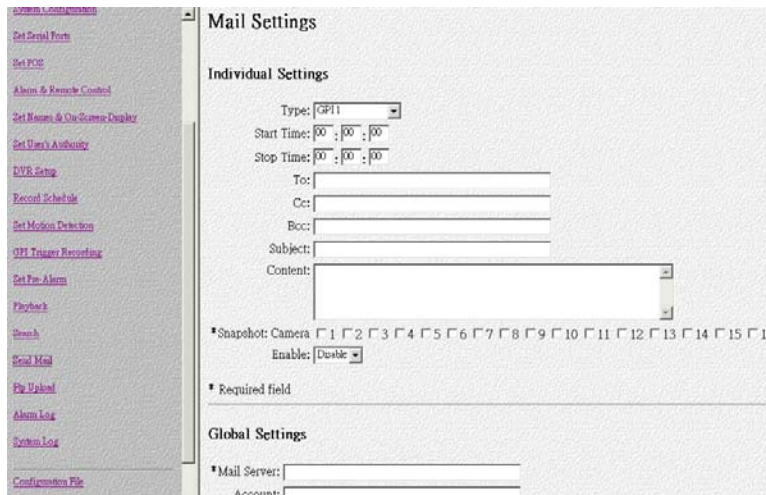
Under the Individual Settings, specific the type of event that cause the E-mail to be sent in the Type field by choosing Motion Detect or GPI. Fill in the start and stop time for monitoring the alarm, the recipients, subject and content of the E-mail. Enable a snapshot of the camera video to be attached to the E-mail by selecting cameras in the Snapshot option.

Under the Global Settings, fill in the mail server details. Fill in the details using mouse and keyboard and click **Done** when complete.

Note: If you set a domain name in the mail server setting, provide the DNS IP address in the system Configuration.

5.6.20 Ftp Upload

The VP-408/412/416 can upload snapshots from the camera using FTP to a predefined location in the event of an alarm. Use the **FTP Upload** page to set FTP details.
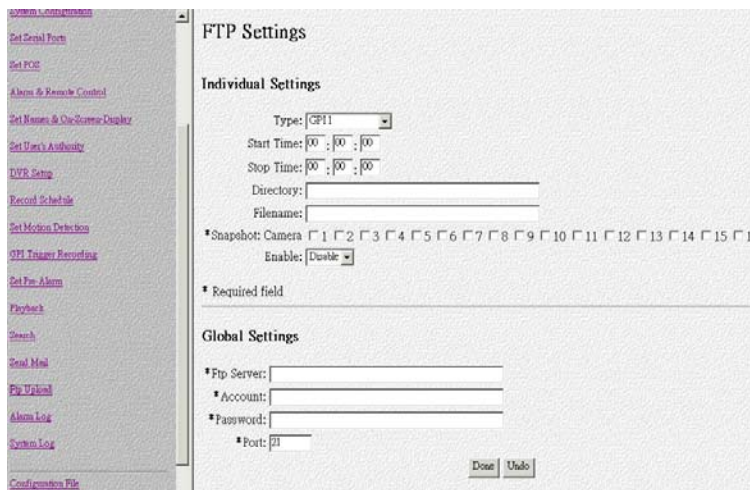
Under the **Individual Settings**, specify the type of event that causes the E-mail to be sent in the **Type** field by choosing **Motion Detect** or **Continuous.** Fill in the start and stop time for monitoring the alarm, the file name and directory for FTP. Enable a snapshot of the camera of video to be uploaded by selecting cameras in the **Snapshot** option.

5.6.21 Alarm log
Any alarm will be written into alarm log including motion trigger、GPIO trigger、Disk error、Video loss 、POS event.…...etc. User can search alarm log by specific time and double click one of the alarm log on the list to play specification-recording data.
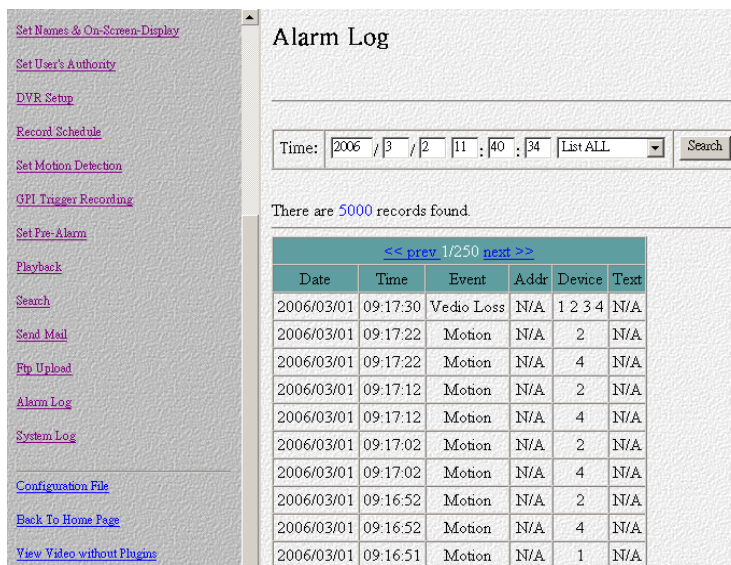
5.6.22 System log
Any operation will be written into system log include local operation and remote operation. User can search system log by specific time.
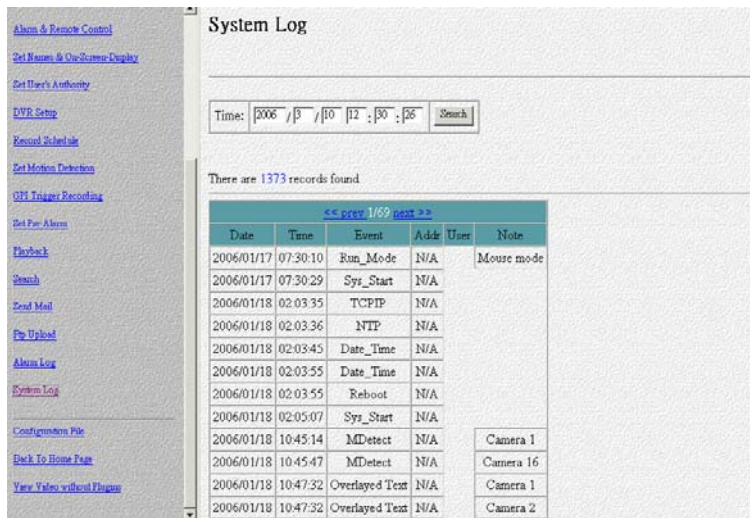
5.6.23 Configuration file

User can backup or restore system configuration values to or from a file.
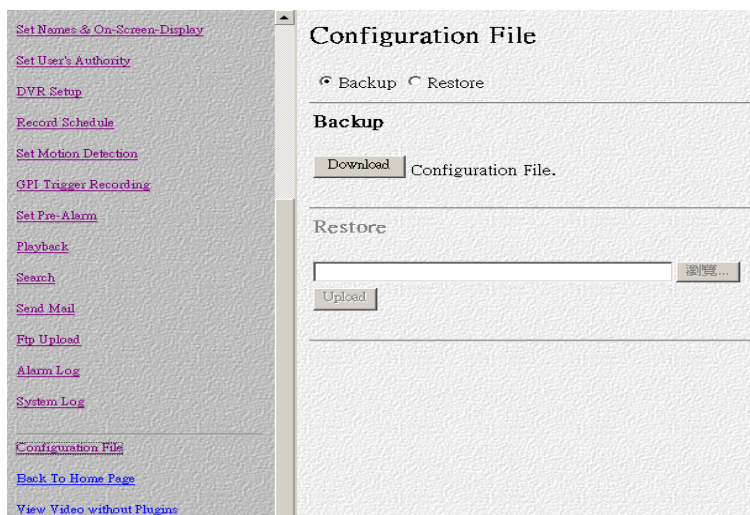
5.6.24 Back to home page

The **Back To Home Page** link will redirect you back to the VP-408/412/416 home page.

5.6.25 View video without plug-ins

You can view video even if the machine you are working on does not have the plug-ins necessary for video monitoring. Click the **View Video Without Plug-ins** link to view the video page without plugins. You will need to enter an administrator user name and password to view without plug-ins.

Note: Your browser must be configured to support Java applets to view without plug-ins.
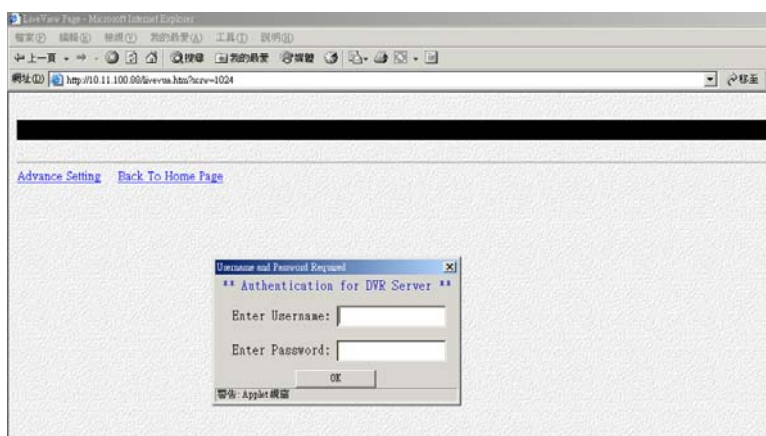
6. Advance Network Setting

6.1 Connecting to the network

Note: To connect the VPON to an existing LAN, set up by using the supplied IrDA remote control first.

1. Connect an Ethernet-capable computer to the VPON LAN port using an RJ-45 UTP cable or connect both of the PC and VPON to a same hub.
2. The default IP address for the VPON is 192.168.10.10. Set your PC IP address to 192.168.10.xxx (where xxx is a value between 0 ~ 254). Set the subnet mask to 255.255.255.0.
3. Reboot the PC.
4. Use IE Web browser version 60. SP2 up to access http://192.168.10.10. The login dialog box will appear. If you have previously changed the administration login or password, enter the login name and password you previously set. Otherwise, enter the default login name "webmonitor" and the password "oyo" then click OK.
5. For first time accessing VPON, you will be prompted to install Live Video ActiveX. Download and run the file to install ActiveX. Then restart IE browser, you will be able to see the videos. If you choose not to install Active X, you can view videos from the VPON by clicking on the View Video without Plugins link at the bottom of the page. At the prompt, enter the same administrator login name and password as before. This uses a Java applet to display the video.

6.2 Configuring Static IP addresses

Static IP addresses can be public or private. Public IP addresses allow access to the VPON from the Internet. Private IP addresses only allow users on the same LAN to access the VPON (regardless of whether the LAN is connected to the Internet or not). Ask your network administrator to assign an appropriate IP address.

6.3 Configuring Dynamic IP addresses

If your LAN or Internet connection uses DHCP, the VPON needs to be registered with a registry server. Users wanting to view your VPON can access the registry server to find the IP address. By default, the VPON is set to be registered at http://registry.nfic.com.tw. This is a server set up by Formosa21 for VPON series users. If you wish to set up a different registry server, Formosa21 recommends using a VP-300 video server, although other servers may be used. See your network administrator for instructions on selecting a registry server.

The Registry Host Address, Registry HTTP Port and Registry Host Path in system Configuration under "Advance Settings" are the set to the default settings of the Formosa21 registry server. The Registry Host Address is the IP address or Fully Qualified Domain Name (FQDN) of the registry server.

The Registry Host Path is the file path on the registry server where the index exists. See your network administrator for assignment of these values if you want to make changes.

6.4 Finding the IP address of the VPON on the registry server

1. To find the IP address of the VPON when using DHCP, you need to search the registry server which the VPON is registered to. Use a computer connected to the internet and a standard browser. Enter the FQDN of the registry server into the browser to access the server.

2. After accessing the registry server, search for your VPON by name or MAC ID (Ethernet address). You can find your MAC ID by viewing the System Information page in the Web Administration page. Alternatively you can browse through all registered VPON units on the registry server to find your VPON.

3. Enter the IP address supplied by the registry server into your browser to access the VPON.

6.5 Using xDSL or cable Internet

You can connect the VPON to the Internet via xDSL or cable just as you would as normal computer. Connect the modem (router) according to the documentation.

● If a static public IP address is assigned to your xDSL or cable internet account, you must assign this to the VPON.

● If you are using ADSL or cable Internet and your modem (router) supports DHCP, set the VPON IP address to 255.255. 255.253. This requests the modem to assign an IP address.

You must register with a registry server to use dynamic addresses under DHCP. Follow the directions in Configuring Dynamic IP addresses on page 84 to register with a registry server.

6.6 Using PPPoE

If your xDSL or cable router uses PPPoE, an IP-sharing router is required, as the VPON does not support PPPoE. Regardless of whether you use a static IP address or a dynamic IP address, you will need to set the DHCP server IP address and IP forwarding but if you use a static IP address you do not need to register with a registry server.

1. Configure your IP-sharing router WAN side to connect with your modem. Connect the modem then connect the VPON to a LAN port on the router.

2. Configure your IP sharing router range of private IP addresses to prevent a conflict with the VPON default IP address. Alternatively you can reserve a private IP address for the VPON.

3. Attach a computer to another LAN port on the router. Configure the computer private IP address to prevent a conflict with the VPON.

4. In IrDA mode, configure the private IP address of the VPON.

5. If you are using a dynamic IP address, set the "registry Host IP "as described in the software manual. Leave the "register HTTP Port "as field blank. Set "registry Host Path" to the path that holds the registry files. Set the IP forwarding of the router to forward the IP that requests standard HTTP port 80 to the reserved IP address. The router will then forward HTTP requests to the VPON. If you need FTP, set port 21 of the router to be mapped to the VPON. The VP-408/412/416 reboots after saving these changes.

6. Turn on your modem and IP-sharing router and connect to the Internet. To test whether the VPON has registered with the registry server, you need to access the server using a computer outside the IP

sharing router LAN. If you are using a dynamic IP address, access the registry server, then search for your VPON. If you are using a static IP address, access that address to test if the LAN has been successfully set up.

7. Find the MAC ID of your VPON. The MAC ID includes theTCP/IP port value you entered before. Other client PCs on the network to find the VPON on the registry server can then use the MAC ID.

6.7 Using dial-up Internet

You can set up the VPON for Dial-up Internet access under ISP in the menu system. You must enter your Internet service provider telephone number, your user name and password. You can also manually configure the TCP/IP.

Note : We strong recommend you not to access vpon using dial-up , it may cause internet drop down.

6.8 Remote access using dial-up

You can access the VPON remotely without the Internet by using a dialup modem. The VPON must be working under Network mode.

1. Connect a dial-up modem and phone line to the VPON COM1 port.
2. Set COM1 to modem device in the VPON system menu.
3. On the remote PC, create a new dial-up setting (Windows).
4. Set the protocol to PPP.
5. Clear all advanced options and allowed network protocols except TCP/IP.
6. Set the IP address to 10.0.0.2.
7. Put a check mark in the server assigned server address box, uncheck "use IP header compression" and "use default gateway" on the network boxes. Then click OK.
8. Enter the number of the phone line connected to the VPON, as well as the administrator user name and password.
9. To access the VPON, use IE 6.0 SP2. Bring up IE on the PC and then access to 10.0.0.1.

Note: As this is a PPP connection, only one user can access the VPON at a time.

Appendix A: Operation via local keyboard

To get VP-408/412/416 up and running via local keyboard, a keyboard is required. The interface of VP-408/412/416 operation is as following figure.
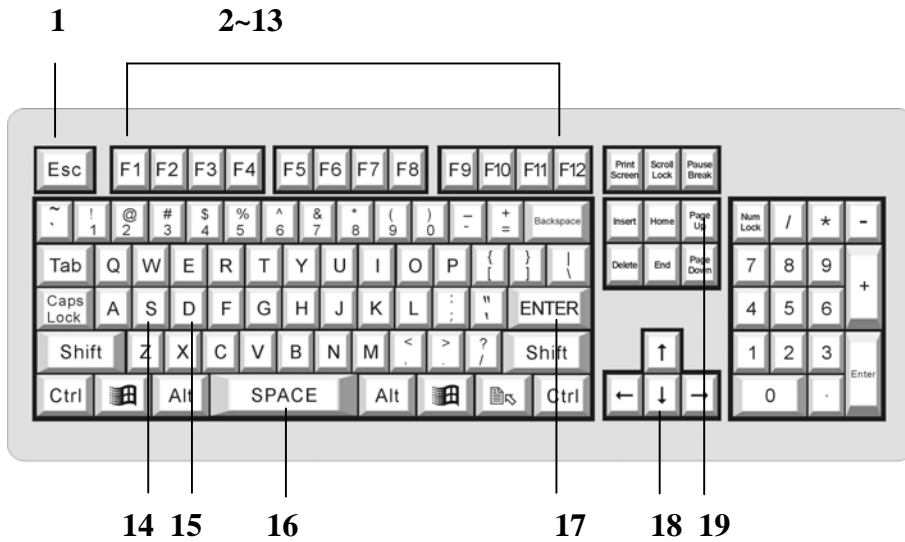
1. Esc: Cancel

Provide cancel and close function. When pressing "**Esc**", it will close current setting menu and returns to the previous level.

2. F1: Menu

Provide main menu display function. When users press "**F1**", it will display the main menu on the screen, and press "**Left/ Right/ Up/ Down**" button to select, and then press "**Enter**" for confirmation.

3. F2: Playback

Press "**F2**" to enter playback list, and press "**Up/ Down**" button to select the recorded file, and then press "**Enter**" or "**F5**" to play the video.

4. F3: Local (**view live image immediately**)

When pressing "**F3**", users can view the live image immediately.

5. F4: Screen

Press "**F4**" to switch display setting from **Single, Quad, 8 splits and 16 splits.** Press "**Up/ Down**" button to select, and then press "**Enter**" to make sure the selection.

6. F5: ▶ (Play)

When pressing "**F5**", the recorded data will start to play. Users also can press "**F5**" to skip the crash video and play next time period continuously.

7. F6: ❚❚ (Pause)

When pressing "**F6**", users can pause the playing video.

8. F7: ■ (Stop)

When pressing "**F7**", users can stop the playing video.

9. F8: Speed (switch playing speed)

When pressing "**F8**", users can switch the playing speed.

10. F9: ◀◀ (Seek Backward)

When pressing "**F9**", users can backward seek the video.

11. F10: ◀❚❚ (Step Backward)

When pressing "**F10**", users can backward the video frame step-by-step.

12. F11: ▌▌▶ (Step Forward)

When pressing "**F11**", users can forward the video frame step-by-step.

13. F12: ▶▶ (Forward)

When pressing "**F12**", users can forward seek the video.

14. S: Speed (same us "F8")

The function is the same as "**F8**".

15. D: Display

When pressing "**D**" in playback mode, users can view the status of video, GPI, Motion Detection, progress in bar chart at the bottom of the screen.

16. Space: Step Backward/ Step Forward

When playback the video, users can press space bar to step backward or step forward seek the video.

17. Enter: Play/ Pause/ OK

This button is used to store the setting values in the setting menu. Besides, when playback the video, users can press "**Enter**" to continue or pause the playing.

18. Up/ Down/ Left/ Right Button

When pressing these buttons, users can control the directions of cameras or adjust the parameters of the setting menu.

19. Page Up/ Page Down: Previous Page and Next Page

In the setting menu, users can press "**Page Up/ Page Down**" to change the setting menu page.

Note: About the detail operation of VP-408/412/416, please refer to VPON series support CD with the standard package.

Appendix B: IrDA mode (IR Remote Control)

Users can operate VPON via IR remote control or local keyboard. There will be a OSD screen on the VGA monitor. Before operating VPON via IR remote control, please make sure that VPON has connected to the VGA monitor via VGA Out connector.
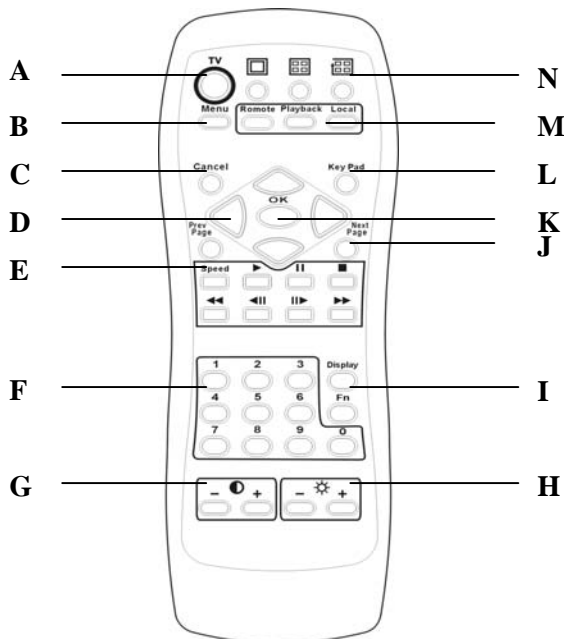
A. TV button

Exchange video monitoring from VGA to TV. Press the TV button until hear " bee bee "sound after few minutes VP-408/412/416 will auto-reboot to change to TV monitoring.

B. Menu button

Displays the main menu.

C. Cancel button

Closes the menu and returns to the previous screen.

D. Up/Down/Left/Right button

Controls direction.

E. Speed/Play/Pause/Stop/Rewind/Seek Backward/Seek Forward/Fast Forward

Used only for playing back video recorded by VPON.

F. Number keys

Used to input number selections.

G. Contrast Setting button

Creates contrast colors on screen.

H. Color Setting button

Controls darkness and lightness of video images.

I. Display button

Switches display status.

J. Prev/Next Page button

Moves from current screen to the next or previous screens.

K. OK button

Sets the settings.

L. Keypad button

Brings on screen the keypad function.

M. Mode Switch button

Remote, **Playback,** and **Local** buttons allow users to switch the display status. **Remote** is not used on the VPON series. **Playback** plays back the recorded files. **Local** allows users to view the live image immediately.

N. Screen Display

Change display mode to **single** or **quad**. The **In turns** button is not used for the VPON series.

The IR remote control has four gray triangular buttons surrounding the OK button, resembling a baseball diamond. These are the primary buttons that you will be using the majority of the time.

Gray "baseball diamond" button functions:
- The **Top** and **bottom** gray triangular buttons highlight the selections.
- The **OK** button is used to save information into the system.
- The **Right** triangular button accesses the highlighted line.
- The **Left** triangular button is usually used to move backwards.

Appendix C: Guide to Revise Firmware of VPON

Step-by-step instructions for revising/upgrading firmware of the VPON

● **Use revise.htm**

1. If you want to download and update the system firmware, please check with your distributor to verify eligibility.

2. Open Windows Internet Explorer and type in your VPON DVR IP address like this: "http://VPON IP/revise.htm"
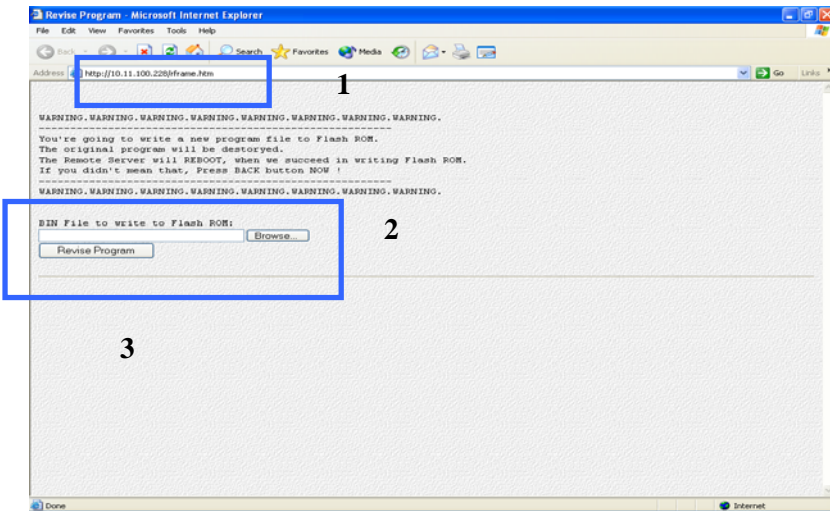
3. Browse for the saved copy of the updated firmware and click revise program then start to the update process.

4. The VPON will reboot automatically after the revision is complete.

Appendix D: Voice Modem

Below provides this model voice modem to supply the customer reference. User can select this model to make a call when the event occurs.

MC56EXV

VOICE/FAX MODEM Specifications:

	Data Fax (POTS)
Features:	Speakerphone
	Voice
Max Communication Protocol:	V.90 / V.92
Communication Buses:	RS-232 Serial

Appendix E: View video by PDA or Cell phone

User can get the DVR video by typing the IP address (http://DVR IP/pdamain.htm) on the Internet Explore in your cell phone or PDA.

1. Open a browser window on a terminal that has network access to the VP-408/412/416
2. Type the IP address (http://DVR IP/pdamain.htm) of the VP-408/412/416 in the browser address bar You can view video as following:
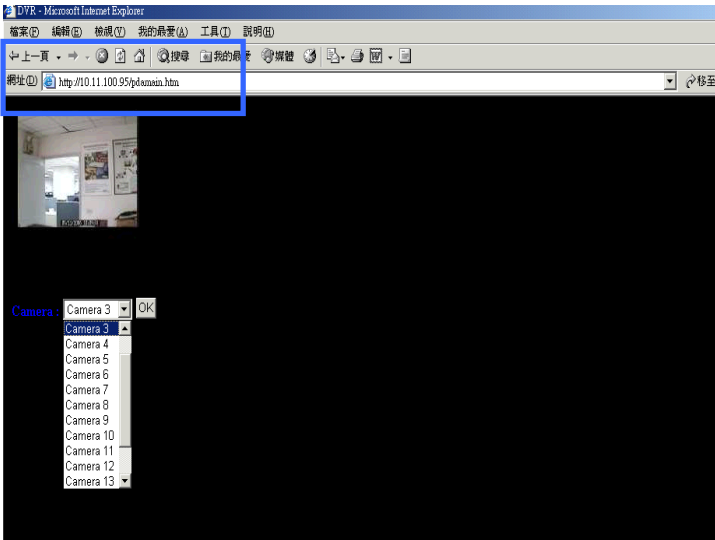
Appendix F: NET I/O (optional)

One VPON DVR can offer to connect sixteen cash registers. We provide two devices to connect DVR and cash registers .one of device is VP-204 (NET I/O device) for connecting one cash register, the other one device is VP-204Q (NET I/O device) for connecting four cash registers at the same time. If you hope sixteen cash registers to connect to one DVR, you need sixteen VP-204 devices or four VP-204Q devices.
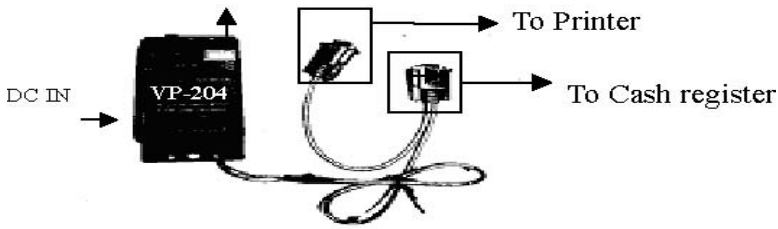
VP-204 installation :

1. Connect corresponded color wire of the cable into VP-204 NET I/O Device
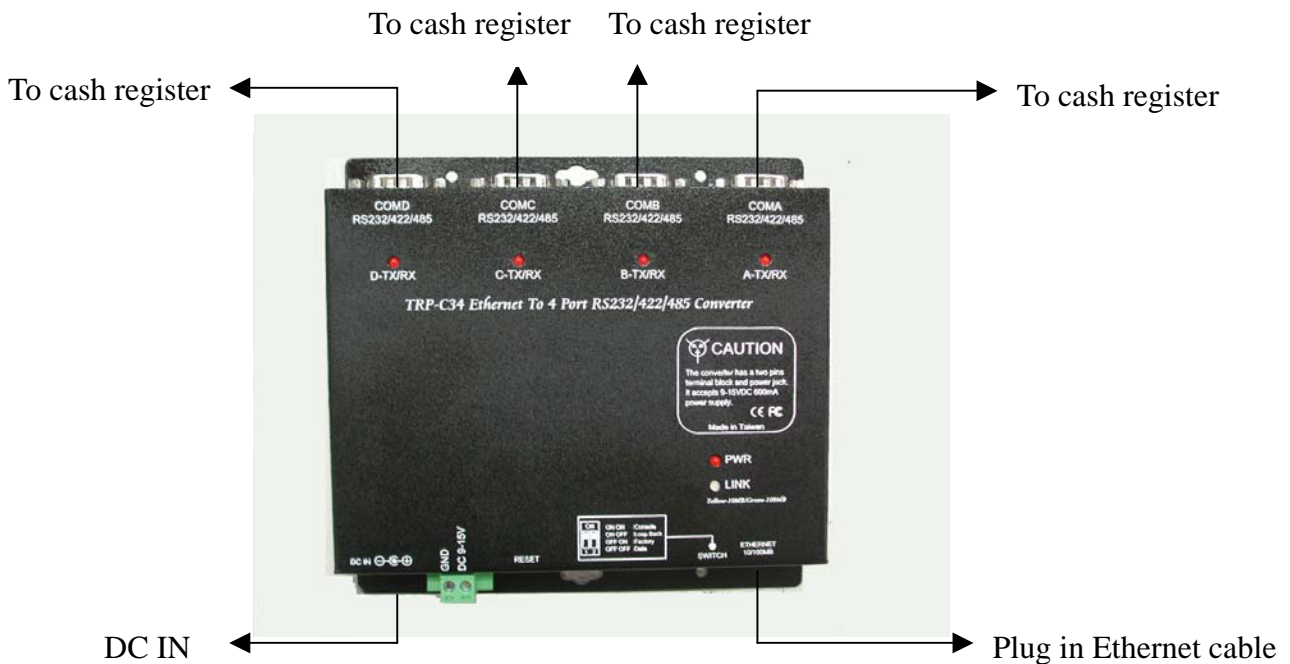2. Follow the pictures bellow for installation.

3.

Plug in Ethernet cable

To Printer

To Cash register

DC IN   VP-204

4. Connect POS to Ethernet Hub by the Ethernet cable.

VP-204Q installation :

To cash register   To cash register

To cash register   To cash register

COMD RS232/422/485   COMC RS232/422/485   COMB RS232/422/485   COMA RS232/422/485

D-TX/RX   C-TX/RX   B-TX/RX   A-TX/RX

TRP-C34 Ethernet To 4 Port RS232/422/485 Converter

CAUTION

PWR

LINK

DC IN   GND DC 9-15V   RESET   SWITCH   ETHERNET 10/100MB

DC IN   Plug in Ethernet cable

Software Set up

1   After hardware setting up, power on the VPON DVR.
2   Go to the system menu and select "Serial Port" function to set up interface.
3   VPON detects NET I/O automatically and NET I/O will be displayed.
Note: If you plug-in many NET I/O devices, you will see VP204-1, VP204-2···in the serial port menu screen then you can set it out separately.
4   ID and connection status are displayed
5   VP204-1 Device – Select the Data capture.
6   VP204-1 Speed- Select the same Baud rate as your POS machine.
7   VP204-1 Camera –Select the camera channel that you wish POS transaction data to integrate with.
Select "<< Rescan >>"option and select ok button to redetect NET I/O device again to make sure   your setting is correct.
VPON will reboot after setting up and exit serial port menu.
Finishing the device setup and back to the live video. You can try to send out some data from POS machine then POS text should appear on the screen.
Note:
1)VP-204 - Power consumption: 1.2W(max)
            Power requirement: DC 10-30V
            Interface: 10Mbps

2)VP-204Q – Power requirement : Input:120V AC 60HZ

Output : 12V DC 400ma

3)VPON DVR and NET I/O device should be in the same LAN segment, if you have many VPON DVR. Each VPON DVR must be separated in different LAN segment by router.

Appendix G: Troubleshooting

1.Cannot control PTZ camera
- Check cable connection and camera power.
- COM port parameters are not correct, or the PTZ device is not compatible.
- ID of the PTZ camera is not set correctly.
- Switch both VP-408/412/416 and PTZ camera off and on again.
- VP-408/412/416 does not support this type of PTZ camera.

2.Cannot access VPON from browser in network mode.
- Verify the network cable is well connected to the hub and the network is good.
- Make sure you are using an appropriate IP address for the network.
- Clear the ARP list.
- If you are running MS Proxy Client on your PC, and the IP address assigned to the VP-408/412/416 is not a valid local IP on the network, allocate a valid local IP address to the VP-408/412/416 or disable MS Proxy Client from the Control Panel.
- If you can ping the IP address of the VP-408/412/416, disconnect VPON from network and ping this IP again. If there is a response, then you have a duplicated IP address on the network.
- Clear your browser cache and configure the browser to check for newer versions of the web page on every visit.
- If you still cannot access the VP-408/412/416, disable proxy settings in your browser.

3.You can access the VP-408/412/416 on the intranet, but not on the Internet.
- Verify your intranet is connected to the Internet.
- Verify if a valid public IP is assigned to the VP-408/412/416 or a valid public IP is mapped to a valid local IP assigned to VP-408/412/416.

4.No video.
- Reload the page.
- Clear your browses cache and configure the browser to check for newer versions of the web page on every visit.

5.You can access video on the intranet, but not across the Internet:
- Check firewall and proxy server settings. The VP-408/412/416 uses standard HTTP protocol and port 80. It might be necessary to enable video MIME types (video/x-nficwmh263 and video/xnficwmhjpeg) for the VP-408/412/416 to be granted access by your firewall or proxy server. Also check if large data transmission is permitted.
- Disable proxy server settings in your browser.

6.Browsers stops responding to mouse clicks
- Too many video strings are open.
- You are opening more than one video string from the same camera.
- Your PC is too slow, upgrade your system.