

# DIGITAL VIDEO RECORDER

## INSTRUCTION MANUAL


VER J1.2




- Thank you for purchasing this Digital Video Recorder.
- Before using the Digital Video Recorder, please ensure that you read and understand the User Guide.
- Please store the User Guide at an easily accessible location.
- Before connecting and installing any third party cameras, monitors, alarms and computers, please refer to the appropriate instruction manual for proper operation.

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## SAFETY PRECAUTIONS



**CAUTION**  
**RISK OF ELECTRIC SHOCK**  
**DO NOT OPEN**



**AVIS : RISQUE DE CHOC ÉLECTRIQUE-NE PAS OUVRIR.**

**CAUTION:**  
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).  
NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED  
SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of an insulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

### **WARNING:**

**TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD,  
DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

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## Disclaimer

- The information in this manual is believed to be accurate and reliable as of the date of publication. The information contained herein is subject to change without notice. Revisions or New editions to this publication may be issued to incorporate such change
- We makes no warranties for damages resulting from corrupted or lost data due to a mistaken operation or malfunction of the Digital Video Recorder, the software, the hard drives, personal computers, peripheral devices, or unapproved/unsupported devices.

## Warning

- Do not cover the ventilation opening or slots on the outer casing. To prevent the appliance from overheating, provide at least two inches of air space around the vent and the slots.
- Do not drop metallic parts through slots. This could permanently damage the Digital Video Recorder. Immediately turn the DVR's power off or unplug the power cord from the power outlet. Contact a qualified service personnel authorized by your equipment distributor
- Do not attempt to disassemble or alter any part of the equipment that is not expressly described in this guide. Disassembly or alteration may result in high voltage electrical shock. Qualified service personnel authorized by your equipment distributor should conduct internal inspections, alterations and repairs.
- Stop operating the equipment immediately if it emits smoke or noxious fumes. Failure to do so may result in fire or electrical shock. Immediately turn the DVR's power off, remove the power cable from the power outlet. Confirm that smoke and fume emissions have ceased. Please consult your DVR distributor.
- Stop operating the equipment if a heavy object is dropped or the casing is damaged. Do not strike or shake. Failure to do so may result in fire or electrical shock. Immediately turn the DVR's power off or unplug the power cord from the power outlet. Please consult your DVR distributor.
- Do not allow the equipment come into contact with, or become immersed in, water or other liquids. Do not allow liquids to enter the interior. The DVR has not been waterproofed. If the exterior comes into contact with liquids or salt air, wipe it dry with a soft, absorbent cloth. In the event that the water or other foreign substances enter the interior, immediately turn the DVR's Power off or unplug the power cord from the power outlet. Continued use of the equipment may result in fire or electrical shock. Please consult your DVR distributor.
- Do not use substances containing alcohol, benzene, thinners or other flammable substances

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to clean or maintain the equipment. The use of these substances may lead to fire. Use a dry cloth on a regular periodic basis and wipe away the dust and dirt that collects on the device. In dusty, humid or greasy environments, the dust that collects around the ventilation or the slots on the outer casing over long periods of time may become saturated with humidity and short-circuit, leading to fire.

- Do not cut, damage, alter or place heavy items on the power cord. Any of these actions may cause an electrical short circuit, which may lead to fire or electrical shock.
- Do not handle the device or power cord if your hands are wet. Handling it with wet hands may lead to electrical shock. When unplugging the cord, ensure that you hold the solid portion of the plug. Pulling on the flexible portion of the cord may damage or expose the wire and insulation, creating the potential for fires or electrical shocks.
- Use only the recommended power accessories. Use of power sources not expressly recommended for this equipment may lead to overheating, distortion of the equipment, fire, electrical shock or other hazards.
- Do not place the batteries near a heat source or expose them to direct flame or heat. Neither should you immerse them in water. Such exposure may damage the batteries and lead to the leakage of corrosive liquids, fire, electrical shock, explosion or serious injury.
- Do not attempt to disassemble, alter or apply heat to the batteries. There is serious risk of injury due to an explosion. Immediately flush with water any area of the body, including the eyes and mouth, or clothing that comes into contact with the inner contents of the battery. If the eyes or mouth contact these substances, immediately flush with water and seek medical assistance from a medical professional.
- Avoid dropping or subjecting the batteries to severe impacts that could damage the casings. It could lead to leakage and injury.
- Do not short-circuit the battery terminals with metallic objects, such as key holders. It could lead to overheating, burns and other injuries.
- The supplied power supply and power cord are designed for exclusive use with the Digital Video Recorder. Do not use it with other products or batteries. There is a risk of fire and other hazards.

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## Caution

- Do not operate the appliance beyond its specified temperature, humidity or power source ratings. Do not use the appliance in an extreme environment where there is high temperature or high humidity. Use the device at temperatures within +0°C - +40°C (32°F - 104°F) and humidity below 90 %. The normal operating power source for this device is 100V-240V AC 50/60Hz

## Preventing Malfunction

- Avoid Strong Magnetic Fields. Never place the DVR in close Proximity to electric motors or other equipment generating strong electromagnetic fields. Exposures to strong magnetic fields may cause malfunctions or corrupt image data.
- Avoid Condensation Related Problems. Moving the equipment rapidly between hot and cold temperatures may cause condensation (water droplets) to form on its external and internal surfaces. You can avoid this by placing the equipment in an airtight, resalable plastic bag and letting it adjust to temperature changes slowly before removing it from the bag.
- If Condensation forms inside the Digital Video Recorder. Stop using the equipment immediately if you detect condensation. Continued use may damage the equipment. Remove the power cord from the power outlet and wait until the moisture evaporates completely before resuming use.

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## PACKAGE CONTENTS

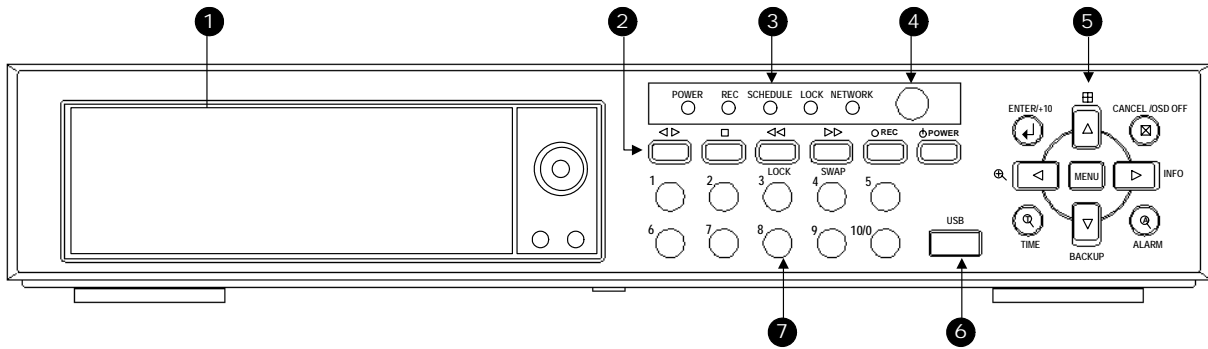
Please check the package and contents for visible damage. If any components are damaged or missing, do not attempt to use the unit, contact the supplier immediately. If the unit must be returned, it must be shipped in the original packing box.

<b>CONTENTS</b>	<b>QUANTITY</b>	<b>REMARK</b>
DIGITAL VIDEO RECORDER	1 UNIT	
CLIENT SOFTWARE CD	1	
REMOTE CONTROLLER	1	
BATTERY (AAAsize)	2	
POWER CORD	1	
8ch Loop Out Cable	1	8ch only
INSTRUCTION MANUAL	1	

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# 1. Unit Description

## (1) Front Panel



1) REMOVABLE HARD DISK DRIVE BAY

2) PLAY / STOP / FAST REWIND / FAST FORWARD / RECORD / POWER

*From left to right:*

- PLAY/REVERSE playback button

This button is used to start the playback of recorded data. By default, the playback starts from the earliest recording in the storage device.

- STOP

This button stops recording or playback.

- FAST REWIND / LOCK

This button is used to fast rewind during playback. It also locks all buttons on the Digital Video Recorder along with the remote controller. The LOCK LED light is turned on when this feature is activated. To unlock, press the lock button again and enter the password when prompted. The DVR cannot be locked in playback mode.

- FAST FORWARD / SWAP / PTZ

This button is used to fast forward during playback. It is also used as the Pan, Tilt and Zoom submenu in live mode. Press and hold the button to activate the hard drive hot swappable mode button.

- RECORD

This button starts recording.

- POWER

This button turns the Digital Video Recorder on or off.

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### 3) STATUS INDICATOR

Five LEDs display the status of the Digital Video Recorder. From the left, Power (red), Recording (red), Scheduled Recording (green), Button Lock (green) and Network.

### 4) IR RECEIVER

Do not block the receiver as the remote controller needs the line of sight to the receiver.

### 5) Menu Setup/Search

#### ENTER / +10

This button selects and enables the configuration changes made on the menu and sub-menu screens. It is also used to enter numbers greater than 10 when entering numeric entries or motion grid selection.

#### DISPLAY / UP

This button is used to switch between quad view mode and picture-in-picture display mode. It is also used to navigate up in some menus.

#### CANCEL/OSD OFF

This button cancels any selection changes in submenus. In Zoom mode, pressing this button will exit to the original display screen. In the regular display screen, this button is used to hide the On-Screen-Display information such as time, date and channel icons. This button also removes any of the alert icons on the upper right corner of the screen (AL, VL and PL). This button is also used to turn off the alarm buzzer.

#### ZOOM/LEFT

This button allows to digitally zoom into a specific area in both live and playback screen. Press the button to display the zoom area box, use the arrow keys to move the box, and then press the Enter button again to enlarge the selected area. It is also used to navigate left in some menus.

#### MENU

This button accesses the main menu. It is also used to save and for any menu screens.

#### INFO/RIGHT

This button displays system information screen: USB device, internal HDD size, Boot-Rom version, Application version, host name and IP address. Press this button once more to access the system log.

#### TIME SEARCH

This button accesses the time search menu. Use the directional buttons to select the date and the time. Press this button again to start the playback of the selection.

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📁 BACKUP/DOWN

This button allows back up of video clips onto USB 1.1 compliant memory sticks. If there are no backup devices present, this button is disabled automatically.

📁 ALARM SEARCH

This button accesses the alarm search menu. Use the directional buttons to select the date and the time. Press this button again to start the playback of the selection.

6) USB PORT

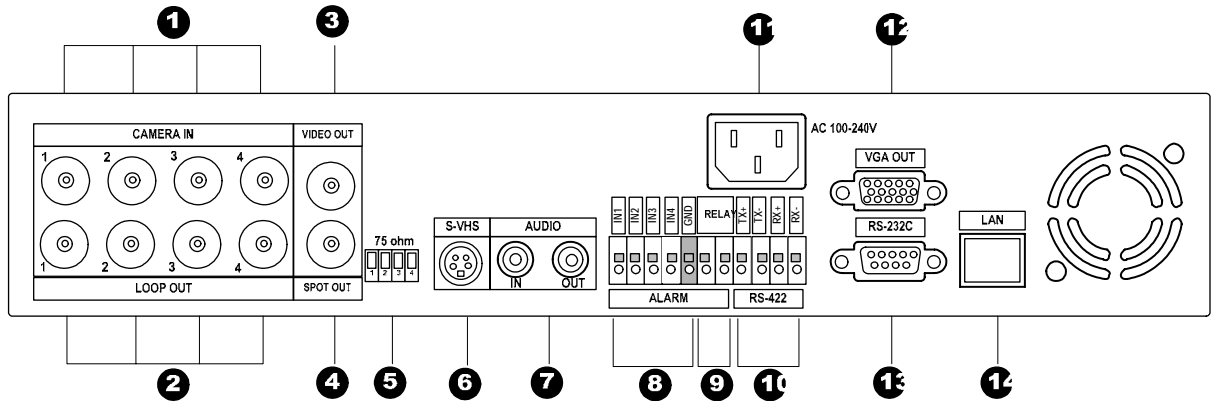
USB compliant port allows use of memory sticks to backup video files.

7) NUMERIC BUTTONS (1~9, 10/0)

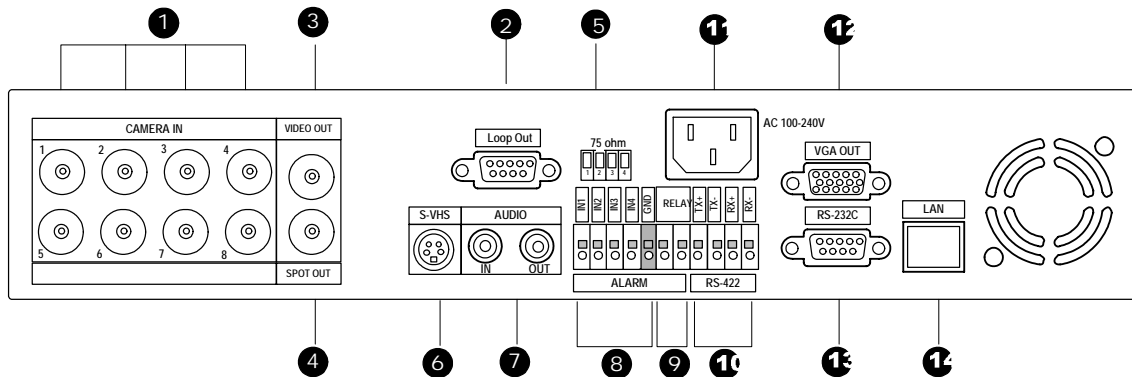
These buttons have a number of functions to enter data and to make selections. They are used to enter numerical data when prompted for the password, to make channel/camera selection, to choose the day in schedule option, and to enter alphabets to label each channel.

## (2) Rear Panel

### a. 4CH.



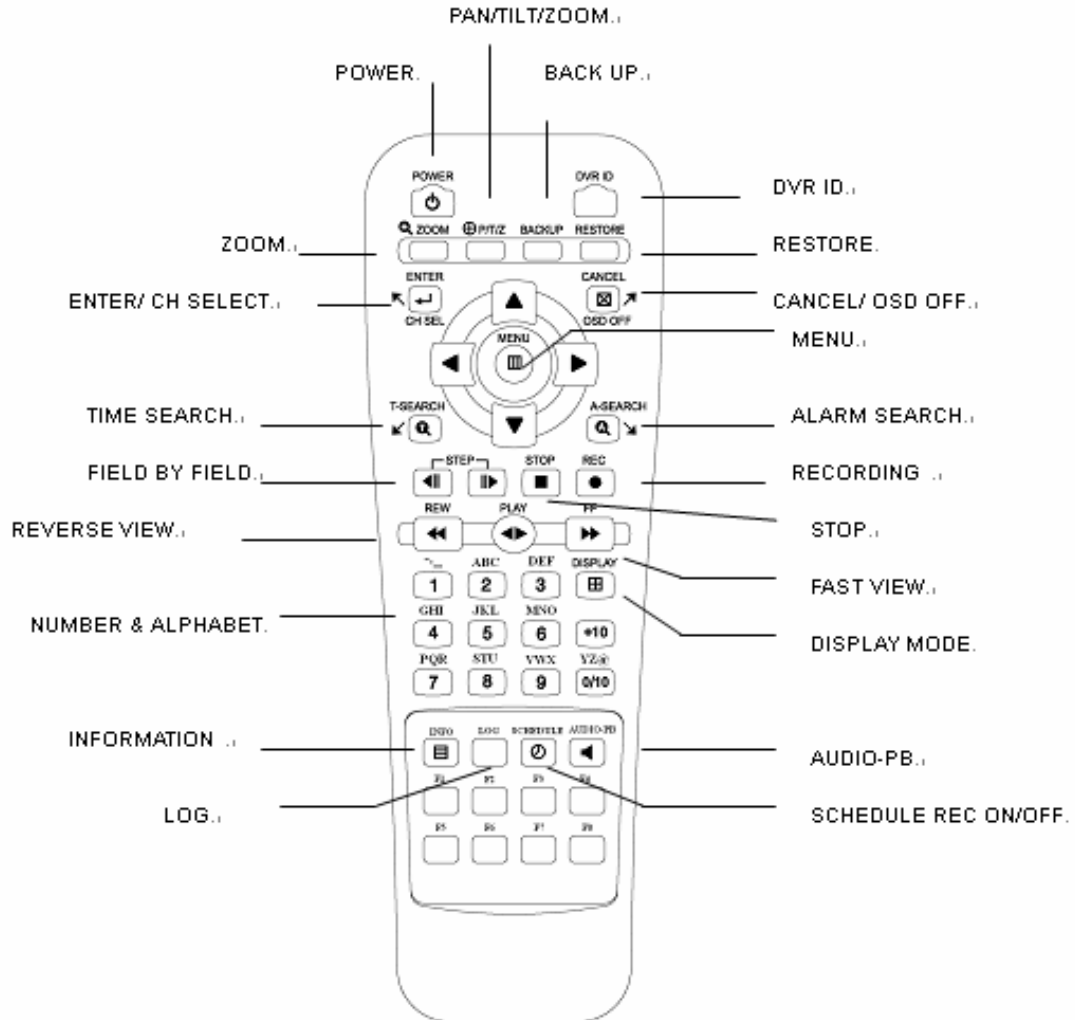
### b. 8CH.



- ① **Camera In**  
BNC connectors for composite video inputs
- ② **Loop Out**  
BNC connectors for composite video outputs
- ③ **Composite Video Out**
- ④ **Spot Out**
- ⑤ **75 ohm Termination Dip S/W**
- ⑥ **S-VHS Video Out**
- ⑦ **Audio In/Out**
- ⑧ **Alarm In (4Channel)**
- ⑨ **Relay Out**

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- ⑩ RS-422
  - ⑪ AC Power Cord Connector
  - ⑫ VGA Output
  - ⑬ RS-232C
  - ⑭ LAN (TCP/IP)

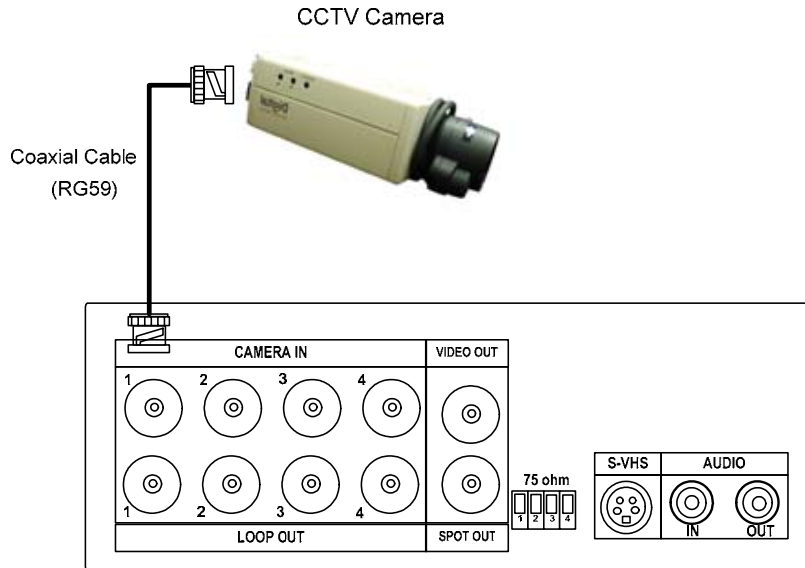
(3) Remote Controller



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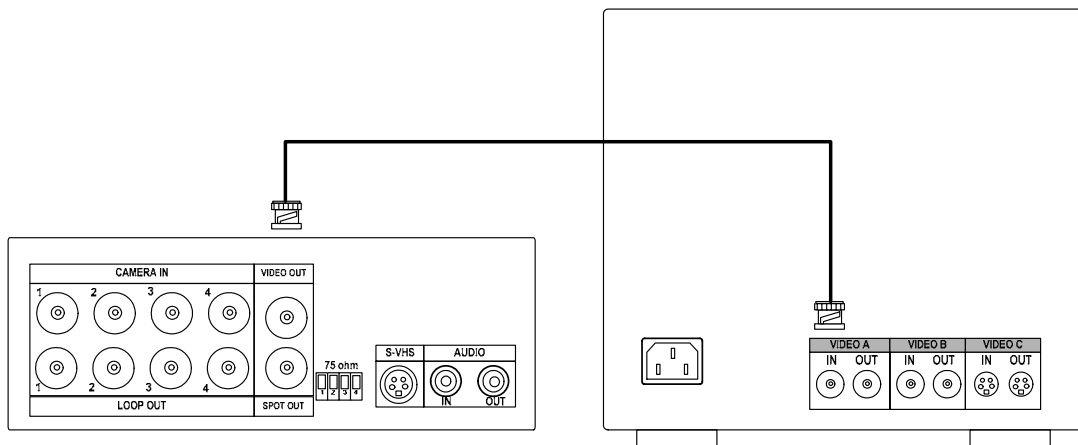
## 2. Installation

### (1) Camera connection

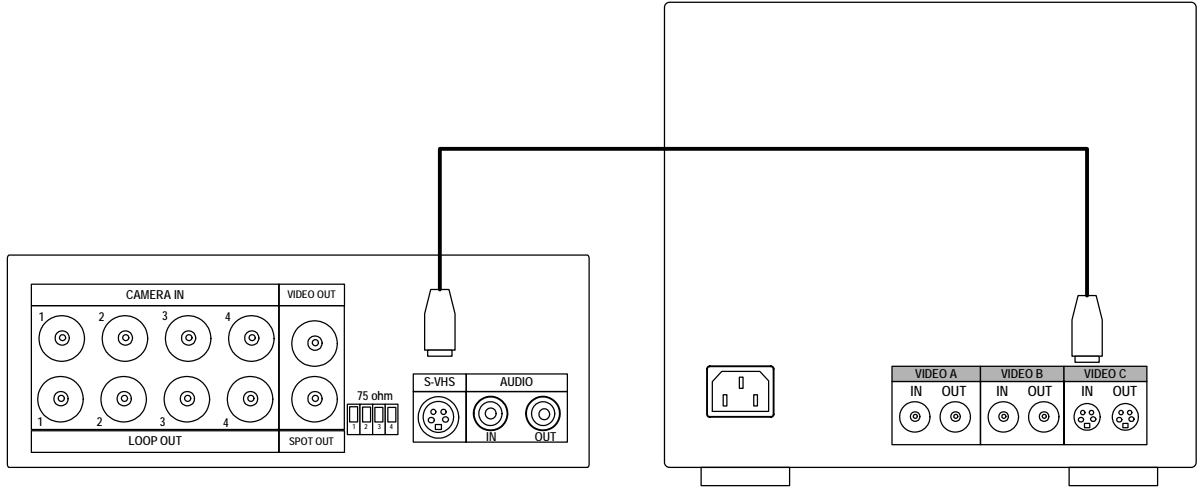


### (2) Monitor connection

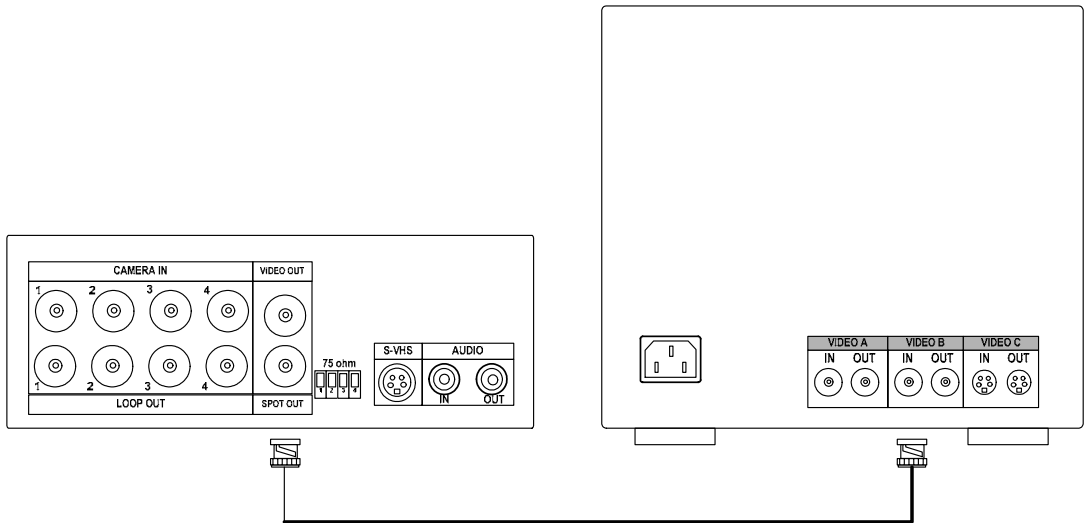
#### 1) Composite Video



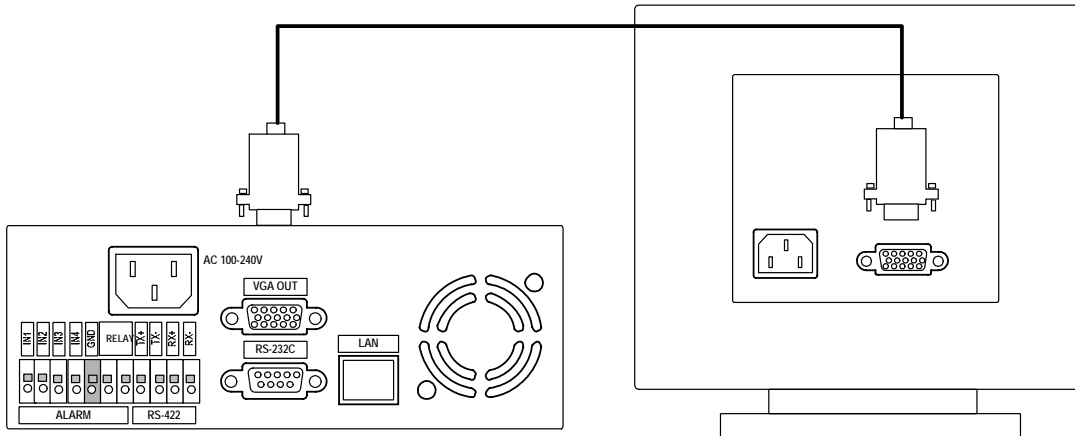
#### 2) S-VHS



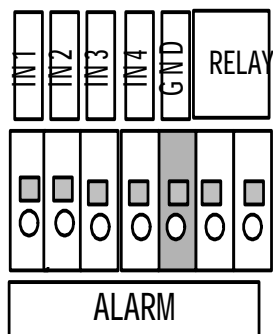
### 3) SPOT



### 4) VGA



### (3) SENSOR



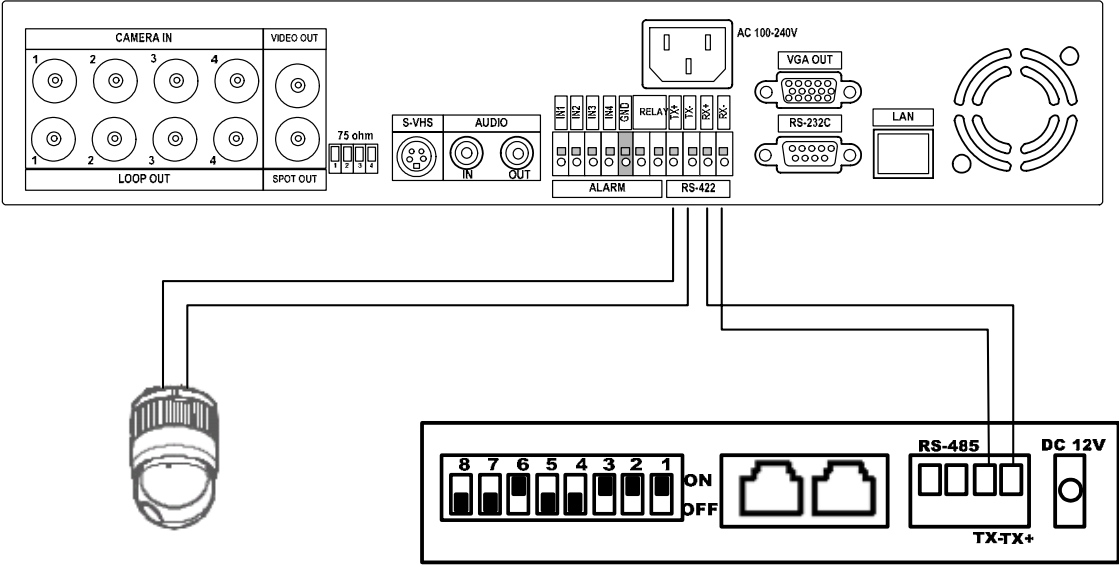
#### Terminal Block

- Pin1 Alarm In1
- Pin2 Alarm In2
- Pin3 Alarm In3
- Pin4 Alarm In4
- Pin5 GND
- Pin6,7 Relay Out

### (4) RS-422 Connection

1) TX + - : Connect to PTZ camera

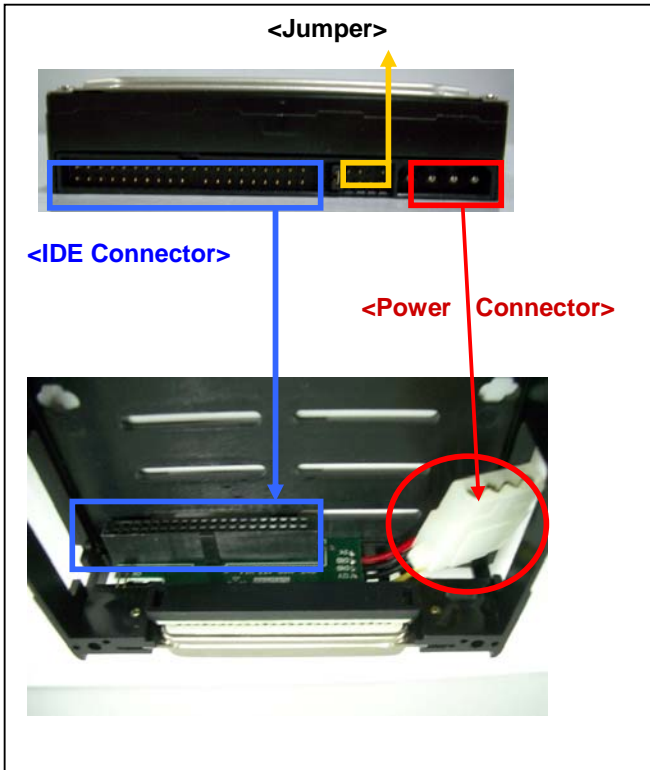
2) RX + - : Connect to Controller.



(5) HDD Connection

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Please ensure that the HDD is firmly connected with the HDD Rack Bay.



- 1) The jumper pin setting of the HDD must be set to Master. For HDD's pin settings, please refer to your HDD's manual. Firmly connect the HDD into the HDD Rack Bay.



- 2) Secure the hard drive by fastening the screws included with the package. Tighten the screws from the outer section of the inner tray onto the hard drive. Make sure you use all four screws to mount the hard drive.

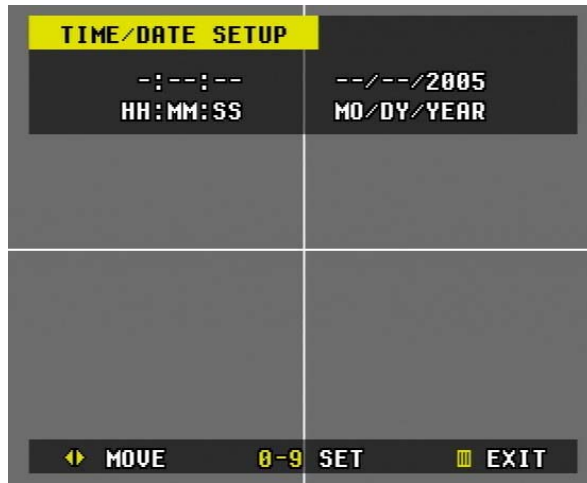
\* Insert the key and turn left to lock. Press the [Swap] button and hold to activate the hard drive after replacing HDD. Do not replace the HDD while the unit is in Recording/Playback.

## OPERATION

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## 1. Time / Date Setup

- 1) When the DVR is turned on, 'TIME/DATE SETUP' menu appears after initializing.
- 2) Then enter Time & Date with numeric buttons (0-9).
- 3) After that, press the "Menu" button to set-up and exit.



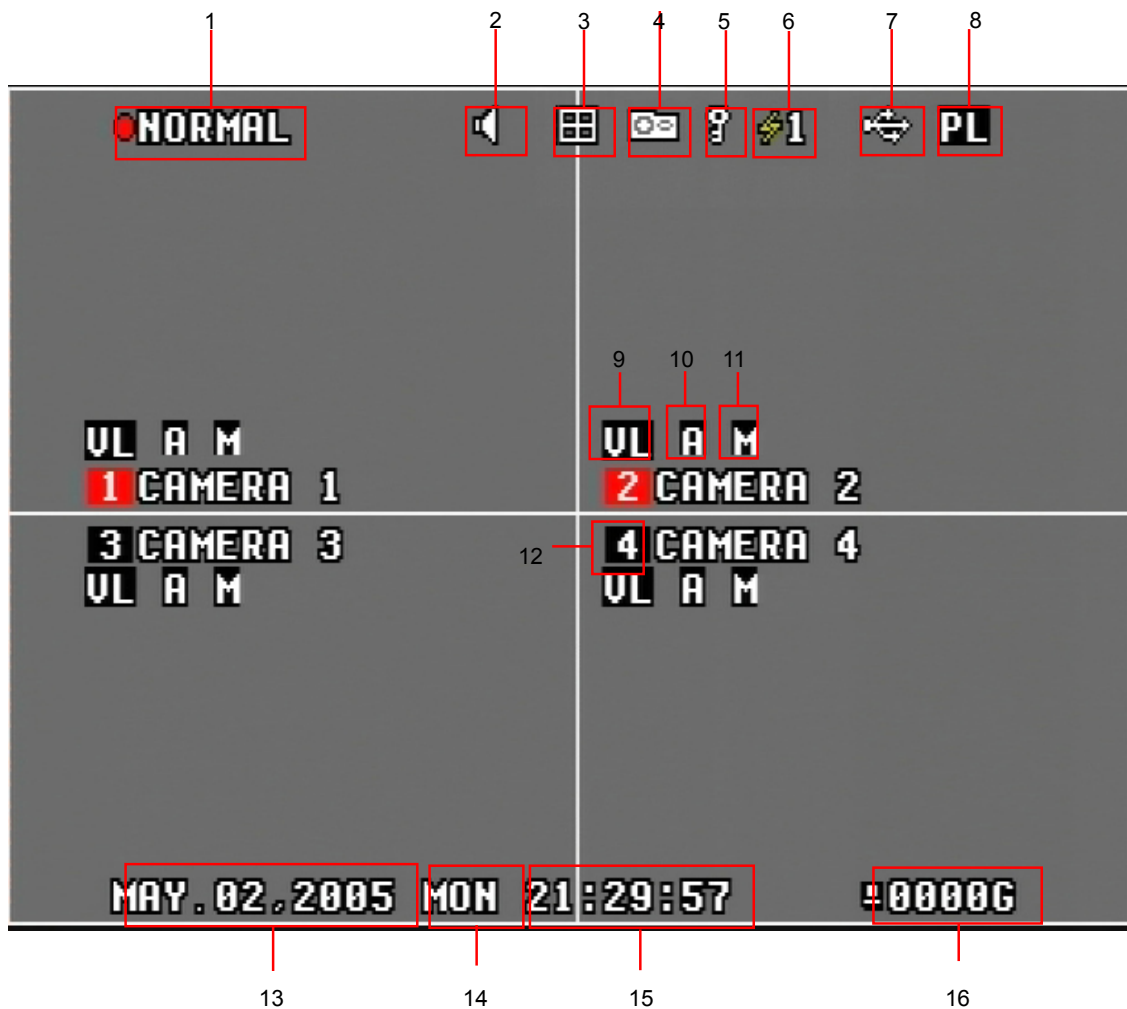
- Note: The password prompt will appear as soon as the time and date has been entered. Factory default password is "000000". It is recommended to change the "Password" when you install the DVR.

## 2. Screen Position Adjustment.

While live view or playback, press the direction (▲▼◀▶) buttons on Remote controller.

- ▼ : The screen moves down.
- ▲ : The screen moves up.
- ◀ : The screen moves left.
- ▶ : The screen moves right.

## 3. MAIN SCREEN



1. DVR STATUS ICON

Displays recording mode and playback icons.

2. AUDIO PLAYBACK ICON

3. QUAD MODE ICON

Displayed when recording in quad mode.

4. BACKUP IN PROGRESS ICON

Displayed if backup is in progress.

5. LOCK ICON

Displayed when the DVR is locked by pressing the lock button.

6. NETWORK CONNECTIVITY STATUS ICON

Displays the number of clients connected to the DVR.

7. USB DEVICE STATUS ICON

Displayed when a memory stick is inserted into the USB 1.1 port.

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#### 8. POWER LOSS ALERT

Displayed when there was an interruption in the power supply. The power loss warning icon is displayed after the power comes back on. If an e-mail address was entered under the network setup menu, an e-mail will be sent when the DVR is powered on again.

#### 9. VIDEO LOSS ALERT

Displayed when the video signal is interrupted for any reason from the DVR. If an e-mail address was entered under the network setup menu, an e-mail will be sent after each occurrence. The DVR checks for the integrity of the video signals every time the record button is pressed and continuously while the DVR is in recording mode.

#### 10. ALARM ALERT

Displayed when the alarm is triggered. If an e-mail address was entered under the network setup menu, an e-mail will be sent after each occurrence.

#### 11. MOTION RECORDING

Displayed when recording with motion detection.

#### 12. CHANNEL ICONS

Displays the current status of each channel:

- 1) The channel icon will turn red when the channel is recording.
- 2) The channel icon will blink when alarm is triggered or motion is detected.
- 3) The channel icon remains black when the channel is not recording.

#### 13. DATE

Displays the current date in mm/dd/yyyy format

#### 14. DAY

Displays the current day.

#### 15. TIME

Displays the current time in dd/hh/mm/ss format in 24 hour format.

#### 16. REMAINING HARD DRIVE SPACE

Displays the remaining hard drive storage space in gigabytes. If the hard drive overwrite is set to on, the counter will remain as 0 and the DVR will continue to write on to the hard drive from the beginning. The counter will remain 0 as long as the hard drive is full with previously recorded data, and will display its original size once the hard drive is formatted.

## 4. Live View

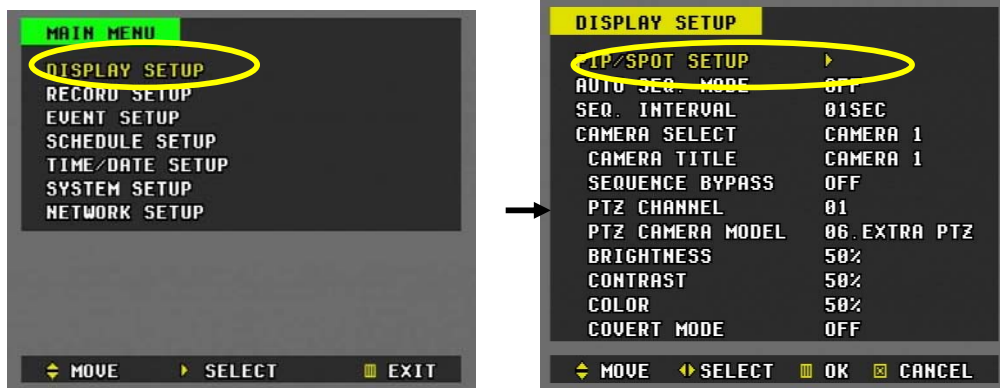
## (1) Live view mode switching

Press the 'QUAD' ( ) Button to switch display modes

Quad → Sequence → PIP → Quad

## (2) PIP/SPOT Set up

Press the "MENU" button to go in the " MAIN MENU". While the "DISPLAY SETUP" flashes press the ► button to enter.



### 1) PIP Set UP



- Main Display /PIP Display

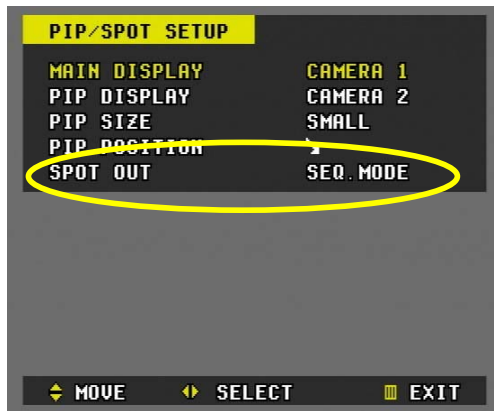
: Press the "►" button to select the camera numbers and the "▼▲" buttons to move the cursor.

- PIP SIZE: SMALL ↔ LARGE

- PIP POSITION: □ (DOWN RIGHT) ↔ □ (UP LEFT)

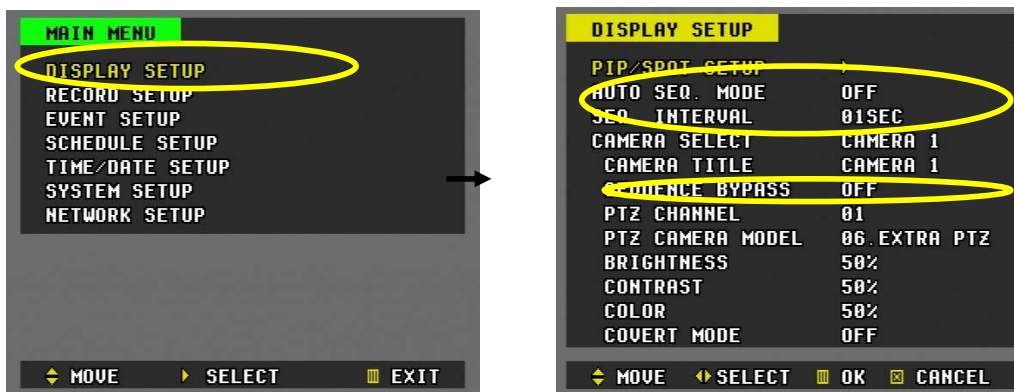
↔ □ (UP RIGHT) ↔ □ (DOWN LEFT)

### 2) SPOT OUT



Select between sequential display of all cameras, or from camera 1 through 4.

### (3) Auto Sequence (Camera switching interval)



- a. On the sequential display mode, press the “**MENU**” button to go in the “**MAIN MENU**”
- b. While the “DISPLAY SETUP” flashes press the ► button to enter.
- c. Press the ▼ button to move the cursor to the “AUTO SEQ. MODE” and select “ON”
- d. Then, press the ► button to select interval time.  
**01 SEC(default) ↔ 02 SEC ↔ 03 SEC ↔ 04 SEC ↔ 05 SEC**
- e. SEQ. BYPASS (Camera By pass) : ON or OFF  
 If the SEQ. BYPASS is ON, then the selected camera will not be shown in the sequential display mode.

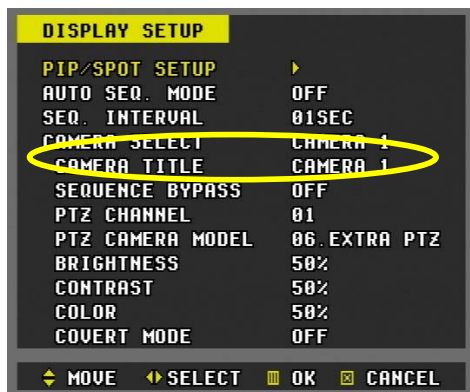
## 5. Display Setup

### Camera Select :

This option lets the user to select a camera and adjust the following properties. Use the left and right directional buttons to select each camera. Numeric buttons may be pressed to



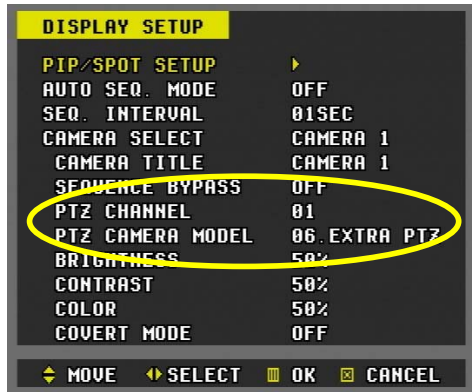
### (1) Camera Title



A combination of eight digits and alphabets can be entered to label each camera. Press appropriate **Numeric button** to type camera title. It's up to 8 characters.

1	-	.	-
2	A	B	C
3	D	E	F
4	G	H	I
5	J	K	L
6	M	N	O
7	P	Q	R
8	S	T	U
9	V	W	X
0/10	Y	Z	@

### (2) PTZ Camera Select



Select the appropriate channel for the PTZ camera.

ITEM	DEFAULT	ADJUTMENT
PTZ Channel	01	- PTZ Channel can be switched by pressing the ◀ ▶ buttons (1~99 )
PTZ Camera MODEL	00	- PTZ Camera Model can be switched by pressing the ◀ ▶ buttons .See Next page for PTZ list.

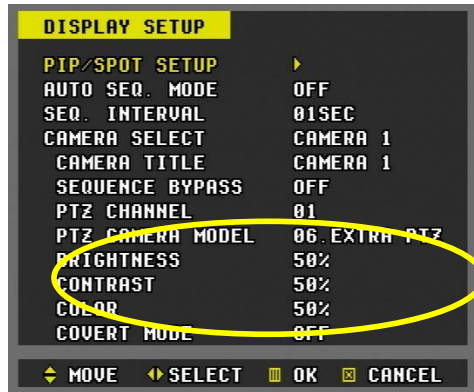
**\* PTZ Camera Model - PAN/TILT/ZOOM Camera List**




Please refer to the PTZ manufacture's instruction manual for proper jumper settings to match the protocols to the DVR.

No	Manufacturer	Model Name	Speed	Stop	Parity	Delay
00	C&B Tech	CNB-PTZ102	9600bps	1	0	0
01	Merit Lilin Ent	PIH-7000/7600		1	0	0
02	VCL	Orbiter Microsphere	9600bps	2	0	0
03	SAMSUNG	SCC641	9600bps	1	0	0
04	NEC	NC-21D	9600bps	1	0	0
05	SUNKWANG	SK2107	9600bps	1	0	0
06						
07	D-MAX(Dong Yang)	PT-101/ DSC230	9600bps	1	0	0
08	LG	LPT-A100L P/T/Z	9600bps	1	0	0
09	HONEYWELL	GC-655N	9600bps	1	0	0
10	D-MAX(Dong Yang)	DOH240	9600bps	1	0	0
11	PELCO	D-PROTOCOL	2400 bps	1	0	0
12	PELCO	D-PROTOCOL	4800 bps	1	0	0
13	PELCO	D-PROTOCOL	9600 bps	1	0	0
14						
15	CANON	VC-C4	9600bps	1	0	0
16	PELCO	P-PROTOCOL	2400 bps	1	0	0
17	PELCO	P-PROTOCOL	4800 bps	1	0	0
18	PELCO	P-PROTOCOL	9600 bps	1	0	0
19		Expended PELCO	2400 bps	1	0	0
20		Expended PELCO	4800 bps	1	0	0
21		Expended PELCO	9600 bps	1	0	0
22	Panasonic	WV-CS/W85x, VCS86x	9600bps	1	0	0
23	HONEYWELL	HSDN-251N/P	9600bps	1	0	0
24	Kalatel	Cyber Dome SEries	9600bps	1	0	0

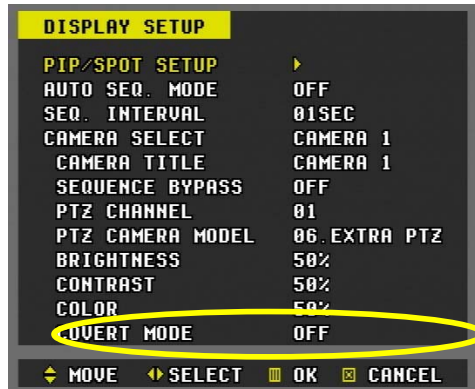
\*The other models: as buyers request; the camera sample and protocol should be supported.

### (3) Brightness, Contrast & Color adjustment



ITEM	DEFAULT	ADJUSTMENT
BRIGHTNESS	50%	 <ul style="list-style-type: none"> <li>- Camera number can be switched by pressing the number buttons</li> <li>- The brightness of each camera can be adjusted by pressing ◀ ▶ buttons.</li> </ul>
CONTRAST	50%	 <ul style="list-style-type: none"> <li>- Camera number can be switched by pressing the number buttons</li> <li>- The contrast of each camera can be adjusted by pressing ◀ ▶ buttons .</li> </ul>
COLOR	50%	 <ul style="list-style-type: none"> <li>- Camera number can be switched by pressing the number buttons</li> <li>- The contrast of each camera can be adjusted by pressing ◀ ▶ buttons .</li> </ul>

**(4) Covert Mode** - Hidden camera function: ON or OFF

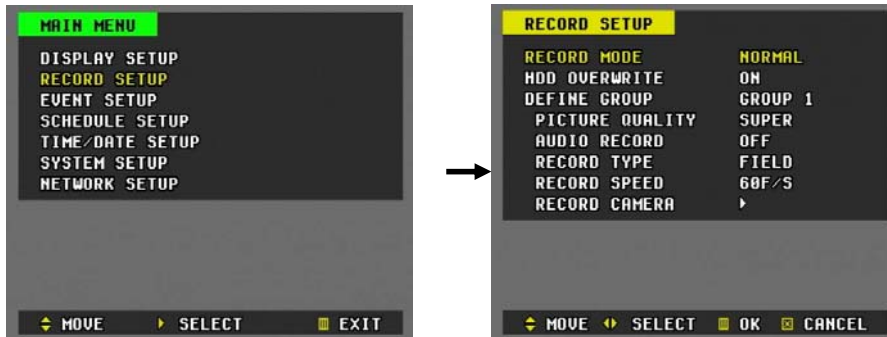


Select between covert mode (on) and normal mode(off). If the Covert Mode is ON, then the selected camera will not be shown in the Live display mode or Play back mode while it's recording. Select "Off", when you want to playback/ live viewing for all cameras.

**Note:** Covert mode does not affect Quad recording mode.

## 6. Basic Recording (Normal Recording)

The DVR comes with a certain preset settings from the factory. Therefore once the DVR is installed, immediate recording is possible after pressing the record buttons. By default , audio alarm, motion recording are off.



### (1) Record Mode

Record Mode selects between the four available recording modes:

- Normal : Continuous recording
- Event : Alarm or Motion recording
- Schedule: Scheduled recording

### (2) HDD Overwrite

: This option determines whether the DVR writes over old files when the hard drive becomes full.

### (3) Define Group

: Up to 4 different recording mode (Group) can be pre-determined for Event recording or Schedule Recording.



#### 1) Picture Quality

---

Use the left or the right directional buttons to select from four different picture qualities: **Super**←→**High** ↔ **Middle** ↔ **Low**

**\* Approximate File Size**

	LOW	MID	HIGH	SUPER	UNIT
NTSC	9~12	13~17	11~15	17~25	KB
PAL	10~13	14~19	12~17	18~28	

2) Audio Record : Select audio recording. By the default is off.

3) Record Type

:Two types of recording modes are available: Field mode and Quad mode.

- a. **Field** : DVR records each camera individually and then multiplexes them. Each channel records at Field resolution: 720\*240(720\*288).
- b. **Quad (4ch Only)**: The records all cameras under one single picture. In other words, one picture with Field resolution contains pictures from all four cameras. Consider Quad recording as recording one channel with four cameras with 360\*120 resolution totaling one single picture of 720\*240(PAL 720\*288)
- c. **CIF ( 8ch, 60F Only )** : The DVR records each camera individually at 360\*240(360\*288). Consider CIF mode as recording eight cameras spread over four channels.

4) Record Speed

This DVR only allows global adjustment of the recording speeds. The DVR automatically divides the Field Rate only amongst connected cameras. *For example, if the recording speed is set to 60 Fields per seconds for four active channels, then each channel records at 15 Fields per second. If there are tow cameras connected, then each chnnel records at 30 Fields per second.*

Refer to the following charts for a more detailed explanation of field distribution over cameras.

- a) Field recording distribution. Each channel's resolution is **720x240**.  
Ex ) 4ch

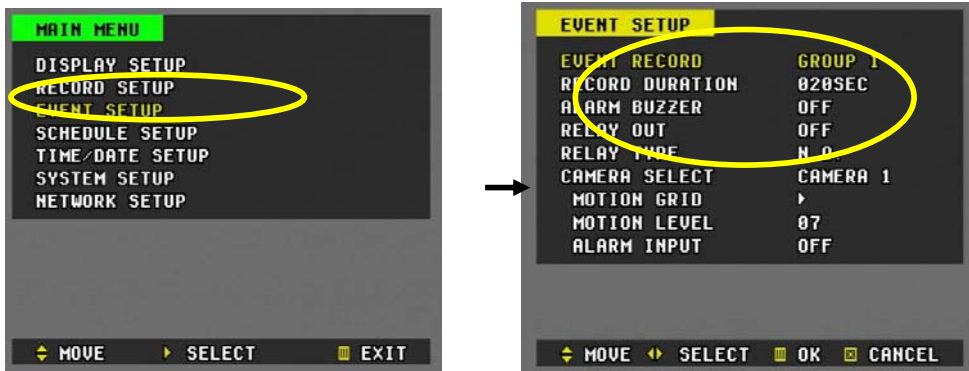
Record Speed \ Channel Speed	Channel1	Channel2	Channel3	Channel4
60 Fields / Sec	15	15	15	15
30 Fields / Sec	7.5	7.5	7.5	7.5
15 Fields / Sec	3.75	3.75	3.75	3.75
10 Fields / Sec	2.5	2.5	2.5	2.5
5 Fields / Sec	1.25	1.25	1.25	1.25
3 Fields / Sec	0.75	0.75	0.75	0.75
2 Fields / Sec	0.5	0.5	0.5	0.5
1 Field / Sec	0.25	0.25	0.25	0.25
30 Fields / Min	7.5	7.5	7.5	7.5
20 Fields / Min	5	5	5	5
12 Fields / Min	3	3	3	3

b) Quad recording distribution. Each channel's resolution is **360x120**.

Ex ) 4ch

Record Speed \ Channel Speed	Channel 1	Channel 2	Channel 3	Channel 4
60 Fields / Sec	60	60	60	60
30 Fields / Sec	30	30	30	30
15 Fields / Sec	15	15	15	15
10 Fields / Sec	10	10	10	10
5 Fields / Sec	5	5	5	5
3 Fields / Sec	3	3	3	3
2 Fields / Sec	2	2	2	2
1 Field / Sec	1	1	1	1
30 Fields / Min	30	30	30	30
20 Fields / Min	20	20	20	20
12 Fields / Min	12	12	12	12

## 7. Event Recording – Alarm Recording

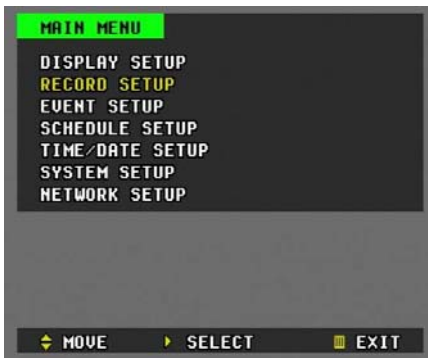


- 1) Press the “MENU” button to go into the “ MAIN MENU”
- 2) Press the ▼ button to move the cursor to the “EVENT SETUP”
- 3) While the “ENVENT SETUP” flashes press the ► button to enter.
- 4) Settings

ITEM	DEFAULT	ADJUSTMENT
Event Record	Group 1	Selects which recording group to use when Event Recording is use.
Record Duration	20 Sec	Determines the duration of recording period after the alarm signal has been activated. (20,40,60,80,100,120,240 seconds)
Alarm Buzzer	On	<b>On:</b> The buzzer sounds during “Record Duration” if an alarm is triggered. <b>OFF:</b> Disables the Alarm Buzzer function. <b>&lt;Note&gt;</b> Press CANCEL button to stop Alarm buzzer sounds. It will resume from the next alarm. Press cancel button to stop the buzzer does not stop the alarm recording.
Relay Out	OFF	Relay out allows the user to select which event to associated the relay output with. <ul style="list-style-type: none"> <li>● Alarm</li> <li>● AL+ MO</li> <li>● AL+ VL</li> <li>● ALL</li> </ul>
Relay Type	OFF	NC(Normally Closed): Accepts alarm signals in the open state. NO(Normally Open): Accepts alarm signals in the closed state.

To complete the setting and exit, press MENU button.

- 5) Then, go into the “**RECORD SETUP**” and select Record mode to “**EVENT**”

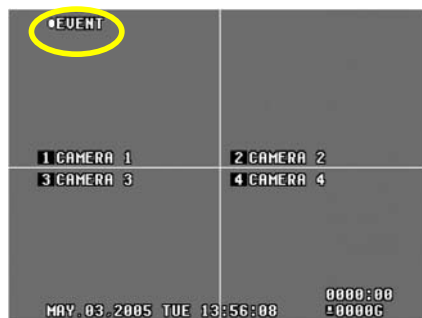


6) Down the cursor to Record Camera.



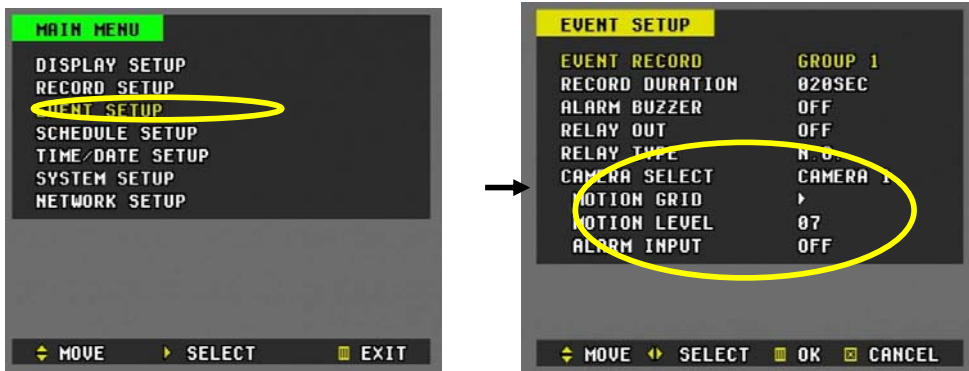
- 7) Select the camera you desire to Alarm Record
- 8) Press the channel button(s) you wish to activate 'alarm recording'.
- 9) To complete the setting and exit, press MENU button.

10) Press the **REC** button. Then, Alarm recording starts during record duration when an ALARM IN terminal is triggered by an alarm sensor.




\* All channels start to records if there is an alarm at any channel.

## 8. Event Recording – Motion Detected Recording



- 1) Press the “MENU” button to go into the “ MAIN MENU”
- 2) Press the ▼ button to move the cursor to the “EVENT SETUP”
- 3) While the “ENVENT SETUP” flashes press the ► button to enter.
- 4) Settings

ITEM	DEFAULT	ADJUSTMENT
Event Record	Group 1	Selects which recording group to use when Event Recording is use.
Record Duration	20Sec	Determines the duration of recording period after the motion triggered. (20,40,60,80,100,120,240 seconds)
Camera Select	Camera1	Configures the motion grid to trigger the motion recording.
Motion Grid	OFF	Press numeric buttons to select or deselect the desired area.  <ul style="list-style-type: none"> <li>● FF : Select ALL</li> <li>● FR : Clear ALL</li> </ul>
Motion Level	07	Level 1: Low Sensitivity ~ Level 15: High Sensitivity * Motion sensitive also varies upon on the number of blocks you select.

To complete the setting and exit, press MENU button.

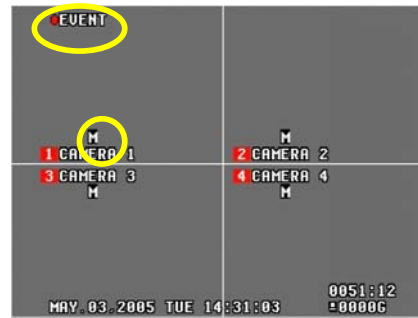
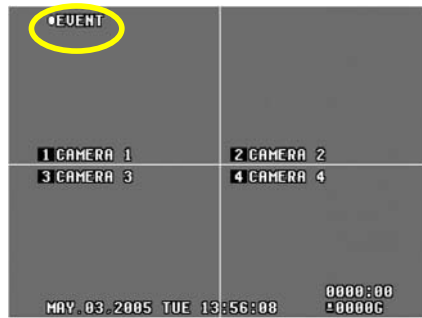
- 5) Then, go into the “**RECORD SETUP**” and select Record mode to “**EVENT**”



6) Down the cursor to Record Camera.

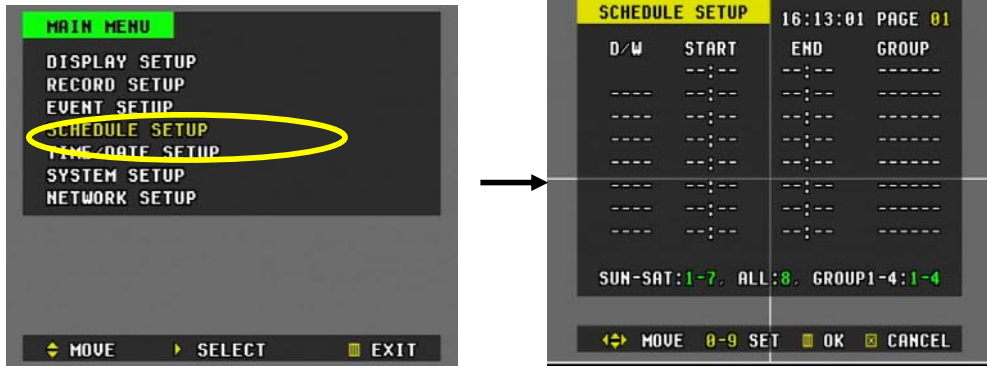


- 7) Select the camera you desire to Motion Record
- 8) Press the channel button(s) you wish to activate 'Motion Recording'.
- 9) To complete the setting and exit, press MENU button.
- 10) Press the **REC** button. Then, Motion recording starts during record duration when Motion is triggered.



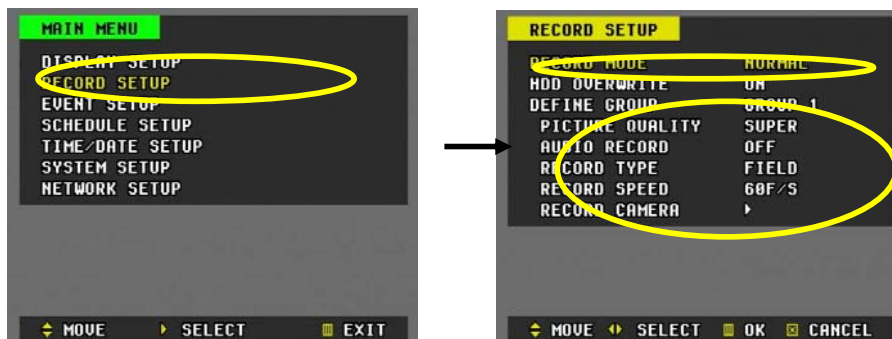
\* All channels start to records if there is a motion at any channel.

## 9. Schedule Recording (Timer Recording)



- 1) Press the “MENU” button to go into the “ MAIN MENU”
- 2) Press the ▼ button to move the cursor to the “SCHEDULE SETUP”
- 3) While the “SCHEDULE SETUP” flashes press the ► button to enter.
- 4) To set the day, time and group, press the NUMERICAL button.
- 5) To move the cursor to the right/left, press the ◀▶ buttons.
- 6) To move the cursor up/down, press the ▲ ▼ buttons.
- 7) Setting.

ITEM	ADJUSTMENT
D/W(Day of Week)	Configure by pressing the numeric buttons. 1. Sunday , 2. Monday, 3. Tuesday, 4. Thursday 5. Friday, 6.Saturday, 7. ALL , 8. ALL(Everyday)
Start	The time of recording start.
End	The time of recording end. The ending time must not be before the starting time or the same as the starting time. It must be any time over the starting time.
Group	Use the numeric buttons 1~4 to select the appropriate group. 5 for none and 6 to delete the schedule line.



\* Please check if you select “**SCHEDULE**” on “**RECORD SETUP**” and configure Recording Group.

<Note> The Recording time is set by 24H(00:00~23:59). You need to set 2 days if the setting is over one day.

D/W	START	END	MODE
ALL	18:01	23:59	GROUP3

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To complete the setting and exit, press **MENU** button.

## **10. PLAYBACK**

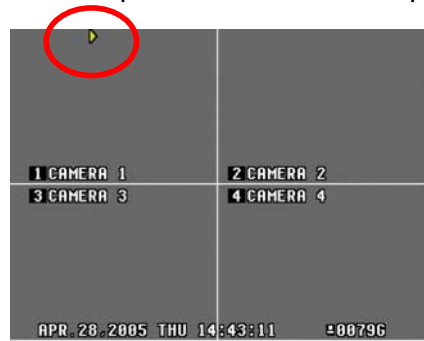
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## 1) Basic Playback

- a) Press the **PLAY** button while recording or in stop mode.

The earliest recording file on the hard disk is played back when you press the PLAY button for the first time after the power is turned on.

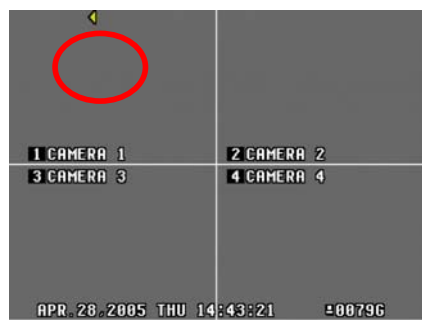
After the first time, subsequent pressing of the **PLAY** button will resume playback from the point where it was stopped.



- b) To switch the camera, press the desired camera number while playback.
- c) When the end of HDD is reached while playback, playback continues from the beginning of HDD.
- d) Press the **STOP** button to stop playback. If the unit is recording while playback, pressing the **STOP** button once stops only playback. Pressing the **STOP** button twice stops recording.

## 2) Reverse Playback

- a) During playback, press **PLAY** button to reverse the direction of the playback.



- b) To revert the direction, press the **PLAY** button again.

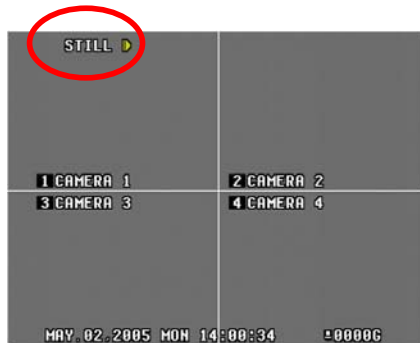
## 3) Field by field (Still field) Playback

During the playback or in still mode, press the forward step button (⏮) on the

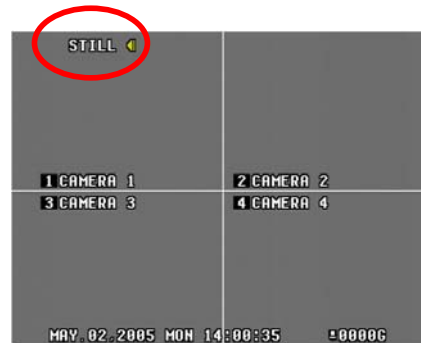
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remote controller to move forward field by field (picture by picture).  
Press the reverse step button (◀) to move reverse field by field.



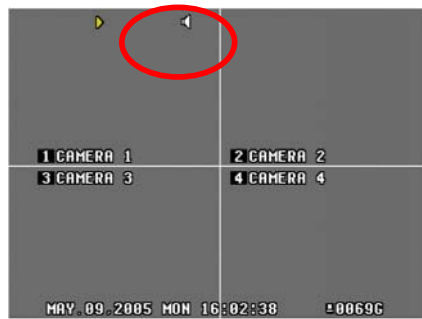
Forward still-field playback



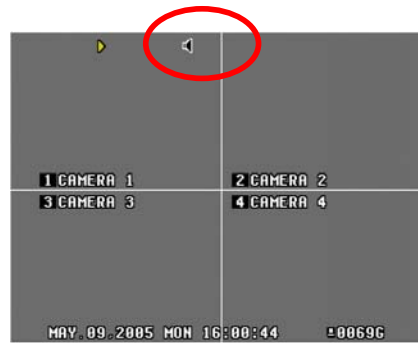
Reverse still-field playback

#### 4) Audio Playback( Audio PB)

- a) The audio data is always recorded in real time unlike the video data that can be recorded in various modes including real time. There may be a slight delay in synchronization of the audio to video.
- b) Press Audio-PB button on the remote controller to mute the audio. The icon will change its color to black. Press it once more to remove the mute.



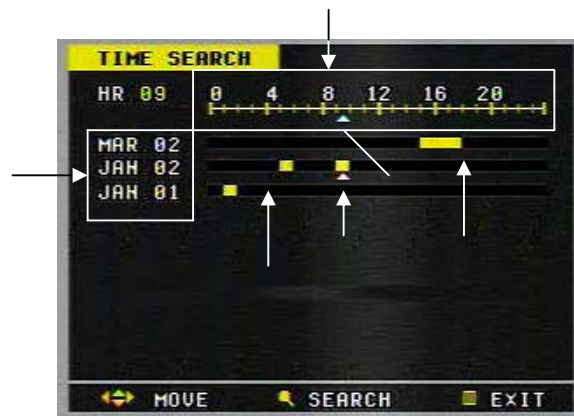
Audio PB



Mute

## 11.TIME SEARCH – Time and Date Search

1) Press the TIME SEARCH button to display the TIME SEARCH menu.



- Hours in 24 hour mode (0 ~ 24)
  - Month and Date where recorded data file exists.
  - The colored bar displays recorded data.
  - The Black/Blank bar displays no recorded data.
  - Press the ◀, ▶ buttons to move the cursor to indicate time zone you wish to search.
  - Press the ▲, ▼ buttons to move the cursor to indicate month and date you wish to search.
- 2) Each page displays up to 10 days. To go to the previous or next pages press the ▲, ▼ buttons.
- 3) Press the TIME SEARCH (T-SEARCH) button again to search when the cursor is reached to desired time and date.

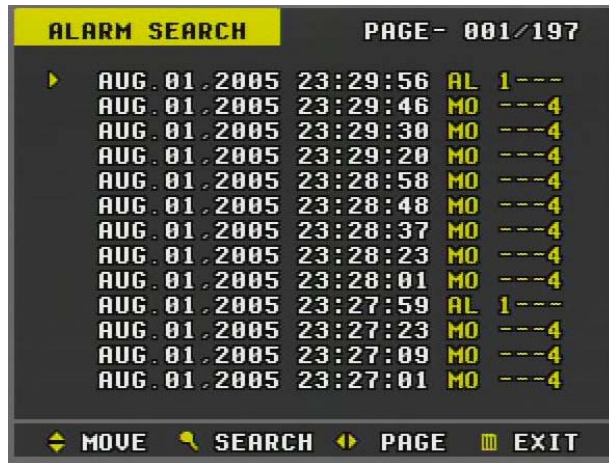
**<Note>** Time search will not be activated if the cursor is placed at black areas.

4) Then, on the next screen time files are listed in a minute mode.



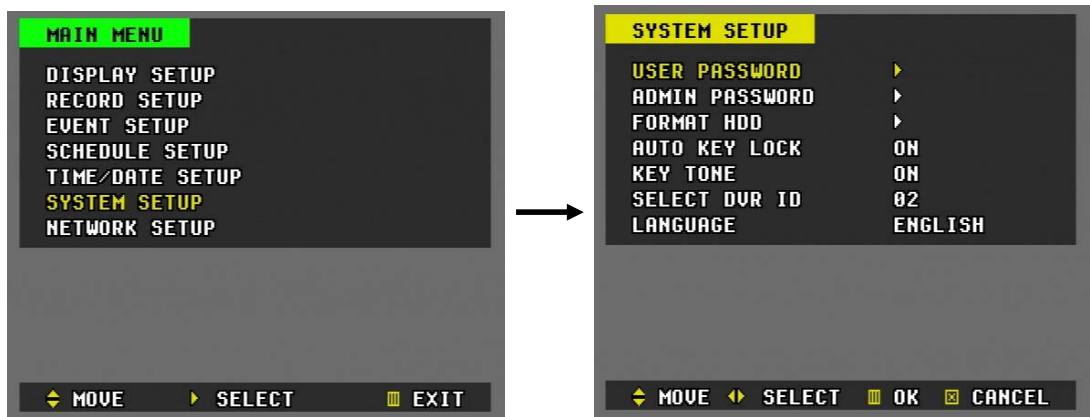
## 12. EVENT SEARCH- ALARM / MOTION List Search

- 
- 1) Press the **ALARM SEARCH (A-SEARCH)** button to display the alarm-recording list. (**'AL'** means Alarm and **'MO'** means Motion).



- 2) Use the directional buttons to navigate to the desired event and between the pages.
- 3) Press alarm search button once more to access the selected event and start the playback.

## 13. SYSTEM SETUP



**(1) Password**

ITEM	DEFAULT	ADJUTMENT
USER PASSWORD  OR  ADMIN PASSWORD	000000	<p>– Changing the password</p> <p>a) Press the ► button or turn the SHUTTLE ring to the right while the PASSWORD flashes. Then the CURRENT PASSWORD setting appears. Enter your current password using numeric buttons from 0 to 9.</p> <div data-bbox="764 982 1279 1066" style="border: 1px solid gray; padding: 5px; text-align: center;">             CURRENT PASSWORD: * * * * *           </div> <p>b) Enter the new password using the numeric buttons from 0 to 9.</p> <div data-bbox="764 1115 1279 1199" style="border: 1px solid gray; padding: 5px; text-align: center;">             NEW PASSWORD : * * * * *           </div> <p>c) Enter the new password to confirm. Then the password is changed.</p> <div data-bbox="764 1293 1279 1377" style="border: 1px solid gray; padding: 5px; text-align: center;">             CONFIRM PASSWORD: * * * * *           </div> <div data-bbox="649 1423 1414 1675" style="border: 1px solid gray; padding: 10px; margin-top: 10px;"> <p><b>&lt;Note&gt;</b></p> <p>1) USER Password: See Auto Key Lock page.</p> <p>2) ADMIN Password: Menu Setting, RECORD STOP, LOCK Key ON/OFF</p> <p>* Press the CLEAR button to cancel.</p> </div>

**(2) Format HDD**

- 1) Press ► button while the Disk Format flashes. Then, “DO YOU REALLY

---

WANT TO FORMAT?” message appears.



- 2) Press the MENU button to format the dist.  
Press the CLEAR button to cancel.

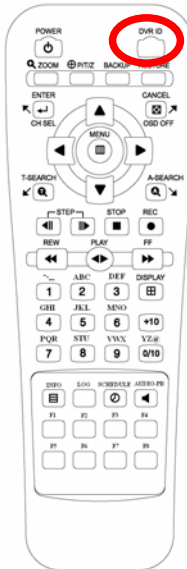
### (3) Auto Key Lock

The DVR locks all the buttons after three minutes of inactivity. The buttons can be unlocked with the user password.

### (4) Key Tone

By default, the DVR emits a beep every time a button is pressed. Set the key tone to off to turn button beep off.

### (5) Select DVR ID



To select the DVR to be controlled with the remote controller, press and hold the DVR ID button. While holding the DVR ID button, press the appropriate DVR ID number.

For example, enter 05 for DVR ID 05, enter 43 for DVR ID 43, and such.

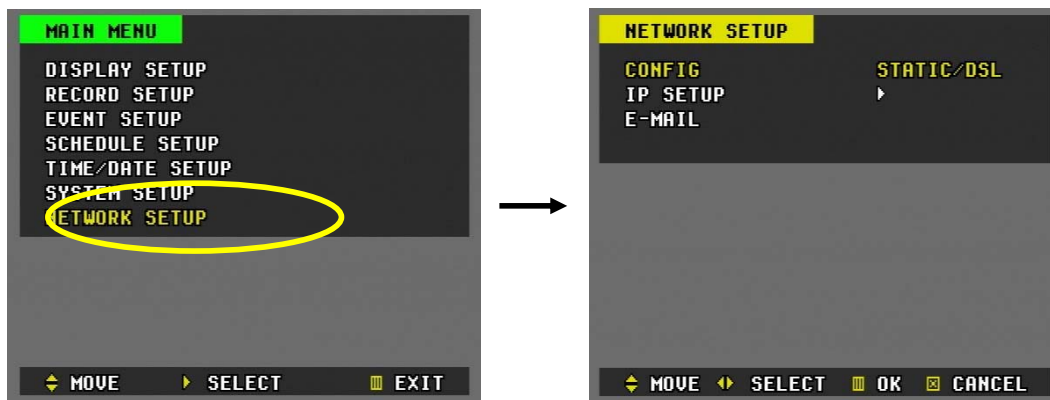
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## 14. NETWORK SETUP

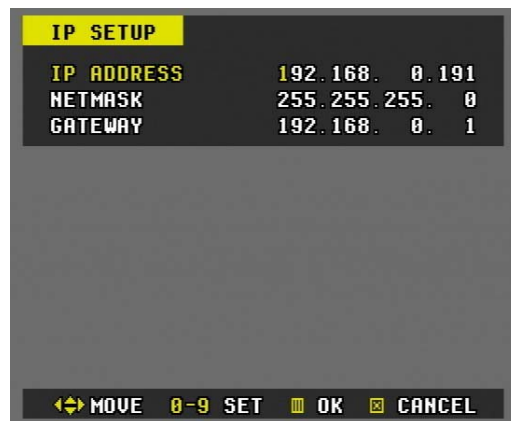
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The static service consists of an IP address that remains constant for the duration of the contract of the internet service, whereas the dynamic service consists of an IP address that frequently changes every time a new connection is made through the provided modem, or recurrently in a given period of time. Though most internet service providers offer both solutions, this manual will distinguish the two solutions according to the commonly available service type to configure the DVR for the networking purposes.

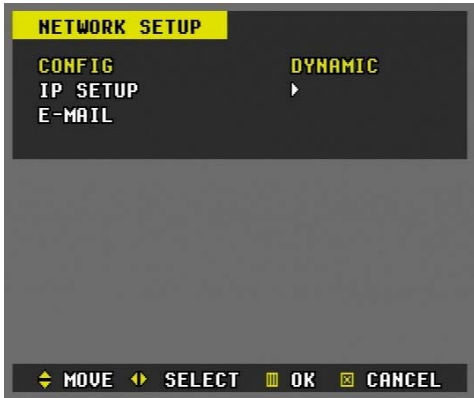
### (1) Static IP



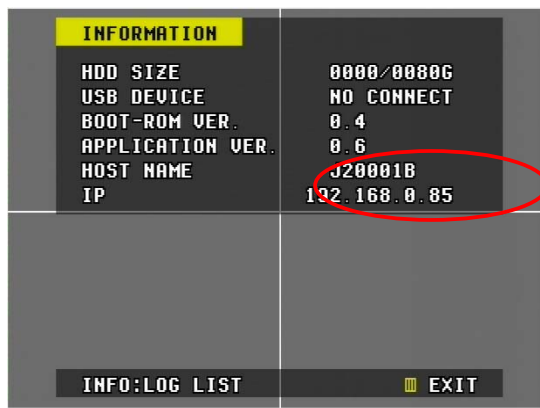
- To configure the DVR with the provided information from the ISP, press MENU, then move the arrow to Network Setup. Press right directional button to access the Network Settings.
- Move the arrow down to IP Setup, press the right directional button to access the IP setup submenu.
- Enter the IP address designated for the DVR, and then enter the subnet mask and the gateway as provided by the Internet Service Provider.



### (2) Dynamic IP



- a. Select Dynamic.
- b. Press the Menu button twice to exit to the main window. Then press the Info button to display system information. The host name will be unique to the DVR, and will be displayed something similar to J20002F. The IP address will display the factory default address of 192.168.0.85 as no address has been issued yet.

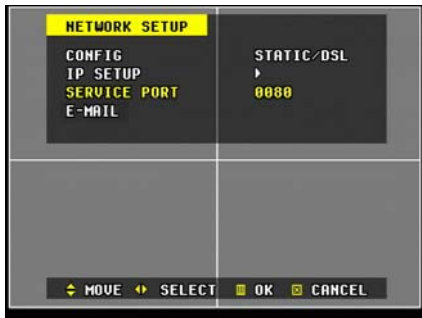


- c. J20001B.dvrhost.com

### (3) Service Port

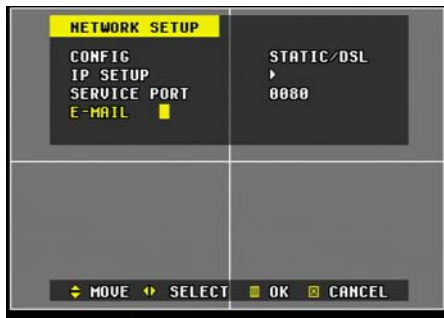
---

The DVR's connection port can be adjusted in case the default port 80 is blocked. Often, the internet service providers block the default web broadcasting port 80, therefore disabling any type of web server services being run from commercial or residential internet services. If that is the circumstances, then the DVR's service port may be modified to allow the connection from the remote client program.



Select Service Port, then use the numerical buttons to enter an alternate port. In most cases, any port ranges above 1000 are not used and are not blocked. Configure the service port to any number of preference.

#### (4) E-MAIL



The DVR sends notifications to one designated e-mail address when the following events occur:

- Alarm Detection
- Video Signal Loss
- Power Failure


Press appropriate **Numeric button** to type e-mail address.  
You don't need to setup SMTP server.

## 15. Information & Log List

---

## (1) Information

The information screen displays the basic information about the DVR. Press the info button to access the information screen.



INFORMATION	
HDD SIZE	0000/0080G
USB DEVICE	NO CONNECT
BOOT-ROM VER.	0.4
APPLICATION VER.	0.6
HOST NAME	J20001B
IP	192.168.0.85

INFO:LOG LIST      EXIT

## (2) Log

Press the info button once more, or exit out to the main screen by pressing the menu button, then press the log button to access the DVR's log chart. The log chart keeps record of 12 logs per page, totaling 2046 logs. The events are recorded from the initial power on of the DVR. The record of items compiled, along with the date and the time of its occurrence are shown as follow:



LOG LIST		PAGE- 001/004	
MAY.02.2005	22:45:57	RECORD	STOP
MAY.02.2005	22:14:03	RECORD	START
MAY.02.2005	22:12:33	RECORD	STOP
MAY.02.2005	22:10:11	SEARCH	
MAY.02.2005	21:53:13	SEARCH	
MAY.02.2005	21:39:33	MENU	SET
MAY.02.2005	21:38:50	MENU	SET
MAY.02.2005	21:35:21	RECORD	START
MAY.02.2005	21:35:18	MENU	SET
MAY.02.2005	21:34:15	MENU	SET
MAY.02.2005	21:29:39	RECORD	STOP
MAY.02.2005	21:29:30	RECORD	START

PAGE      EXIT

## 16.ZOOM

- 
- 1) Press the **ZOOM** button to display the Zoom Area Box.



- 2) Move the box to the desired position using the ▲, ▼, ◀ and ▶ buttons.
- 3) Press the **ZOOM** button to enlarge the desired area.
- 4) Press the **CLEAR** button to exit.

**<Note>** The ZOOM button is not activated when a menu is displayed on the screen and multi display mode.


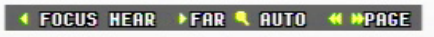
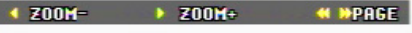


## 17. PAN/TILT/ZOOM Camera control


**\*\* Please Check below items before using PTZ Camera.**

1. RS 232/485 Connection , camera Jumper Setting and etc

2. Set the PTZ Camera ID & MODEL NO at the Display menu

3. Please use IR Remote or Client Program for correct PTZ Camera function.

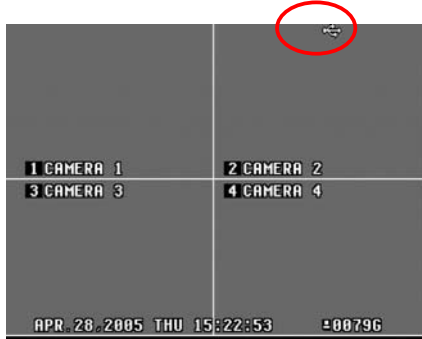
ITEM	ADJUSTMENT
Pan/ Tilt page	<p>After connection of P/T/Z cameras, press the P/T/Z /Focus button on the front panel or the remote controller. Then, P/T/Z control mode appears as the picture below</p>  <p>a. <b>PAN</b> control: Press ◀, ▶ or □,□,□,□ button on the front panel or the remote controller.</p> <p>b. <b>TILT</b> control: Press ▲, ▼ or □,□,□,□ button on the front panel or the remote controller.</p>
Focus page	<p>You could control PAN/TILT using by ▲, ▼, ◀, ▶ button on this page.</p>  <p>a. ◀, ▶ : focus near/far</p> <p>b. T-search: auto focus ON</p> <p>c. CANCEL: auto focus OFF</p>
Zoom page	<p>You could control PAN/TILT using by ▲, ▼, ◀, ▶ button on this page.</p>  <p>◀, ▶ : zoom out/in</p>
IRIS page	<p>You could control PAN/TILT using by ▲, ▼, ◀, ▶ button on this page.</p>  <p>a. ◀, ▶ : iris close/open</p> <p>b. T-search: auto iris ON</p> <p>c. CANCEL: auto iris OFF</p>
Auto P/T/Z control	<p>You could control PAN/TILT using by ▲, ▼, ◀, ▶ button on this page.</p> 

	<p>a. Place the cursor to the desired position-Auto Pan/Tilt/PanTilt, Tour, then USE PTZ button or Cancel button for On/OFF.</p> <p>b. Preset Setting.  Place the camera to the desired position using Pan/Tilt/Zoom/Iris etc.  Place the cursor to the Preset.  Press PTZ button -&gt; Number flashes.  Select Preset Number using ▲, ▼, ◀, ▶ button.  Press PTZ button.</p> <p>C. Go To Preset.  Place the cursor to GOTO.  Press PTZ button -&gt; Number flashes.  Select Preset Number using ▲, ▼, ◀, ▶ button.  Press PTZ button.</p> <p>D. It is recommended setting preset position as consecutive Number to use TOUR function.</p>
ETC	 <p>Limits to location of Camera using SET▲, SET▼, SET◀, SET▶ button.</p>

---

## 18. BACKUP

The DVR's only backup method is through a USB 1.1 compliant memory stick.



1) When a memory stick is connected through the USB port, the backup icon will pop up as shown to the left.

2) After the backup icon has appeared, press the backup button and the backup time set screen will appear prompting the user to enter range of time to be backed up.



3) Enter the numbers as required in 24 hour format, and then press the Enter button to start the backup. Please make sure that the end time does not precede the start time.



4) A tape icon will appear to the left of the backup icon and blink in yellow, signifying that the backup is in session. When finished, the icon will stop blinking and then it will disappear.





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# Central Management Software

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## INSTALLATION

### 1. PC system requirement

	Minimum	Recommended
<b>OS</b>	Windows 98SE, 2000, ME, XP	Windows XP
<b>CPU</b>	Pentium II Celeron 333	Pentium □ 2.8 G
<b>RAM</b>	128MB	512MB RAM
<b>Video Card</b>	16MB	64MB
<b>HDD Free Space</b>	20MB	2 GB
<b>Resolution</b>	1024*768	1024*768
<b>etc</b>	Direct X 6.0 or higher	Direct X 8.0 or higher
		Overlay YUY2 Surface Supported

If the PC does not meet the minimum system requirement, the CMS program may not function properly. All programs related to CMS have been tested under a single task environment; therefore if multiple tasks are run simultaneously, unexpected error may occur. Moreover, the program may malfunction if inappropriate codecs have been installed on the PC.

CMS may not run if DirectX 6.0 or earlier version is installed. Please download the latest **Direct X** from Microsoft.

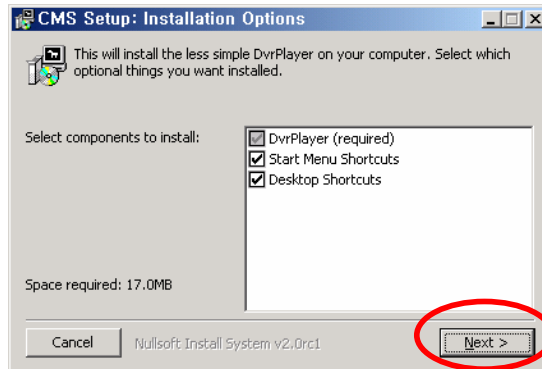
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## 2. HOW TO INSTALL

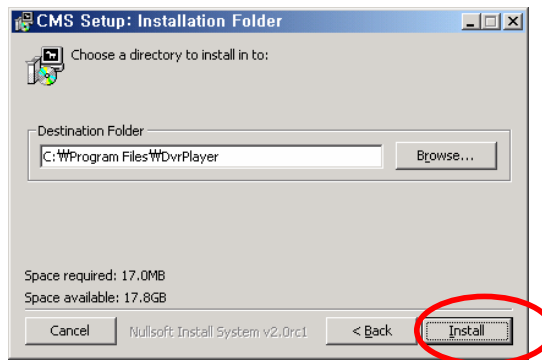
- (1) Insert “**Client Install CD**” to CD-ROM of your PC and Find “DvrPlayerinstaller.exe” and

double click  .

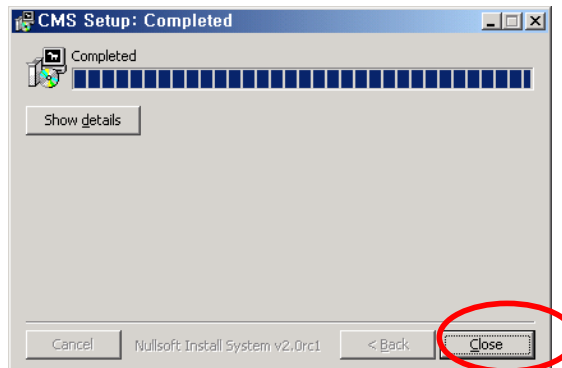
- (2) Click **NEXT** button below:




- (3) Click **Install** . Otherwise, designate a directory for Install then Click “Install”.




- (4) Click **Close** Button after below images appears.



- (5) The ICON  of CMS will be displayed on your desktop.

---

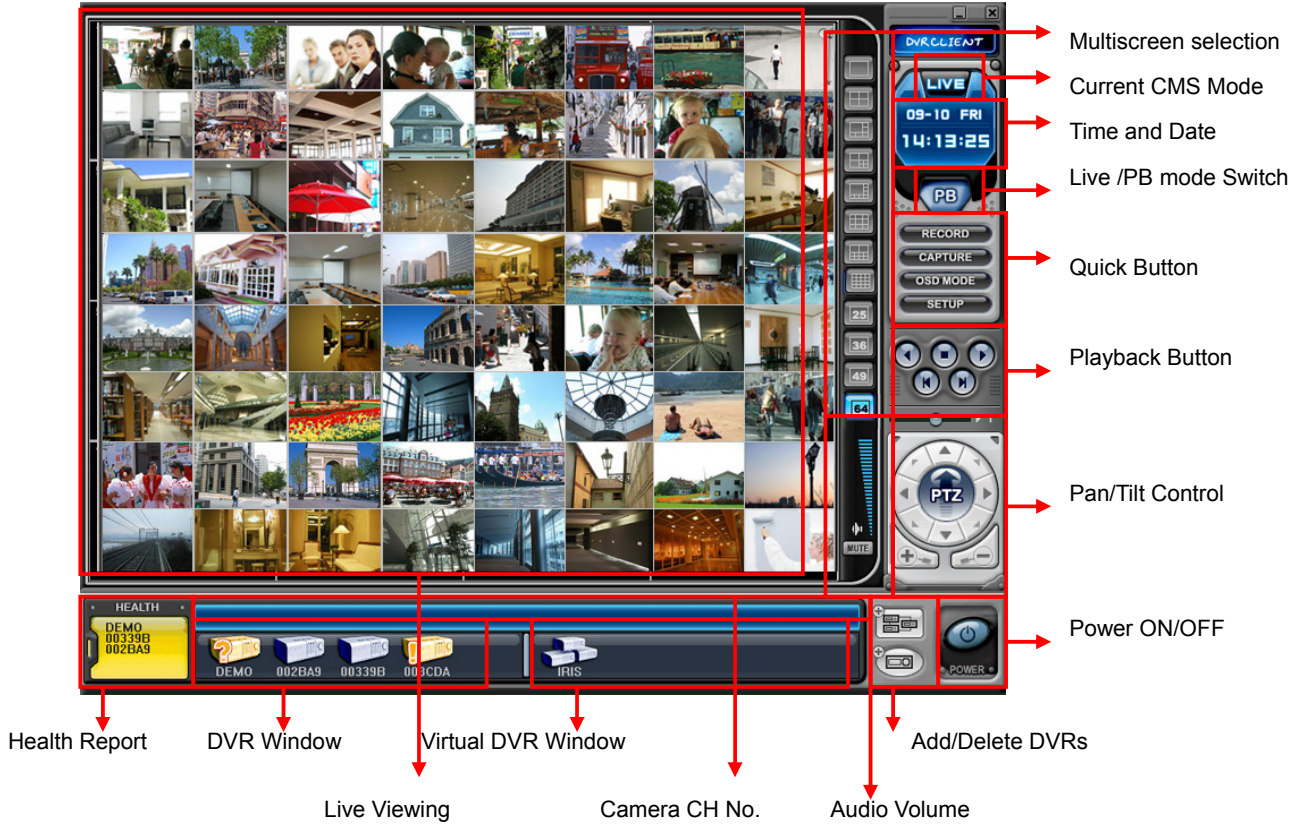
(6) Double click the ICON  to start, enter the password to access.



\* Enter "0" as the default password. Refer to CMS Setup to change the password.













# FEATURES

## 1. CMS Overview



## 2. Functions

### (1) Display option / Multiscreen Displays

- |    |   |                        |    |   |                         |
|----|---|------------------------|----|---|-------------------------|
| a. |  | Full Screen Display.   | g. |  | 10- Way Screen Display. |
| b. |  | Quad Screen Display.   | h. |  | 16- Way Screen Display. |
| c. |  | 6- Way Screen Display. | i. |  | 25- Way Screen Display. |
| d. |  | 7- Way Screen Display. | j. |  | 36- Way Screen Display. |
| e. |  | 8- Way Screen Display. | k. |  | 49- Way Screen Display. |
| f. |  | 9- Way Screen Display. | l. |  | 64- Way Screen Display. |



---

(2) Time and Date Display





It shows you current time on LIVE Mode and Playback time on PB mode.



(3) Live /Playback mode Switch

- a.  LIVE Viewing.
- b.  Remote Playback or Playback for Downloaded file.

(4) Quick Button

- a.  Save the current live images. When the remote recording is in progress, the record button will change its color to cyan.  
(Default Location: C:\Program Files\DvrPlayer\Download )
- b.  Save a snap image or print current monitoring images.
- c.  OSD On/Off button.
- d.  CMS Setup.

**\* CMS Setup**  
General



a) OSD SETUP

Select On-Screen-Display information such as the Time, DVR name, Camera Number, Camera Name, Frame Rates for each camera.

b) OVERLAY (Default)

It is recommended to use OVERLAY for transmission speed up. Please cancel the Overlay function if there is broken screen caused by Invalid Video Driver installed. If you still have the abnormal screen problem, please slow down the Hardware Acceleration.

c) Video Mode

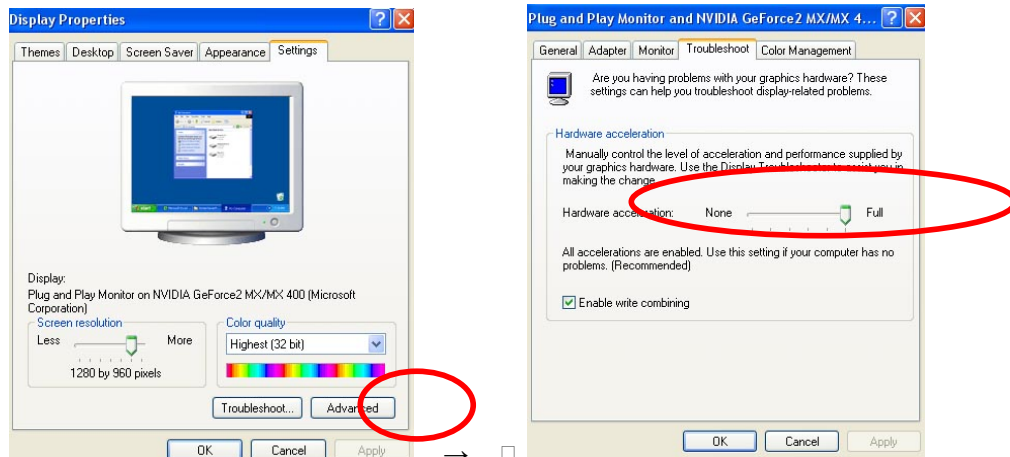
Select NTSC or PAL

d) DOWNLOAD

Designate a directory for file Download

**< C.F> Control Hardware Acceleration**

- Click the Advanced button on Display Properties on your PC.
- Select "Troubleshoot" and slow down Hardware Acceleration.



---

## Password



– Changing the password

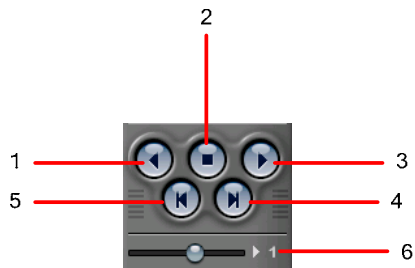
- a) Old Password : Enter your current password.
  - b) New Password: Enter the NEW password.
  - c) Confirm Password: Enter the New password to confirm.
- Press **APPLY** button to change the password. (NOT OK button)

<Note> This password is for protection screen when you launched CMS. This is different from your DVR password.

---

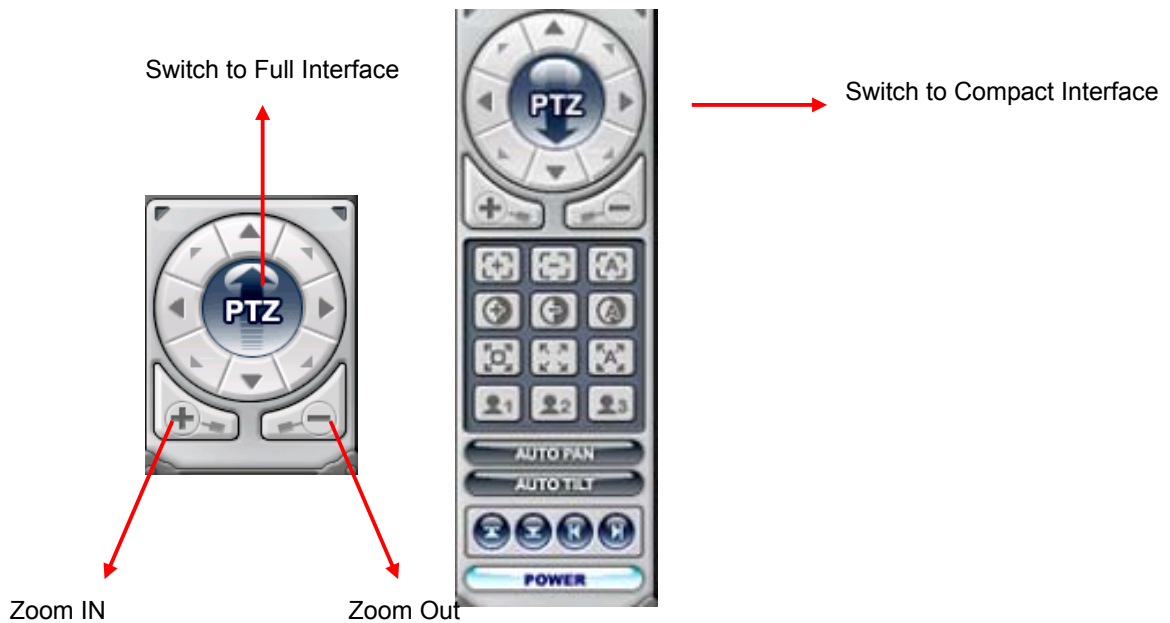
(5) Playback Control Buttons

- These buttons only function when reviewing downloaded files.











1. . To begin reverse playback, press Reverse Play button
2. To stop playback, press the STOP button.
3. To start playback, press PLAY button.
4. To view the field directly before the field you watched.
5. To view the field directly after the field you watched..
6. To Control playback speed on Local DVR mode.




(6) PAN/TILT Control button.






a. Pan and Tilt

Indicator	Resulting Actions	Indicator	Resulting Actions
	To tilt up		To tilt down
	To pan left		To pan right
	To go upper left hand.		To go upper right hand.
	To go down left hand.		To go down left hand.




b. Focus

Indicator	Resulting Actions
	Focus Far
	Focus Near
	Focus Auto

c. Iris

Indicator	Resulting Actions
	Iris Open
	Iris Close
	Iris Auto

d. Tour

Indicator	Resulting Actions
	Set Tour by clicking. Total address is depends on connected Pan/Tilt Camera.
	Delete Tour address.
	Run Tour.




---

e. Special Function Key






It has various function depends on PTZ camera

f. Auto Pan

Indicator	Resulting Actions
	Set Auto pan to left boundary.
	Set Auto pan to right boundary.
	Run Auto Pan function.

g. Auto Tilt

Indicator	Resulting Actions
	Set Auto Tilt to upper boundary.
	Set Auto Tilt to down boundary.
	Run Auto Tilt function.

h. Pan/ Tilt Power



Stand by Pan/Tilt or Turn on/off the lights of P/T/Z camera.

---

## (7) HEALTH

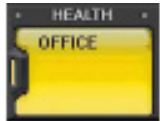
Displays the name of the last five DVRs with an problem or event. The color will change appropriately based on the event or problems reported from the DVR.

a. **Red**



The color changes to red when critical functions of the DVR is interrupted or has failed: Connection Fail, Connection time out, Disconnect Power Fail, Fan Lock, System Fail, HDD Fail, Power Fail Recover, Fan Lock Recover, System Fail Recover, HDD Fail Recover

b. **Yellow**



The color changes to yellow when recording and alarm related events occur: Video Loss, Video Loss Recover, Alarm Detect, Motion Detect, Record Stop, Schedule Off, Backup operation Stop

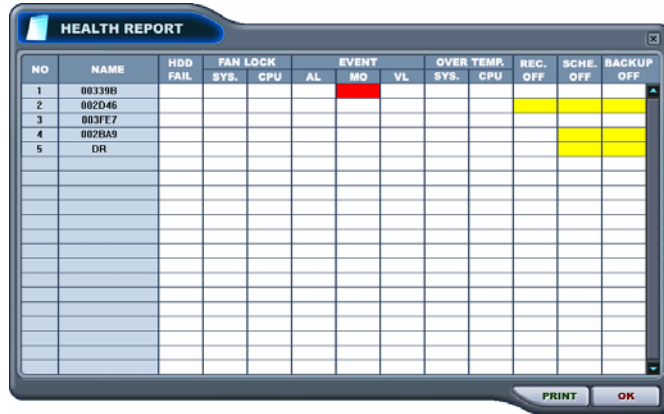
c. **Blue**




The color remains blue as long as the DVRs are functioning within the normal parameters. It will display the DVR's set name only with the following functions: Record Start, Backup operation Start, Schedule On

**\* Health Report**

Health Report menu is provided so that users may quickly overview all the condition of connected DVR. You can check maximum 300 DVR statuses such as Failure, Event, Recording Mode and etc



Health Report can be accessed at any time by double-clicking "HEALTH". The detail log lists can be showed by double clicking Name on Health Report or  ICON on DVR Window.

Block Color	Condition
Solid RED	An Event or a problem had occurred.
Blinking RED	Current event or a problem.
Solid Yellow	Current status of the DVR.

**<Note>In case of network connection error or power failure, DVR Number and DVR Name will blink in red**

- a. HDD FAIL: Notify Hard Drive Disk failure during the operation.
- b. FAN LOCK
  - a) SYS. FAN: It shows defect of FAN on side of DVR
  - b) CPU FAN: Not supported by this model
- c. EVENT
  - a) AL: Alarm
  - b) MO: Motion
  - c) VL: Video Loss
- d. OVER TEMP: Not supported by this model
- e. REC. OFF : Indicate REC LED ON/OFF on DVR
- f. SCHE. OFF: Indicate Schedule LED ON/OFF on DVR
- g. BACKUP OFF: Indicate Backup status on DVR

**\*\* DVR Property**

The Property of DVR can be viewed by Double Click "DVR NO or DVR NAME".



This menu provides information such as listed below.

- a. DVR MODEL
  - H16XX : 16ch for Wavelet Series
  - H08XX: 8ch for Wavelet Series
  - H04XX: 4ch for Wavelet Series
  - M800 : 8ch for MPEG Series
  - M1600 : 16ch for MPEG Series
- b. SYSTEM TIME: Display the time and date of DVR
- c. RECORD : Configure current Normal recording channel.
- d. ALARM : Configure current Alarm recording channel.
- e. MOTION : Configure current Motion recording channel.
- f. VIDEO LOSS : Configure current Video Loss channel.
- g. HDD SIZE : Available HDD/ Total HDD
- h. BACKUP SIZE: Available USB / Total USB
- i. REC. REMAIN: Estimated Remaining Recording Time
- j. HDD : It shows defect of Hard Disk.
- k. SYSTEM FAN: It shows defect of FAN.: Not supported by this model

**\*\* CMS LOG LIST**



This menu provides CMS log while CMS is operating. For more specific information for each DVR, please refer to DVR Log list.

**\*\* DVR LOG LIST**


- It shows the same log list with DVR Set. It has a list of all the events since the initial power on procedure of DVR.



**DVR Control**

---

## 1. Set List Manager

- Set List Manger is mainly used to add or delete DVR on CMS. Click  button to start the Set List Manager.



### (1) Auto Scan

It automatically tracks down DVRs connected local network but skips over already on the list. The DVR Host Name is entered automatically to the title and default Password is 000000.

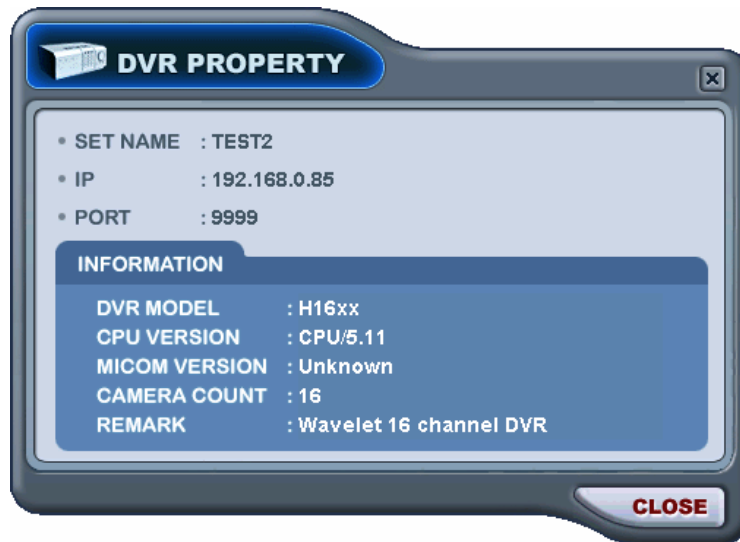
### (2) Add to List

Please follow steps to add desired DVR on CMS.

- 1) Set Name: Type on DVR title to display on Monitoring window, Health window and DVR Window.
- 2) IP: Enter the IP address<ex:192.168.0.52> or DNS name. <ex: demo.dvrhost.com>
- 3) Port: 80 <default>
- 4) Admin Password: Enter the Admin password of DVR.
- 5) Add to List: Click "Add to List" to complete add the DVR onto CMS list.
- 6) Save changes and exit the menu: Select "OK".
- 7) Exit the menu without making change: Click "Cancel"
  - **APPLY:** It is used for changing the configuration of selected DVR.

### (3) DEL FROM LIST: Delete selected DVR from CMS List.

- 
- (4) SETUP: It shows the menu setting of selected DVR.
- (5) PROPERTY: This menu provides information such as DVR Name, IP number & port, Software version, and what kind of DVR is.



## 2. Condition of DVR

The condition of DVR menu is provided so that users may quickly check the condition of each connected DVR. Each Icon means listed below.

(1) Normal



Blue colored DVR means the DVR is working without any problem. When you click this icon, it displays current live view.

(2) Network Connection in progress



Orange colored DVR means CMS is trying to connect to the DVR through network. When you click this icon, it shows the message < Connecting... Please stand by> with “try again” and “cancel “ button

(3) Network Error/Disconnection

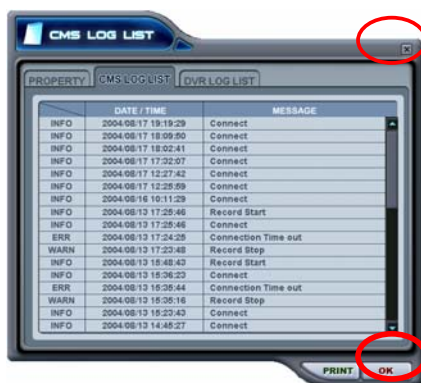


Pink colored DVR means the disconnection of DVR caused by network error or invalid password. CMS try to connect the DVR at every 30 sec in the case of network connecting error. When you click this icon, it shows this message <Network connection error> or <Invalid Password>. Please change the password on [Set List Manager] in the case of invalid password.

(4) System abnormality



Orange colored DVR means there is an event or system problem. When you double click this icon, CMS Log List pops up.



Exit the menu with clear the statuses and back to



blue colored DVR : Select “OK”

Exit the menu with keeping previous statuses:

Select “x (Close)”

### 3. Indication of Camera

---

In addition to the Health Status Report and supplementary information from the DVR icons in DVR window, the Camera Status Bar displays the status of individual cameras. The cameras are displayed according to the channel.




(1) Click the desired DVR



(2) then it shows the information of camera.





(3) Each Icon means listed below.

- 1)  (Blue) : Video Input is connected without recording.
- 2)  (Dark Blue) : Video Loss
- 3)  (Red) : Recording the current channel.

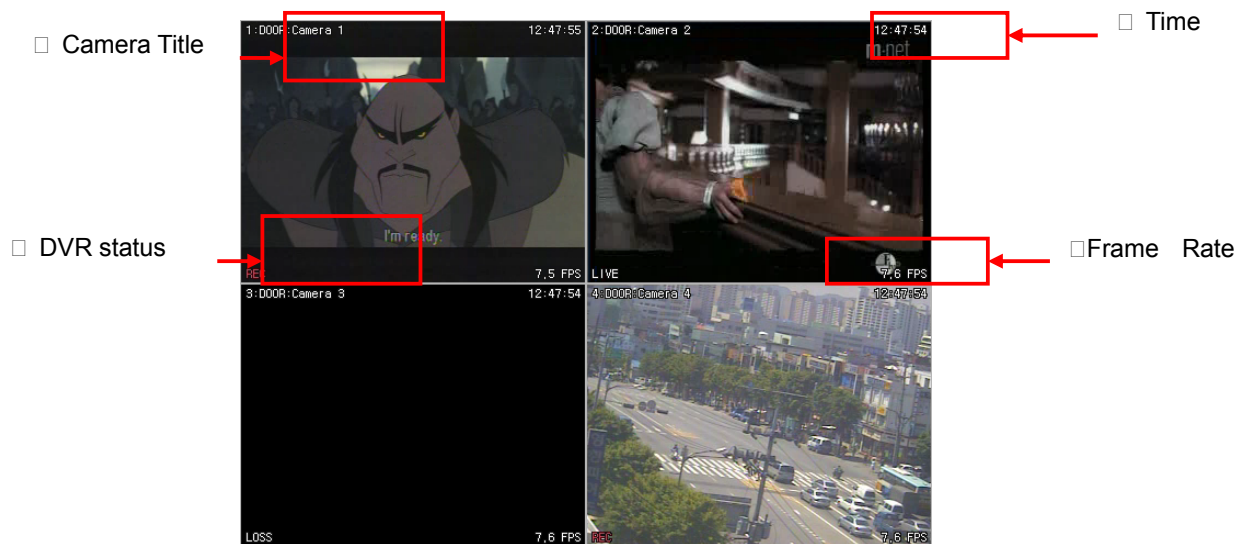
## 4. Live Viewing

### (1) Individual DVR monitoring

Double click “ or  “ to display live.

### (2) On-Screen Indicators

There are four types of on screen indicators. OSD Display can be chosen in the CMS Set UP.



1) Camera Title: Displays the following orders:

Camera Number- DVR Name or Host Name-Camera title

2) Time : Displays time

3) DVR Status: Displays REC, Network connection, Video Loss, Event, and Current Status.

Indicator	Condition
REC	Normal Recording
Wait	At the initial connecting or Video Loss
Close	Disconnected from DVR
Alarm	Alarm Recording
Motion	Motion Recording
Live	Live viewing

4) Field per Second: Network transmission speed. The transmitted field rate is Different form the actual recording field rate of the DVR.

---

(3) Multiscreen Display

Click the individual Multiscreen buttons  to display corresponding multiscreen.

(4) Change the camera position.

Click on each camera to directly switch the desired camera.

(5) Full Screen Display

There are 2 way of Full Screen display.

- 1) Select any camera for Full Screen display by double clicking the window of desired camera. (To come back to previous Live viewing mode, please double click again.)

Select any camera for Full Screen display by Right clicking.

---

## 5. Context Menu

The context menu allows access to the submenus for the channel, DVR and the Virtual DVR. The submenus allow access to various features for each individual submenu type.

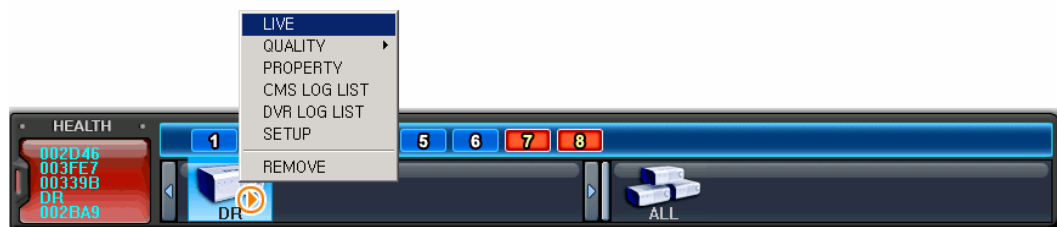
- (1) There are three types of Context Menu during Live Viewing. Right Clicking to display Context Menu.



- 1) SEARCH: Remote Search for Playback.
- 2) FULL SCREEN: Full Screen Display.

**<Note>** The higher picture quality selected, the less speed for Display Field Rate

- (2) There are Context Menu on each DVR.



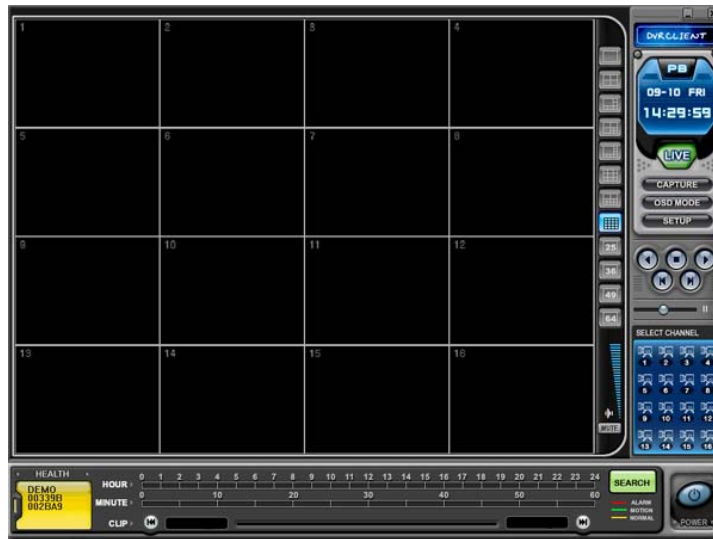
---


## 6. Playback

DVRs that have been added onto the DVR window using the DVR Set List Manager can be accessed in Playback Mode for remote playback or to download the files onto the remote PC. Unlike the live mode, only one DVR can be accessed at a time.



- (1) To start playback, press PB button.
- (2) It will be switched to Playback Mode, as shown below.



- (3) When  button pressed, Remote Search Menu will appear.



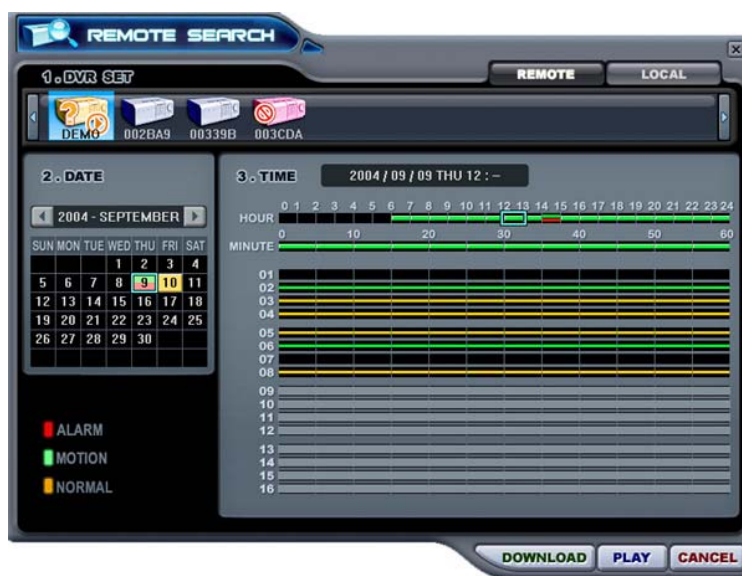
(4) Select **REMOTE** button or **LOCAL** button for playback.

1) Remote Playback

Remote Playback is provided so that users directly playback the stored video on the internal HDD through CMS.

Select **REMOTE** button and desired DVR.

Remote Search shows a graphical representation of the recorded video stored on the DVR. The Data are color-coded by category: Alarm(Red) > Motion(Green) > Normal(Yellow).



Select desired Date and Time and click **PLAY** button to start playback.



## 2) Remote Download

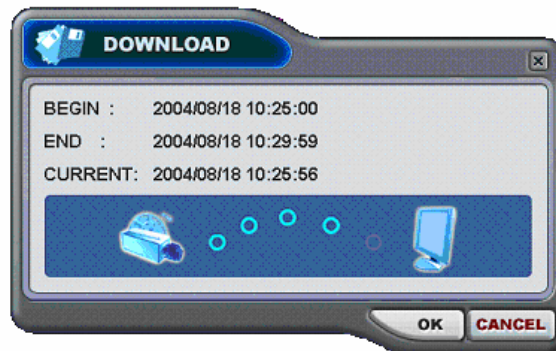
Remote Download is provided so that users save on remotely connected computer through CMS.

Select **REMOTE** button and desired DVR.

Remote Search shows a graphical representation of the recorded video stored on the DVR.



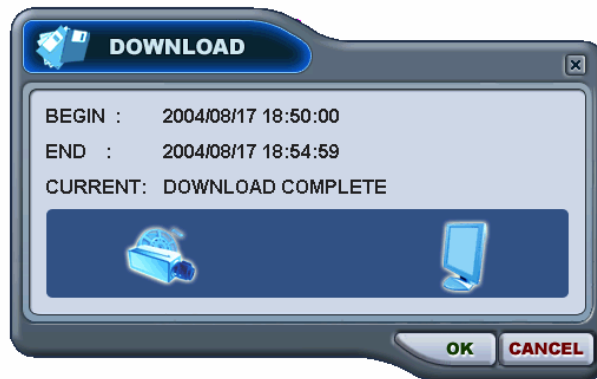
Select desired date and time and click **DOWNLOAD** button to start save. It will be saved on "C:\Program Files\DvrPlayer\Download". Download directory can be changed on CMS Setup Menu .



- a. BEGIN – END: Indicate the Start time and End time of selected File.
- b. CURRENT : Indicate the time of current downloaded file.
- c. Download Cancel: Select **CANCEL**

- d. Download Complete: Current time will be changed to message “Download Complete” after the download has been completed, as shown below.

Click 




### 3) LOCAL


Local Menu is mainly used to review the data downloaded from a DVR through CMS.

Select  button.

Local Search shows a graphical representation of the stored file on the PC.



Select desired DVR, Date and time , then click  button to start playback.

 : Deleted selected file from the PC.

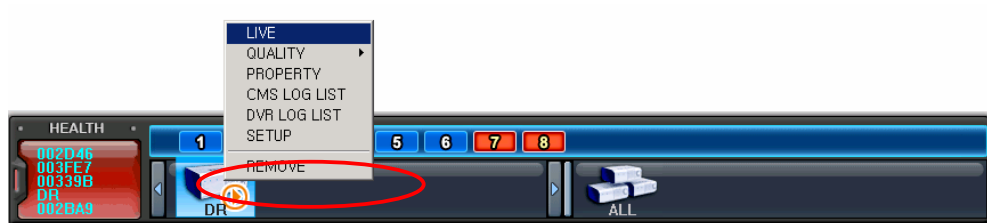


: Save selected file onto another folder of the PC.

## 7. DVR Menu Setup

DVR Menu Setup allows modification of various system settings to the DVR through CMS as it would be done on the DVR by accessing it's menu.

Select any DVR for Menu setup. Context Menu will appear on screen by Right clicking.



DVR SETUP Menu pops up, as shown below.

### 1) Display Setup



- a. Select Channel Auto Sequence mode on or off and the sequence interval.
- b. Configure Picture-in-Picture settings.
- c. Select spot monitor output.

---

## 2) Camera Setup



- a. Select a camera to adjust.
- b. Select the Covert Mode option for the selected camera.
- c. Adjust Brightness, Contrast and Color.
- d. Select the PTZ Channel and PTZ camera model.

## 3) Record Setup – General



Select the recording mode and the writing mode of the Hard Disk Drive.

## 4) Record Setup – Group



Configure the four recording groups.

- a. Select the picture quality, audio recording, recording mode and recording speed.
- b. Select the Event recording options for each camera.

## 5) Event Setup



- Select the Recording Group to use for Event recording.
- Select the length of Post-Recording time.
- Select Alarm Buzzer on or off.
- Select the Relay Output conditions.
- Select the Relay Output type.
- Select the Camera to select alarm input circuit type.
- Select the alarm input circuit type.

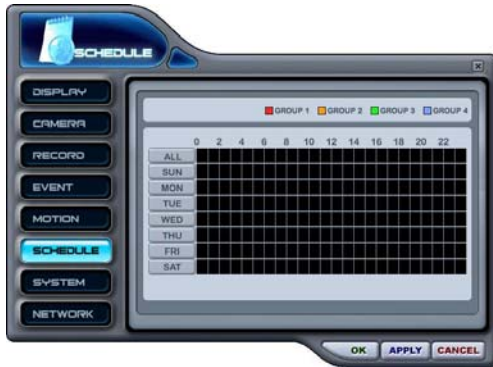
## 6) Motion



- Select the camera to adjust motion sensitivity level and to select trigger grids.
- Select the motion sensitivity level
- Select the motion trigger grids.

## 7) Schedule Setup

Schedule setup is similar to entering the schedule from the DVR's schedule menu.



Select the day to enter a schedule recording time frame.

In the example to the left, Wednesday was selected for a sample schedule recording.

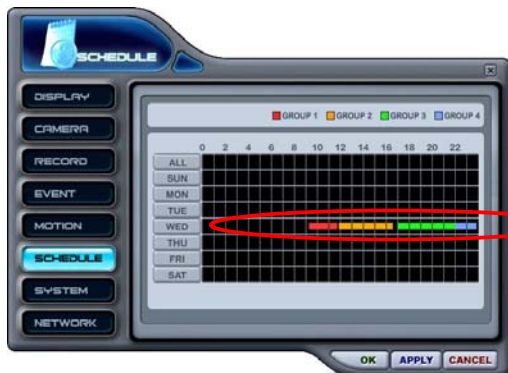


Enter the beginning time and the ending time in 24 hour format. Please note that the time cannot overlap to one another.

Select the recording camera group to use during the scheduled time.

Click **OK** to save entered schedule and to

return to the main schedule window.



The scheduled time frame will be displayed, distinguished by the recording group the schedule recording will utilize.

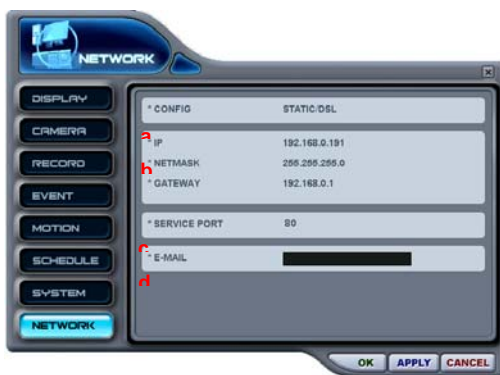
---

## 8) System Setup



- Select DVR ID.
- Select Auto Key Lock on or off.
- Select Key Tone on or off.
- Select the DVR language.

## 9) Network Setup



- Current DVR network setting.
- Current network setting.
- Current client program connection port.
- E-mail address to send notification e-mails.

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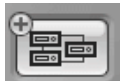
# VIRTUAL DVR

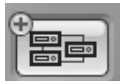
## 1. What is Virtual DVR.

Virtual DVR is not an actual DVR, but a combination , or group of several DVRs already listed under the DVR window. Under one Virtual DVR set, up to 64 DVRs can be added, pulling one camera from each DVR to be displayed. The Virtual DVR behaves in the same way a DVR would, except for the warning notifications.

## 2. Virtual Set List Manager

Virtual Set List Manager is used to add or delete Virtual DVR set on CMS.



Click  button to start the Set List Manager. Set List Manager Menu pops up, as shown below.



---

(1) ADD to CMS List

Please follow steps to Make Virtual DVR.

- 1) NAME: Enter Virtual DVR title to display on CMS window.

**\* Auto Arrange :**

- Check this option to have the CMS arrange cameras with any of the events occurring from a virtual DVR with registered cameras. The cameras with events are moved to channel 1 automatically, then arranged in the order of priority.

**\* Auto Insert& Arrange :**

- Check this option to have the CMS to add, prioritize and arrange cameras with any of the events occurring from any cameras.

**\* Alarm/ Motion/ Video Loss:**

- Check those options to have the cameras with alarm/motion triggers or Video Loss to be prioritized and arranged automatically in either Auto Arrange or Auto Insert& Arrange.

- 2) ADD VIRTUAL DVR: Click "Add Virtual Set" button to make Virtual DVR. Avoid overlapping same name for Individual Sets.
- 3) Save changes and exit the menu : Select "OK"
- 4) Exit the menu without change : Click "Cancel"
- APPLY: It is used for changing the name of selected Virtual DVR.

(2) DEL VIRTUAL DVR: Delete selected virtual DVR from CMS list.

(3) PROPERTY: This menu provides information such as Virtual Set Name, Total number of connected DVR, Total number of selected Cameras and IP information of connected DVRs.



### 3. Editing Virtual DVR

- (1) Double click the desired Virtual DVR .



- (2) The selected Virtual DVR will be activated and it is indicated with “ □ ”



- (3) Select any of Multiscreen to Display.
- (4) There are two way to add cameras: one is Whole DVR and the other is selected camera on each DVR.

1) Whole cameras of desired DVR .

- Click the desired DVR to directly drag the desired channel.
- The camera will be added in numeric order from selected channel to end, depends on connected number of cameras on DVR.

In the following examples, 8ch DVR dragged to channel Number 5



2) Any selected camera on DVR.

- Click any DVR on DVR Window while Virtual DVR is activating.
- After camera icons displayed, any camera on DVR to directly drag the desired channel.

In the following examples, Camera No 1 on 3<sup>rd</sup> DVR is dragged to Channel No 14.



**< Note >** In the case of overlapping on same channel, New Camera will replace existing camera.

(5) Delete Camera.

There are two way of delete the camera from CMS.

- 1) Select any camera for delete during live monitoring. Context Menu will appear on screen by Right clicking. Select “ REMOVE”
- 2) Select any camera for delete and directly drag to DVR Window or Virtual DVR Window.



## 4. Live Viewing on Virtual DVR

It is exactly same with Actual DVR.

## SPECIFICATION

Specifications	4CH	8CH
Video Input / Loop output	4 /4(NTSC/PAL)	8/8 (NTSC/PAL)
Video Output	1 Monitor, 1 S-Video, 1 Spot out, 1 VGA (Option)	
Compression	ADVANCED M-JPEG	
Live Display Resolution	NTSC 720*480, PAL 720*576	
Recording Rate	NTSC 720*240(60 fps), 360*240(Quad:120fps) PAL 720*288(60 fps), 360*288 (Quad:120fps)	
Alarm In/ Relay Out	4/1	8/1
Operating System	EMBEDDED LINUX	
System Control	Key buttons, IR Remote, Remote Client	
Live Display Speed	NTSC 120 fps, PAL 100 fps	NTSC 240 fps, PAL 200 fps
Audio Record	1ch	
Features	4CH	8CH
Display	Brightness, Contrast, Color Adjustments Per Channel	
Camera Title	8 Characters per Channel	
Recording Mode	Manual, Schedule, Alarm, Motion	
Recording Method	8 Levels of Compression Rate / Record Frame Rate Adjustment	
Recording Adjustments	Pre-Alarm: 30 frames / Post-Alarm: 20 sec. ~ 240 sec.	
Motion Detection Per Channel	16 Grids / 15 Sensitivity Levels	
Search Mode	Date & Time, Camera , Alarm / Motion	
Playback Modes	Forward & Reverse: Pause, Frame by Frame, 2X, 4X, 8X, 16X	
Watchdog	Power Failure Recovery: Auto Reboot w/ Maintaining Previous Record Settings	
System Utility	2 Level Password /Auto Lock	
Back Up	Ethernet, Remote PC, External Recording Devices, VCR	
External Recording Devices	Flash Memory Stick	
Interface	USB1.1, RS-232, RS-422, Ethernet	
HDD	1 internal HDD + 1Removable HDD : Max 800GB	
Network	LAN, WAN, Internet, PSTN Line	
Remote Client Software	Central Management Software	
General		
Power	AC100 ~ 230VAC (50/60Hz)/ Free voltage	
Power Comsumtion	40.5W (220V), 39.5W(110V)	
Operation Temperature	0 ~40	
Dimension / Weight	335(W) x 370(D) x 70(H) / 4 Kg	