

Professional 4CH Stand Alone DVR DVR-EZPRO / DVR-EZPRON



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Regulatory

FCC Certification

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference a their own expense.

CE Mark

This product is marked with the CE symbol and indicates compliance with all applicable EEC directives.

Introduction

This system is a professional and easy-installation surveillance and security system designed for small offices, restaurants, and house owners. Connect any four DC 12V powered CCTV cameras to the DVR (Digital Video Recorder) and enjoy various functions, such as recording, retrieving, and network monitoring (only available for Network Model) video images.

The professional DVR implements the latest smart recording technology, which enables the DVR to determine the incoming signals of each channel/camera for recording purpose. If there is no video signal coming from one channel, the DVR does not record that channel's video; therefore, it does not waste HDD space. The DVR also allows users to enable or disable recording of each channel. Its pre-recording function is capable of catching the entire events without missing how the events are happening.

Through USB devices, the DVR provides very convenient methods to back up video streams to USB flash disks and PCs (not compatible with Apple systems).

Package Contents

Stand Alone DVR Unit



DVR / Network DVR ×1



IR Remote Control x1



CD x1



USB Cable ×1



DVR Video Output Cable x1



BNC To RCA Connector ×1



DVR Power Transformer x1

(Items are subject to change)

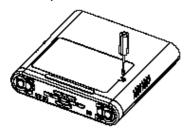
Specifications

Item No.	DVR-EZPRO / DVR-EZPRON	
Video Input Format	NTSC / PAL	
Video Input Channel	4CH. Composite	
Video Output Channel	2CH. BNC & VGA (Optional)	
Audio Input	2CH. In, 2CH. Out; RCA	
Motion Detector	Yes	
Remote Control Interface	Yes	
USB Serial Port (PC-Link)	Yes	
Built-in Buzzer	Yes	
Display Mode	Each, Quad, PIP, Sequence	
Display Frame	NTSC 120 fps PAL 100 fps	
Recording Frame Rate (quad mode)	PAL Max. 25 fps MJPEG; 50fps MPEG4	
Recording Frame Rate (each mode)	PAL Max. 6.25 fps MJPEG; 12.5fps MPEG4	
Recording Mode	Continuous, Motion Detection, and Alarm Event (All modes can be triggered by schedule.)	
Resolution (Display)	NTSC 720 × 480 PAL 725 × 576	
Resolution (Recording)	NTSC 704 x 480 PAL 704 x 576	
	Modified M-JPEG / MPEG4	
Compression Format	H.244 Video Compression (For H.264 DVR Model Only)	
HDD	One HDD Rack	
Search Mode	Time, Event (Motion, Alarm, Video Loss)	
Network Protocol (DVR-EZPRON only)	TCP/IP	
Ethernet (DVR-EZPRON only)	RJ-45 10M / 100M	
Browser (DVR-EZPRON only)	IE 5.0 or above version	
os	Windows 2000 / XP / Vista	
Recording Software	Yes	
Video Adjustment	Yes	
Watch-dog Function	Auto Recovery Capability After Power Outage	
Dimension	290mm × 300mm × 56mm	
Weight (Without HDD)	3.8kg	

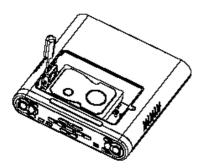
Specifications are subject to change without prior notice.

Installation and Exchange of HDD

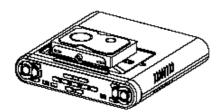
1. Open the lid on the top cover.



2. Loose the screws on the HDD rack.



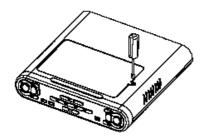
- 3. Connect power cable and transmission bus to the hard drive.
- 4. HDD rack will rise. Put the hard drive on the rack and screw it to HDD rack.



5. Push HDD rack to the bottom and screw it up.



6. Close the lid on the top cover.



Note: Please leave some space between the fan and the HDD for air circulation.

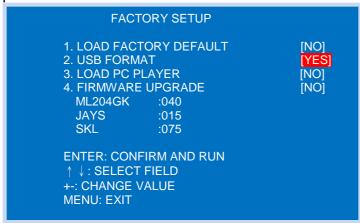
Upload PC Player Program

After first installation of HDD or changing a new HDD, we need to upload PC Player Program to DVR. DVR will automatically copy the PC Player to USB flash devices when backing up through USB. This leads to review video anytime anywhere.

- 1. Turn on the DVR by switching on the power on the back panel.
- 2. Plug USB flash drive device to plug on the DVR front panel.



- 3. Go to Factory SETUP menu.
- 4. In Factory Setup, highlight USB FORMAT, press "+" or "-" to change NO to YES. And press "←" to format USB.



5. Remove the USB flash drive from DVR and plug it to PC.

Note: Apple System is not applicable

 PC automatically detects the USB device. Please open the file window inside USB flash drive and there are several files. Please delete "PLAYER.PAK" in the USB flash drive.

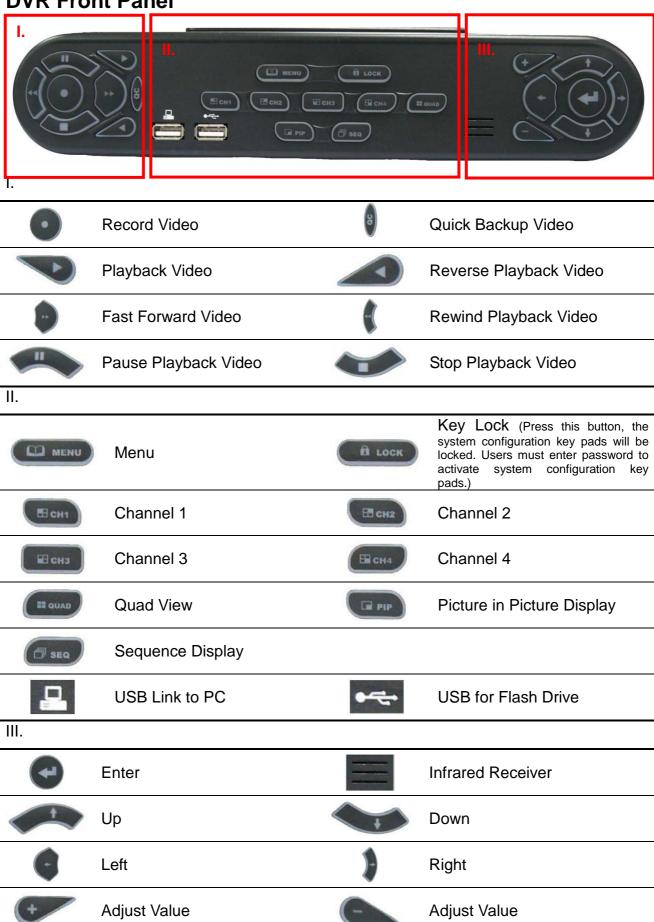


- 7. Insert the provided CD to PC, and open the file window. In this disc, there is a file, called "PLAYER.PAK". Please copy the file, "PLAYER.PAK", and paste it to the flash drive.
- 8. Properly remove the flash drive from the PC and plug it to port on the DVR front panel.
- 9. In Factory Setup, highlight Load PC Player and press "+" or "-" to change No to Yes.



10. Press "←" to upload PC Player Program to DVR.

DVR Front Panel



Keypad Mapping

Button	Number
Stop	0
Channel 1	1
Channel 2	2
Channel 3	3
Channel 4	4
Quad	5
PIP	6
Sequence	7
Pause	8
Reverse Playback	9

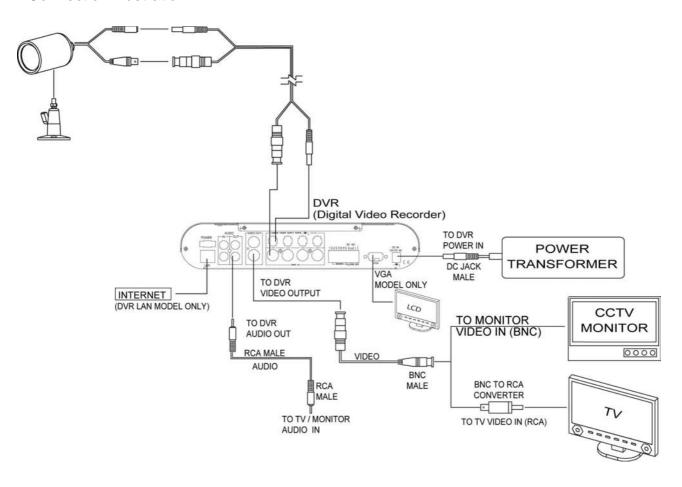
DVR Rear Panel



POWER O -	Power Switch
LAN	Internet Plug
	Audio Input / Output
weet our Company of the Company of t	Video Output to Monitor / TV
CAMERA POWER SUPPLY PORTS 12V DC	Power Output for the Camera
CHI CH2 CH3 CH4	Video Input for the Camera
NC NO - 1 9 2 9 3 9 4 9 FOM -	Alarm/Sensor/PTZ I/O Platform
VGA	VGA Output
DC IN 12V DC 4A	DVR Main Power Input

Video Input / Output Connection

Connection Illustration

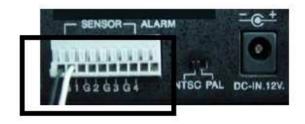


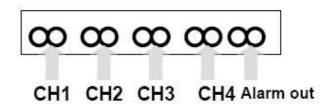


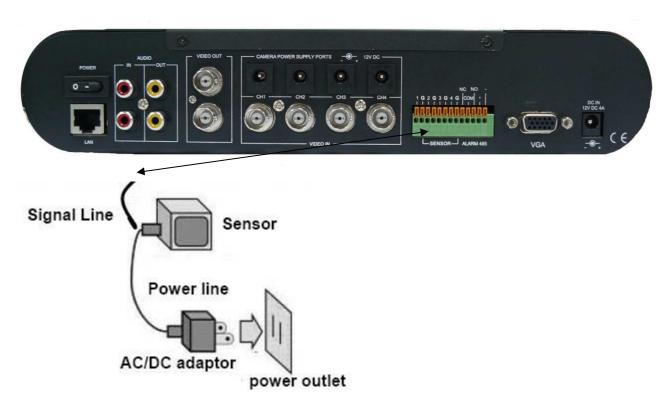
Sensor Installation

The DVR has 4 sensor inputs, one for each channel. The sensor Installation procedure is as the following:

- I. Connect the sensor signal line to the unit. The sensor signal terminal is on the DVR rear panel.
- II. Connect the sensor adaptor jack into the sensor, and plug in the power adaptor.





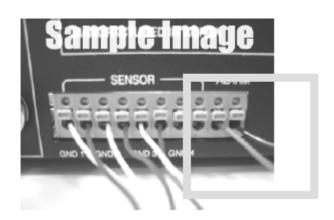


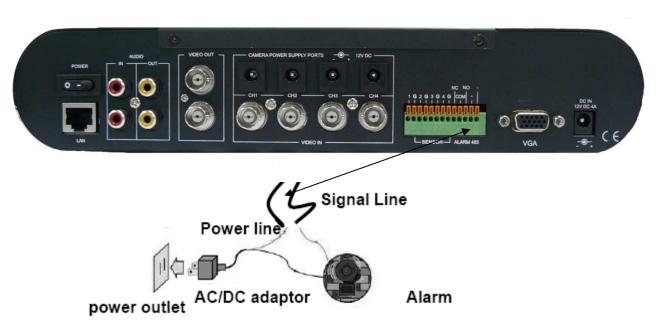
Alarm Installation

The DVR includes one internal switch for sounding an alarm when any of the sensor inputs is activated. The switch is normally open and closed upon activation.

The circuitry is shown in the above figure. The alarm is installed as follows:

- I. The alarm requires a power supply, which is normally supplied with the alarm.
- II. Connect the alarm power line to the alarm switch terminal on the rear of the DVR.





Power On DVR

NOTE:

Factory default setting of video format (NTSC / PAL) is in accordance of the importing country standard. If you are using this DVR in different video format standard areas, please adjust the format. To adjust format, please refer to "NTSC / PAL SETUP" section on Page 29.

Initial Screen



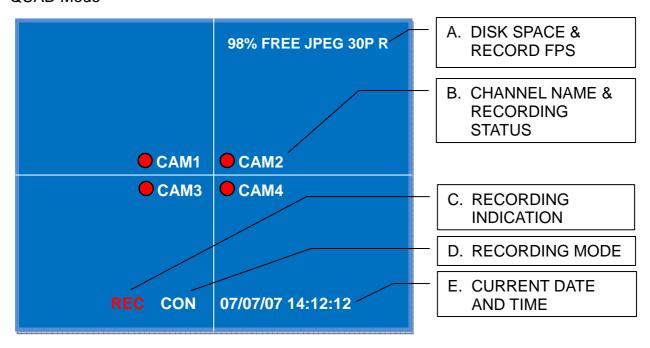
Above message window appears on the monitor when DVR is turned on. After DVR has finished initializing, a quad live view is displayed on the screen. Key lock function is also activated. To disable the key lock, press the MENU button "A" and enter the password. The default password is **0000**

NOTE:

Please refer to the keypad match list on Page 13.

Live View

QUAD Mode



A. DISK SPACE & RECORD FPS

98% FREE means HDD is still 98% empty. The number keeps going down if DVR keeps recording. It shows 99% FREE when HDD is formatted. JPEG is the recording format. 30P indicates the recording frame rate, and DVR records 30 frames per second (fps). The very last R means RECYCLE mode, and it shows O if it is ONCE mode.

B. CHANNEL NAME & RECORDING STATUS

CAM2 is the name of this channel. A red dot appears when the channel is recording. Users can change the name of each channel. <u>Please refer to "TITLE SETUP" on Page 27.</u>

C. RECORDING INDICATION

REC appears when DVR is recording any channel.

D. RECORDING MODE

It indicates which recording mode is working. CON means Continuous Mode. MON stands for Motion Detection Mode, and ALM means Alarm Event Mode. Users can change the setting of each mode and modify the schedule of recording for each mode. Please refer to "RECORD SETUP" for "RECORD MODE", "CONTINUOUS SETUP", "MOTION SETUP", and "ALARM SETUP" on Page 30.

E. CURRENT DATE AND TIME

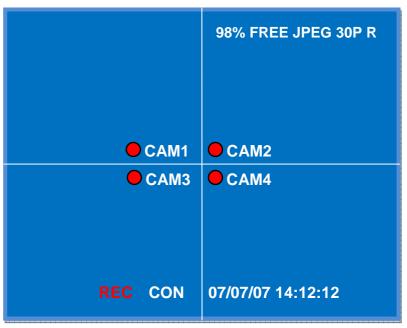
It indicates current date and time. For adjustment, please refer to "DATE TIME SETUP" on Page 46.

Display Mode

DVR provides four different live view modes: QUAD View, Picture in Picture, Sequence View, and Single Channel View. Press Channel buttons, QUAD, PIP, and SEQ buttons on the front panel to change the display mode.

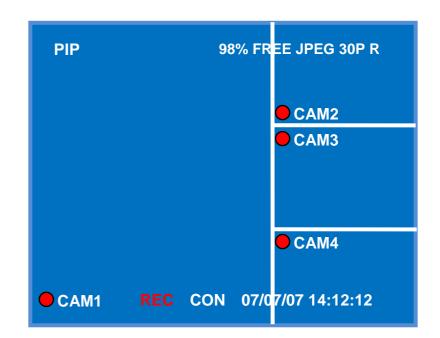
QUAD View

Quad View is the default view mode when DVR is turned on.



Picture in Picture (PIP)

PIP Mode allows users to view the primary channel and other three channels at the same time. To select the primary channel, press "+" or "-" buttons on the front panel.



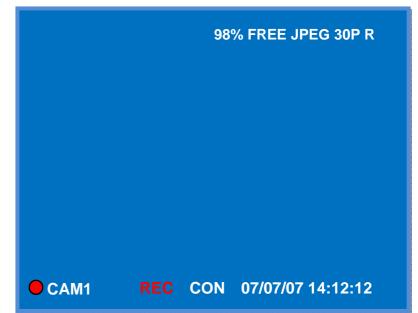
Sequence View

In Sequence View, the screen displays through available channels at a certain interval. Please refer to "SEQUENCE SETUP" on Page 43.



Single Channel View

Single Channel View shows one channel constantly.



Record

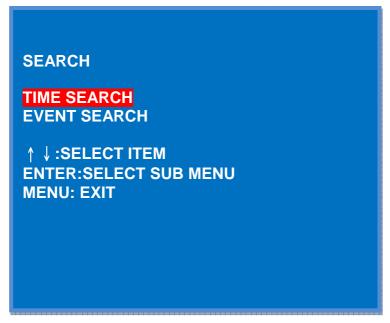
This DVR is equipped with an intelligent recording system, which automatically resumes previous recording setup and starts recording once the DVR is recovered from electricity blackout or rebooting. Default recording mode is continuous recording. <u>To adjust record mode</u>, please refer to "RECORD MODE SETUP" on Page 31.

Press "•" button on the front panel to start recording. If record mode is not set up, a message "SETUP RECORD" shows on the screen.

Press "\ on the front panel to stop recording. DVR will ask for the password to stop video recording. The default password is 0000. To set up password, please refer to "PASSWORD SETUP" on Page 44.

Playback

Users can press " button on the front panel to enter playback mode. Below picture appears on the screen when entering playback mode.



This DVR provides two playback search functions; they are "TIME SEARCH" and "EVENT SEARCH". Use "↑" or "↓" key to select playback function and press "←" to enter each function.

In playback mode, press "II" to pause. Then, press "QC" to activate Quick Copy function for backing up video to the flash drive. Quick Copy will back up two minute video from the time point, or backup the whole event.

Time Search

```
TIME SEARCH
                [2007]
YEAR
MONTH
                [07]
DAY
                [15]
HOUR
                [02]
MINUTE
                [52]
BEGIN
          07-06-24 01:50
END
          07-07-21 14:31
↑ ↓ ←→: SELECT FIELD
+-: CHANGE VALUE
ENTER: RUN
             MENU: EXIT
```

BEGIN is the time the DVR starts to record. END is the time that the DVR stops recording.

Use " \uparrow " and " \downarrow " key to select year, month, day, hour, and minute. Use "+" or "-" key to cycle through all available values.

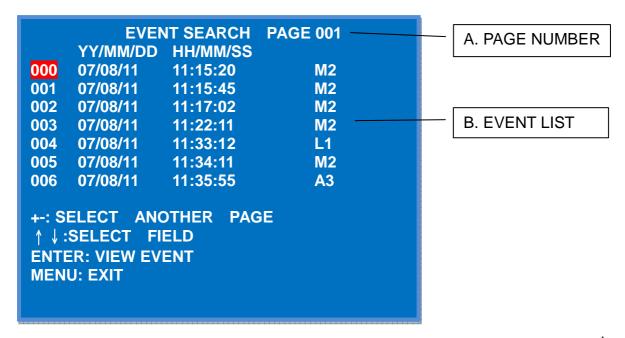
When the time is confirmed, press "←" to view the playback.

Press "" to end the playback and return to LIVE VIEW.

Press " (Menu Button) to start a new search.

Press "II" to pause the playback.

Event Search



Press "+" or "-" to go to other pages. Press " \uparrow " or " \downarrow " to select events, and use " $\stackrel{\square}{\leftarrow}$ " to view the event.

A. PAGE NUMBER

It represents the current page number. The DVR has a total of 143 pages.

B. EVENT LIST

It shows events. Use "↑" or "↓" button on the front panel to select the event. Each event row shows the event time, event channel and event type. For example:

002 07/08/11 11:17:02 represents Event 2, on 11:17:02 on August 11, 2007.

L1 means Video Loss happening on Channel 1.

M2 means Motion Detection triggered on Channel 2.

A3 means Alarm Event triggered on Channel 3.

When the event is confirmed, press "←" to view the playback.

Press "
" to end the playback and return to LIVE VIEW.

Press "" (Menu Button) to start a new search.

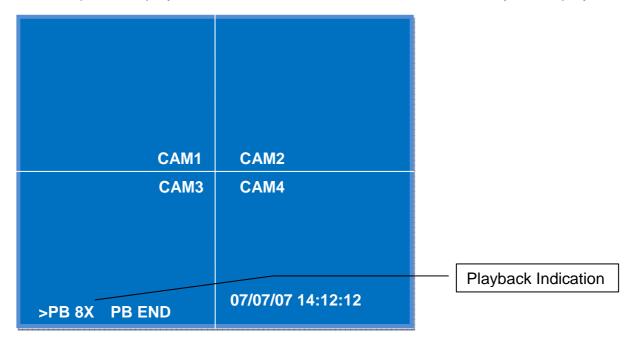
Press "II" to pause the playback.

NOTE:

This DVR is capable of storing more than 1000 events. Event records are deleted if users format the HDD.

Playback Operation

When starting playback, DVR now is in playback mode and displaying. This DVR provides different speeds of playback, fast backward, fast forward, and frame by frame play back.



When in playback mode, the left lower screen shows the operation type:

>PB means playing forward, while <PB means rewind.

8X shows the playing speed. Users can press button """ (""") to do fast forward (fast rewind) of the playback. Multiple press of the button can do fast forward (fast rewind) of the playback at different speeds; the speed order is $x2 \rightarrow x4 \rightarrow x8 \rightarrow x2 \rightarrow x4 \rightarrow x8 \rightarrow x2$.

When reaching the end of the video, it shows "PB END" next to the operation type.

Advanced Playback Operation

This DVR provides an advanced playback function by playing back video stream **frame by frame** and **1/2 speed playback**.

1/2 speed playback

- A. Press II
- B. Press "▶" to do 1/2 speed of playback. Or press "◀" to do 1/2 of rewinding playback.

Frame by frame playback

Press "II". Then press "II" again to do frame by frame playback.

To do rewind frame by frame, users must set the DVR in rewind play and press "II". Then press "II" again to do frame by frame rewind.

DVR Menu and Setup

Press " (Menu Button) to access main menu.



Basic key indication:

Use "↑" and "↓" button to select each section. Press "←" to go to the section.

Press "\(\omega\)" (Menu Button) to exit the last page or go to Live View mode. When exiting any sections, DVR will save the changes.

NOTE:

TCP/IT SETUP option is only available for LAN model DVR

Camera Video Setup

Under CAMERA VIDEO SETUP, users are allowed to name their cameras, to adjust video quality, to set up motion detection, to set up each camera recording option, to adjust video format and to set up each camera visibility in live view mode.

Press "↑" or "↓" button to choose each section. Use "←" button to access the section.

Title Setup

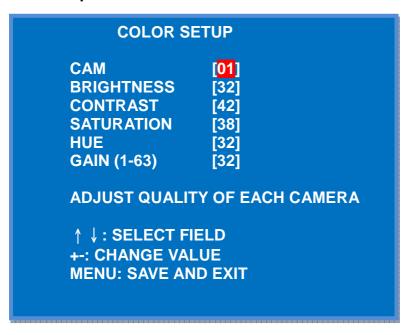
```
TITLE SETUP

CAM1 [CAM1]
CAM2 [CAM2]
CAM3 [CAM3]
CAM4 [CAM4]

↑ ↓ ←→: SELECT FIELD
+-: CHANGE VALUE
MENU: SAVE AND EXIT
```

- 1. Use "↑", "↓", "→"or "←" button to select each character of cameras.
- 2. Press "+" or "-"button to cycle through available characters. (0~9, A~Z)
- 3. Each channel of camera can have four characters at maximum.
- 4. Press "III" (Menu Button) to save changes and return to the previous page.

Color Setup

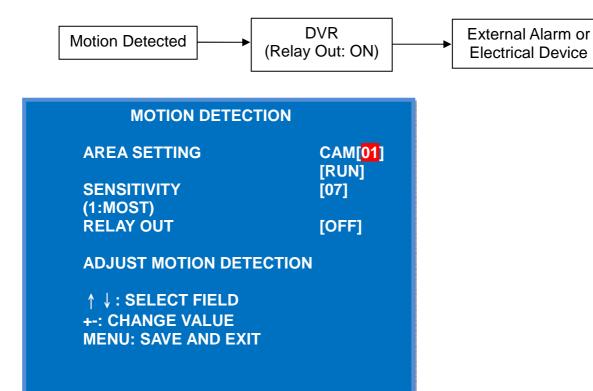


- 1. Highlight CAM first to choose camera channel. Press "+" or "-" to select each channel.
- 2. Use " \uparrow " or " \downarrow " button to each adjustable item and use "+" or "-" button to cycle through available values. (Note: 01 \rightarrow Minimum; 63 \rightarrow Maximum)
- 3. Press" (Menu Button) to save all changes and go to the previous page.

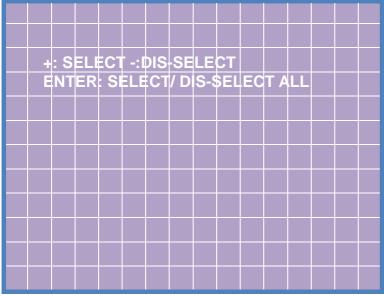
Motion Detection

Under this section, users are allowed to adjust motion detection areas, sensitivity, and relay in DVR.

The relay serves as a terminal of external alarm to other electrical devices, which is to activate the alarm or the devices when motion is detected. For example, users may connect a buzzer alarm to DVR (I/O: Out). When motion is detected by DVR and relay is on, the buzzer alarm is triggered



1. Highlight CAMERA AREA SETTING section and use "+" or "−" to choose each camera channel. Once channel is confirmed, highlight "RUN" and press "←" to start area setting.



A 16 \times 12 cell blocks pops out. Use " \uparrow ", " \downarrow ", " \leftarrow ", and " \rightarrow " key to select each cell and use "+" or "-" button to enable or disable motion detecting block. A highlighted cell block

means the motion detection. Users may press "←" button to select or deselect all cell blocks.

- To adjust sensitivity, use "↑" or "↓" key to highlight SENSITIVITY section and press "+" or "−" key to cycle available sensitivity values, from 1 ~ to 7.
 (Note: Value 1 is the most sensitive)
- 3. To activate relay function, use " \uparrow " or " \downarrow " button to highlight RELAY OUT and press "+" or "-" button to turn it on or off.

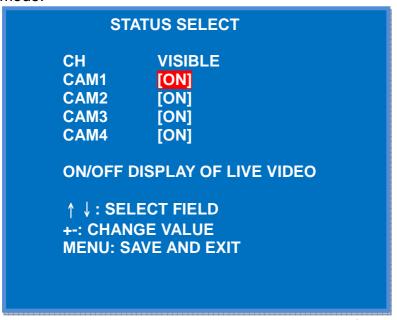
NOTE:

When RELAY OUT is on, the relay in DVR will activate the external buzzer alarm device which is connected to ALARM OUT on the alarm switch terminal.

4. Press" (Menu Button) to save all changes and go to the previous page.

Status Select

In this section, users can choose the channels of video to be visible or invisible in live view mode.



- 1. Press "↑" or "↓" key to highlight each channel of video.
- 2. Use "+" or "-" button to choose ON or OFF. ON means the channel is visible in Live View display; OFF means the channel is invisible in Live View display.
- 3. Press" (Menu Button) to save all changes and go to the previous page.

NOTE:

DVR still records the video even if the channel is invisible.

NTSC/PAL Setup

The default setting of video format is corresponding to the importing country. In case of using the DVR in different video format zones, users may need to adjust video format in this section.

NTSC/PAL SETUP

VIDEO SYSTEM [NTSC]

PLEASE REBOOT DVR TO APPLY CHANGE

+-: CHANGE VALUE MENU: SAVE AND EXIT

- 1. Press "+" or "-" key to choose NTSC system or PAL system.
- 2. Press" (Menu Button) to save all changes and go to the previous page.
- 3. Reboot DVR to activate the new setting.

Record Setup

Under this section, users are allowed to setup record mode and schedule, record video quality and record rate. Use "↑" or "↓" key to choose each section and press "←" to enter.

RECORD SETUP

RECORD MODE SETUP CONTINUOUS RECORD MOTION RECORD ALARM RECORD

↑ ↓: SELECT ITEM

ENTER: SELECT SUB MENU

MENU: EXIT

Record Mode Setup

- Use "↑", "↓", "→"or "←" key to select each time cell. Press "+" or "−" button to cycle through available record modes. Available record modes are: C: Continuous, M: Motion Detection Recording, A: Alarm/Sensor trigger recording, N: None.
- 2. Users may do fast set up by pressing "←" twice. For example, move the cursor to Sunday row and choose any cell's record mode to "M". Press "←" twice and the entire time cells of Sunday become "M" record mode.
- 3. Press" (Menu Button) to save all changes and go to the previous page.

NOTE:

DVR stops recording when DVR is backing up or linking to PC through USB

Continuous Record

CONTINUOUS RECORD [SUPER] **RECORD QUALITY** RECORD FPS [JPEG 30] **CAM1 RECORD:** [ON] CAM2 RECORD: [ON] **CAM3 RECORD:** [ON] **CAM4 RECORD:** [ON] ↑ ↓: SELECT FIELD +-: CHANGE VALUE **MENU: SAVE AND EXIT**

- 1. Press "+" or "-" button to cycle through available values. They are: **SUPER**, **HIGH**, **NORMAL**, **STANDAR**, where **SUPER** is the highest video quality, and **STANDARD** is the lowest video quality.
- 2. Use "↑" or "↓" key to highlight "RECORD FPS" and press "+" or "−" button to cycle through available values. Users can choose compression format from MJPEG and MPEG4. The available values of FPS for MJPEG are: 1, 2, 4, 8, 15, and 30. 30 is for the most fluent recording and consumes HDD space the most. The available values of FPS for MPEG4 are 2, 4, 8, 15, 30, and 60.
- 3. Users can enable or disable continuous recording for each channel. Use "+" or "-" to select "ON" or "OFF". "ON" means enable the channel recording, and "OFF" means disable the channel recording.
- 4. Press" (Menu Button) to save all changes and go to the previous page.

Recording Duration

MJPEG Compression

Quality	Size per frame (KB)	FPS	Size per hour (MB)	Hours for an 160GB HDD
	1	74	2,167	
	2	148	1,084	
Super	0.00	4	295	542
Super	21	8	591	271
		15	1,107	144
		30	2,215	72
		1	63	2,543
		2	126	1,271
High	17.9	4	252	636
High	17.9	8	503	318
		15	944	170
		30	1,888	85
		1	54	2,988
		2	107	1,494
Normal	1E 00	4	214	747
INOIIIIai	15.23	8	428	374
		15	803	199
		30	1,606	100
	Chandard 40.0	1	45	3,528
		2	91	1,764
Standard		4	181	882
Stanuaru	12.9	8	363	441
		15	680	235
		30	1,361	118

MPEG4 Compression (Dual Codec Mode Only)

Quality	Size per frame (KB)	FPS	Size per hour (MB)	Hours for an 160GB HDD
	2	49	3,251	
	4	98	1,625	
Cupor		8	197	813
Super	7.0	15	369	433
		30	738	217
		60	1,477	108
		2	42	3,814
		4	84	1,907
Lliah	6.0	8	168	953
High	High 6.0	15	315	509
		30	629	254
		60	1,259	127
		2	36	4,482
		4	71	2,241
Normal	E 1	8	143	1,121
INOIIIIai	5.1	15	268	598
		30	535	299
		60	1,071	149
		2	30	5,292
		4	60	2,646
Ctondord	8	121	1,323	
Standard	4.3	15	227	706
		30	454	353
		60	907	176

Motion Record

MOTION RECORD

RECORD QUALITY
RECORD FPS
EVENT RECORD TIME
PRE RECORD

[SUPER] [JPEG 30] [10] SEC [ON]

↑ ↓: SELECT FIELD +-: CHANGE VALUE MENU: SAVE AND EXIT

- Press "+" or "-" button to cycle through available values. They are: SUPER, HIGH, NORMAL, STANDAR. SUPER is the highest video quality, and STANDARD is the lowest video quality.
- 2. Use "↑" or "↓" key to highlight "RECORD FPS" and press "+" or "−" button to cycle through available values. The available values of FPS for MJPEG are: 1, 2, 4, 8, 15, and 30. 30 is for the most fluent recording and consumes HDD space the most. The available values of FPS for MPEG4 are 2, 4, 8, 15, 30, and 60.
- 3. Use "↑" or "↓" key to highlight "RECORD TIME" and press "+" or "−" button to cycle through available times. They are: **10**, **20**, **30**, **40**, **50**, and **60** seconds. A record time of 10 seconds means DVR will record for 10 seconds after the motion is detected.
- 4. Use "↑" or "↓" key to highlight "PRE RECORD" and press "+" or "−" button to turn ON / OFF the Pre-Record. Pre-record records around 4 sec video before the motion is detected.
- 5. Press" (Menu Button) to save all changes and go to the previous page.

Alarm Record

ALARM RECORD

RECORD QUALITY
RECORD FPS
EVENT RECORD TIME
PRE RECORD

[SUPER] [JPEG 30] [20] SEC [ON]

↑ ↓: SELECT FIELD +-: CHANGE VALUE MENU: SAVE AND EXIT

- Press "+" or "-" button to cycle through available values. They are: SUPER, HIGH, NORMAL, STANDAR. SUPER is the highest video quality, and STANDARD is the lowest video quality.
- 2. Use "↑" or "↓" key to highlight "RECORD FPS" and press "+" or "—" button to cycle through available values. The available values of FPS for MJPEG are: 1, 2, 4, 8, 15, and 30. 30 is for the most fluent recording and consumes HDD space the most. The available values of FPS for MPEG4 are 2, 4, 8, 15, 30, and 60.
- 3. Use "↑" or "↓" key to highlight "RECORD TIME" and press "+" or "−" button to cycle through available times. They are: **10**, **20**, **30**, **40**, **50**, and **60** seconds. A record time of 10 seconds means DVR will record for 10 seconds after the alarm is triggered.
- 4. Use "↑" or "↓" key to highlight "PRE RECORD" and press "+" or "−" button to turn ON / OFF the Pre-Record. Pre-record records around 7 sec video before the alarm is triggered.
- 5. Press" (Menu Button) to save all changes and go to the previous page.

NOTE:

For more details of alarm recording and ALARM MODE SETUP, please refer to "ALARM SETUP" on Page 42.

To install alarms or sensors, please see "ALARM / SENSOR INSTALLATION" on Page 16.

Backup Setup

This DVR provides two backup methods. Users can back up video to PC via USB port or to USB memory storage devices. It also copy the player program to USB memory storage devices, so users can play the video on any PC (Apple system is not supported) without installing the player program.

PC Backup Note:

- 1. PC operating system must be Windows 2000 or above.
- 2. Install PC player program (provided in the disc) to the PC first. Do not run the PC player program on the CD ROM.
- 3. Please use the USB port on the rear side of the PC as your platform.

Flash Disk Backup Note:

- 1. USB 2.0 is recommended.
- 2. USB memory storage device will be formatted in USB Master Backup. Please back up all the files before using USB Master Backup.
- 3. Upload PC player program first. Refer to Page 10 for instructions of uploading PC player to DVR.

BACKUP VIDEO PC LINK FLASH DISK ↑ ↓: SELECT ITEM ENTER: SELECT SUB MENU MENU: EXIT

PC LINK

PC LINK

PC LINK

[RUN]

INSTALL PC PLAYER BEFORE LINK

ENTER: CONNECT

MENU: EXIT

- 1. Connect DVR to PC via USB cable provided in the package.
- 2. Highlight "RUN" and press "←" to make the connection between PC and DVR. If DVR is successfully connected to PC, you will see a USB mass storage connection icon on

the right and low side of PC screen. DVR screen also shows USB connection is ok.





- 3. Double click PC Player icon on the PC to start.
- 4. Refer to **PC PLAYER Program** on Page 51 for PC player operation.
- 5. Press "
 " to cancel the connection to the PC.
- 6. Press" (Menu Button) to save all changes and go to the previous page.

FLASH DISK

FLA	SH DISK	
HDD	YY/MM/DD	нн:мм
BEGIN	07-08-12	09:11
END	07-08-16	10:22
HCD DAC	(UD	
USB BACK		00.44
BEGIN	<mark>07</mark> -08-12	09:11
END	07-08-16	10:22

- 1. Use "↑","↓", "←", or "→" key to highlight USB backup begin & end date and time. Press "+" or "−" key to cycle through available values.
- 2. After confirming the USB backup recording period, press "←" to enter "USB MASTER WARNING' page.
- 3. "USB MASTER WARNING" page appears on the screen. Press "←" to format USB Flash and begin backup. Press" (Menu Button) to cancel and exit the warning page.

Note:

When the flash drive is full, users can change a new flash drive and press QC button to resume backing up. Otherwise, press "■" to stop.

USB MASTER WARNING FORMAT USB FLASH DEVICE USB FLASH DEVICE WILL BE FORMATTED PRESS ENTER TO RUN

- 4. When the backup is completed, press "■" to exit backup progress. Press "□" key to exist and return to live view.
- 5. Unplug the USB memory storage device and connect to any PCs (except Apple system) to view the video.
- 6. Refer to **PC PLAYER Program** on Page 51 for PC player operation.

NOTE:

When selecting the backup time, make sure the beginning time of video is valid. If the beginning time of video is not valid, DVR will start from the nearest time point.

TCP/IP SETUP (Only for DVR-EZPRON Model)

System Requirement: Microsoft Windows 2000 or above Operating System, Pentium 4 or above CPU, 512 MB or above DRAM.

TCP/IP SETUP [STATIC] TYPE: PORT: [08000] [192.168.001.002] IP: G/W: [192.168.001.254] MASK: [255.255.255.000] DNS: [192.168.001.001] MAC: 00-28-46-00-41-71 STATUS: CONNECTED ↑ ↓ ←→: SELECT FIELD +-: CHANGE VALUE **ENTER: RUN MENU: EXIT**

Network function lets users to view live video and recorded video via the Internet. It also supports DDNS function for users if they only have dynamic IP ADSL service from ISP. Users may do network configuration in this section. The default IP address of the DVR is 192.168.1.1; port number is 80; Subnet mask is 255.255.255.0, and Gateway is 192.168.1.254.

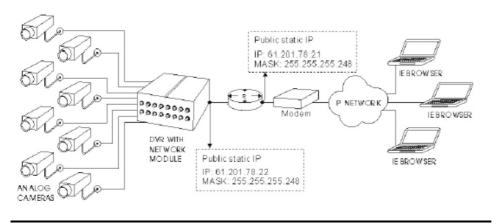
- 1. Use "↑" or "↓" to choose network type and its necessary items.
- 2. Press "+" or "-" to cycle through available values.
- 3. Highlight "APPLY" and press "←" to apply the new setting.
- 4. Press" (Menu Button) to go to the previous page.

NOTE:

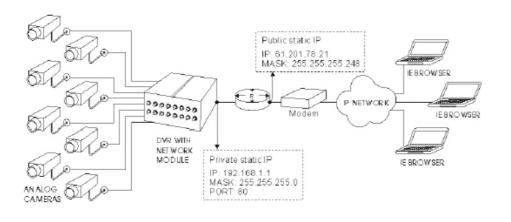
Before setting up, please identify the network connection of the DVR

STATIC IP

Public Static IP Connection



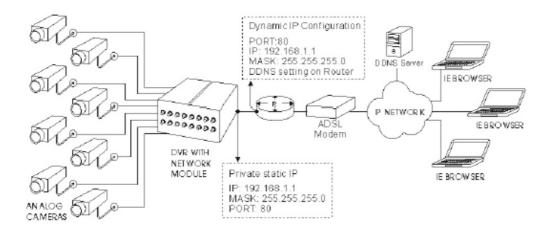
Private / Virtual IP Static IP Connection



Static IP is considered as a fixed IP assigned by ISP (Public IP) or IP share device (Virtual IP). DVR connecting to static IP needs to be assigned IP address, Gateway, and Subnet mask.

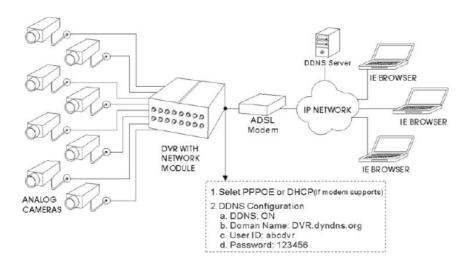
DHCP

The DHCP functions needs to be supported by a router or a cable modem network with DHCP services. Please apply DDNS when use DHCP connection. <u>For DDNS service</u>, please refer Page 83.



PPPoE

This PPPoE function needs to have one "username" and one "password" subscribed from one ISP supplier. Please apply DDNS **first** when use PPPoE connection. <u>For DDNS service, please refer to Page 83</u>. After applying DDNS, please also set up username and password for PPPoE connection. (<u>Refer to Page 61 for PPPoE password and username setup.</u>)



Peripheral Setup

PERIPHERAL SETUP

BUZZER SETUP

ALARM SETUP SEQUENCE SETUP PASSWORD SETUP VGA SETUP PTZ SETUP

ENTER: SELECT SUB MENU

↑ ↓ : SELECT ITEM MENU: SAVE AND EXIT

Buzzer Setup

Use " \uparrow " or " \downarrow " to select each buzzer option and use "+" or "-" to change the value.

BUZZER SETUP KEY BEEP [ON] POWER ON [ON] VIDEO LOSS [OFF] ALARM EVENT [OFF] MOTION [ON] TIME DURATION [01] SEC ↑ ↓: SELECT FIELD +-: CHANGE VALUE MENU: SAVE AND EXIT

- 1. When "KEY BEEP" is on, DVR beeps every time when users press any buttons on the key pad.
- 2. When "POWER ON" is on, DVR beeps when it is turned on.
- 3. When "VIDEO LOSS" is on, DVR beeps when it detects video loss of any channels.
- 4. When "ALARM EVENT" is on, DVR beeps when external installed alarm/sensor trigger is activated.
- 5. When "MOTION" is on, DVR beeps when it detects motion detection.
- 6. Users can select the length of buzzer time after the events. Press "+" or "-" key to cycle through available values, from **1** ~ **60** seconds.
- 7. Press" (Menu Button) to go to the previous page.

NOTE:

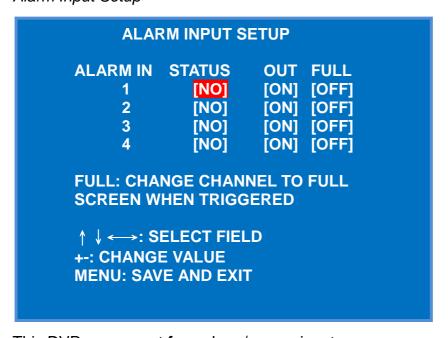
TIME DURATION IS ONLY FOR "MOTION", "ALARM", AND "VIDEO LOSS" EVENTS.

Alarm Setup

This DVR is capable of installing four external input alarm/sensor devices and one output external alarm device. Use "↑" or "↓" key to choose each setup section and press "⊷" to enter it.



Alarm Input Setup



This DVR can accept **four** alarm/sensor inputs.

- 1. Press "↑", "↓", "→"or "←" to highlight each channel's alarm setup options.
- 2. Use "+" or "-" key to cycle through available options.
- 3. Press" (Menu Button) to save all changes and go to the previous page.

STATUS

NO: Normal Open means the external alarm/sensor device is short circuit under normal circumstances. When the circuit is **completed**, DVR starts to record.

NC: Normal Close means the external alarm/sensor device circuit is completed under normal circumstances. When the circuit is **short**, DVR starts to record.

OUT

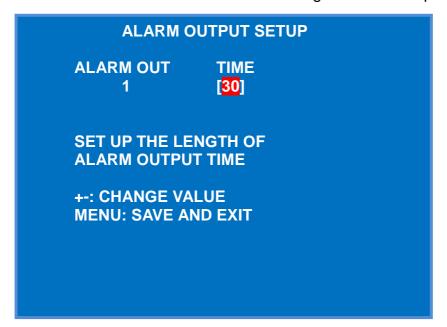
DVR supports one alarm out. **ON** means DVR activates the external alarm/sensor device such as buzzer alarm when the input alarm of that channel is triggered. For example, if you set Channel 2 ALARM OUT to "**ON**", and the input alarm channel 2 is triggered, DVR activates the external buzzer alarm. (Refer to ALARM/SENSOR Installation on Page 16.)

FULL

DVR displays certain channel of video in full screen if external alarm/sensor is triggered of that channel. For example, when Alarm In 1 is set to ON, Channel 1 will switch to full screen (Each Channel Mode) after the input alarm channel 1 is triggered.

Alarm Output Setup

This section allows users to decide the length of alarm output time.



- 1. Cycle available values, $1 \sim 60$ seconds, with "+" or "-" key.
- 2. Press" (Menu Button) to save all changes and go to the previous page.

Sequence Setup

Users are able to adjust the interval of displaying each channel in Sequence Display Mode.

SEQUENCE SETUP FULL SCREEN [01] SEC SET TIME LENGTH TO CYCLE THROUGH EACH CHANNEL +-: CHANGE VALUE MENU: SAVE AND EXIT

- 1. Cycle available values, $1 \sim 60$ seconds, with "+" or "-" key.
- 2. Press" (Menu Button) to save all changes and go to the previous page.

Password Setup

This DVR allows users to input 4 numerical digits as the system password. DVR asks for password when users try to release KEY LOCK function and stop recording. The factory default password is **0000**.

PASSWORD SETUP NEW **** CONFIRM **** SELECT NUMBER: 0-9 PASSWORD IS APPLICABLE TO STOP RECORDING AND DISABLE KEY LOCK MENU: EXIT ENTER: SAVE

- 1. Press Key Pad to set the password. (Refer to the following table.)
- 2. Use "←" to move backward to correct.
- 3. Type in both NEW and CONFIRM fields.
- 4. Press "

 " to validate the new password.
- 5. Press" (Menu Button) to validate the new password and go to the previous page. Key Pad Indication

-> 0	CH1 -> 1	CH2 -> 2	CH3 ->3	CH4 -> 4
QUAD -> 5	PIP -> 6	SEQ -> 7	-> 8	∢ -> 9

NOTE:

The universal password is: QUAD, SEQ, || (Pause), QUAD. (5785)

VGA Setup

VGA OUTPUT SETUP

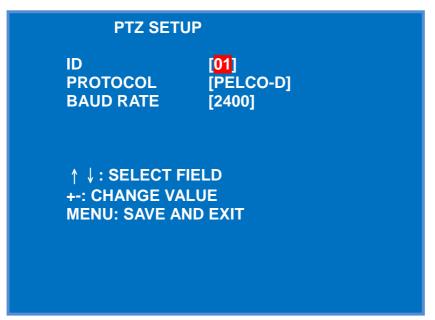
VGA RESOLUTION

[1024X768/60HZ]

+-: CHANGE VALUE ENTER: APPLY CHANGE MENU: SAVE AND EXIT

- 1. Use "+" or "-" key to cycle through available values: **640*480/60Hz**, **640*480/75Hz**, **800*600/60Hz**, **800*600/75Hz**, **1024*768/60Hz**, and **1024*768/75Hz**.
- 2. Press "← " to apply change.
- 3. Press" (Menu Button) to save all changes and go to the previous page.

PTZ Setup



PTZ supports PELCO-D and PELCO-P protocols. Baud Rate supports 2400, 4800, and 9600.

Date Time Setup

Users can adjust date and time settings in this section.

DATE T	IME SETUP
FORMAT YEAR MONTH DAY HOUR MINUTE SECOND	[YY/MM/DD] [2007] [07] [06] [17] [16] [24]
↑ ↓: SELECT +-: CHANGE \ MENU: SAVE	/ALUE

- 1. Press " \uparrow ", " \downarrow ", " \rightarrow "or " \leftarrow " to select each field to modify.
- 2. Use "+" or "-" key to cycle through available options.
- 3. After adjustment, press" (Menu Button) to save all changes and go to the previous page

Format is the date format that shows on the live view. Available values are YY/MM/DD, MM/DD/YY, and DD/MM/YY.

Hard Disk Setup

Users are allowed to view HDD information, format HDD, and choose HDD recording mode. Use "↑" or "↓" key to choose each section and press "←" to enter.

HARD DISK SETUP

HARD DISK INFORMATION

HDD FORMAT

RECORD MODE: [RECYCLE]

RECYCLE: OVERWRITE HDD

ONCE: STOP RECORDING WHEN HDD FULL

ENTER: SELECT SUB MENU

↑ ↓: SELECT FIELD +-: CHANGE VALUE MENU: SAVE AND EXIT

Hard Disk Information

It shows HDD model number and size.

HDD INFORMATION

HDD1: MASTER MODEL: ST34016A SIZE: 160.0 GBYTES

Press "III" (Menu Button) to go to the previous page

HDD Format

HDD FORMAT

SELECT HDD [01] CONFIRMATION [NO]

SELECT YES AND PRESS ENTER TO FORMAT HDD

↑ ↓ : SELECT FIELD +-: CHANGE VALUE MENU: EXIT

- 1. Change NO to YES and press "←" key to format the HDD.
- 2. On the screen, it shows the percentage of the progress.
- 3. After formatting HDD, DVR goes back to the live view.

HDD Record Mode

HARD DISK SETUP

HARD DISK INFORMATION

HDD FORMAT

RECORD MODE: [RECYCLE]

RECYCLE: OVERWRITE HDD

ONCE: STOP RECORDING WHEN HDD FULL

ENTER: SELECT SUB MENU

↑ ↓: SELECT FIELD +-: CHANGE VALUE MENU: SAVE AND EXIT

- 1. Press "+" or "-" button to cycle through available modes. Available modes are **RECYCLE** and **ONCE**.
- 2. Press" (Menu Button) to save change and go to the previous page.

RECYCLE → DVR overwrites the HDD when HDD is full. **ONCE** → DVR stops recording when HDD is full.

Factory Setup

Users are able to set DVR to factory default setting, format USB, upload PC player to DVR HDD, and upgrade the firmware of DVR in this section.

FACTORY SETUP 1. LOAD FACTORY DEFAULT [NO] 2. USB FORMAT [ON] [NO] 3. LOAD PC PLAYER 4. FIRMWARE UPGRADE [NO] ML204GK:012 **JAYS** :008 SKL :044 **ENTER: CONFIRM AND RUN** ↑ ↓: SELECT FIELD +-: CHANGE OPTION **MENU: EXIT**

- Load Factory Default allows to restore DVR to its factory default setting. Press "+" or "−" to choose YES. Press "←" to run the loading.
- 2. **USB Format** allows users to format USB before uploading player to HDD and upgrades firmware to DVR.
 - a. Connect Memory Storage device to DVR USB Master Host plug.
 - b. Press "+" or "-" to choose **YES**.
 - c. Press "←" to run the formatting.
- 3. **Load PC Player** allows users to backup video files to USB memory storage device and writing PC player program to it at the same time.
 - a. Format USB (Note: Users must format USB first.)
 - b. Remove USB from DVR Master Host plug and connect to PC USB plug.
 - c. Insert the CD provided in the package.
 - d. Open Both USB storage and CD ROM discs.
 - e. Replace player program, called "PLAYER.PAK" in the USB with "PLAYER.PAK" in the CD ROM disc.
 - f. Remove USB memory stick from PC properly and connect to DVR USB Master Host plug.
 - g. Use "↑" or "↓" to highlight "Load PC Player" section and press "+" or "−" to choose **YES**.
 - h. Press "←" to run the loading.
 - i. After the loading is completed, press "\boxed" to exit.
- 4. **Firmware Upgrade:** When there is available firmware released, users can update DVR firmware via USB. Please contact your local distributor for the updated firmware. **(Note: To avoid further confusions, we name the firmware "ROMCODE.ISO".)**

Save the firmware temporarily in the PC and follow below steps:

- a. Format USB (Note: Users must format USB first.)
- b. Remove USB from DVR Master Host plug and connect to PC USB plug.
- c. Open the USB storage device.
- d. Locate the updated firmware saved on the PC, usually called "ROMCODE.ISO"
- e. Replace firmware file, called "ROMCODE.ISO" in the USB drive with "ROMCODE.ISO" saved on the PC. (Or delete ROMCODE.ISO in the USB drive, and paste the updated firmware file to the USB drive.)
- f. Remove USB memory stick from PC properly and connect to DVR USB Master Host plug.
- g. Use "↑" or "↓" to highlight "Firmware Upgrade" section and press "+" or "-" to choose **YES**.
- h. Press "←" to run the upgrading.
- i. After the loading is completed, press "To exit.

Pan/Tilt/Zoom Control

The DVR can control speed dome cameras through the RS485 interface.

To enter PTZ Control Mode, select the channel with the speed dome camera by pressing Channel Buttons (Channel Buttons (

To quit PTZ Control Mode, press Pause () again.

Key Definition in PTZ Control Mode

	Enter/Quit PTZ Control Mode	4	Auto Pan
	Tilt Up		Tilt Down
•	Pan Left	1	Pan Right
+	Zoom In		Zoom Out
1	Set Auto Pan Start Position		Set Auto Pan Stop Position

PC Player Program



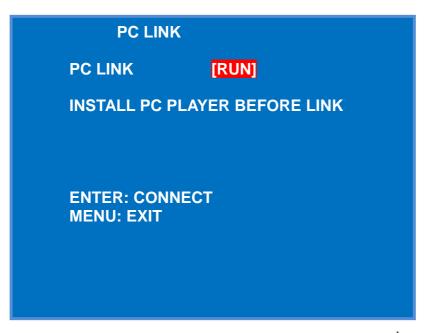
DVR Player supports DVR series from 4CH to 16CH. It plays videos recorded on the DVR, takes screenshots, and prints screen through a printer.

Install PC Player Program

- 1. Insert the CD provided in the package to the CD-ROM.
- 2. Click DVR PC Player on the menu to install. (Recommended Screen Resolution: 1024x786)
- 3. Select your destination directory and click OK.

Connect DVR to Computer

- 1. Use the USB cable provided in the package to connect DVR and the computer.
- 2. Plug one end of the USB cable to the PC port on DVR and the other end to the USB port on PC.



- 3. On DVR, select Backup Video → USB Slave. Press "←" key to establish connection.
- 4. When connection is established, a new hardware icon is shown in the notification area on the screen (lower right corner).

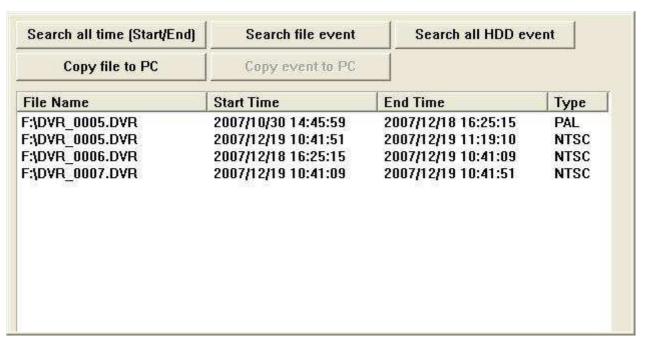
Run PC Player Program

- 1. After installation, there is a GKBPlayer icon on the desktop. Double click it to run.
- 2. The main screen of PC Player is shown.

Interface and Operation Indication

Open Video

- 1. Click to open "Open File List" dialog box.
- 2. Press and select the DVR disk. Select any *.dvr file and click Open.
 All the records are shown on the list.



- 3. Select one of the record and press Open to view the video.
- 4. Users can directly copy the records to PC without opening them. Press

destination path by pressing

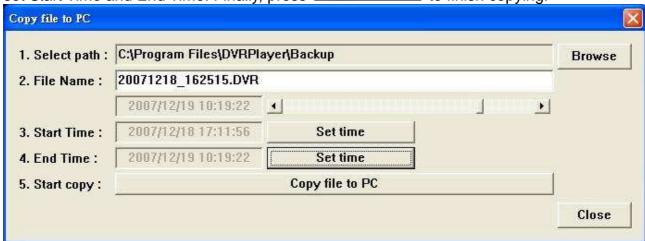
and a "Copy file to PC" dialog box is shown. Select the

Browse

Type the file name and draw the time bar to set Start Time and End Time. Finally, press

Copy file to PC

to finish copying.



5. Users can also copy event videos to PC without opening them.

Press Search file event or Search all HDD event , and the events will be shown on the list. Click any one of the events and press Copy event to PC.

C:\Progr	am File	es\DVRPlayer\Backup	Browse
2. File nam	ie: 2	0070904_101930.DVR	
3. pre-reco	rd time	: 10 Second 💌	
4. post-rec	ord tim	e : 1 Minute	
5.	Сору	event to PC	

Select the destination path, file name, pre-record, post-record time, and press Copy event to PC to copy the event file to PC.

Play Video

After opening the video, the video information is shown on the lower left corner. It shows the format, Start Time, and End Time of the video.

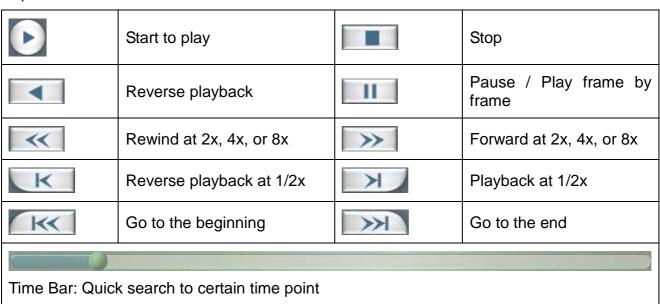


On the lower right corner, there shows playing statuses, including playing speed, date, and



Pause

Operation Buttons:



Channel / Display Buttons:

Select Channel 1 2 3	Select certain channel for viewing
	Quad View
	Nine Channel View
	Sixteen Channel View

Audio and Volume

If users use audio in with the DVR, they can adjust the audio channel and volume.

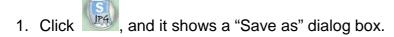


- 1. Click the buttons of Audio Select to select audio channels. Both
- 2. Draw the volume bar to adjust the volume.

 Users can mute the audio by pressing the mute button.

Save to JPG

Users can save the video screen to a JPG file.



- 2. Select destination path and type the file name.
- 3. Press Save button to save the picture.

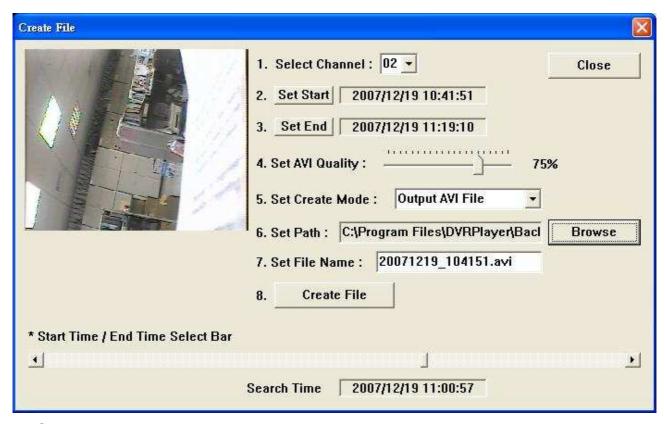
Save to AVI

Users can save any certain period of the video to an AVI file.





, and there shows a Time Selecting Dialog.



- 1. Select the channel to record.
- 2. Draw the time line bar to the time point you want to begin, and press Start Time.
- 3. Draw the time line bar to the time point you want to end, and press Set End to set End Time.
- 4. Choose the image quality you like by drawing the slider.
- 5. Select output mode: an AVI file, or JPEG files by 6 pictures per second.
- 6. Click Browse, choose the destination directory.
- 7. Type the file name for output.
- 8. Press Create File to proceed.

Turn On/Off Time and Channel Indications

Press

to turn on or off the Time and Channel Indications on the screen.

Print Screen

Users can print the screen through a printer by pressing



Internet Operation (IE Browser; Only For DVR-EZPRON Model)

After setting the network function for DVR (please refer to TCP/IP SETUP at Page 38), users can manage / monitor through the IE browser.

Because the application developed for IE is using ActiveX, please install the ActiveX file in the CD. Click Active-X Plug-in Package to install.

To manage / monitor through the IE browser, please follow the steps:

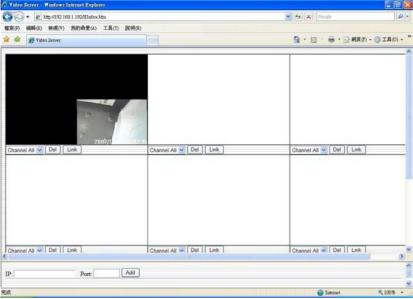
- 1. Open IE.
- 2. Type DVR's IP address in URL. (If DHCP is used, <u>please refer to CMS at Page 68 to find DVR's IP.</u>)
- 3. An authorizing window pops up. Type username and password (Default: root/root).



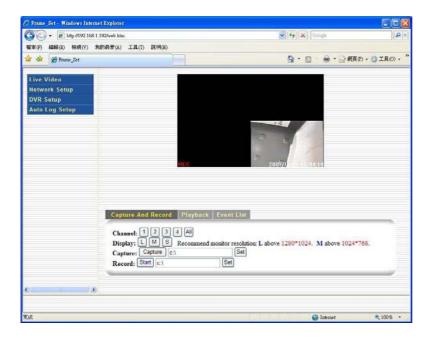
Note:

If the DVR is in MENU pages, the changes of settings on IE browser will **NOT** be applicable to the DVR.

4. A multi management page is shown. Click Link button on the first cell.



5. DVR's web management interface shows up as below picture.



Live Video

In Live Video page, users can see the live view, snap image, record video, and view playback.

Capture and Record



As soon as entering Live Video page, it displays the live view on DVR.

Channel: Users can change to see different channel or Quad mode by click the buttons

Display: Users can change the solution of the live view. L is the largest, where S is the smallest.

Capture: Users can snap images from the live view to the computer. Type the destination path and click Set to apply. And click Capture to save images to the path.

Record: Like Capture, Record saves the live view as video files to the computer. Type the destination path and click Set to apply. And click Record to save videos to the path.

Playback

In Playback, users are able to review videos saved in HDD of DVR.

Channel: 1 2 3 4 All Display: L M S Recommend monitor resolution: L above 1280*1024. M above 1024*76 Search Time: Year: 2007 Month: 10 Day: 23 Hour: 14 Minute: 46 Run	Display: L M S Recommend monitor resolution: L above 1280*1024. M above 1024*760	Display: L M S Recommend monitor resolution: L above 1280*1024. M above 1024*76 Search Time: Year: 2007 ✓ Month: 10 ✓ Day: 23 ✓ Hour: 14 ✓ Minute: 46 ✓ Run	Capture A	nd Record Pl		ent List					
	Search Time: Year: 2007 V Month: 10 V Day: 23 V Hour: 14 V Minute: 46 V Run	Search Time: Year: 2007 V Month: 10 V Day: 23 V Hour: 14 V Minute: 46 V Run Start Time: 2007/10/23_14:46 Run	The state of the s								
Search Time: Year: 2007 V Month: 10 V Day: 23 V Hour: 14 V Minute: 46 V Run		Start Time: 2007/10/23_14:46 Run	Display: L	M S Reco	mmend mon	itor resoluti	on: L abov	re 1280*	1024.	M above	1024*768
	Start Time: 2007/10/23_14:46 Run		Search Time	: Year: 2007 🕶	Month: 10	✓ Day: 23	Hour:	14 × N	Minute:	46 🕶	Run
Start Time: 2007/10/23_14:46 Run		End Time: 2007/10/25_15:45 Run	Start Time:	2007/10/23_14:46	Run						

Channel: Users can change to see different channel or Quad mode by click the buttons

Display: Users can change the solution of the live view. L is the largest, where S is the smallest.

Search Time: Users can review video at a specific point. Click Run to review.

Star Time: It indicates the very beginning of the recording. Click Run to review it.

End Time: It indicates the end of the recording. Click Run to review it.

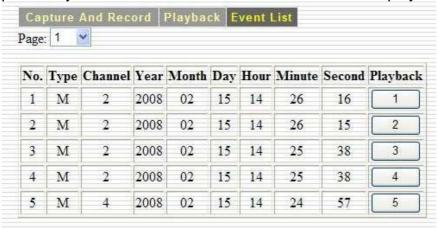
Control Buttons: In the bottom row, there are control buttons to operate fast rewind, rewind, pause, forward, fast forward, and stop. **Click STOP to exit playback mode**.

NOTE:

When starting Playback, DVR will stop recording and enter playback mode synchronously.

Event List

The table here lists event recordings on DVR. Users can examine the event happening previously. Press the button on each event to start the playback.

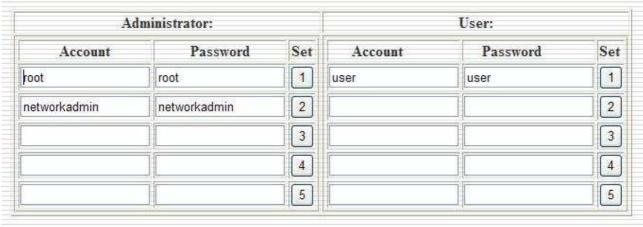


Network Setup

Server

In this section, users can manage network accounts, upgrade DVR firmware, and set up email notification.

Account



Users can setup maximum five administrator accounts and five user accounts.

Administrators can see the live view, record video to local computers, and change DVR settings.

Users can only see the live view from the multi management page.

System

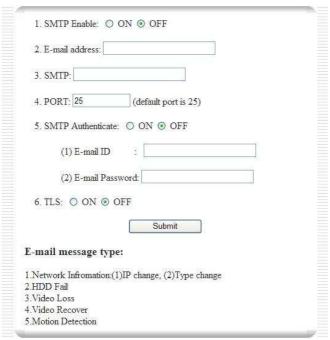
l.Device Name	: Video Server	SET	
2.Load Netwo	rk Default Setting:	SET	
3.Current Firm	ware Version: SHL	GK_022	
1)New Firmwar	e Upgrade:	瀏覽	
2)Upload New F	irmware: UPLOAD		
3)Re-boot Netw	ork Server REBO	OT	

In System page, users can do the following operations:

- 1. Change DVR's name.
- 2. Return Network Setting to Factory Default.
- 3. Upgrade Network Module Firmware.
 - a. Select firmware from the local computer.
 - b. Click UPLOAD to upload firmware and upgrade. (Then, click YES on popup window)
 - c. Click REBOOT to reboot DVR to complete upgrading procedure.

E-Mail

Users can enable the email notification function by fill the table shown below.



DVR will send notification emails when the following situations happen:

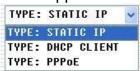
- 1. DVR's IP or network type is changed.
- 2. HDD fails.
- 3. Video loss occurs.
- 4. Video recovery occurs.
- 5. Motion detection occurs.

Network

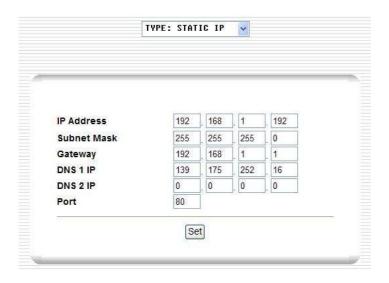
In network section, users can change network settings and DDNS setup. This section corresponds with TCP/IP SETUP in DVR. (Please refer to TCP/IP SETUP at Page 38)

Type

DVR supports Static IP, DHCP (Dynamic IP), and PPPoE protocols.



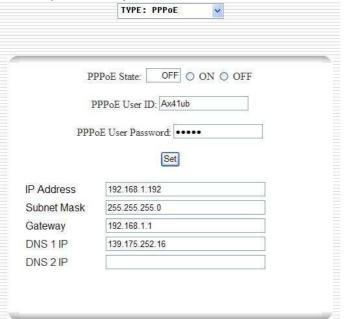
If your network environment uses Static IP, please select STATIC IP.



In DHCP network environment, please select DHCP CLIENT. Choose ON and click Set to enable setting.

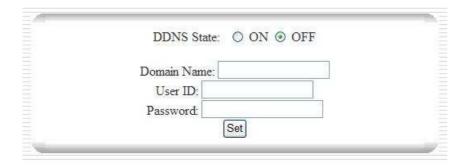
DHCPC St	ate: OFF ON OFF Set
IP Address	192.168.1.192
Subnet Mask	255.255.255.0
Gateway	192.168.1.1
DNS IP	139.175.252.16

If PPPoE is used, please select PPPoE. Choose ON and fill in user ID and password subscripted from your ISP. Then, click Set to enable setting.



DDNS

If a dynamic IP or PPPoE service is used and users want to use DDNS to get access to DVR, please choose ON and fill Name, ID, and Password. Click Set to enable DDNS for DVR.



To apply for DDNS service, please refer to Page 83.

DVR Setup

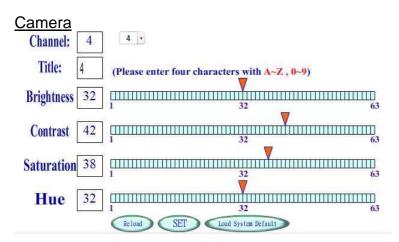
System

Here the settings of Time, Camera, HDD, etc. can be modified in this page.





Choose each field to current time and click Set to apply change. Get DVR Time is used to retrieve DVR's time setting.



Each Camera/channel's setting can be changed here, including Tile, Brightness, Contrast, Saturation, and Hue.

The button at the top part is used to select channel. Users can drag the red triangles to change values for each attribute.

Reload button is clicked to load the setting before dragging from DVR. Press SET to apply

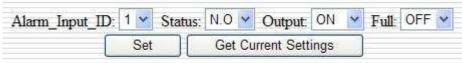
changes, and Load System Default is clicked to return to factory default setting.

<u>HDD</u>

HDD ID	Model	Size	Free Size
1	ST330620A	30.0	10.0

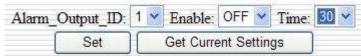
Here shows the information on HDD in DVR. Users can change Record Mode to Once or Recycle. Click Set to apply change, and press Get Current Settings to retrieve current value for it from DVR.

Alarm Input



If users have alarms inputs set up, the settings can be modified in this section. Click Set to apply changes, and press Get Current Settings to retrieve current values from DVR.

Alarm Output



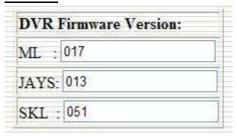
When alarm output is used, the settings can be modified here. Click Set to apply changes, and press Get Current Settings to retrieve current values from DVR.

<u>Password</u>



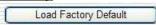
Users can change DVR's password in this section. Please note ONLY numerals can be used for password. And four digits must be keyed in at one time.

<u>Version</u>



Version shows the current firmware version of DVR.

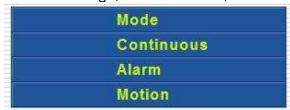
Factory



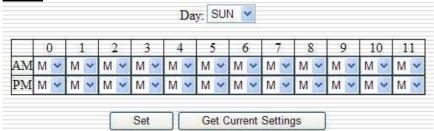
Load Factory Default button is clicked to return DVR to original factory default settings.

Record

Record settings, such as Mode, Continuous, Alarm, and Motion, can be changed here.



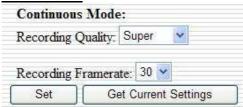
Mode



This is the recording schedule. Users can set every hour in each of seven days. C is for Continuous, M is for Motion Detection, A is for Alarm, and N is for None Recording.

Click Set to apply changes, and press Get Current Settings to retrieve current DVR settings.

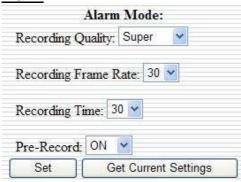
Continuous



Users can adjust recording video quality and frame rate in this page.

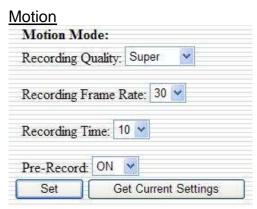
Click Set to apply changes, and press Get Current Settings to retrieve current DVR settings.

<u>Alarm</u>



In this page, users can adjust the options for Alarm Mode, including Recording Quality, Recording Frame Rate, Recording Time, and Pre-Record.

Click Set to apply changes, and press Get Current Settings to retrieve current DVR settings.



In this page, users can adjust the options for Motion Detection, including Recording Quality, Recording Frame Rate, Recording Time, and Pre-Record.

Click Set to apply changes, and press Get Current Settings to retrieve current DVR settings.

Auto Log Setup

In this section, users can set Auto Log Setup for DVR to keep records of Motion Detection, Alarm Input, Power On, and Record On, etc.

Auto Log Enable



Users can enable / disable each option. Click Get Current Settings to retrieve current DVR settings, and Press Set to apply changes.

Auto Log List

	Source				TRANSPORT
No.	IP	Device Name	Channel	Туре	Time
1.	192.168.1.192	Video Server			
2	192.168.1.192	Video Server			
3	192.168.1.192	Video Server			
4	192.168.1.192	Video Server			
5	192.168.1.192	Video Server			
6	192.168.1.192	Video Server			
7	192.168.1.192	Video Server			
8	192.168.1.192	Video Server			
9	192.168.1.192	Video Server		-	
10	192.168.1.192	Video Server			
11	192.168.1.192	Video Server			
12	192.168.1.192	Video Server			
13	192.168.1.192	Video Server			
14	192.168.1.192	Video Server			
15	192.168.1.192	Video Server			
16	192.168.1.192	Video Server			

The log of DVR operations will be kept in this page.

Central Management System (Only For DVR-EZPRON Model)

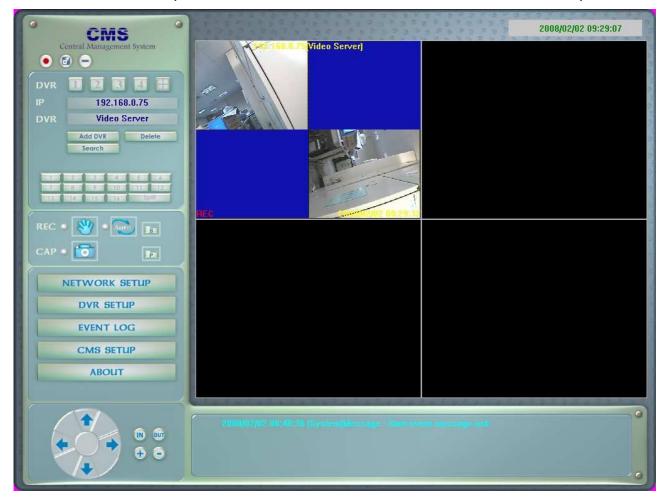
CMS is the software that manages up to four DVRs in one screen at the same time. The installation file of CMS is in the CD provided with DVR. Click CMS (Central Management System) on the menu to run installation procedure.



After installation, double click CMS icon to run it.

A login window will pop up and ask for Account and Password. The default account and password is **root/root**.

When correct account/password is entered, the main screen of CMS will show up.



Basic Controls

The time box at the top right corner displays current system time.

2008/02/02 10:36:44

• • buttons at the top left corner control respectively Exit CMS, Full Screen, and Minimize to Toolbar.

In the middle of the screen shows the live view of each DVR.

At the bottom of the screen, it is a message panel. Event messages will show here.



DVR Management Panel



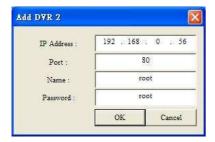
Click buttons to select each DVR or Quad mode.



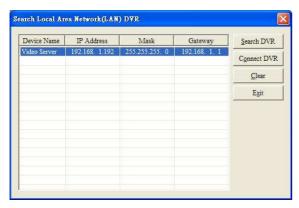
shows current DVR's IP and name.

Click Add DVR Delete to add or delete DVR from CMS. Or right click on the live view to achieve it.

An Add DVR window will pop up. Fill the correspondent blanks and click OK to add a DVR. (Default Name and Password is **root/root**)



If the DVR and your computer are in the LAN (Local Area Network) environment, use to search the DVR. After searching, double click on the DVR to add it.





Channel buttons are used to change different channels or split

Recording and Capturing Panel



- CMS records video immediately when this button is pushed.
- CMS uses time table to record video.
- Press this button to see the time table and arrange recording schedule.
- Press this button to snap an image.
- Set the destination path for recording and capturing images. (The folder will be STORAGE.)

Configuration Panel



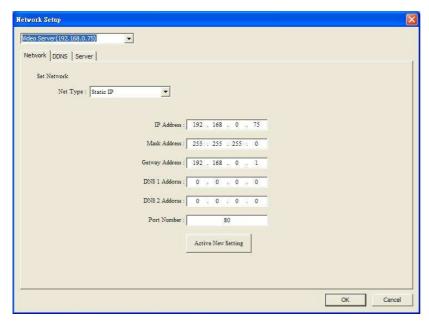
Note:

If the DVR is in MENU pages, the changes of settings on CMS will **NOT** be applicable to the DVR.

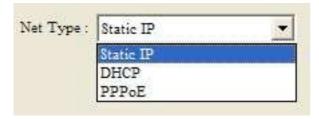
In this panel, users can change settings for DVR, including Network Setup, DVR Setup, and CMS Setup.

Network Setup

In network setup section, remote DVR's network relevant settings can be changed. <u>Please</u> refer to TCP/IP Setup at Page 38.



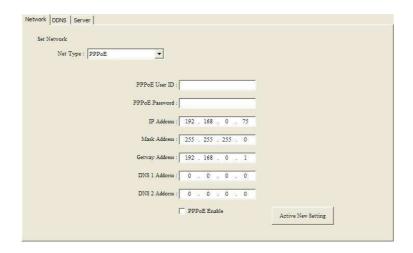
Users can change the connection types, IP address, mask address, and so on for DVRs.



If DHCP is applicable in the network environment, users can check DHCP Enable box and push Active New Setting button to set DVR using DHCP.



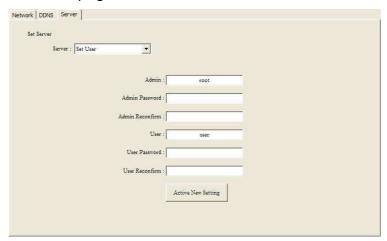
If the network environment is using PPPoE, users can enter the ID and password in the PPPoE setting page. To apply settings, check PPPoE Enable box and press Active New Setting button.



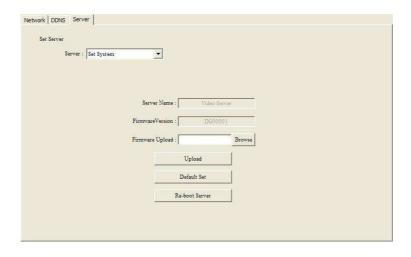
In DDNS page, users can set up DDNS for the DHCP (dynamic IP) environment. (<u>Please refer to DDNS Setting at Page 83</u>.)



In Server page, users can set administrator and user account in the Set User page,



upload firmware and reset default setting in the Set System page,



and set email address for notification in the Set E_Mail page.

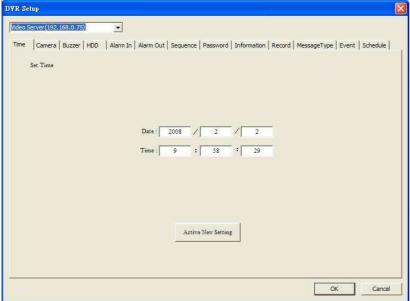


DVR Setup

In this section, users can see several pages and are able to change the options for DVRs.

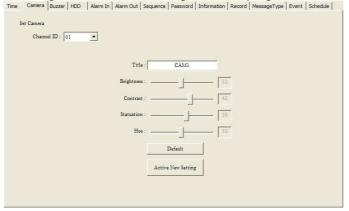
<u>I Ime</u>

DVR date / time can be changed here.



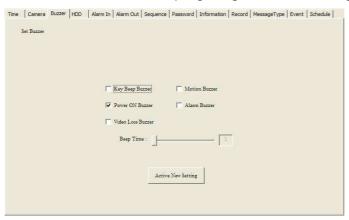
Camera

Users can modify each channel's title, brightness, contrast, saturation, and hue. By clicking Default, all settings in this page return to factory default values.



Buzzer

Users can enable/disable buzzer for key beep, motion detection, power on, alarm trigger, and video loss. The beeping length can be changed as well.



HDD

HDD shows the information on the hard drives in DVR. The recording mode can be changed to either Recycle or Once.



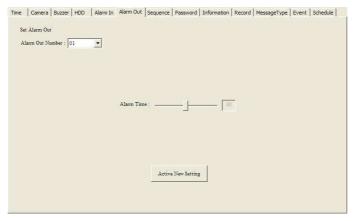
Alarm In

In this page, users can change the settings for the alarm input.



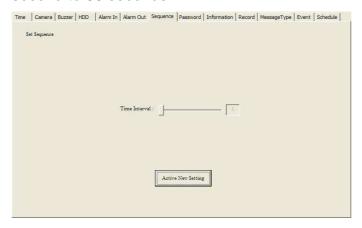
Alarm Out

Users can set the settings for alarm output.



<u>Sequence</u>

Sequence is the interval between cycling each channel. The available values are from 1 second to 60 seconds.



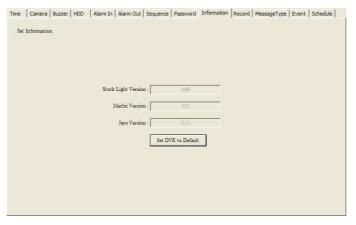
Password

Users can change the key-lock password for the DVR. Please note that only digits are acceptable. The password length should be 4 digits.



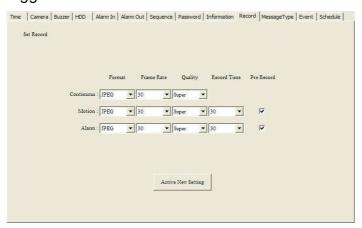
Information

Information page shows the firmware version of the DVR, and users can click Set DVR to Default to have the DVR return to factory default settings.



Record

Users are able to adjust the compression format, recording frame rate, quality and recording length. Options to enable/disable pre-record for motion detection and alarm trigger are available.



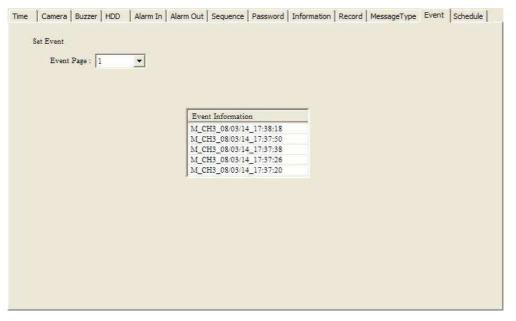
Message Type

Users can choose which messages will be sent to the email account when it's triggered.



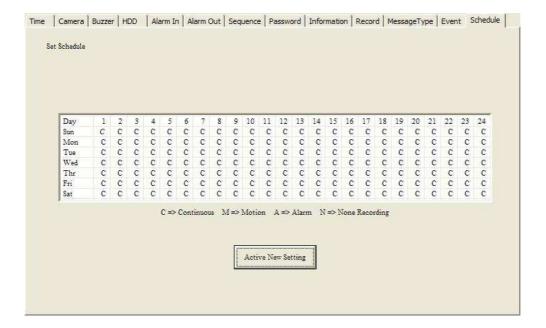
Event

This page displays the event log on the DVR.



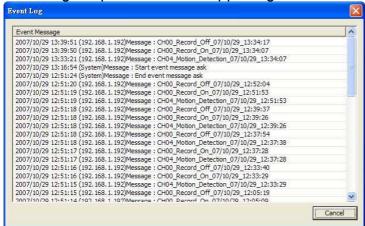
Schedule

Recording schedule can be arranged in this page. Click any cell and type C, M, A, or N to assign value. C is for Continuous, M for Motion Detection, A for Alarm, and N for None.



Event Log

Event log keeps all records happening on DVRs.



CMS Setup

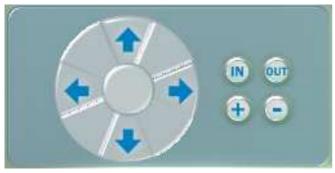
CMS login account can be changed here by filling Account, Password, and Confirm.



About

About shows the version and released date of CMS.

PTZ Panel



When the cameras support PTZ control, users can manage them in this panel.

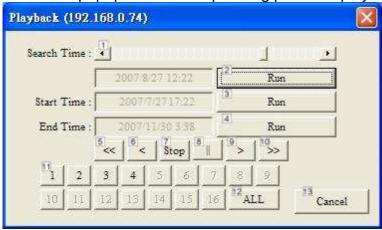
are used to pan, are used to tilt, and are used to zoom in and zoom out.

Playback

Users can review the playback with CMS. Right click on any channel of the live view, and it shows the menu. Choose Playback to proceed.



There is a popup window of operating panel for playback.



- 1. Search Time: Scroll to a specific time point.
- 2. Run (under Search Time bar): Start to play playback of the specific time point.
- 3. Run (Start Time): Play playback from the very beginning of the recording.
- 4. Run (End Time): Play playback from the end of the recording.
- 5. <<: Change rewinding speed from 2x, 4x, and 8x.
- 6. <: Rewind at normal speed.
- 7. Stop: Stop playback and show the live view.
- 8. ||: Pause.
- 9. >: Play playback at normal speed.
- 10.>>: Change playing speed from 2x, 4, and 8x.
- 11.1, 2, 3, ...,16: Select certain channel for playback.
- 12. ALL: See all channels.
- 13. Cancel: Stop playback and return to the live view. Quit the popup window.

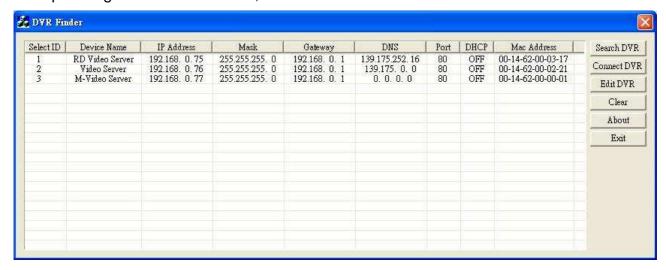
DVR Finder (Only For DVR-EZPRON Model)

DVR Finder is a program that searches all the DVRs in the LAN. Please insert the CD provided with the pack, and click DVR Network Finder to install.



Click DVRFinder icon on the desktop to run the program.

After pressing Search DVR button, it shows all the DVRs found in the LAN.



Users can select any DVR in the table, and press Connect DVR button to connect to the DVR by the IE browser.

Users are able to change the network settings by pressing Edit DVR button.



Clear button is to clear the table of all DVRs found in the LAN.

About button shows the version of DVR Finder.

Exit button is clicked to close the program.

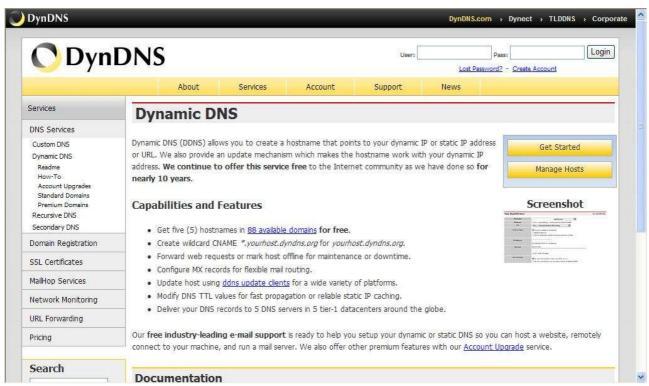
DDNS (Only For DVR-EZPRON Model)

DDNS (Dynamic DNS) provides dynamic domain names for dynamic IP users. It translates domain names to dynamic IP address. Dynamic IP users can use DDNS to get access to their computers without memorizing the IP.

This DVR supports DynDNS (http://www.dyndns.com/) DDNS service.

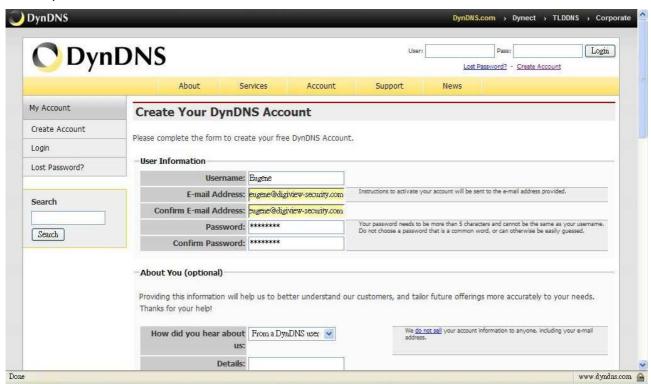


To use DDNS service, we have to create an account first. Click Create Account under the Login button.

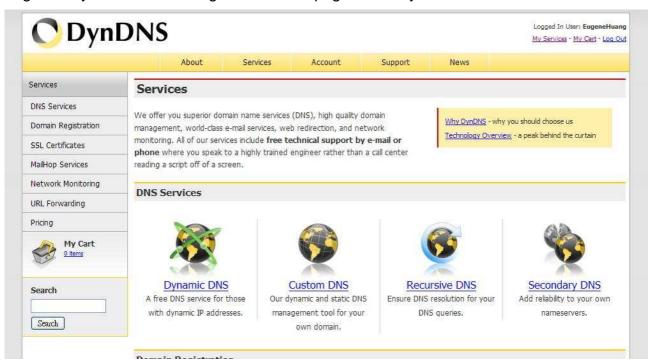


Complete the form and click Create Account button at the bottom to finish the process.

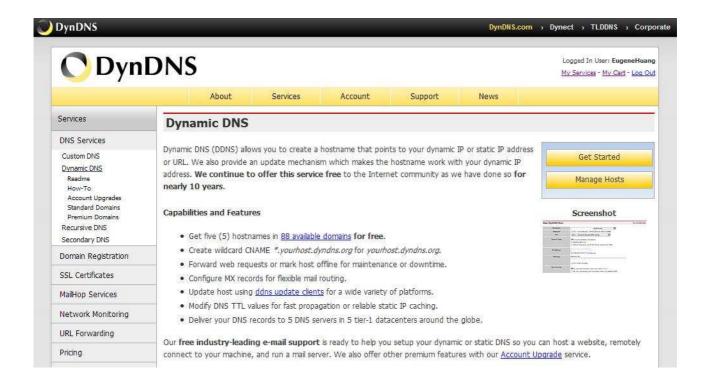
DynDns will send an email to you. Click the link in the email and account creation process is complete.



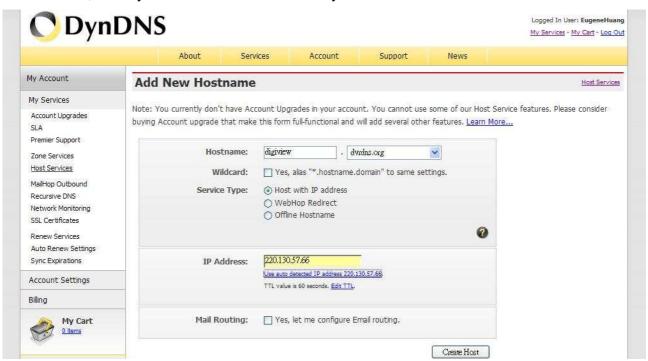
Login with your account and go to Services page. Click Dynamic DNS link.



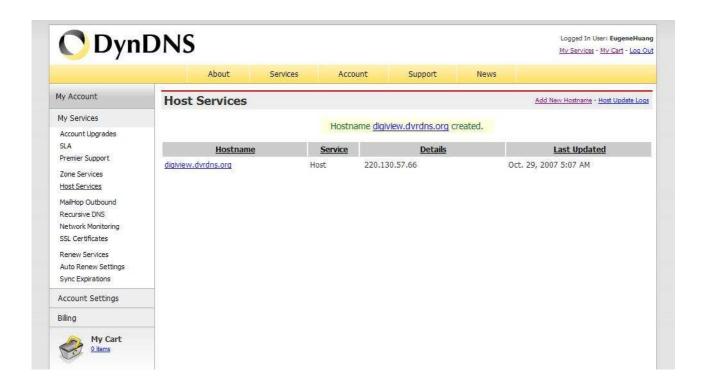
In this page, it shows the description of Dynamic DNS. After reading the information, click Get Started to set up a Host Name for your IP address.



Type the hostname you like, and choose a domain name. Click Use auto detected IP address link, it fills your current IP automatically.

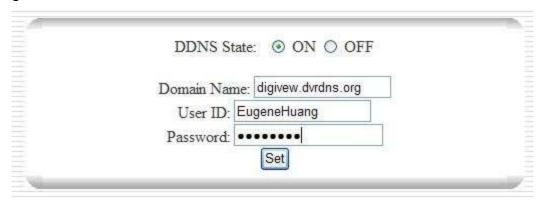


Finally, press Create Host to finish the process.



Now you are able to access your IP by using Hostname.domain. In this example, digiview.dvrdns.org is mapped to 220.130.57.66.

In DVR Internet Operation (<u>Please refer to Page 61</u>), go to Network Setup->Network. Choose DDNS and fill the following form. After setting, you can use the domain name to get to DVR.



Appendix

Troubleshooting

The DVR cannot detect the hard disk drive (the screen shows HDD NOT FOUND).
 Make sure the IDE cable and power cable are connected properly to the hard drive.
 Turn on the DVR without connecting CCTV Cameras first. It may caused by consuming too much power and leads to malfunction of the HDD.

2. There is no image from the cameras.

Make sure the cameras are working all right by connecting them to a CRT monitor directly. The DVR can only provide at total 2A current to the cameras. If the camera consumes too much power, please use an individual power for it.

3. The image is incorrect (twisted or flickering).

Make sure the NTSC/PAL setting is set in accordance with the local power system. Go to MAIN MENU->CAMERA VIDEO SETUP->NTSC/PAL SETUP to adjust.

4. There is no image on the IE browser when connected to the DVR.

Please install the ActiveX plug-in AVMonitor for IE. It can be found in the CD provided with the pack.

5. When connected to the DVR, the IE browser / CMS shows "disconnect" directly. The DVR supports maximum four connections at the same time. When the connection

is full, the IE browser or CMS will show "disconnect" directly.

6. I forget the password of the DVR.

The universal password is 5785 (Quad, SEQ, Pause, Quad). Use the universal password to enter, and change the password right away.

7. I forget the ID/password for the IE / CMS connection.

The universal ID/password the IE/CMS login is 1111/1111.

8. The remote control does not work.

The operating distance from the DVR to the remote control is around five meters. Please use it within five meters away from the DVR.

If it does not work within the distance, the remote control is out of battery. Please change a new battery.

9. I am using a router to share network, but the DDNS function does not apply.

The DDNS function is used with DVR connecting to PPPoE or public dynamic IP directly. If the DVR is working under a router, the DDNS settings should be applied in the router.

10. What is the default password for the DVR?

The default password for the DVR is 0000 (press ■ four times).

The default ID/password for network administrator is root/root, for users is user/user.

Technical Support

0121 7861881



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