

following may contain errors

HARDWARE	8 CH H.264 D1 DVR	DVR16rt-H264
VIDEO IN / OUT		
Video Inputs	8 BNC	16 BNC
Video Outputs		
	8 Loop outs	16 Loop outs
Main Out (Composite)	1	
SVHS Out	1	
VGA Out	1	
SPOT Out (Composite)		
AUDIO IN / OUT		
Audio Input	4	
Audio Output	1	
ALARM IN / OUT		
Alarm Input	8 TTL	16 TTL
Alarm Output	4 TTL + 4 Relay	12 TTL + 4 Relay
Internal Buzzer	Yes	Yes
AUXILIARY IN/OUT		
RS485 Port	1 ea	
RS232C Port	Yes	
Network Port	10/100 Ethernet	
USB Port	USB 2.0 (2ea)	
IR Remote Control port	Yes	
STORAGE		
Primary Storage	up to 4 x internal HDD	
CD/DVD RW	Yes (Standard)	
Data Export Medium	USB (HDD, FlashDrive) Built-in : DVD-RW	
HDD Interface type	SATA	

FUNCTION		8 CH H.264 D1 DVR	16 CH H.264 D1 DVR
MORNITORING			
Display Rate		Real-Time Display	
Display Resolution		720 X 480 (N), 720 X 576 (P)	
Display Mode		1, 4, 3+4, 9, 2+8, 1+12, 16, PIP, SEQ	
Sequence		Yes (1~30 sec)	
Digital Zoom		Live : Linear Digital Zoom x128	
Freeze		Yes	
Covert Camera		Yes	
Spot Monitor		Yes (Programable)	
Multi-tasking		Pentaplex (Live / Record / Playback / Backup / Network)	
Color Control		brightness, contrast, saturation, hue	
RECORD			
Video Compression		H.264 (Hardware Compression)	
Audio Compression		PCM or G.711	
Recording Rate	704x480 (704x576)	240/200fps	480/400fps
	704x240 (704x288)	240/200fps	480/400fps
	352x240 (352x288)	240/200fps	480/400fps
Recording Mode		Continuous, Motion, Alarm, Continuous + Motion, Panic, Pre-alarm(30sec@2.5Mbps)	
Recording Setup Programmable for each Camera		Yes	
Pre-Event Recording		Yes (30sec@2.5Mbps)	
Panic Recording		Yes (Each channel programmable)	
SEARCH & PLAYBACK			
Playback Rate	704x480 (704x576)	240/200fps	480/400fps
	704x480 (704x576)	240/200fps	480/400fps
	704x480 (704x576)	240/200fps	480/400fps
Search Mode		Date/Time, Event, Bookmark	
Display Mode		1, 4, 3+4, 9, 2+8, 1+12, 16, PIP, SEQ	
Digital Zoom		x2	
Concurrent Multi-Channel Playback		8CH	16CH

FUNCTION	8 CH.H.264 D1 DVR	16 CH H.264 D1 DVR
NETWORK		
Connection	Ethernet	
Max. Connections	22ea	
Static IP	Yes	
ADSL	Yes	
DHCP	Yes	
DDNS	Yes	
Max Transmission Rate	240 ips@ D1	480 ips@ D1
Bandwidth Control	Yes	
Remote Monitoring (Live View)	Yes	
Remote Playback	Yes	
Remote Recording	Yes	
Remote Setup	Yes	
Remote PTZ Control	Yes	
Remote Data Export	AVI, JPG, BMP	
Remote Event Notification	Yes	
Two-way Audio	Yes	
Network Time Protocol	Yes	
SYSTEM OPERATE		
Motion Detection	YES, Detection Division : 30x24	
Data Export (With Audio)	External :USB (HDD, FlashDrive) Internal : CD-RW. DVD-RW (Built-in)	
Multi-Language	More than 10ea (English, French, German etc..)	
Operate	USB MOUSE, Front panel,IR remote control	
Disk Temperature Check	Yes	
Disk S.M.A.R.T Check	Yes	
Software upgrade	USB Flash Drive	
Setup In/Export	Yes (via USB memory)	
System Logs	Yes	
Event Logs	Yes	

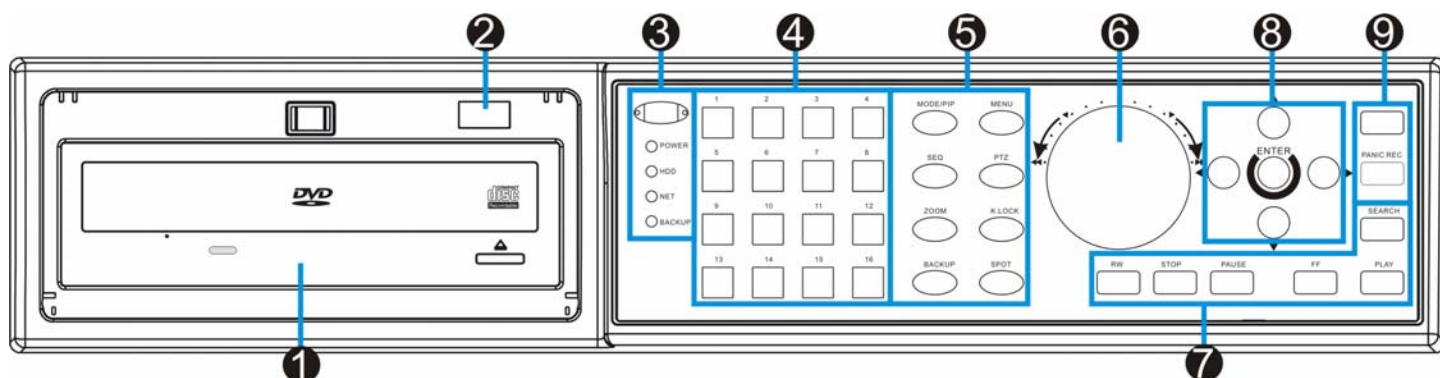
CHAPTER

2

HARDWARE
CONFIGURATION

CHAPTER 2. HARDWARE CONFIGURATION

1. FRONT Panel Layout

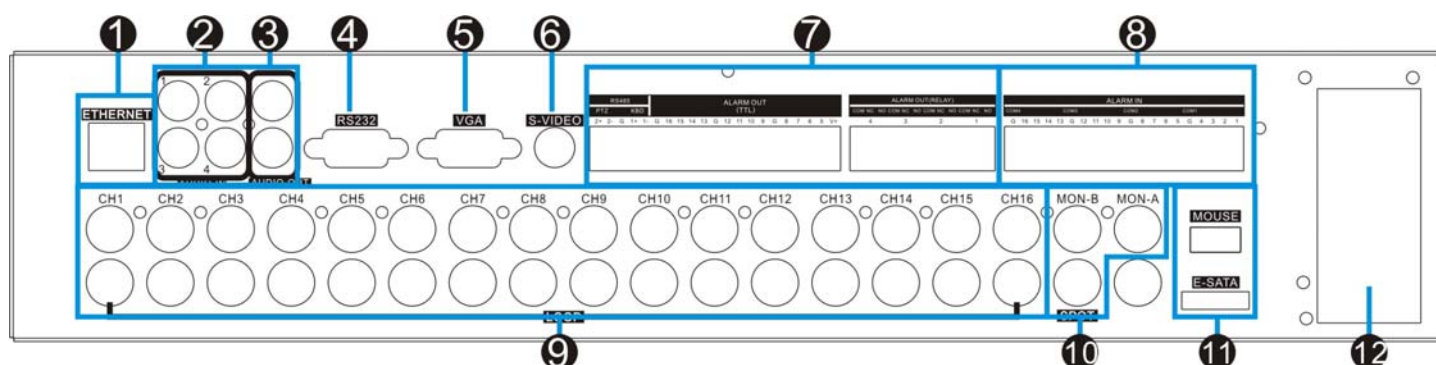


1	DVD-R DRIVE	For Backup
2	USB PORT	Firmware Updates and USB backup
3	IR Receiver.	IR Remote Controller Receiver.
	POWER LED	This LED will illuminate when the system is powered on
	HDD LED	This LED will illuminate when there is activity on the HDD
	NET LED	This LED will illuminate when there is a remote connection
	BACKUP LED	This LED will illuminate when a back up is performed
4	CH1~CH16	This button is used to select a specific channel
5	MODE/PIP	Used to change the live view screen division / enable picture in picture
	SEQ	Used to initiate video sequence mode
	ZOOM	Used to digitally zoom into live video
	BACKUP	This button is used to quick backup in AVI format
	MENU	Used to open the "Live View Menu" from the Live View Screen
	PTZ	Used to show the PTZ control
	K.LOCK	This button is used to lock the frontal keypad
	MONITOR	Used to select Monitor A/B controlled by front panel
6	JOG SHUTTLE	Used during playback to manipulate playback speed
7	RW	Used during playback to rewind video (1x to 1/16x).
	STOP	Used during playback to stop current video being played
	PAUSE	Used during playback to pause the current video being played
	FF	Used during playback to increase playback speed (1x to 16x).

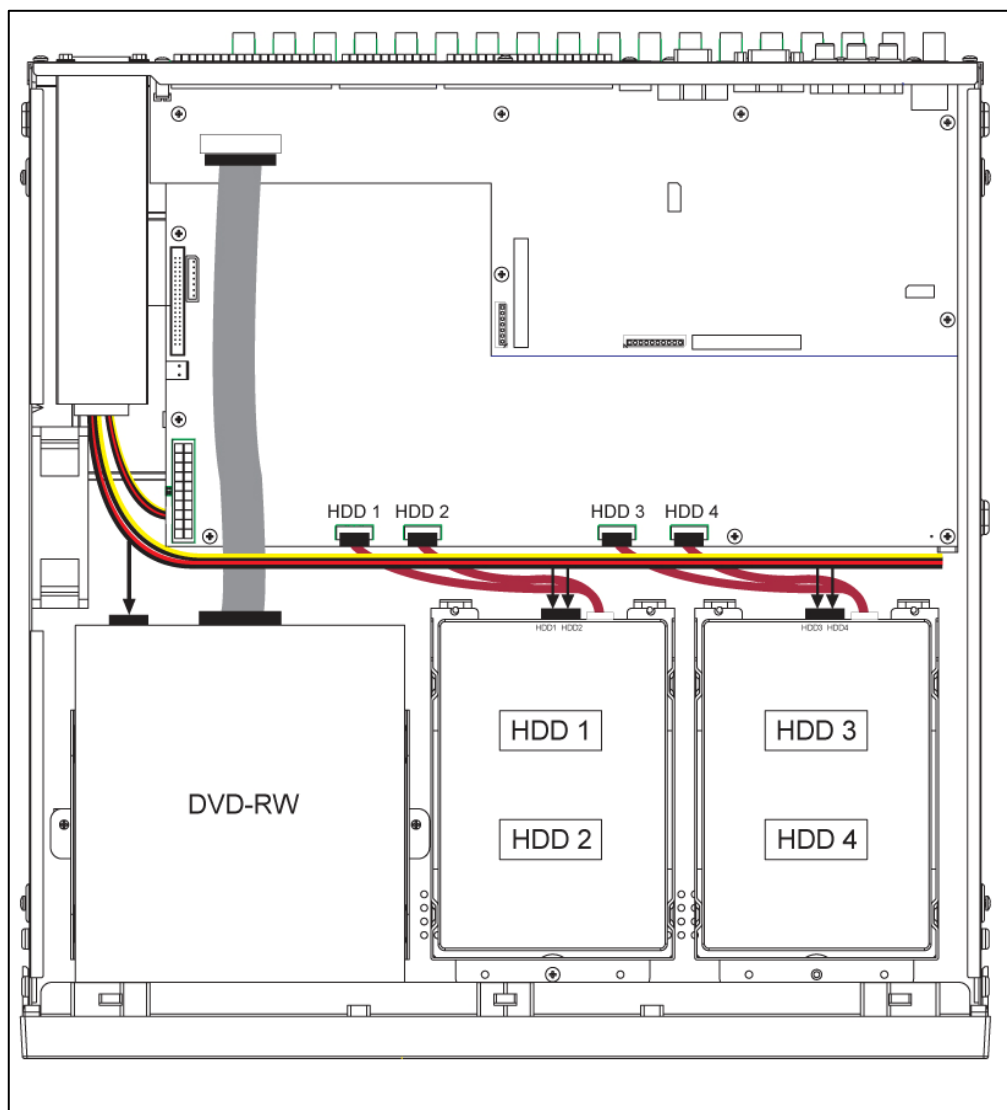
7	PLAY	Used to initiate playback
	SEARCH	This button is used to initiate the search menu
8	DIRECTIONAL KEYPAD	Used to navigate through the various system menus
	ENTER	Used to confirm any action on the system
9	B-MARK	This button is used during play back to bookmark a section of video. Please refer to the section Book Mark for more details
	PANIC REC	This button is used to activate panic recording (configurable from sys. menu).

CHAPTER 2. HARDWARE CONFIGURATION

2. Rear Panel Layout



1	ETHERNET	The RJ-45 port is used to connect the DVR to a network
2	AUDIO IN	1~4 channel audio input
3	AUDIO OUT	You may use any audio output device such as a speaker.
	MIC IN	To connect a microphone for two way audio.
4	RS232 PORT	Connection to PC or other DVR control devices.
5	VGA	Connection to a VGA monitor or TFT LCD.
6	S-VIDEO	Connection to a S-VIDEO monitor.
7	RS-485	For connection to PTZ cameras.
	ALARM OUT	For Relay out and TTL out.
8	ALARM IN	1~4 channel alarm input
9	1~16 CAMERA IN/LOOP OUT	Channel 1~16 camera input and loop out.
10	MONITOR OUT	MONA -Main monitor output.
		MONB- Digital spot monitor output
		SPOT –Analogic spot monitor output
11	MOUSE	For USB mouse.
	e-SATA	The external S-ATA port is used to connect external storage devices that support S-ATA format
12	ATX POWER	ATX Power supply



For the single Hard Disk Drive installation please locate the marked SATA 1 or Primary SATA cables and connector and install the HDD to it.



Upon completion of your hard disk drive installation, please perform following procedures.

It is critical that you follow this procedure after hard disk installation.

- 1. Perform the Hard Disk Clear procedure***
- 2. Check to see if proper size is allocated***
- 3. Perform factory reset procedure***

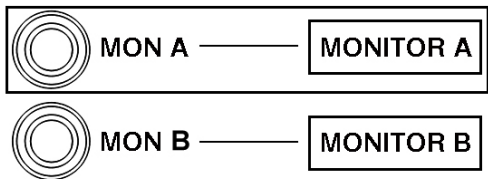
4. Monitor Connections

● Monitor A (BNC Type)

Monitor A connection is the main monitor output for composite type monitor. This port is used as primary connection along with the VGA port. They may be used simultaneously along with VGA port.

Connect a monitor that supports BNC Inputs or use a “BNC Twist Lock” to Composite Video adapter if your monitor only supports Composite Video Inputs.

The display resolution for Monitor A is at 720x480.



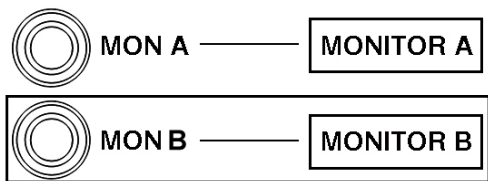
Monitor Connection

● Monitor B (BNC Type)

Also known as Digital Spot Monitor connection, used as alternative video output for the purpose of public display, guard monitor, monitoring stations and other location where configuration or playback may not be needed. Because of these nature, Digital Spot Monitor connection is programmable where “Full” (Single Channel View) or “2X2” (Quad Display Mode) is supported. Addition to it, it also supports programming feature to schedule and to hide certain camera to display. As available to both digital and analogue Spot Monitor connection sequencing times are programmable as well.

Connect a secondary monitor that supports BNC Inputs or use a “BNC Twist Lock” to Composite Video adapter if your monitor only supports Composite Video Inputs.

The display resolution for Monitor B is at 720x480.



Monitor Connection

● VGA (Video Graphics Array) Port

The DVR unit supports multiple array of VGA resolution and refresh rate available to popular LCD Monitor and High Resolution HD LCD TV. Connect a VGA monitor to the DVR with a standard VGA Cable. We recommend using a 17" LCD or CRT monitor or above.

Supported resolutions for the VGA ports are:

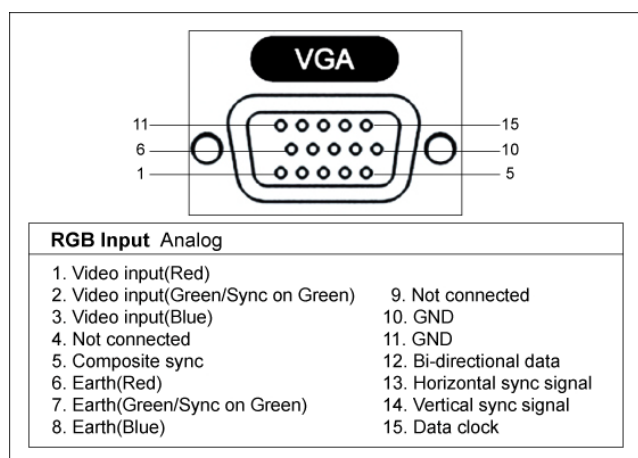
640x480 @ 60Hz/75Hz

800x600 @ 60Hz/75Hz

1024x768 @ 60Hz/75Hz

1280x1024 @ 60Hz/75Hz

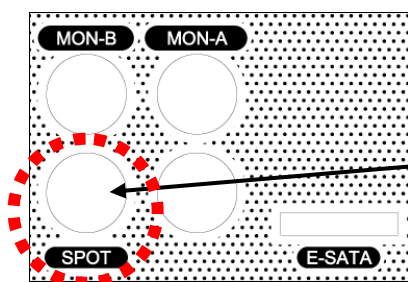
All resolutions display at True Color 32 Bit



VGA Pin Description

● Analog SPOT

The analog SPOT is a SPOT monitor output connection that provides single channel view in sequencing mode. Sequencing interval may be defined to regulate the channel switching time.



Analog Spot Out (BNC Twist Lock Type Connector)
 You can use any display device that supports BNC Twist Lock type inputs, adapter may be used.



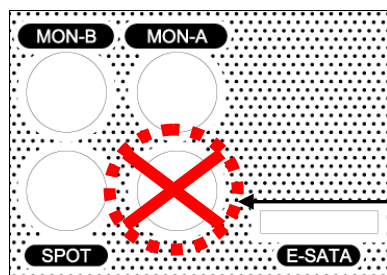
Check this before connecting monitor

There is BNC connector that is not being used.

It is reserved for later feature addition and currently not being used.

Please locate a port below MON-A and right side of SPOT location.

This port will not show any video output.

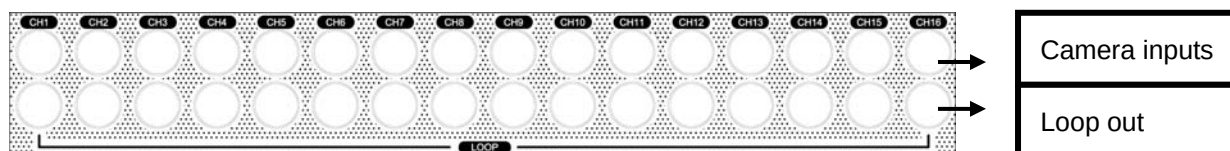


Sub Main Menu
BNC port not being used.

CHAPTER 2. HARDWARE CONFIGURATION

5. Camera Connections

Connect the cameras to the Video In ports located on the rear panel of the DVR using the proper cables and connectors (BNC Twist Lock). The corresponding video channels can be “looped” out using the “loop out” ports located beneath each video input port. Terminators are not required. DVR will detect the system format (NTSC and PAL) automatically. Please refer to the figure below..



The loop out ports may be used to display the video signal from each individual channel to any desired display output device such as a monitor or it can be used to provide a video signal to another DVR system. The type of connection of the loop out ports use is BNC Twist Lock type.

Video Input Signals Specification

1 Vpp / 75 ohm

PAL / NTSC Auto Detect

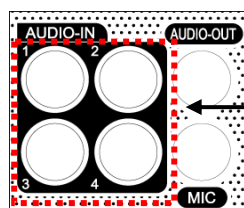
BNC Inputs with Loop Out

CHAPTER 2. HARDWARE CONFIGURATION

6. Audio Connections

The audio connections of DVR are used for both recording and monitoring purposes. You have the option to disable both audio recording and monitoring functions in the “Audio Setup Menu”.

Both 8 and 16 channel models support up to 4 audio input channels and 1 audio output channel, as well as 1 port for microphone input. Connect with RCA/Composite audio compatible cables connectors.



Connect using RCA/Composite audio compatible cables with compatible RCA/Composite audio connectors.

You may use a **microphone** that supports RCA/Composite Audio connections.



Output Signal: Mono RCA, 1Vpp, 10 k ohm

7. Alarm/Relay/IO Connections

The switch terminal simplifies the use of various sensors and relays with our DVR.

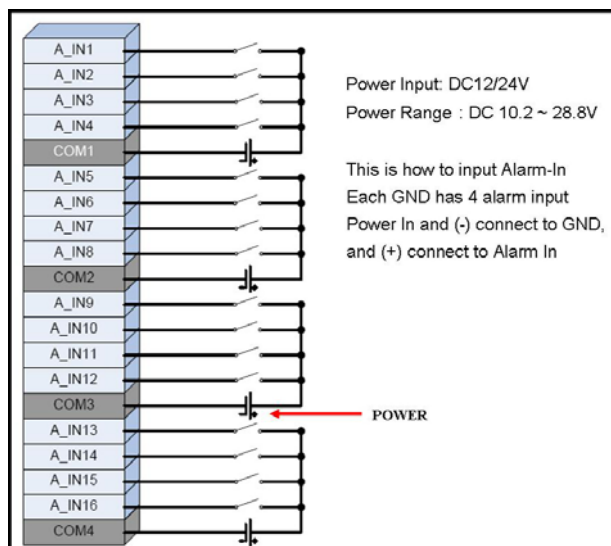
RS-485		ALARM OUT																ALARM OUT (RELAY)								ALARM IN																	
PTZ	KBD	(TTL)																COM NC	NO	COM NC	NO	COM NC	NO	COM NC	NO	COM4	COM3				COM2				COM1								
2+	2-	G	1+	1-	G	16	15	14	13	G	12	11	10	9	G	8	7	6	5	4	3	2	1	G	16	15	14	13	G	12	11	10	9	G	8	7	6	5	G	4	3	2	1

Each alarm input can be controlled/switched by a device such as a motion/IR sensor, door contact sensor, and similar devices. Each device can either be wired as N/O or N/C (Normally Open/Normally Closed).

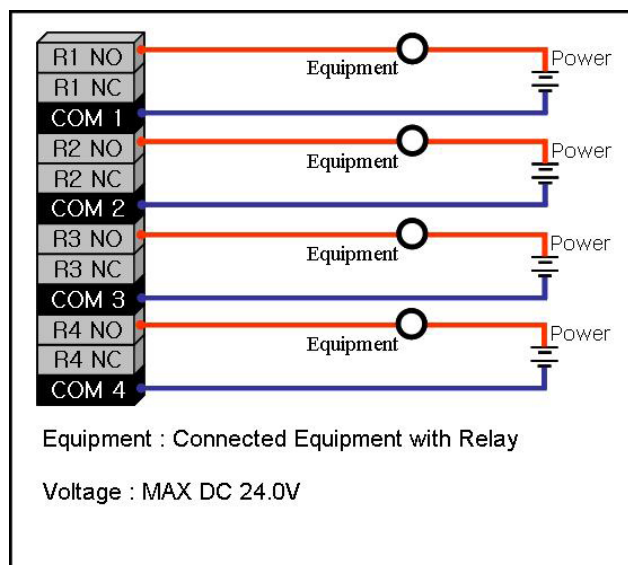
This can be configured in the “Alarm” menu as N/O or N/C as well.

Specifications	Alarm Input	10K to +5v
	Input Voltage Range	5VDC (minimum) to 40VDC (maximum)

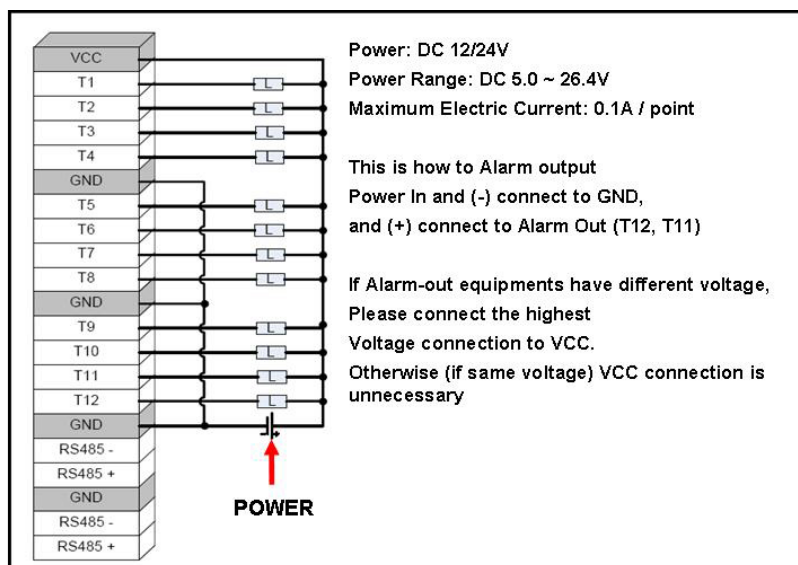
[Alarm In]



[Alarm Out_Relay]



[Alarm Out_TTL]

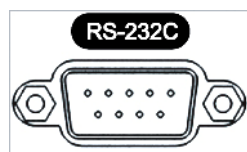


CHAPTER 2. HARDWARE CONFIGURATION

8. RS232 Connections

The RS-232 COM port is used to connect the DVR to a PC (optional updating procedure) or to connect an external device like a DVR controller (optional). The required settings to use the RS-232 port can be configured in the DVR settings.

Specifications	Connection Type	9 pole D-Type male connector
	Maximum Input Voltage	+/- 25V



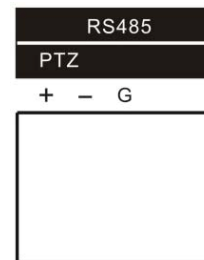
Signal Type	Pin Number	Description
DCD In	1	Carrier Detection Signal (not used)
Rx	2	RS232 Receive
Tx	3	RS232 Transmit
N/C	4	No Connection
GND	5	System Ground
N/C	6	No Connection
RTS	7	RS232 Request To Send Signal
CTS	8	RS232 Clear To Send Signal
N/C		No Connection

CHAPTER 2. HARDWARE CONFIGURATION

9. RS485 Connections

The RS-485 ports are used to connect external PTZ cameras to the DVR.

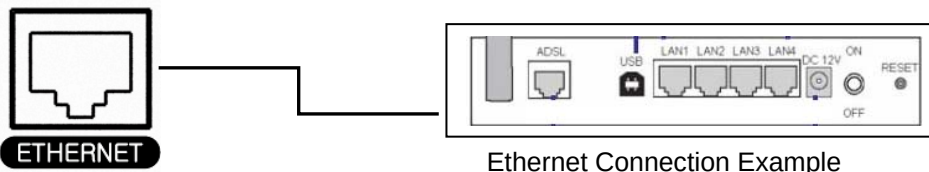
However you will not have the ability to control the PTZ cameras remotely if you do so.



CHAPTER 2. HARDWARE CONFIGURATION

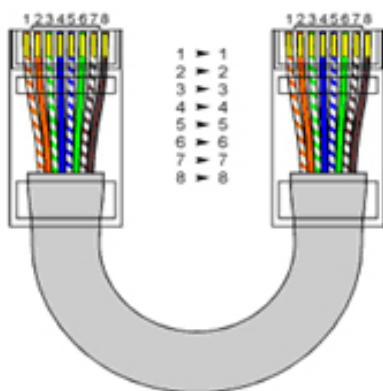
10. Ethernet Connections

The RJ-45 port is used to connect the DVR to a network through a DTE (Data Terminal Equipment) device such as a switch or router with an integrated switch. To connect the system to a network please use a standard RJ-45 cable (patch/straight through) and make sure both ends of the cable are securely connected to the proper ports. Consult your local IT administrator for detailed configuration procedures and setup. The maximum cable length for Category 5e, RJ-45 cable is 100 meter or 300 feet.



Ethernet Connection Example

Specifications	Connection	10/100 Base T, IEEE 802.3Differential signal voltage: ± 2.8 V maximum, inputs have transient overvoltage protection
	Ethernet port details	EEE 802.3/802.3u - 100Base-TX/10Base-T physical layer
	Auto negotiation	10/100, full/half duplex
	Cable length	100 meters (100 ohm unshielded twisted pair cable or 150 ohm shielded twisted pair cable, category 5 or higher).
	Impedance	built-in compensation for impedance matching
	Indicators	ACT, 10/100



CAT 5 cable color code for EIA/TIA E568B Configuration

Signal Type	Pin Number	Description
LAN Tx +	1	Ethernet Transmit Positive
LAN Tx -	2	Ethernet Transmit Negative
LAN Rx +	3	Ethernet Receive Positive
N/U	4	Not Used
N/U	5	Not Used
LAN Rx -	6	Ethernet Receive Negative
N/U	7	Not Used
N/U	8	Not Used

CHAPTER 2. HARDWARE CONFIGURATION

11. External S-ATA

The external S-ATA port is used to connect external storage devices that support S-ATA format.

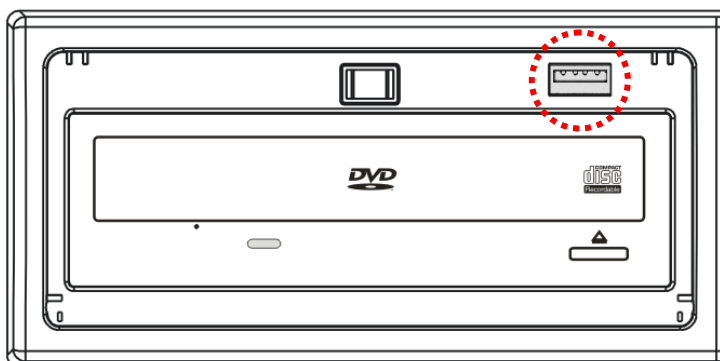


CHAPTER 2. HARDWARE CONFIGURATION

12. USB Connections

The USB port is located on the front side of the DVR.

This port may be used for USB memory stick back up procedures and Firmware Updates.



CHAPTER 2. HARDWARE CONFIGURATION

13. Power Connections

The power is supplied to the DVR by an internal power supply unit, and can be either switched on or off by the toggle switch located on the rear panel of the system.

Specifications	Input Voltage	100 - 240 VAC $\pm$ 10%
	Current	4A - 2A
	Input Frequency	50/60 Hz



WARNING!

This is a live electrical outlet. Risk of electrical shock. do not attempt to open the cover of the DVR or the power supply unit. Contact your local service center for repair. Warranty is void if the system is improperly handled

CHAPTER

3

GRAPHICAL USER INTERFACE

The operation of the DVR is GUI (Graphical User Interface) based. All menus and configuration settings are made graphically for ease of use and navigation. Specific icons are used to represent a menu, e.g. a Camera icon is used to represent the camera settings menu for the DVR.

**MOUSE CONTROL**

All controls located on the frontal keypad of the DVR may also be controlled via a USB mouse (included). To display and/or access the main menu, you can “right click” the mouse anywhere on the live view screen and pop-up menu will appear.

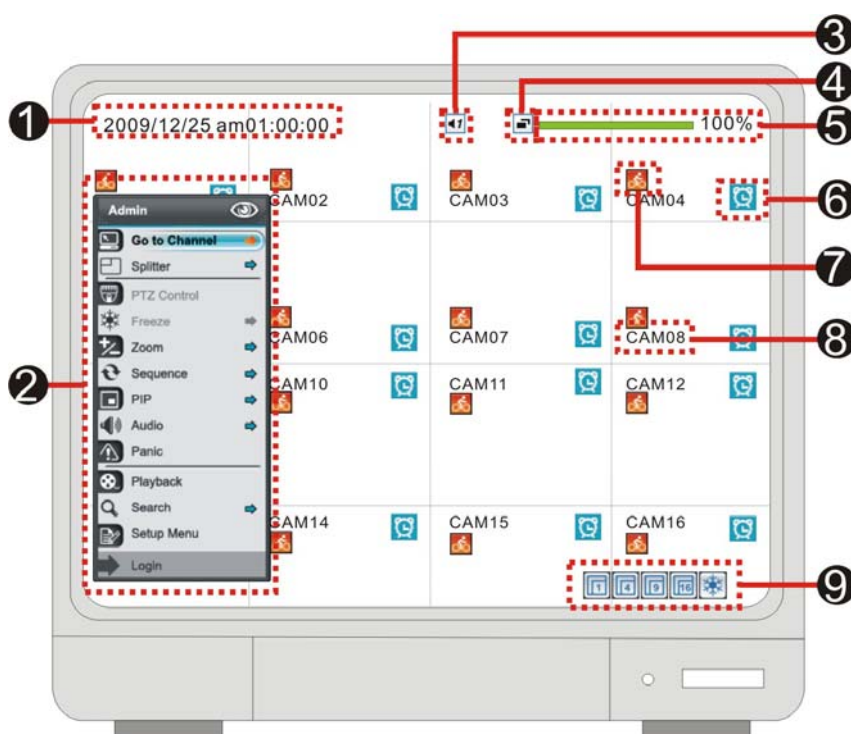
You can now access all menus of the DVR.

**REMOTE CONTROL**

All controls located on the frontal keypad of the DVR may also be controlled via the IR remote controller (included). The buttons located on the remote controller correlate with the frontal keypad of the DVR. Press the “Menu” button on the remote controller to access the main menu of the DVR.

CHAPTER 3. GRAPHICAL USER INTERFACE

1. Display configuration



Live display icon	1	Shows current date and time
	2	Monitoring popup menu
	3	Shows audio channel
	4	Overwrite icon.
	5	Shows current HDD utilization
	6	Shows recording mode
	7	Shows Alarm and Motion icons in Live view and indicate such event
	8	Display Camera Title for Live and Playback display
	9	Quick Screen split mode switch button – (1/4/9/16 & Freeze)

CHAPTER 3. GRAPHICAL USER INTERFACE

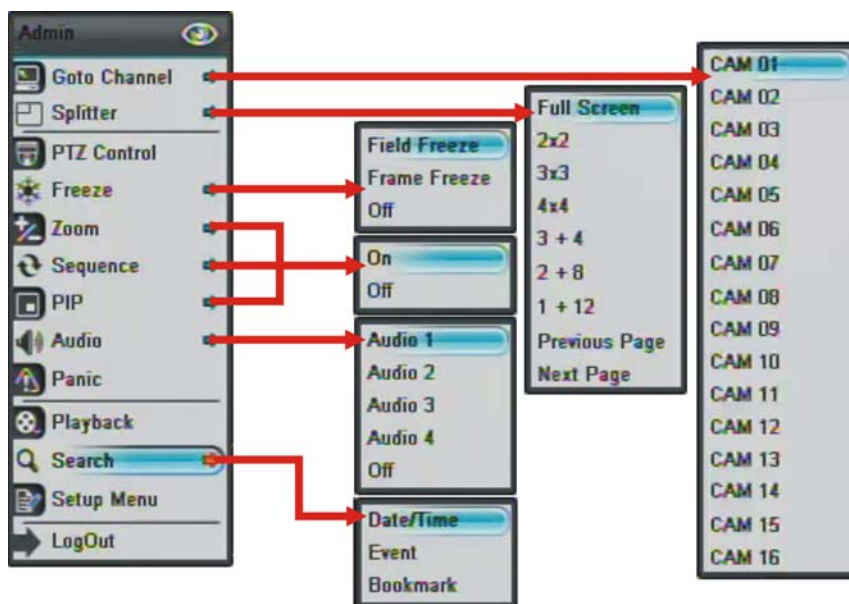
2. Monitoring Popup Menu

- Popup Menus and their components

There are many popup menus found on the GUI. Some popup menus are simple type and some have sub menu available for further options.

Monitoring popup menu is the first menu that user will encounter.

This is the main popup menu that will link to all of the operation and configuration options will be accessible.



Right click on mouse or keypad MENU key to open or hide popup menu.

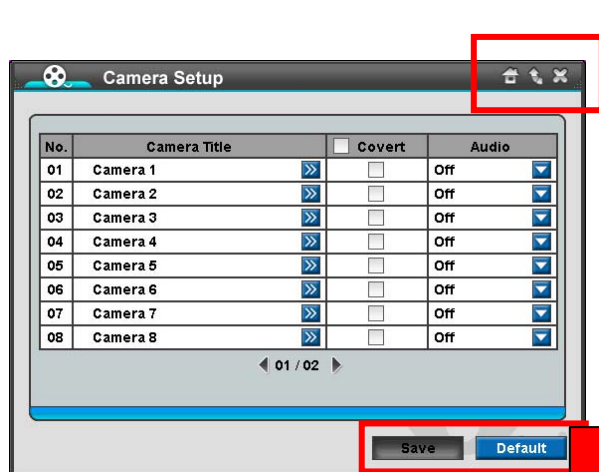
● Main Setup Menu

To access the main menu, press the “Menu” button on the frontal keypad or remote controller, or you can right click the mouse from the live view display and click on “Menu”.



Main Menu Tree

	VIDEO & AUDIO Camera Setup, Color Adjustment, Motion, Video lose, VGA, Event display, Interval, OSD, Audio
	SYSTEM HDD clear, Date/Time, User authority, Alarm in, Alarm out, Buzzer, Configuration
	RECORD & BACKUP Record setup, Schedule, Holiday, Backup, Smart backup
	EXTERNAL DEVICE RS232, PTZ, Remote control
	NETWORK Ethernet, DDNS, Server setup, PPPoE, Notification
	OTHER System information
	Exit setup menu



	Goto Main menu.
	Back to previous menu.
	Exit setup menu

	Default button will set all settings to default parameters.
	Use this button to either commit the configuration to save or to cancel.

CHAPTER

4

VIDEO & AUDIO

CHAPTER 4. VIDEO & AUDIO

1.Camera Setup

Camera Setup

No.	Camera Title	Covert	Audio
01	Camera 1	☐	Off
02	Camera 2	☐	Off
03	Camera 3	☐	Off
04	Camera 4	☐	Off
05	Camera 5	☐	Off
06	Camera 6	☐	Off
07	Camera 7	☐	Off
08	Camera 8	☐	Off

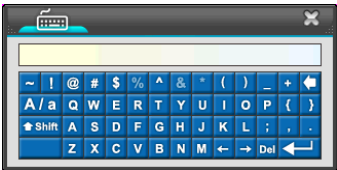
01 / 02

SaveDefault

Camera Label

Covert

Audio

Camera label	Click  to initiate on screen keyboard as seen below.
	 On Screen Keyboard popup Type the desired label and “X” to close the popup window.
Covert	Camera will not appear on live screen display or remote connection when Covert is enabled.
Audio	Choose the drop down bar to select the audio channel. This will associate audio to camera.

CHAPTER 4. VIDEO & AUDIO

2.Color adjustment

Select the color settings individually for color adjustment, and use the copy setting to apply the same configuration parameters to other cameras.



CHECK THIS FIRST!
Make sure the monitor being used is correctly configured to show proper colors. Consult your monitor manual for details in color configuration.

The screenshot shows the 'Color Adjustment' window. A red box highlights the 'Channel' dropdown menu, which is labeled 'CAM01'. To the right of the window, labels with red arrows point to the following controls: 'Channel', 'Brightness', 'Contrast', 'Saturation', 'Sharpness', 'Hue', and 'Copy Settings'. Each label is in a white box with a black border. The 'Copy Settings' button is at the bottom of the window, next to 'Save' and 'Default' buttons.

Color Adjustment Window

Channel	Select the channel of camera you want to configure by clicking on the drop down list bar.
Brightness	To configure camera brightness value.
Contrast	To configure camera contrast value.
Saturation	To configure camera saturation value.
Sharpness	To configure picture sharpness value
Hue	To configure picture hue value.

Copy Settings

Upon pressing Copy Setting button, Copy Settings popup will appear.
In this popup choose the camera you want to copy from at **From** drop down list field.
Choose the parameters such as **Brightness, Contrast, Saturation Sharpness, and Hue** by checking on the check box.
Check on the check box with camera numbers to apply the copy setting to on **TO** check box selector section.

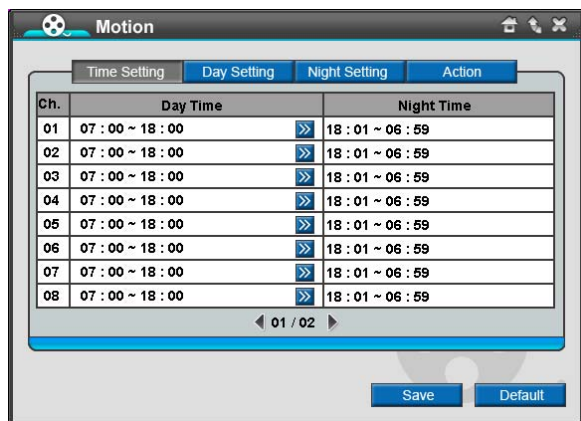
The 'Copy Settings' popup window shows a 'From' dropdown menu set to 'CAM01'. Below it, there are two sections: 'Properties' and 'To'. The 'Properties' section has checkboxes for 'Brightness', 'Contrast', 'Saturation', 'Sharpness', and 'Hue'. The 'To' section has a 'Select All' checkbox and a grid of checkboxes for cameras 'CH 01' through 'CH 16'. At the bottom are 'OK' and 'Cancel' buttons.

Copy Setting

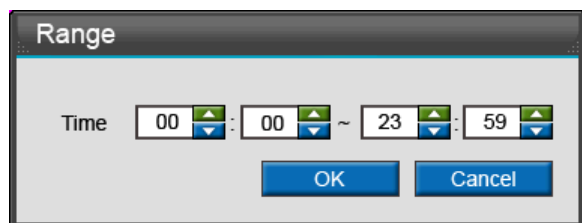
CHAPTER 4. VIDEO & AUDIO

3.Motion

The motion setup menu is used to configure the various settings for how the DVR will determine what is classified as “motion”. You may specify the sensitivity levels and areas on each camera channel for motion events to be captured.



Time Setting	Under the “Time Setting” tab, you will notice a “Day Time” setting, and a “Night Time” setting.
Day Time	Once you configure the “Day Time” clock range, the “Night Time” clock range will automatically be updated. To change the “Day Time” setting please click the button located to the right of each channel setting, and you will see the pop-up menu below to set the time range.



TIME RANGE SETTING:

After specifying the start and end time range, please click “Ok” to apply the changes, or click “Cancel” to discard them

To access the other menu options please click on each corresponding menu tab, e.g. “Day Setting”, “Night Setting”, and “Action”.

Once your desired settings have been made, please click on the “Save” button to apply the changes.

Click  button if you desire to discard the changes made to this menu.

Click  button to restore the original factory settings.

[Day Setting]



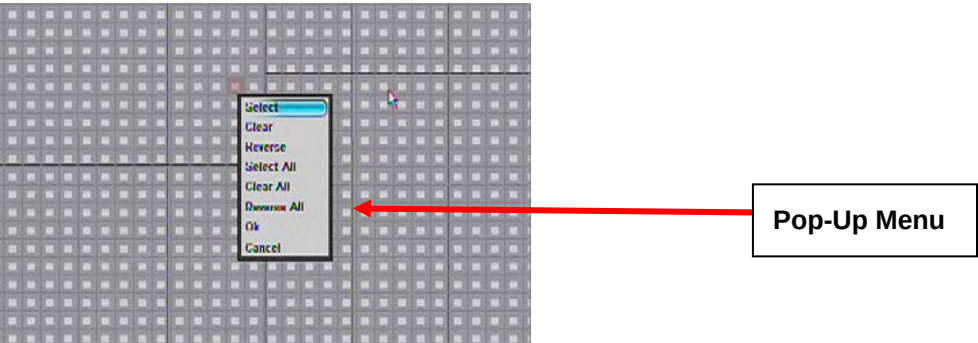
To activate or deactivate each channel, please click on the  button.

Ch.	Specifies the video channel number
Min. Blocks	Specifies the minimum number of blocks to detect for motion in the zone specified.
Sensitivity	There are a total of 5 settings for motion sensitivity, with “Highest” being the most sensitive, and “Lowest” being the least sensitive.
Mask Zone	Specify a zone for motion to be detected for each channel. The area that you specify will be the area where motion will be detected.
Dwell Time	Specify the post recording duration in seconds (1~99 Seconds) after motion is captured.

To access the other menu options please click on each corresponding menu tab, e.g. “Day Setting”, “Night Setting”, and “Action”. Once your desired settings have been made, please click on the “Save” button to apply the changes.

Click  button if you desire to discard the changes made to this menu.

Click  button to restore the original factory settings.



Cell Setup: Use the mouse cursor to select the starting point of the motion mask. Left click on the mouse to select the first cell. A single click will activate the selected area for motion detection, and click the same cell again will deactivate it. The area for motion detection will be in a darker shade.

Block Setup: To select a block of cells, or multiple cells, left click and hold down on the mouse, and drag over the cells you wish to activate. After you let go of the left click button, a pop-up menu will appear giving you multiple options.

Pop-Up Menu:

Select – Allow you to setup the deactivated area.

Delete – Allow you to setup the activated area.

Reverse – Allow you to reverse the current setting, If it is activated, the reverse option will deactivate the select area.



Once you have finished setting up the motion mask zone, right click on your mouse and select “Ok” from the pop-up menu to apply the changes you have made.

Day Setting, Copy Setting, Pop-up Page:

Copy Settings: You may choose to copy the settings from one channel to another, or to other multiple channels.

From	This is the source channel to copy the settings from.
Properties	These are the attributes you may select to copy from the source channel.
To	These are the channels that you copy the source channel settings to.
Ok	Press this button to apply the changes made.
Cancel	Press this button to discard the changes made.

Night Setting:



To activate or deactivate each channel, please click on the  button.

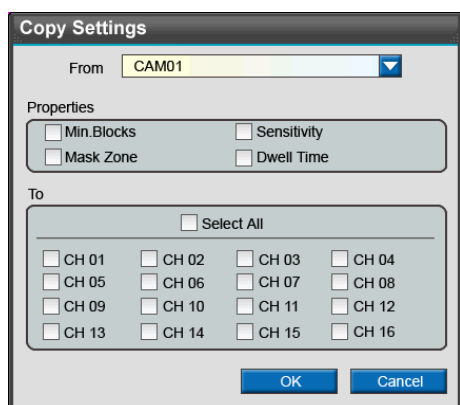
Ch.	Specifies the video channel number
Min. Blocks	Specifies the minimum number of blocks to detect for motion in the zone specified.
Sensitivity	There are a total of 5 settings for motion sensitivity, with “Highest” being the most sensitive, and “Lowest” being the least sensitive.
Mask Zone	Specify a zone for motion to be detected for each channel. Please refer to Figure 63 on the next page.
Dwell Time	Specify the post recording duration in seconds (1~99 Seconds) after motion is captured.

To access the other menu options please click on each corresponding menu tab, e.g. “Day Setting”, “Night Setting”, and “Action”. Once your desired settings have been made, please click on the “Save” button to apply the changes.

Click  button if you desire to discard the changes made to this menu.

Click  button to restore the original factory settings.

Night Setting, Copy Setting, Pop-up Page:

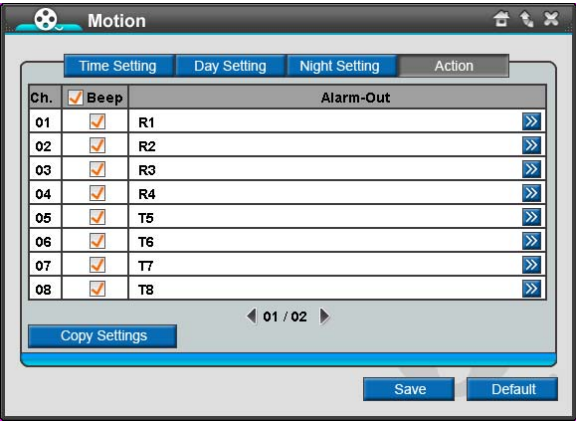


The image shows a 'Copy Settings' dialog box. At the top, there is a 'From' dropdown menu currently set to 'CAM01'. Below this is a 'Properties' section with four checkboxes: 'Min.Blocks', 'Sensitivity', 'Mask Zone', and 'Dwell Time'. Underneath is a 'To' section with a 'Select All' checkbox and a grid of checkboxes for channels CH 01 through CH 16. At the bottom are 'OK' and 'Cancel' buttons.

Copy Setting : You may choose to copy the settings from one channel to another, or to other multiple channels.

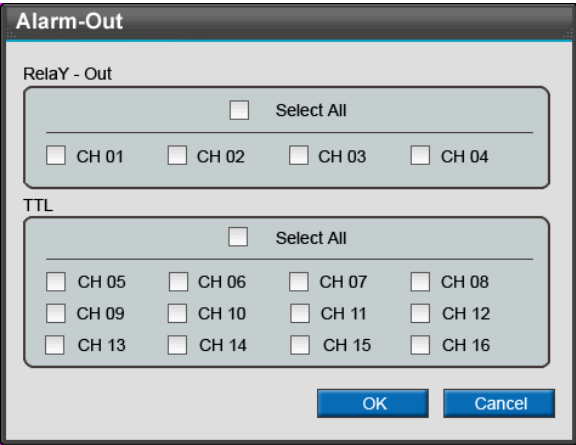
From	This is the source channel to copy the settings from.
Properties	These are the attributes you may select to copy from the source channel.
To	These are the channels that you copy the source channel settings to.
Ok	Press this button to apply the changes made.
Cancel	Press this button to discard the changes made.

Action:



Ch.	This represents the “action” number.
Beep	Check this box if you wish the DVR to make an audible noise when motion is captured.
Alarm-Out	Select this option to open the “Alarm-Out” pop-up menu to choose which sensor or relay will be activated when motion is detected.

Alarm-Out:



To access the other menu options please click on each corresponding menu tab, e.g. “Day Setting”, “Night Setting”, and “Action”.

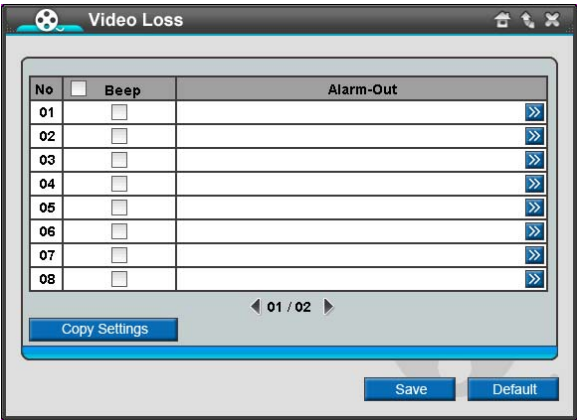
Once your desired settings have been made, please click on the “Save” button to apply the changes.

Click  button if you desire to discard the changes made to this menu.

Click  button to restore the original factory settings.

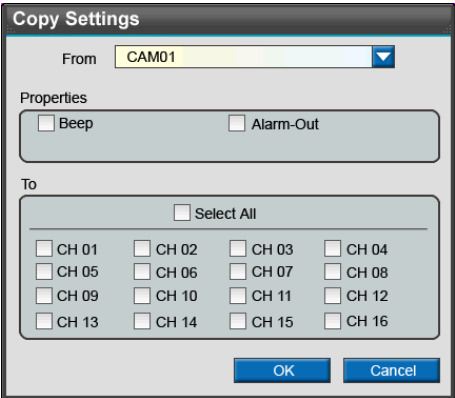
CHAPTER 4. VIDEO & AUDIO

4.Video Loss



No	This represents the “action” number.
Beep	Check this box if you wish the DVR to make an audible noise when video loss.
Alarm-Out	Select this option to open the “Alarm-Out” pop-up menu to choose which sensor or relay will be activated when motion is detected.

Video loss copy Settings,



Copy Settings: You may choose to copy the settings from one channel to another, or to other multiple channels.

CHAPTER 4. VIDEO & AUDIO

5.VGA

The DVR unit has one available VGA port. VGA port allows DVR unit to connect to standard computer monitor.



Check this first:

Your monitor must support below resolution.

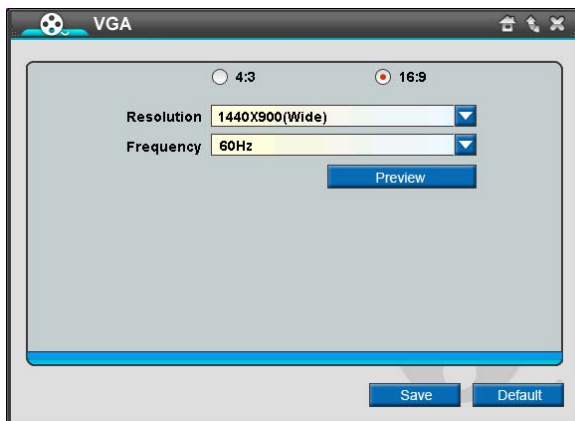
Resolution rate of 640X480 at 60HZ or 70HZ refresh rate.

Resolution rate of 800X600 at 60HZ or 70HZ refresh rate.

Resolution rate of 1024X768 at 60HZ or 70HZ refresh rate.

Resolution rate of 1280X1024 at 60HZ or 70HZ refresh rate.

Check your monitor user's guide.



On this window you may choose

Resolution rate of 640X480, 800X600, 1024X768, or 1280X1024 (Normal) 1680X1050, 1440X900, 1360X768 (Wide)

Frequency of 60Hz or 70Hz (Refresh rate)

VGA Configuration Window

Default Default button will set all settings to default parameters.

Save Use Save button to save the configuration.

CHAPTER 4. VIDEO & AUDIO

6.Event Display

There are two types of Spot Monitor types are available for the DVR units which are **Digital Spot** and Analog **Spot** monitor. In this section, we will introduce the difference between these two types of Spot monitors and how they can be configured.



Note: Analog Spot Monitor Operation Order

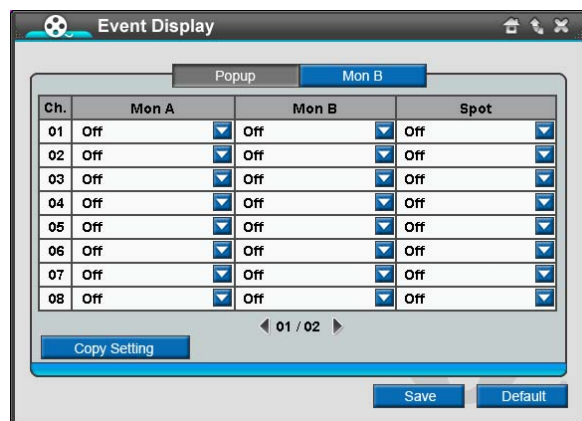
Sequencing of Channel 1 to Last Channel of camera with sequence time defined.

When event is triggered, the camera with event triggered will display until event stop.

If events occur simultaneously among Channel 1 and other channels, the DVR unit will wait until the event in Channel 1 is complete before move to next channel.

● Monitor Event Configuration

Analog Spot Monitor configuration has full screen view switching between given interval time. They may be enabled to react to the Alarm and Motion event configurable by each channel.

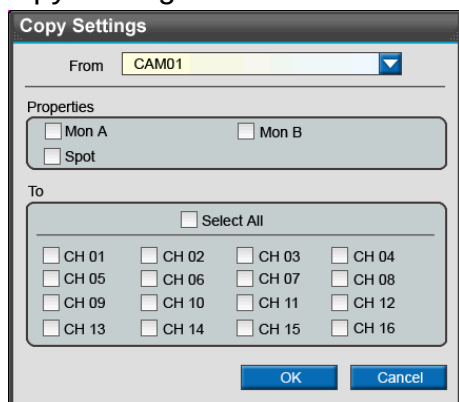


Enable or disable Event display by selection “**Alarm, Motion, A+M**” or “**Off**” radial button.

Spot Window with Spot Tab selected

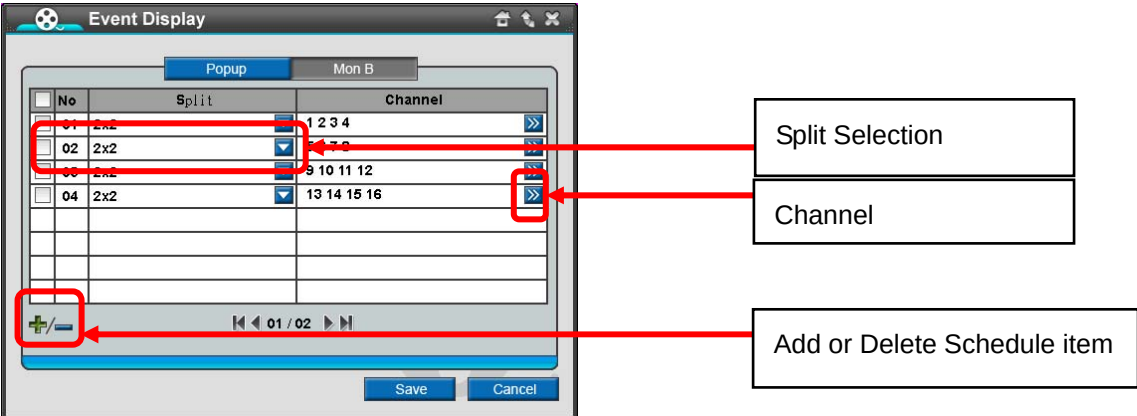
- Default** Default button will set all settings to default parameters.
- Save** Use this button to save the configuration.

Copy Settings

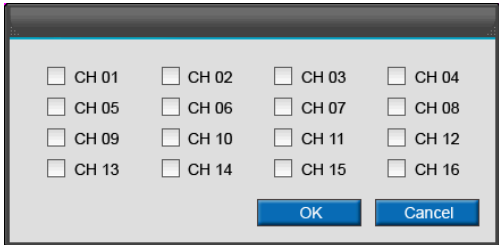


Digital Spot Monitor Configuration (Monitor B)

In Digital Spot monitor configuration, you may configure the sequencing in order. You may also have a full channel view sequencing and followed by 2X2 split display of assigned camera.



Spot Window with Spot Schedule tab selected

Split Selection	Choose between "Full" or "2X2"
Channel Selector	Upon clicking the channel selection button, a popup will appear. Select 1 or up to 4 cameras. (when selected 2X2 in the Split Selection section)  Channel Selection Popup
+ / -	Add or Delete Schedule item. To add just press the icon marked "+" to add another line To delete a line first select the line by pressing the check mark and then press icon marked "-" o delete



Note: Maximum Digital Spot Entry

You may have up to 21 lines of schedule entry for programmed line items and Digital Spot Monitor.

There could be 21 different sequencing combinations.

To help you understand the configuration of digital spot option we will consider a scenario and configure the Digital Spot to meet the requirement.

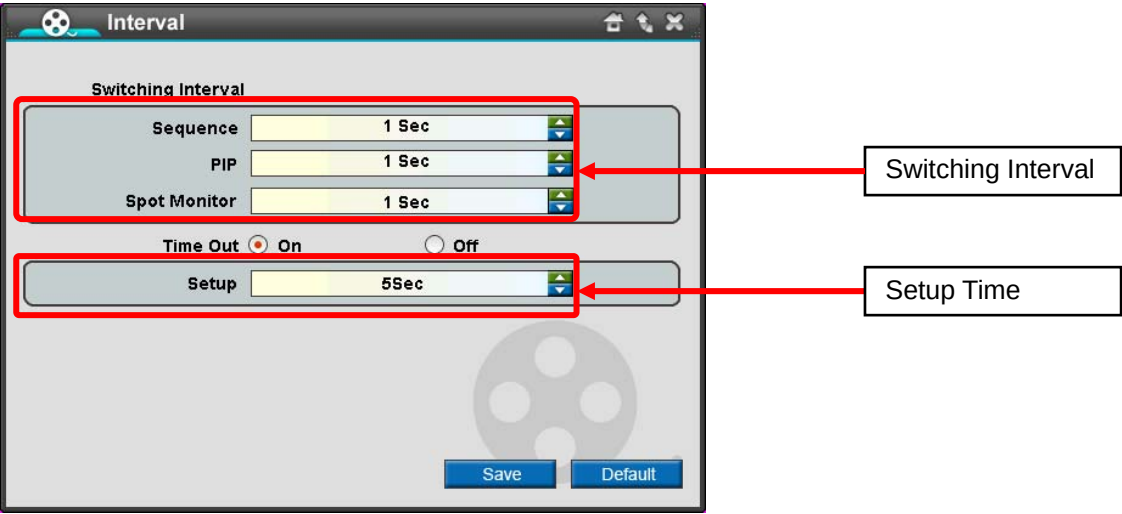
Possible Scenario:

You have a 16 channel DVR unit with 14 cameras enabled in channel 1~16 with Camera 9 and Camera 11 with no video feed. You want to install a Spot Monitor in front lobby to always see camera 1. You want to see full screen view of camera 1 then few seconds later 2X2 screen view with Camera 1, Camera 2, Camera 3 and Camera 4. Few seconds later you want it to sequence to 2X2 view with Camera 1, Camera 5, Camera 6 and Camera 7. You want to repeat until you see all cameras but omit camera 9 and camera 11 because they are not functional at this time.

You want to have Camera 4 to popup during any of these sequencing events, when you detect motion to this camera.

CHAPTER 4. VIDEO & AUDIO

7.Interval Time



Interval Window

Switching Interval	Sequence drop down bar depicts the time settings for the sequence interval time for live view sequence when sequence button is pressed. PIP drop down bar depicts the time settings for the sequencing interval time for the Picture in Picture sequencing function. Spot Monitor drop down bar depicts the time settings for the sequence interval time for the both the analogue spot and digital spot out monitor sequencing time.
Setup Time	Time Out radial button enables option to turn on or to turn off the Setup Time Out option. If Time Out radial button is On then you have selected the option to have setup menu return to live view after time selected on Setup interval time.

- Default

Default button will set all settings to default parameters.
- Save

Use this button to save the configuration.

CHAPTER 4. VIDEO & AUDIO

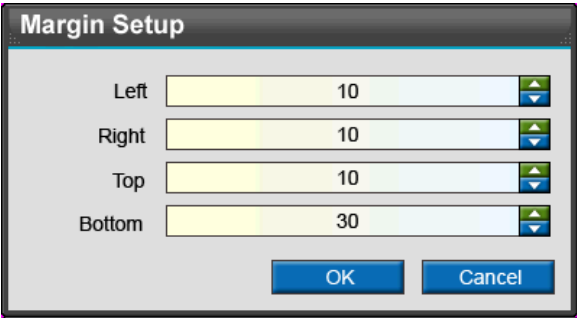
8.OSD

The On Screen Display (OSD) options dictate how label indicators will display for both live display screen and for playback display screen. It is also this section that you will choose system language, viewable margin, and window transparency settings. OSD window may be accessed by using the drop down button located near upper left corner of any configuration window.

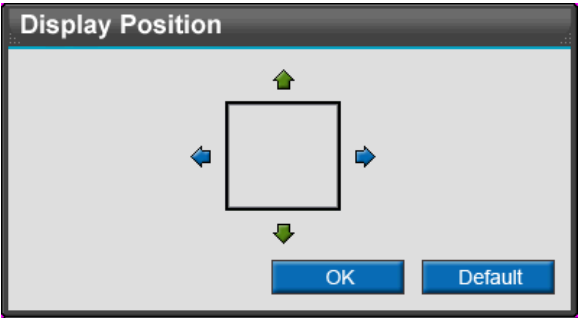


There are identical check boxes available for **Live** and **Playback** section. These check boxes are to choose what display items to appear for live and playback display screen.

Time Out	selection clears out the OSD display items to clear when there is no input action is performed
Select All	Check all checkbox items under Live and Playback section (Will enable items 2~5)
Camera Title	Display Camera Title for Live and Playback display
Alarm/Motion Event	Shows Alarm and Motion icons in Live view and indicate such event.
Percent Bar	Shows current HDD utilization.
Channel Status	When chosen, upon video loss it labels the camera channel with "Video loss" indication
Date/Time	Shows date and time label for Live and Playback display.
Transparency	Setting has five different settings you choose from.(10%~100%) These transparency settings are applied for all windows and popup menu items on the DVR system.
Language	Section is the location to choose the DVR system language. Languages available to the DVR system are, English (default), Korean, Japanese, Chinese, French, German, Italian, Spanish, and other languages.
Margin Setup	Margin Setup button will bring up the Margin Setup Popup to control the viewable margin for the live view screen display.
Display Position	Adjust whole screen display position.



Margin Setup Popup

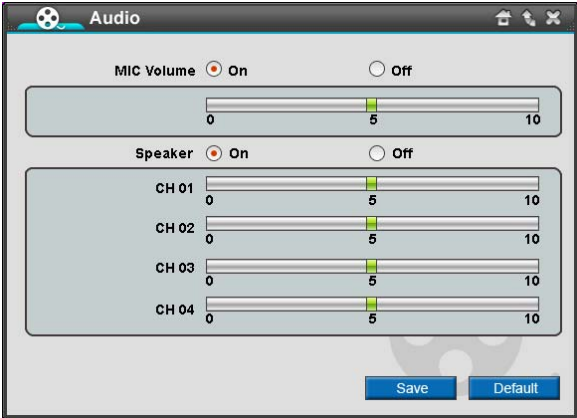


Display Position Popup

CHAPTER 4. VIDEO & AUDIO

9.Audio

Users are able to configure Microphone and speakers volume in the Audio Menu.

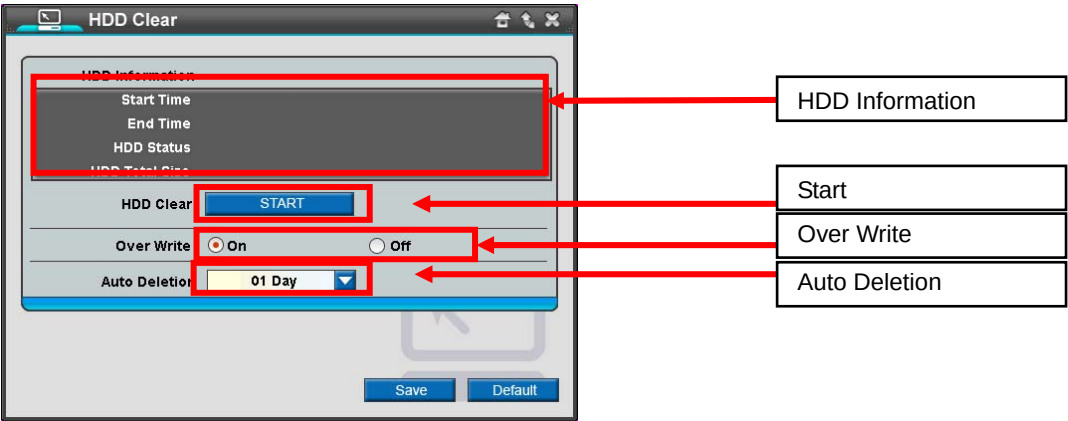


MIC Volume	Selectable radial buttons “On” and “Off”. With radial buttons set to “On”, you may adjust the volume for the microphone.
Speaker	Selectable radial buttons “On” and “Off”. With radial buttons set “On”, you may adjust the volumes for the 4 available channels for audio output

CHAPTER 5. SYSTEM

1.HDD Clear

The Hard Drive Clear menu not only displayed HDD information but provides 3 options for the hard disk drive of the DVR. The HDD Clear function is not only used to format (delete) all recorded video data located on the DVR, but also is performed after a firmware update is applied.

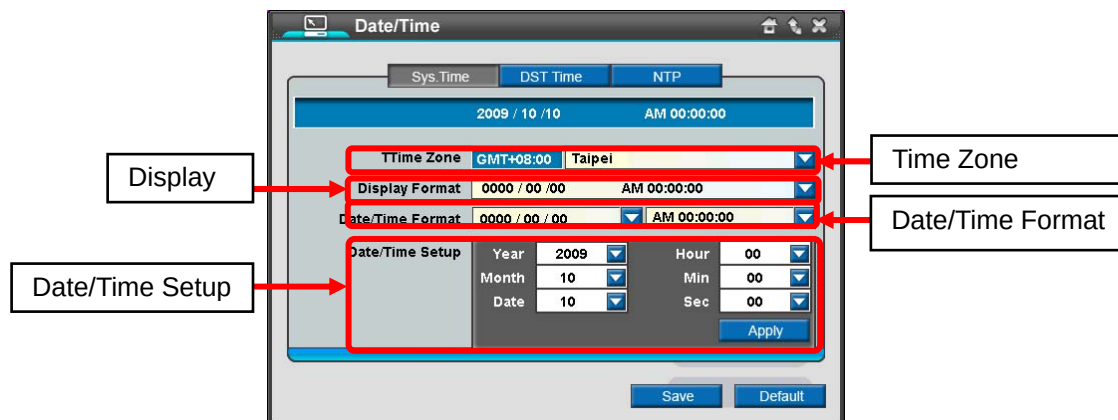


HDD Information	(active status display for hard disk drive)
	Start Time: indication that shows when the first data is present by time when the first data was recorded.
	End Time: indication that show when the last data is present by the time when the last data was recorded on the hard disk drive.
	HDD Status: indication of current status of the hard disk drive.
	HDD Total Size: indication of total Hard disk size installed for the DVR
HDD Clear	Start button: initiates hard disk clear option.
Over Write	Select ON to enable and OFF (default) to disable the overwrite option.
Auto Deletion	Auto Deletion drop down button: you may select set time parameter to start deleting the recorded data regardless of storage space left over on the hard disk drive. (Example: if parameter is 1 day even if there is enough hard disk storage space capable of recording more than 1 day might be present system will only keep data for 1 day worth and will overwrite the information present in hard disk drive.)

CHAPTER 5. SYSTEM

1.Date and Time(System Time)

In this **Date/Time** window, you will be able to locate three tab buttons called **Sys. Time**, **DST Time**, and **NTP**.



To manually configure system time, you must do so in Date/Time window with Sys. Time tab section in this window there are five configurable items.

Time Zone	Select appropriate time zone by clicking on the drop down icon button. If your location can not be found, please select the closest city and check the GMT (Greenwich Mean Time) indicated.
Display Format	Toggle between date and time or time and date position.
Date/Time Format	Choose how the date and time will display. You may choose the either year or month to be appeared first. in time section, you may choose either 24 hour display or A.M. and P.M. display.
Date/Time Setup	Manually input current system time by selecting year, month, date, hour, minute, and second.

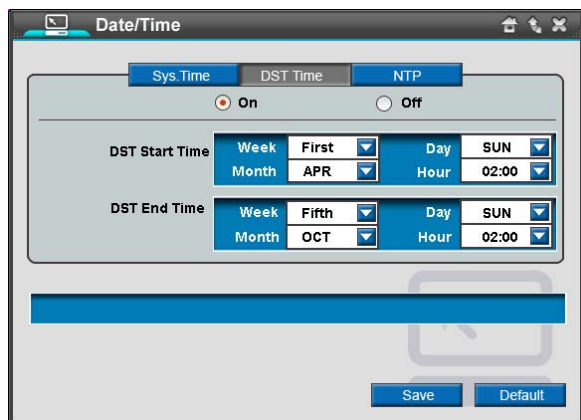
**CAUTION!**

You must perform Hard Disk Clear procedure after the time change. Especially, when time setting has been back dated, perform the Hard Disk Clear procedure. There could be duplicate recording events recorded on to the hard disk drive and may corrupt hard disk indexing operation. Before performing the hard disk format, please backup any important data items.

CHAPTER 5. SYSTEM

2.Date and Time(DST Time)

In some regions of the world, DST (Daylight savings time) must be configured in order to display correct time after DST changes. To configure the DST setting, click on DST Time tab button from Date/Time window.



Select “**On**” radial button to enable DST option, and **Off**” as default.

DST Start Time: Choose month, week, day and hour that DST will start.

DST End Time: Choose month, week, day and hour that DST will end.

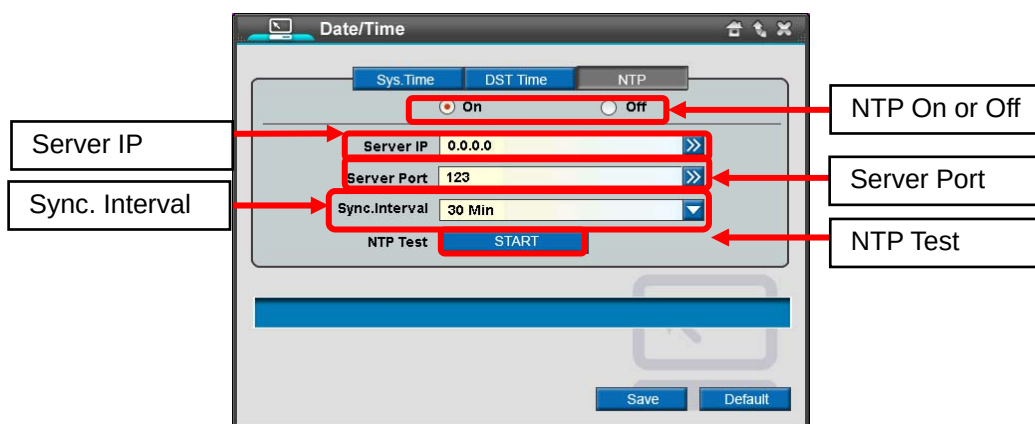
Note:

Many North American countries: Since 2007, daylight saving time starts on the second Sunday of March and ends on the first Sunday of November, with all time changes taking place at 2:00 a.m. local time. Please check your region’s DST time rules.

CHAPTER 5. SYSTEM

3.Date and Time(NTP)

Multiple DVR units may have synchronized time by utilizing network time configuration. They could be configured by using NTP settings provided with the DVR. You will be able to locate this page by clicking on **NTP** tab button found on **Date/Time** window.



NTP On or OFF	In this section, you may enable NTP by selecting “On” radial button and disable it by selecting “Off” radial button.
Server IP	Provide IP address number for the NTP time server IP address.
Server Port	In this section, provide Port number for the NTP time server.
Sync. Interval	In this section, define synchronization interval time by selecting drop down button
NTP Test	In this section, press the “NTP Test” button to test the connection to the time server. Upon successful connection, system will prompt Connection Success message. If connection can not be established then, it will prompt Connection Failure message will show.

CHAPTER 5. SYSTEM

4.User Authority

Administrator user Account

There is only one Administrator Account configurable in the DVR system. It is assigned with unchangeable User ID marked as Admin. The default password is blanked out and administrator account has full access to the DVR and its configurable parameters. The Administrator Account also has ability to assign rights to the Manager Accounts and User Accounts.



By default, Admin account has NO password. In order to protect the DVR, it is strongly recommended to setup the DVR with administrator password. Password settings will be covered in this chapter r.

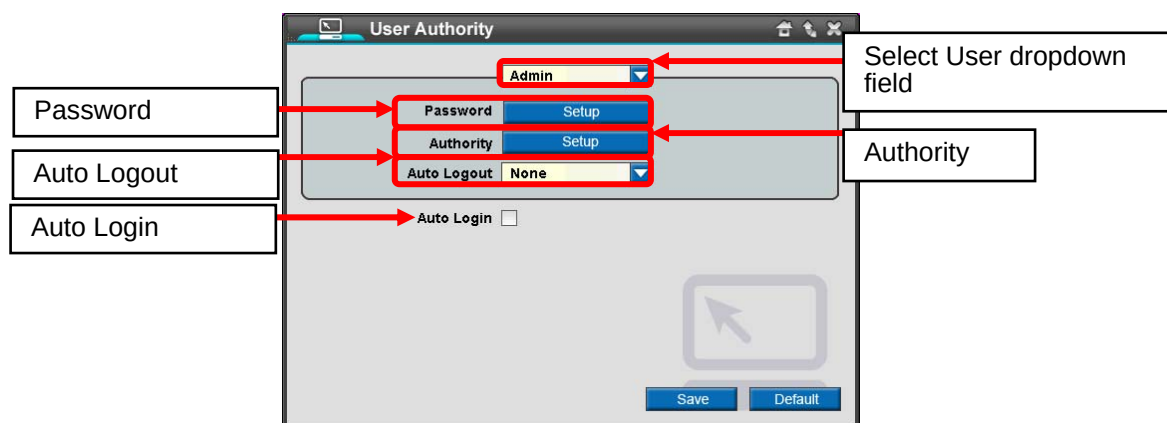
Manager User Account

The Manager user accounts are usually given to users that requires more privileges compared to than Regular User account. Manager accounts also have ability to assign privileges to the Regular User accounts. Limitations will be that Manager Account only may grant user privileges that Manager Account currently possesses.

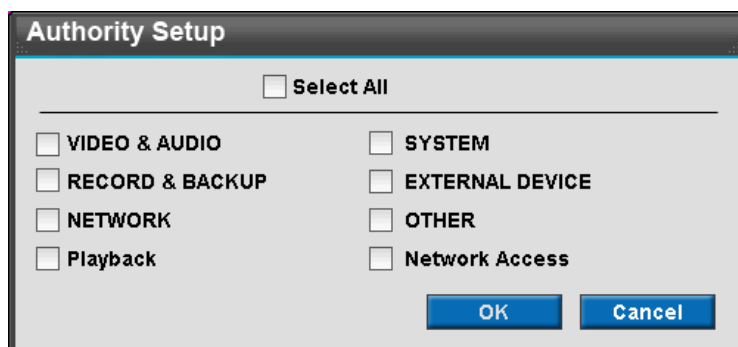
Manager User Account IDs are defaulted with Manager1 ~ Manager 3.

Regular User Account

The Regular User Accounts are usually given to users that require performing certain task without having the full access of the privileges. They are the simplest type of user account arranged by IDs in range of User 1 ~ User 7.



Select User Type	Select between Admin, Manager 1, Manager 2, Manager 3, and User 1 ~ User 7. Select the user first before continuing with other configuration.
Password Setup button	It will bring up the Popup window called Password. In this popup you will need to provide current password and input new password. End by confirming the new password and select "OK" button.
Authority Setup button	Upon clicking Setup button next to Authority field it will bring up Authority Setup popup window. In this popup window you may select privileges associated with accounts selected in Item 1. Select User Type. In this window you may enable all check boxes by selecting Select All check box. From here you may uncheck any or all user privileges you want to assign to particular selected user account. Upon completion of selecting appropriate user privileges save by clicking the "OK" button. Cancel by selecting the "Cancel" button. Repeat for other user type by reselecting Item 1. Select User Type and follow the same procedure.
Auto Logout selection	This section configures the time parameters to auto lock the DVR unit and takes it back to the "Live" display mode. You have to login again to setup or operate the DVR unit
Auto Login check box	With this check box checked, you are not required to provide login when navigating from "Live" display mode to "Setup" screen.



Authority Setup Popup

There are 8 different types of User authority that may be assigned to both Manager Accounts and Regular User Accounts

1	VIDEO & AUDIO	5	SYSTEM
2	RECORD & BACKUP	6	EXTERNAL DEVICE
3	NETWORK	7	OTHER
4	PLAYBACK	8	NETWORK ACCESS

CHAPTER 5. SYSTEM

5.Alarm In

This window can be accessed by using the quick navigation drop down list from any configuration window.

Alarm In

Setting

Action

No.	Type	Beep	Alarm-Out	Dwell Time
01	NO	☒	R1	5 Sec
02	NO	☒	R2	5 Sec
03	NO	☒	R3	5 Sec
04	NO	☒	R4	5 Sec
05	NO	☒	T5	5 Sec
06	NO	☒	T6	5 Sec
07	NO	☒	T7	5 Sec
08	NO	☒	T8	5 Sec

◀ 01 / 02 ▶

Copy Setting

SaveDefault

No.	This represents the “action” number.
Type	Set Alarm in type.
Beep	Check this box if you wish the DVR to make an audible noise when Alarm trigger.
Alarm-Out	Select this option to open the “Alarm-Out” pop-up menu to choose which sensor or relay will be activated when alrem is trigger ed.
Dwell Time	Set up the alarm out duration.

Alarm In

Setting

Action

No.

Record Channel

01	01	»
02	02	»
03	03	»
04	04	»
05	05	»
06	06	»
07	07	»
08	08	»

◀ 01 / 02 ▶

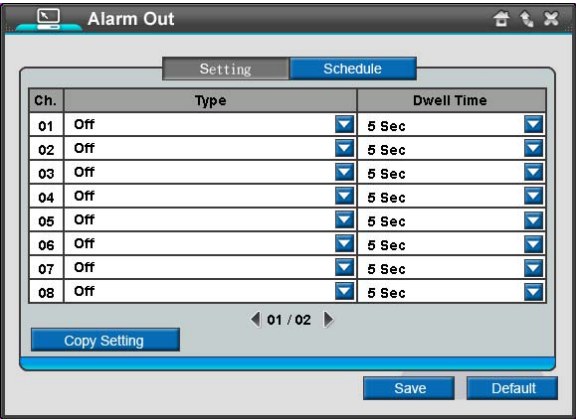
SaveDefault

No.	This represents the “Alarm In” number.
Record Channel	Check this box if you wish the channel need to record when Alarm trigger.

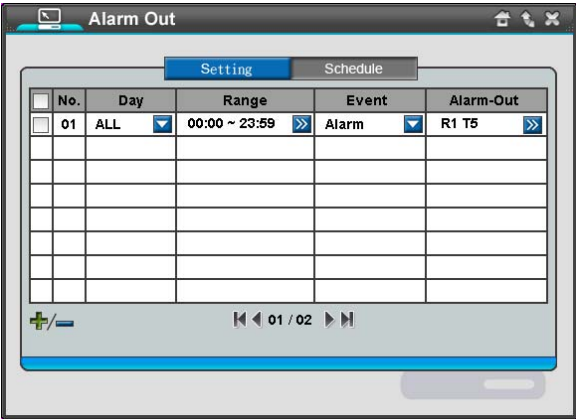
CHAPTER 5. SYSTEM

6.Alarm Out

Setup the alarm output configuration when events are triggered.



No.	This represents the Alarm out number.
Type	Set up Alarm out type.
Dwell Time	Set up the alarm out duration.

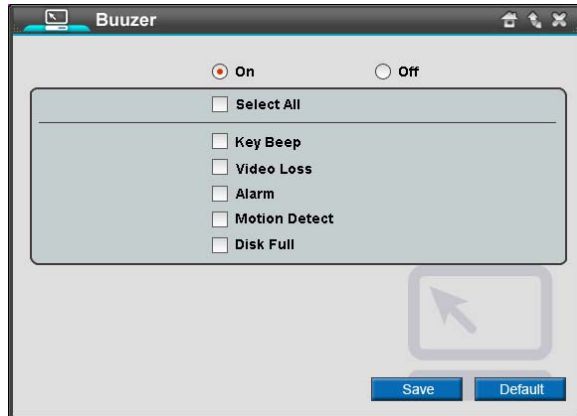


No.	This represents the Alarm out number.
Day	Select a day for alarm out schedule.
Range	To change the “Range” setting please click the button located to the right of each channel setting, and you will see the pop-up menu below to set the time range.
Event	Set up Event trigger type.
Alarm-Out	Select this option to open the “Alarm-Out” pop-up menu to choose which sensor or relay will be activated when motion is detected.

CHAPTER 5. SYSTEM

7.Buzzer

In the Buzzer window you have options to configure system buzzer to sound depending on the selectable criteria. Some buzzer will sound for fixed amount of time and some will sound until attention is given to stop the audible alert.



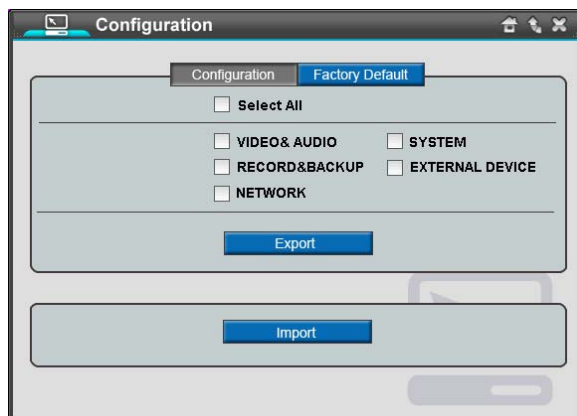
On the top to the page you will find two radial buttons “On” and “Off”. With “On” button selected audible beep will be enabled and with “Off” selection it will disable any audible beep.

With “Select All” check box checked, all the check boxes below will be checked as well. There are five types of criteria configurable to sound off the audible beep.

CHAPTER 5. SYSTEM

8.Import and Export Configuration

This window allows user To import and export the DVR units system configuration file.



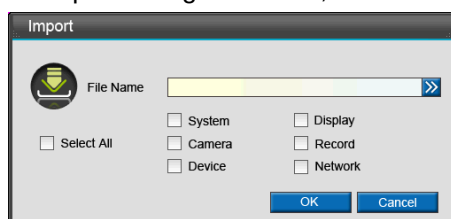
The Select All button enables all check box items to be selected.

There are five categories of configuration possibilities listed after check box and they are

VIDEO&AUDIO, RECORD&BACKUP,NETWORK,SYSTEM and EXTERNAL DEVICE. They are the same categories of items selectable at Main system menu.

Import configuration

To import configuration file, click on the button marked “Import” and bring up the Import popup window.

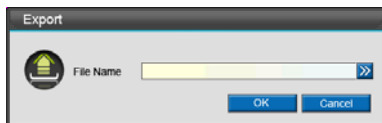


Import Popup Window

Click on  button show on left to define path and file name of file to be imported.

Export configuration

To export configuration file, click on the button marked “Export” and bring up the Export popup window.



Export Popup Window

Click on  button show on left to define path and file name of file to be exported.



Note:

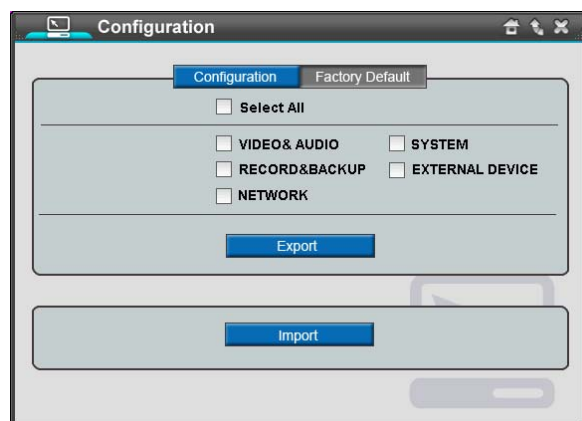
The DVR unit configuration files could only be imported and exported by using the external USB memory stick. Import and Export functions are not currently supported via the Network transmission.

CHAPTER 5. SYSTEM

9.Factory Default

It is highly recommended to perform Factory Default Configuration when the DVR unit has upgraded HDD, Software (Firmware), or instructed by technical support agent.

There are six categories of configuration which are **VIDEO&AUDIO**, **RECORD&BACKUP**, **NETWORK**, **SYSTEM** and **EXTERNAL DEVICE**. They are the same categories of items selectable at Main system menu.



To apply the factory default setting first select the categories of settings that needs to apply factory default to. Then simply press the “**Default**” button on the center of the screen to apply the factory default configuration.

Configuration Window with Factory Default button pressed

CHAPTER

6

RECORD & BACKUP

This chapter will cover both record setup and the multiple record schedule options of the DVR. The record setup section details the 4 recording profiles that the DVR supports. You have the option to set Normal, Event, Pre-Alarm, and Panic recording profiles. Record schedules are classified under the Standard Record Schedule type and Holiday Record Schedule type.

CHAPTER 6. RECORD & BACKUP**1. Record Setup**

The record menu is used to configure the setup type for each individual camera channel. You may specify resolution, video quality, and frame rate for recording. You will see four profiles for configuring the record setup:

Normal – This profile is used for standard scheduled recording. The settings will be used under normal recording environments.

Event – This profile is used for recording triggered by events like motion triggered or alarm triggered recording. The “Event” record settings will override your “Normal” record settings if a motion or alarm triggered event occurs.

Pre-Alarm – This profile is used to specify the pre-recording type and duration in seconds when either motion or alarm triggered recording occurs. You may specify dwell time (the recorded time allowed pre motion/alarm event) allowed. As well as the type of event, e.g. motion or alarm. These settings will override both “Event” and “Normal” record settings.

Panic – This profile is used to specify the recording type when the “Panic” record button is engaged. The “panic” record button is located on the front panel of the DVR, as well as on the “Live Pop-Up Menu” (accessed by right clicking the live view screen with the mouse). The “panic” record settings will override both “Event” and “Normal” record settings. The “Pre-Alarm” settings will not be affected because these settings are used for the “pre-event” recording only.

Recording Resolution & Frame Rate: (Normal/Event/Pre-Alarm/Panic)

704x480 (NTSC) @ 30 Frames Per Second Per Channel (All Channels – 1~16)

704x240 (NTSC) @ 30 Frames Per Second Per Channel (All Channels – 1~16)

352x480 (NTSC) @ 30 Frames Per Second Per Channel (All Channels – 1~16)

352x240 (NTSC) @ 30 Frames Per Second Per Channel (All Channels – 1~16)

Configurable Per Channel

Video Quality Settings: (Normal/Event/Pre-Alarm/Panic)

- Highest / High/ Normal/ Low/ Lowest

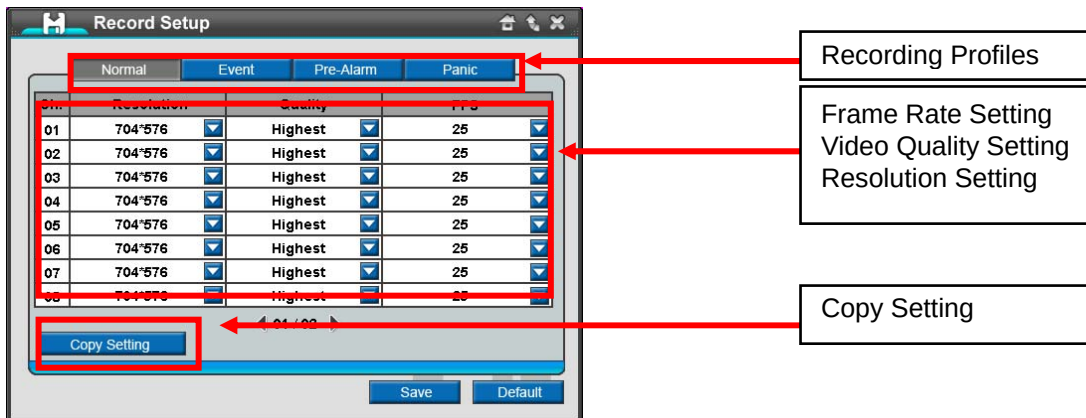
Configurable Per Channel

Frame Rate Settings: (Normal/Event/Pre-Alarm/Panic)

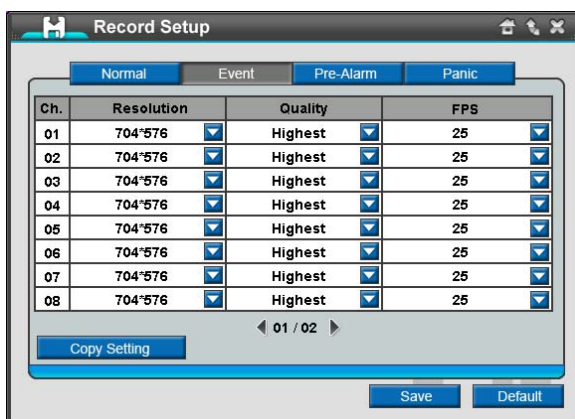
Each channel can be configured from 1 through 30 frames per second.

Copy Settings: (Normal/Event/Pre-Alarm/Panic)

Use this option to copy the current selected setting to the other settings of each channel

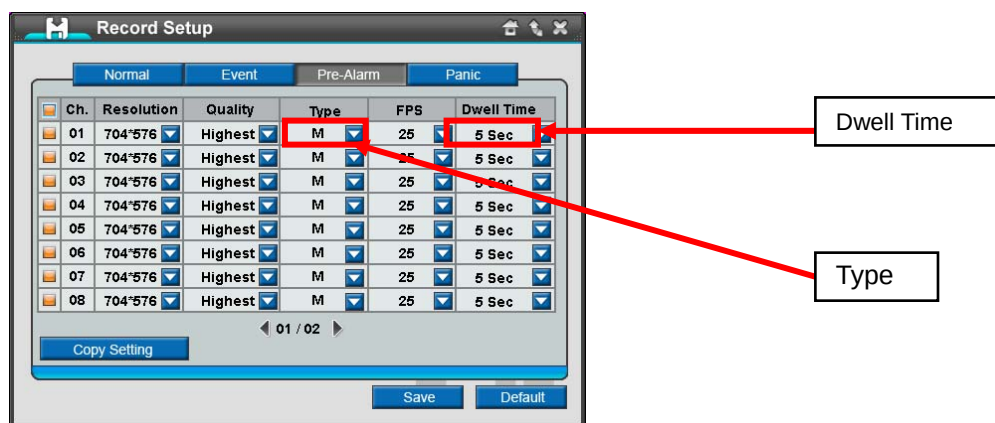


Recording Profiles	There are four different recording profile types, Normal, Event, Pre-Alarm, and Panic. Each recording profile has its' own record settings, e.g. Resolution, Quality, and FPS setting. However, the Pre-Alarm profile will have additional settings, e.g. Type and Dwell Time, so that the user may configure the type of Pre-Alarm (Motion, Alarm, Motion + Alarm) and Dwell Time (pre-record buffer-the length in seconds the DVR will record prior to the alarm recording).
FPS	(NTSC: 1,2,5,10,15,30 / PAL:1,2,4,8,12,25) The DVR supports from 1 to 30 frames per second per channel. The frame rate setting is configured by clicking on the drop down menu and selecting desired frame rate.
Quality	There are four video quality settings you may choose for each individual camera channel. The options are Highest, High, Normal and Low. This option will adjust the image/video sharpness with Highest being the highest sharpness setting, and Low being the lowest sharpness setting.
Resolution	There are four selectable resolution settings per camera channel. These setting options are: 704x480, 704x240, 352x480, 352x240 (NTSC) 704x576, 704x288, 352x576, 352x288 (PAL) You may select any combination of recording resolution desired for each individual channel.
Copy Setting	The Copy Setting option is used to replicate a particular camera channel setting(s) to the other available camera channels. You have the option to copy all three settings, Resolution, Frame Rate, and Video Quality or each individual setting. The From option is to select which camera channel to copy the setting(s) from, and the To option is to select which camera channel(s) to replicate the settings to. The Copy Setting can be used for each of the four Recording Profiles.



Event Tab Selected

Event – This profile is used for recording triggered by events like motion triggered or alarm triggered recording. The “Event” record settings will override your “Normal” record settings if a motion or alarm triggered event occurs. The options for RESOLUTION, QUALITY, FPS, COPY SETTINGS, DEFAULT, SAVE, AND CANCEL are the same as the NORMAL record settings



Pre-Alarm Tab Selected

Pre Alarm– This profile is used to specify the pre-recording type and duration in seconds when either motion or alarm triggered recording occurs. You may specify dwell time (the recorded time allowed pre motion/alarm event) allowed. As well as the type of event, e.g. motion or alarm. These settings will override both “Event” and “Normal” record settings. The options for **RESOLUTION, QUALITY, FPS, COPY SETTINGS, DEFAULT, SAVE, AND CANCEL** are the same as the **NORMAL** record settings. However the two additional options for this menu are:

Type	The DWEELL TIME option is used to specify the post recording duration in second(s). This will determine how long the recording will run for the specified channel after the PRE-ALARM is triggered.
Dwell Time	The TYPE option is used to specify which pre-alarm trigger to use, e.g. MOTION OR ALARM.



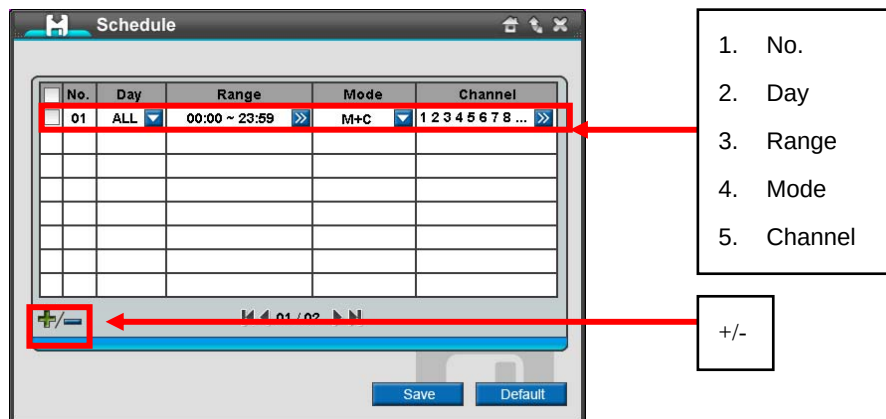
Panic Tab Selected

Panic – This profile is used to specify the recording type when the “Panic” record button is engaged. The “panic” record button is located on the front panel of the DVR, as well as on the “Live Pop-Up Menu” (accessed by right clicking the live view screen with the mouse). The “panic” record settings will override both “Event” and “Normal” record settings. The “Pre-Alarm” settings will not be affected because these settings are used for the “pre-event” recording only. The options for **RESOLUTION, QUALITY, FPS, COPY SETTINGS, DEFAULT, SAVE AND CANCEL** are the same as the **NORMAL** record settings

CHAPTER 6. RECORD & BACKUP

2. Standard Record Schedule

The record schedule menu is used to configure specific date and times for the DVR to record. You may use multiple schedule configurations in this menu to meet the demands of your recording needs. Individual channels may be configured



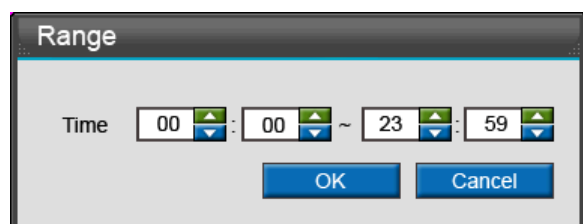
No.	This represents the schedule entry number. Please check the box on the left side of the No. (number) before choosing to remove the entry.
Day	The day option is to set the desired day(s) to enable recording (The “ALL” setting may be used to configure all 7 days of the week).
Range	The range option is to set the desired time to enable recording.
Mode	There are five mode types to choose from; Alarm, Motion, Continue, A + M (Alarm + Motion), and M + C (Motion + Continue). This setting will determine what type of mode to enable for recording.
Channel	Use this option to select the desired channels for Record Schedule configuration. You may select each individual channel, a group of channels, or all channels to apply the record settings to.
+ / -	Check the desired entry(s) then press – to remove it. If you wish to add an entry(s), press the + key to do so.

- : Press this button to go to the first page : Press this button to go to the previous page

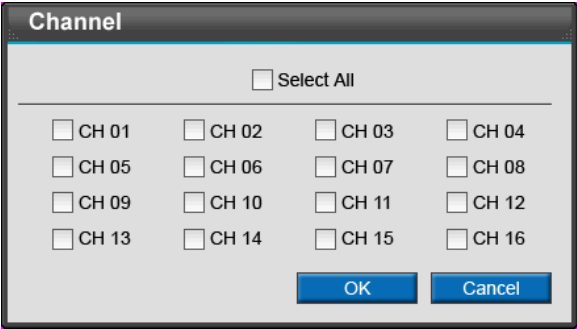
- : Press this button to go to the next page : Press this button to go to the last page

Once your desired settings have been made, please click on the “Save” button to apply the changes.

If you desire to discard the changes made to this menu, please click on the “Cancel” button.



Time – You can specify the start and end time here.

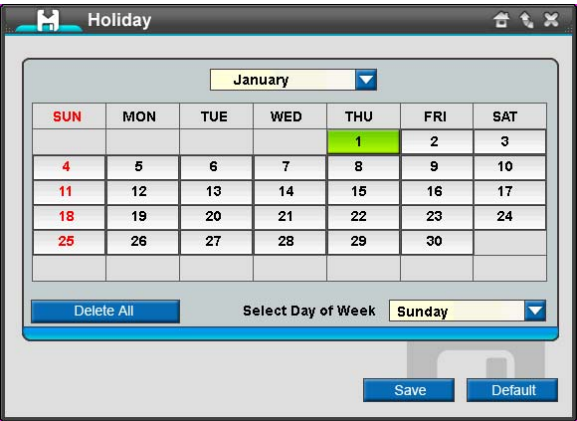


Select All	Press this button to select all channels.
CH 01 ~ CH 16	You can choose individual channels for recording.
Ok	Press this button to save the settings.
Cancel	Press this button to discard the changes made.

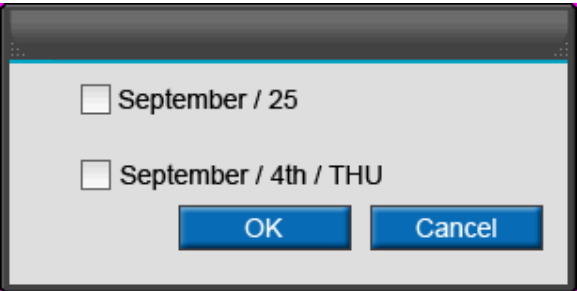
CHAPTER 6. RECORD & BACKUP

2.Holiday schedule

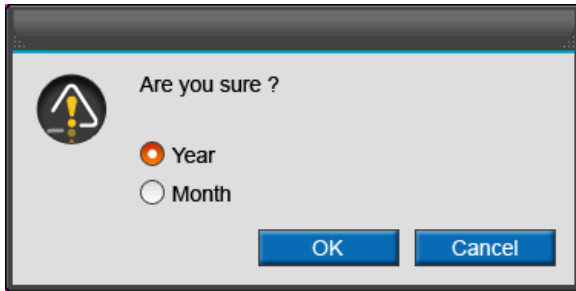
The Holiday Schedule is used to specify certain holidays' throughout the calendar year. This setting may be used to make exceptions to the recording schedule due to holiday hours and days of operation during these times.



Once you click on a specified date, a pop-up menu will appear



To verify the Holiday schedule, please check the box accordingly. Then press “Ok” to save the setting, or press “Cancel” to discard the changes made. If the changes were successfully the color of the pop-up menu will appear in a different color.



Year	Choose this option to delete all holiday schedules for the year.
Month	Choose this option to delete all holiday schedules for the month.
OK	Press this button to confirm the action.
Cancel	Press this button to discard the action.

Select Day of Week – The standard holiday is Sunday, but you may choose what day to specify. Once your desired settings have been made, please click on the “Save” button to apply the changes. If you desire to discard the changes made to this menu, please click on the “Cancel” button.

CHAPTER 6. RECORD & BACKUP

3.CD/DVD/USB Backup

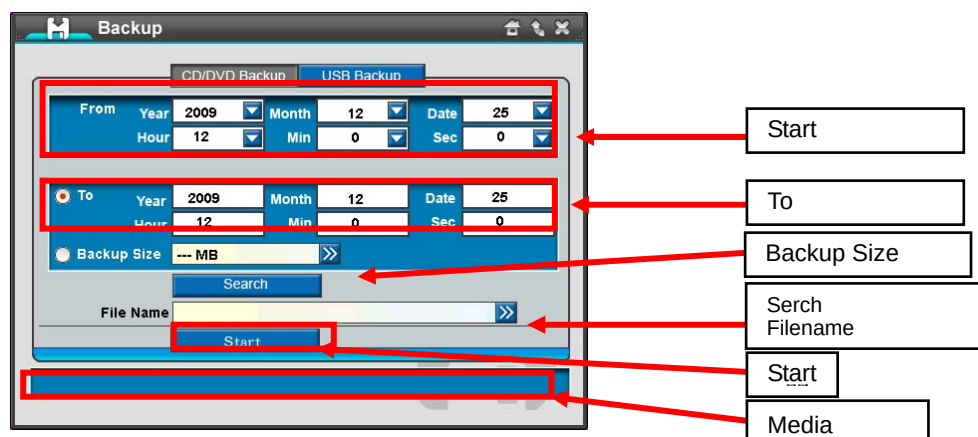
There are two options for recorded video data back up from the DVR, CD/DVD-RW drive and USB memory stick. A third back up option is available via our CMS (Central Monitoring Software) and Remote Client Software (Network Back Up). The details of our CMS and Remote Client back up will be further discussed in the Remote Client chapter of this manual or CMS manual.

CD/DVD-RW Back Up

The DVR is compatible with S-ATA (Serial ATA) DVD/RW-CD/RW drives. The media that you may use are 4.7GB DVD-R and 700MB CD-R blank discs or what is determined as compatible with the CD/DVD-RW drive from the manufacturer. Please insert the blank CD-R or DVD-R into the drive before beginning the back-up procedure.

USB Back up

The DVR supports USB memory stick back up via the USB 2.0 port located on the front side of the DVR. There is one USB port available for back up.



Media / Storage	Media - The media section of this menu will display the disc information of the blank media loaded in the CD/DVD-RW drive. The size available for back up will be noted in this section. If the media fails to load this section will state: “Initializing Media Success”, if it fails it will state, “Initializing Media Failed”. Storage - The storage section of this menu will display the USB media information. The size available for back up will be noted in this section. If the media fails to load this section will state: “Initializing Media Success”, if it fails it will state, “Initializing Media Failed”.
From	The from section is used to select the start date and time for back up. You can specify the year, month, day, hour, minute, and second by clicking on the drop down arrow located next to each selection.
To	The to section is used to show the end date and time for back up. It is specified by the backup size
File Name	You are able to specify the file name for the backup file in this section. Click on the ... key to bring up the on screen keyboard.
Search	The search button is used to confirm that the specified date range is available for backup. If the date and time specified is not available, the closest date and time available to the specified date and time will be selected.
Back Up Size	This section can be used to specify a maximum back up size. The size will be set in megabytes. After selecting the backup size, the to date and time will be adjusted automatically according to the backup size you specify. *Notice: Minimum backup size is 100MB.
Start	The start button will begin the backup process. You may cancel the back-up procedure by clicking on cancel.



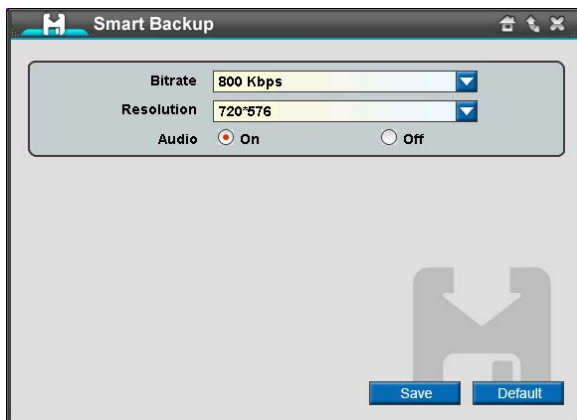
Notice!

1. If there is any time-overlapped data (ex: DST etc.) among the recorded data you want to back up, the window which you can select the one of time-overlapped data will pop up and “Search” will be done according to the selected data.

2. When the DVR is under HDD overwriting mode, back up can be done from the data of more then 1 hour later of “Recorded start time” (Because when the overwriting is on working, the “Recorded start time” is changing continuously)

CHAPTER 6. RECORD & BACKUP

4.Smart Backup Setup



Bitrate	Setup up Smart Backup picture quality.
Resolution	Setup up Smart Backup picture Resolution.
Audio	Select audio On or off when Smart backup.

CHAPTER

7

EXTERNAL DEVICE

CHAPTER 7. EXTERNAL DEVICE

1.RS232

Through the RS232 port, users can connect the DVR to a PC or other control devices to control the DVR. Users cannot change value in this setting.



Baud Rate	The baud rate setting is used to determine the speed setting between the DVR and external device using the RS-232C port. The RS-232C port uses two voltage states commonly known as MARK (negative) and SPACE (positive).
	The baud rate will vary depending on the required settings of the external device used with the RS-232C port. Please refer to the operational manual of the device.
Data Bits	The data bit setting is used to determine the order of transmission for the least significant bit (LSB) to the most significant bit (MSB). The optional settings are from 5 to 8 bits.
Stop Bit	The stop bit setting determines the last part of the data frame. These bits are always represented by a negative voltage and will determine when data transmission will cease. The options for the stop bits are 1, 1.5, and 2 bits.
Parity	The parity bit is used as a simple method of error checking. This option specifies whether the parity of the transmission will be None, Odd, or Even bits. Suppose the parity is chosen to be odd. The transmitter will then set the parity bit in such a way as to make an odd number of 1's among the data bits and the parity bit.

CHAPTER 7. EXTERNAL DEVICE

2.PTZ

In order for the DVR unit to control the PTZ (Pan Tilt Zoom) type camera you must properly connect the PTZ to the DVR unit.



DO THIS FIRST

Before configuring PTZ camera to the DVR, you must first check following items in order.

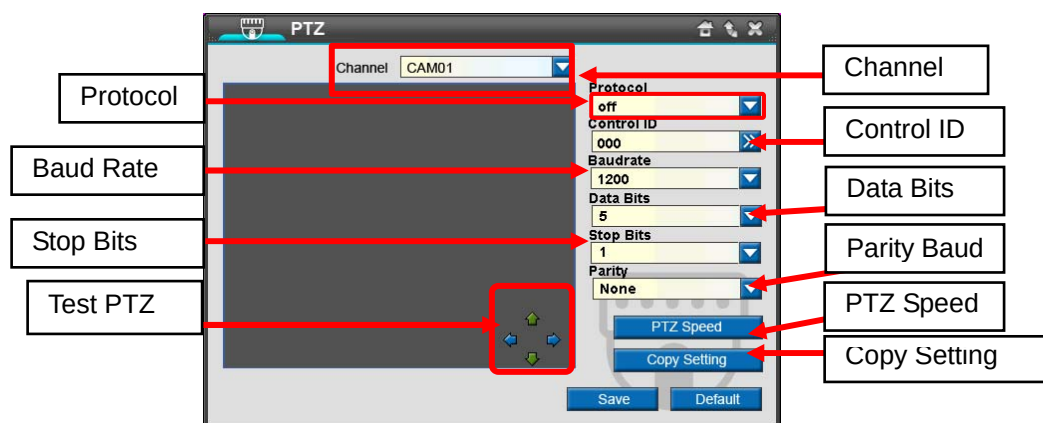
Step 1. Check PTZ manual to see what protocol the PTZ camera uses.

Step 2. Check for PTZ ID. Many PTZs have dip type switches that defines the ID number of the PTZ. If there is duplicate ID, you may experience improper movement among PTZs.

Step 3 Make sure that you PTZ device ID starts from 0 or 1. Some PTZs first configurable ID is from 0. If your PTZ starts from ID 0, then set the dipswitch setting to set to have ID 1 or other ID numbers.

Step 4 Check the type of connection your PTZ uses. RS-232 and RS-485 type of connection may be used to connect the PTZ. Check the type and connect it to the proper location marked behind the DVR unit.

Step 5 Make sure that your PTZ is not connected together with other controller devices such as PTZ Joystick controllers. Especially, if you are using RS-232 type you may experience communication clash between the DVR unit and Joystick controller unit. Avoid having multiple devices controlling the PTZ camera, this may cause inoperability.



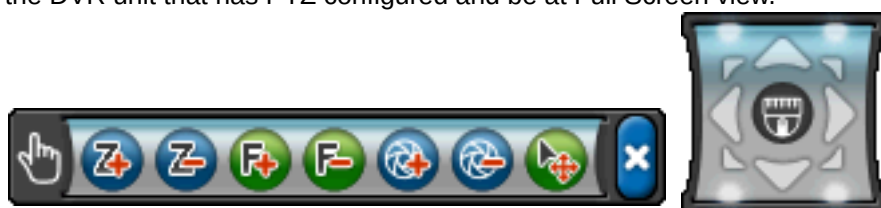
Channel	Select the camera channel of the PTZ camera associated with the DVR camera connection input.
Protocol	Select from drop down list, your PTZ camera's protocol setting.
Control ID	This is the section where you input the ID for the PTZ camera. It is very important to have different ID configured to the PTZ cameras.
Baud Rate	This drop down list shows all the possible baud rate configuration option that could be chosen.
Data Bits	In this dropdown list bar you may select from 5 to 8 bits. This the length of the bits used to communicate with PTZ and the DVR unit. Consult your PTZ manual to see what bit length your PTZ uses.
Stop Bits	In the dropdown list bar you may choose 1 or 2 for stop bit parameters. They are last bit being used by your PTZ.
Parity	It is check sum bit parameter counted in either 0 or 1.
PTZ Speed	Adjust PTZ move speed.

Copy Setting	Upon selecting the Copy Setting button, the Copy Setting popup will appear. This popup will enable you to select the PTZ camera configured, and enables you to copy.
Test PTZ (Pan and Tilt)	You may use the directional button here to test if your PTZ connection was successful. Upon successful configuration your PTZ should pan and tilt.

CHAPTER 7. EXTERNAL DEVICE

3.PTZ Operation

After setting the PTZ configuration you may operate the PTZ via the PTZ popup menu. First you must select the channel in the DVR unit that has PTZ configured and be at Full Screen view.



PTZ Control Panel Bar

On the frontal key pad press [PTZ] button and you will see PTZ tool bar as seen above.

	WIDE	Used to Zoom In.
	TELE	Used to Zoom Out.
	NEAR	Focus In.
	FAR	Focus out.
	OPEN	Open Lens IRIS.
	CLOSE	Close Lens IRIS.
	PRESET	Open Preset window.
	EXIT	Exit PTZ Control Panel.
	JOYSTICK	Move camera for pan and tilt operation.



	SET	Set a preset.
	CLEAR	Clear Preset.
	GOTO	Goto Preset
	AUTO	Run atto pan
	PRESET POINT	Display current present number.
	PRESET KEYPAD	Display Preset number input keypad.
	EXIT	Exit Preset

CHAPTER 7. EXTERNAL DEVICE

3.IR Remote Control

All controls located on the frontal keypad of the DVR may also be controlled via the IR remote controller (included). The buttons located on the remote controller correlate with the frontal keypad of the DVR. Press the “Menu” button on the remote controller to access the main menu of the DVR.

CHAPTER

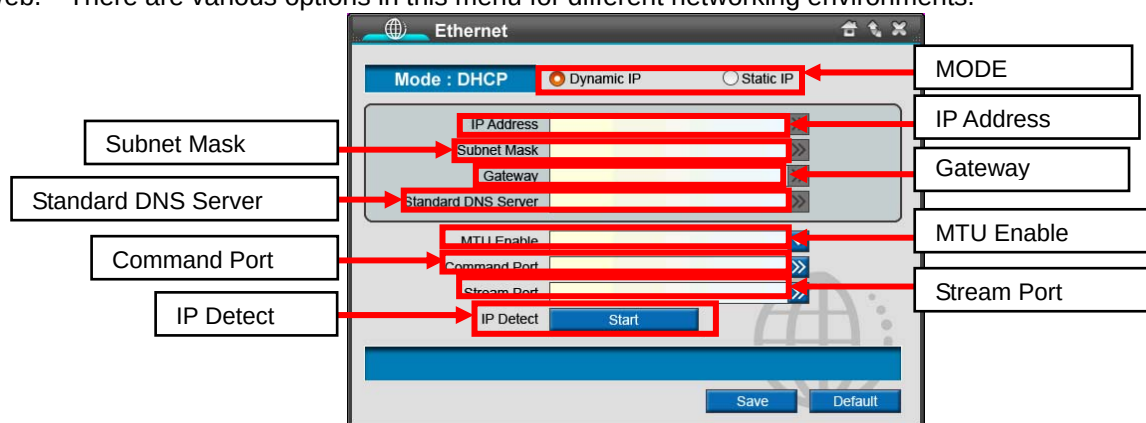
8

NETWORK

CHAPTER 8. NETWORK

1.ETHERNET

The Ethernet menu is used to configure a remote connection to the DVR via your Local Area Network or the World Wide Web. There are various options in this menu for different networking environments.



IP MODE	There are two options, "Static" or "Dynamic". A "Static" IP is used when you desire to use the same IP address with the DVR. By choosing this option, you are able to choose the addressing information for the "Subnet Mask", "Gateway", and "Standard DNS Server". A "Dynamic IP" address will be given to your DVR by your DHCP server. This is an automated process for IP address configuration. By choosing a "Dynamic IP" you will not be able to select the settings for "Subnet Mask", "Gateway", and "Standard DNS Server."
IP Address	You can only specify the "IP Address" if you have chosen "Static IP".
Subnet Mask	You can only specify the "Subnet Mask" if you have chosen "Static IP".
Gateway	You can only specify the "Gateway" address if you have chosen "Static IP".
Standard DNS Server	You can only specify the "Standard DNS Gateway" if you have chosen "Static IP".
MTU Enable	This setting is recommended when using PPPoE or PPPoA (Minimum 100 Byte ~ Maximum 13312 Byte). To enable this setting, please check the box next to this option. Uncheck this option to disable this feature. If you have a standard Ethernet connection (Standard 8192 Byte), please uncheck this option.
Command Port	This setting is used to specify the remote configuration port when accessing the DVR from a remote location. (Caution: make sure that the Stream Port and the Command Port uses different port numbers)
Stream Port	This setting is used to specify the remote connection port for network video upload.

IP Direct	Click the “Start” button to obtain your network’s addressing information from your DHCP server automatically. You will receive one of the following two messages when requesting your network’s addressing information:
	Request Success - You will receive this message if the DVR successfully received the requested network information.
	Request Failure – You will receive this message if the DVR unsuccessfully received the requested network information. The DVR will continually request your network’s addressing information, or you may manually enter it by selecting “Static IP”.
	Static IP Address Error – If you receive this message, please confirm that the IP addressing information entered is correct.



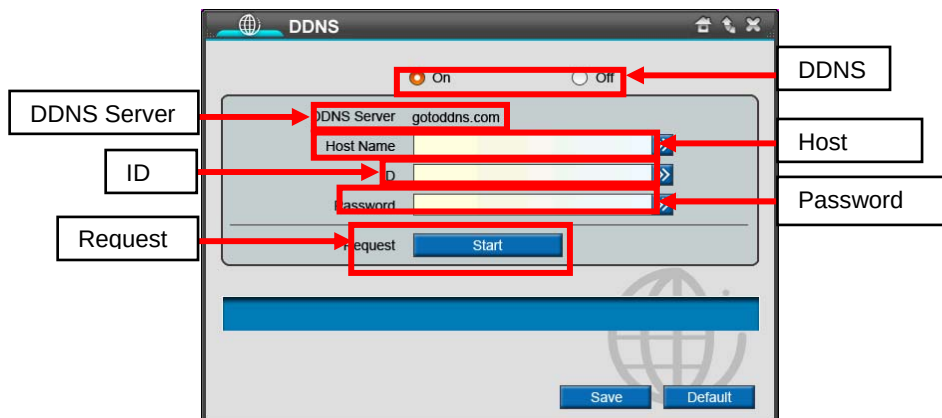
Once your desired settings have been made, please click on the “Save” button to apply the changes.

If you desire to discard the changes made to this menu, please click on the “Cancel” button.

CHAPTER 8. NETWORK

2.DDNS

The DDNS menu is used to configure your DVR to connect to our DDNS server.



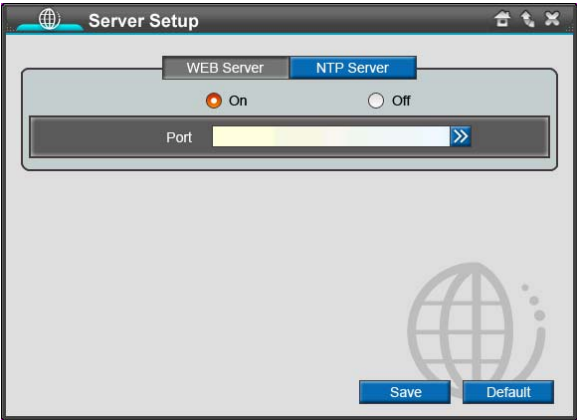
DDNS	Choose the DDNS function “On” or “Off” by selecting either value.
DDNS Server	Indicates DDNS host server.
Host Name	The “Host Name” is your DVR ID. This ID must be unique. You can access your DVR via your web browser by entering, “Your Host Name (ID)..com”. Your host name will be used instead of your DVR’s MAC address.
ID	You must specify an “ID” for access to our DDNS server.
Password	You must specify a “Password” for access to our DDNS server.

Request	After entering your “Host Name”, “ID”, and “Password”, press start to verify your information with our DDNS Server. You will receive one of the following messages after pressing “Start”: Request - Request in process. DDNS Success – All information have been successfully registered with our DDNS Server. DDNS Data Error – There is missing information. DDNS Connection Failure – Unable to connect with our DDNS Server. DDNS Login Information Failed – There is duplicate login information. DDNS Host Already Exists – There is a duplicate Host name. DDNS Unknown Error – Please contact technical support.
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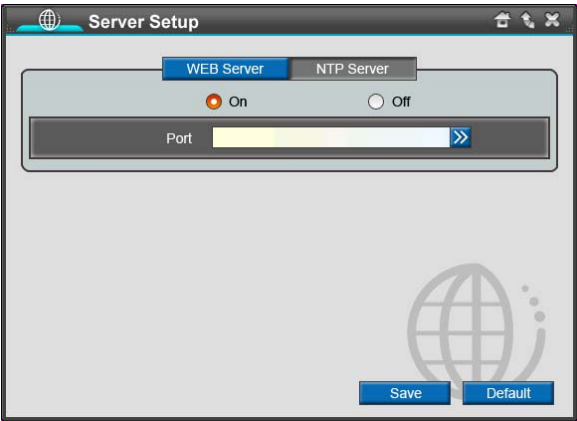
Once your desired settings have been made, please click on the “Save” button to apply the changes.
If you desire to discard the changes made to this menu, please click on the “Cancel” button.

CHAPTER 8. NETWORK
3.SERVER SETUP



Please click the “Web Server” tab to access the menu.

Web Server	Choose to turn the Web Server Function “On” or “Off”.
Port	You may specify the port number for the web server, or you may leave the default port setting of “80”.



Please click the “NTP Server” tab to access the menu

NTP Server	Choose to turn the Web Server Function “On” or “Off”.
Port	Specify the port number for the NTP Server, or you may leave the default port setting of “123”.



Once your desired settings have been made, please click on the “Save” button to apply the changes.

If you desire to discard the changes made to this menu, please click on the “Cancel” button.

To restore the original factory settings, please click on the “Default” button.

CHAPTER 8. NETWORK

4.PPPOE

The PPoE menu is used to specify the ID and password used with their ADSL Internet Service.

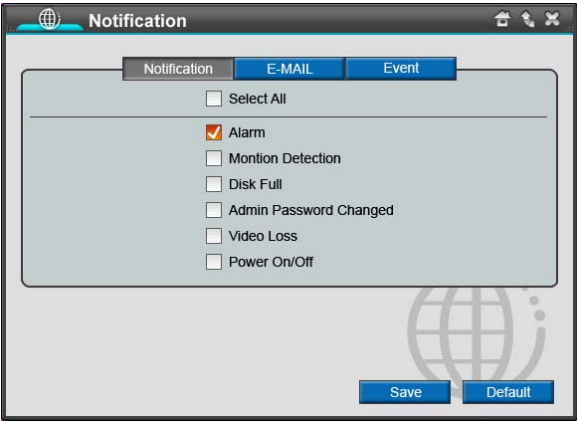
PPPoE	Choose to turn the PPoE function “On” or “Off”.
ID	Enter the ID associated with your ADSL service.
Password	Enter the Password associated with your ADSL service.
Request	Press the “Start” button to establish a connection with your Internet Service Provider.
Retry Count	Specify the number of times the DVR will retry to connect with your Internet Service Provider (1~100 Times).
Retry Interval	Specify how often, in seconds (1~60), your DVR will try to connect with your Internet Service Provider. You will see one of the following messages when trying to connect to your Internet Service Provider:
Request	Connection request in progress. PPPoE Retry Count – The number of attempts to connect to your Internet Service Provider. PPPoE Connected – Connection is established. PPPoE Disconnect – Connection is terminated.



Once your desired settings have been made, please click on the “Save” button to apply the changes. If you desire to discard the changes made to this menu, please click on the “Cancel” button. To restore the original factory settings, please click on the “Default” button.

CHAPTER 8. NETWORK

5NOTIFICATION



Notification:

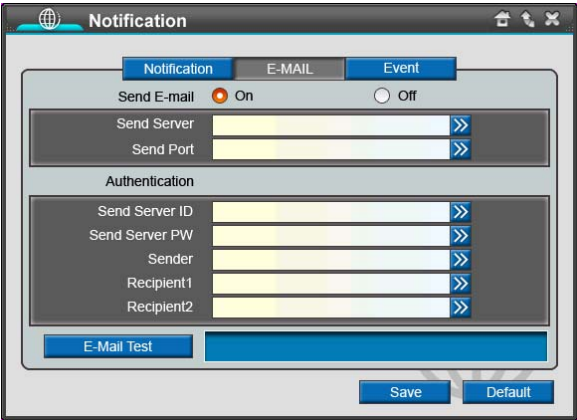
Please choose the events you would like the DVR to notify, e.g. Alarm, Motion Detection, Disk Full, Admin Password Changed, Video Loss, and Power On/Off.

Please click on the “Email” tab to access the menu.

Once your desired settings have been made, please click on the “Save” button to apply the changes.

If you desire to discard the changes made to this menu, please click on the “Cancel” button.

To restore the original factory settings, please click on the “Default” button.



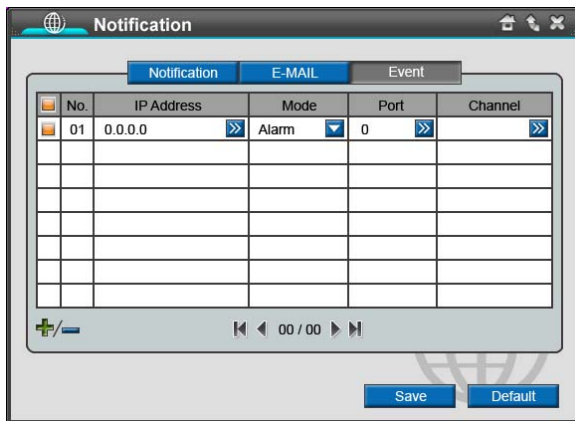
Email

Send Email	Choose to turn the Send Email function “On” or “Off”.
Send Server	Enter your SMTP server address here.
Send Port	Enter your SMTP server port here.
Send Server ID	Enter the user ID associated with your SMTP server account.
Send Server PW	Enter the password associated with your SMTP server account.
Sender	Enter the sender’s emails address here.
Recipient1	Enter the recipients email address here.
Recipient2	Enter a second recipient’s email address here (optional).

You will receive one of the following two messages when clicking on the “Email Test” button:

Request Success – The email notification test was successful.

Request Failure – The email notification test failed.



The “Event” tab is used to specify a server to send event notifications to.

IP Address	Specify an IP address of the PC that has the installed Event Server Program.
Mode	Specify the type of event to send, such as Alarm, Motion, Video Loss, or All.
Port	Specify the port number for the PC that has the installed Event Server Program.
+/-	Please use the “+” button to add a schedule item. To remove a scheduled item, check the corresponding box and click on “-”.  : Press this button to go to the first page  : Press this button to go to the previous page  : Press this button to go to the next page  : Press this button to go to the last page

Please click on the “Notification” or “E-Mail” tab to access the menu.

CHAPTER

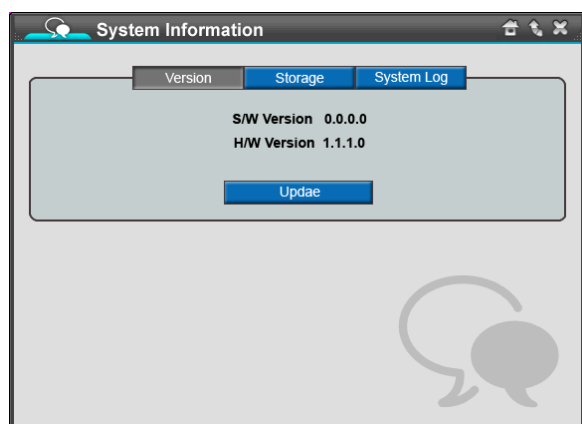
9

OTHER

CHAPTER 9. OTHER

1.System Information

Current software version (also referred to as a firmware) and hardware version is indicated in this section. You may access this window by utilizing the drop down button located on the left hand corner for quick navigation. Make sure that from the drop down list you select System Information.



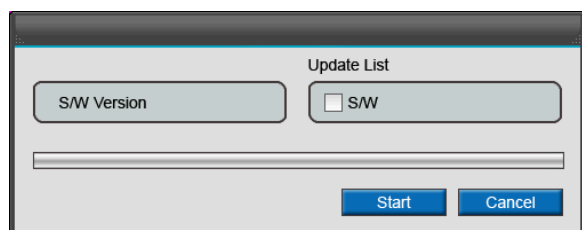
System information with Version tab selected

CHAPTER 9. OTHER

2.Firmware(S/W) upgrade

Software Version Update

1. To update the software version to newly available software revision, please copy the software file to the removable USB memory stick device.
2. After check for the update file on the USB media device, insert the USB memory stick device to the USB port located on the front of the DVR. Navigate to System Information window and click Update button located on the center of the window.



Popup window will appear as shown above, please click start to initiate the software update.



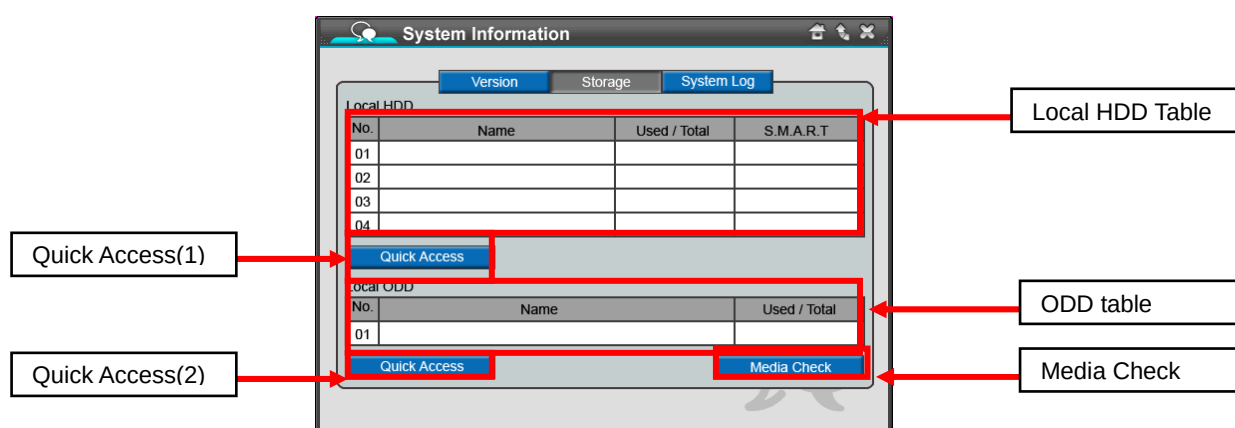
If the USB memory stick is not present or file is not correct software file, system will prompt error message.

You must use caution when updating software to the DVR unit. These conditions are must be kept when upgrading software (firmware) for the DVR unit.

1. Check that software image on USB memory stick has same size as file copied from.
2. Do not power off the system during software (firmware) update.
3. Do not perform software (firmware) update with different product's software image.
4. Be sure to wait for system prompt, turn off DVR unit when told so by the prompt by the DVR unit.
5. After software (firmware) update make sure to perform factory default procedure.

CHAPTER 9. OTHER

3.Storage



The Storage tab window displays information about storage devices that are being used as your main location for the video images. Each drive's name, total size currently allocated with data and wellness of the hard disk drive is indicated in this window.

Local HDD table	Shows the detailed status information regarding locally installed hard disk drives.
ODD table	Shows the detailed status information regarding Optical Disk Drive(DVD-R)
Quick Access(1)	It is a button that enables HDD clear window. It enables quick access to Hard disk clear operation.
Quick Access(2)	It is a button that enables Backup window. It enables quick access to backup procedure.
Media Check	Shows how much recorded data is in an inserted DVD media.



You may have up to maximum of four hard disk drive internally, or three internal hard disk drive and one extension hard disk drive externally the via E-SATA.

In the table under Local HDD **No.** represents internal hard disk drive ID.

In the table under Local HDD **Name** represents the hard disk name and model is displayed.

The **Used / Total** section indicates current usage for the particular hard disk drive with data written by the DVR unit.



If you had chosen the option to overwrite then the Used portion will be equal to the Total portion after reaching maximum recording capacity. The overwrite option will start erasing earliest recorded data and replace it with current recording data. If you have multiple hard disk drives installed, then first drive will be written and when data is full then the DVR will start recording to the next available drive until they are all full. When all drives are completely full, then earliest recorded data will be replaced with current recorded data. It is the user's responsibility to backup critical evidence information. If the evidence worth video is overwritten, there is no option to recover such data.

On the DVR system health status is represented in % sign, and in () it indicates the temperature of the hard disk drive represented by Celsius.



Normal operating temperature of any hard disk drive should be in range of 0~60°C. Recommended optimum temperature range is between 36°C and 47°C (about 97° Fahrenheit to 117° Fahrenheit). Every hard disk manufacturer may have different range and tolerance, please consult with your hard disk manufacturer for operating temperature range. If hard disk drive is running hotter than recommended temperature provided by the hard disk manufacture, then please check to see if the DVR unit's ventilation is not blocked and check your room temperature immediately. Failure to do so will damage the DVR and the hard disk drive.

Extension HDD table

Extension hard disk drive may be mounted on the DVR for alternative increase of the hard disk storage option for the DVR. Utilization of E-SATA standards enables user to mount E-SATA compliant storage devices and external storage solutions. Often times these solutions are used to implement RAID solution and increase hard disk storage capacity. There are certain limitations when using such option and please check below items before deciding to use external E-SATA storage solution.



CHECK LIST BEFORE USING EXTERNAL E-SATA STORAGE SOLUTION

- 1. There must only be three or less internal hard disk drive present before E-SATA utilization.**
- 2. External E-SATA device must be configured using one volume. You may have multiple drives by utilizing RAID enclosure. However they must be shown as single volume after configuration. (please consult with external hard disk enclosure manufacturer for details)**

Note: Simple single drive E-SATA enclosures will operate without any compatibility issues, however E-SATA drives must also be one of the drive that are compatible with the DVR system. Please check with your dealer for hard disk compatibility list.

Quick Access button

The **Quick Access** button is provided to jump to the **HDD Clear** window section. It is in this **HDD Clear** window section that you could clear all data items for the hard disk drives installed for the DVR unit. This button will invoke HDD Clear window.

CHAPTER

10

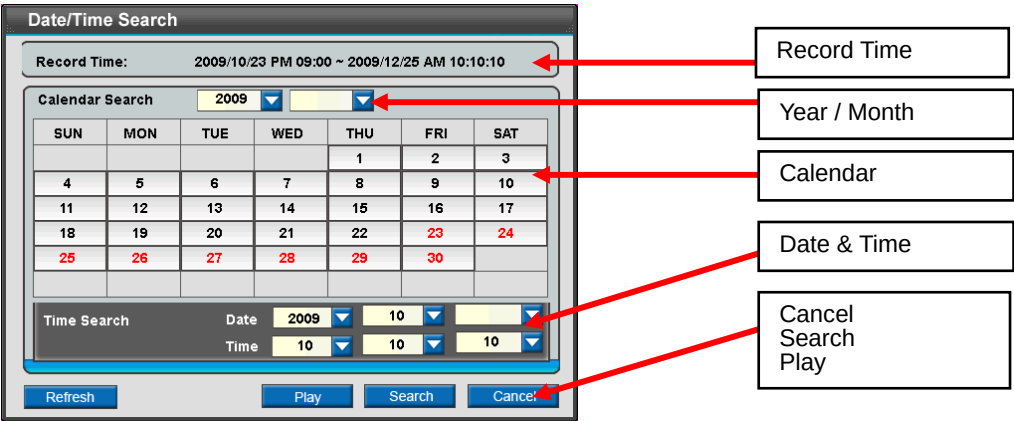
SEARCH & PLAYBACK

The search and playback menus are used to review the recorded video data on the DVR. There are multiple search options you may use to find the desired video you wish to view. The following are the search queries you may use:

CHAPTER 10. PLAYBACK & PLAYBACK

1.Date/Time Search

This option allows you to access specific recorded video data by Year, Month, Day, Hour, Minute, and



Record Time	The record time section displays the entire recorded video database represented by a time range, from the earliest available recording to the most current available recording.
Year / Month	The year and month option is used to display or navigate to the desired calendar date with recorded video data. Select the drop down menu to jump to specify the year and month.
Calendar	The calendar will display the days for the selected year and month. Days with recorded video data will be shown in bolded red color font. Select the desired day with recorded video data, and then press search.
Date and Time	Use the date and time option to jump to the desired section of recorded video data. You are able to choose the year, month, day, hour, minute and second.
Cancel	The cancel button is used to close the search window.
Search	Search is used to open the hour selection menu.
Play	The play button will begin playback of the recorded video by the selected date and time.

Date/Time Search

Record Time: 2009/10/23 PM 09:00 ~ 2009/12/25 AM 10:10:10

Calendar Search 2009

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

Time Search Date 2009 10 10 Time 10 10 10

Refresh Play Search Cancel

Date search Window

Date/Time Search

Record Time: 2009/10/23 AM 00:00:00

Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CH 01																								
CH 02																								
CH 03																								
CH 04																								
CH 05																								
CH 06																								
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CH 09																								
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CH 11																								
CH 12																								
CH 13																								
CH 14																								
CH 15																								
CH 16																								

Record Crash

Refresh Play Detail Cancel

Hour selection window



Chick Recorded Date (Red color number) can open Hour selection window.

Date/Time Search

Record Time: 2009/10/23 AM 00:00:00

Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CH 01																								
CH 02																								
CH 03																								
CH 04																								
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CH 09																								
CH 10																								
CH 11																								
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CH 13																								
CH 14																								
CH 15																								
CH 16																								

Record Crash

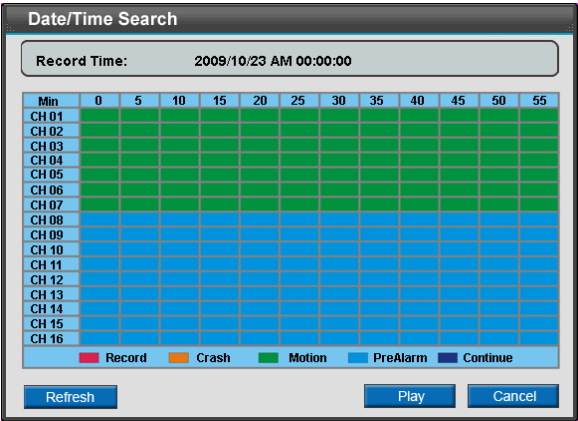
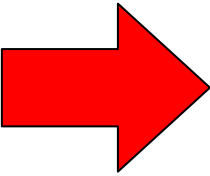
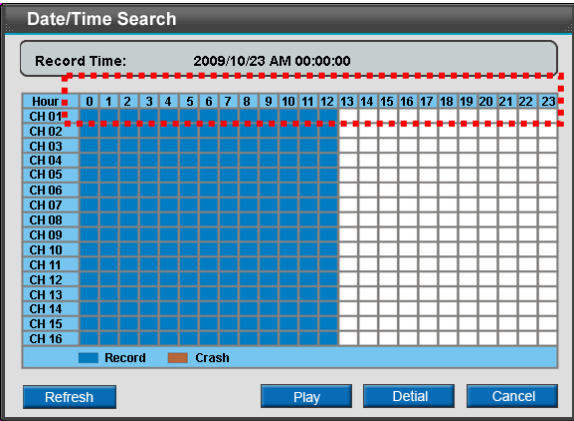
Refresh Play Detail Cancel

Select Time

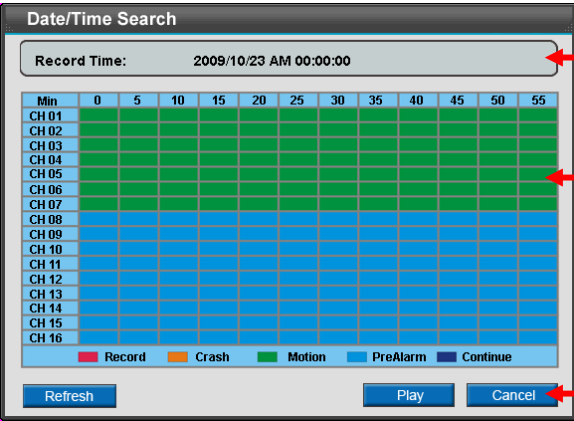
Hour Display

Cancel Detail Play

Select Time	The select time will display the date and time specified by the user.
Hour Display	The hour display will show the available recorded video data on the DVR for the specified date. The color indicator represents the following: Red – Panic Recording Orange/Yellow – Alarm Recording Green – Motion Recording Purple – Pre-Alarm Recording Blue – Continuous Recording
Cancel	The cancel button is used to close the current search window
Detail	The detail button will open the minute search setting. The minute and search window is used to specify which minute you wish to review for the selected hour.
Play	The play button will begin playback of the recorded video by the selected date and time.



Double Click Hour (0~23) can open Min selection window



Select Time

Hour Display

Cancel
Detail
Play

Select Time	The select time will display the date and time specified by the user.
Minute Display	The minute display section will show the available recorded video data in minutes.
Cancel	The cancel button will close the current search window.
Play	Press the play button to begin playback of the recorded video data by the selected minute of the selected hour.



Double Click Min(0~55) can start to play.

CHAPTER 10. PLAYBACK & PLAYBACK

2.Event Search

This option allows you to search specific recorded data by “Event”. “Events” are classified as **Panic, Alarm, Motion, Video Loss**. “Event Search” allows a faster search method if the user prefers to view only “Event” recordings.

Panic

Panic recording is a type of recording engaged by pressing the “Panic” button on the frontal keypad of the DVR, or by the OSD (On Screen Display). “Panic” record is also referred to as “Forced Recording”.

Alarm

Alarm recording is a type of recording that is triggered by sensors connected to the alarm panel of the DVR. Motion, IR, and heat sensors are just a few examples of the possible sensors that can be used to trigger recordings.

Motion

Motion recording is a type of recording that is triggered by the motion captured events on the DVR.

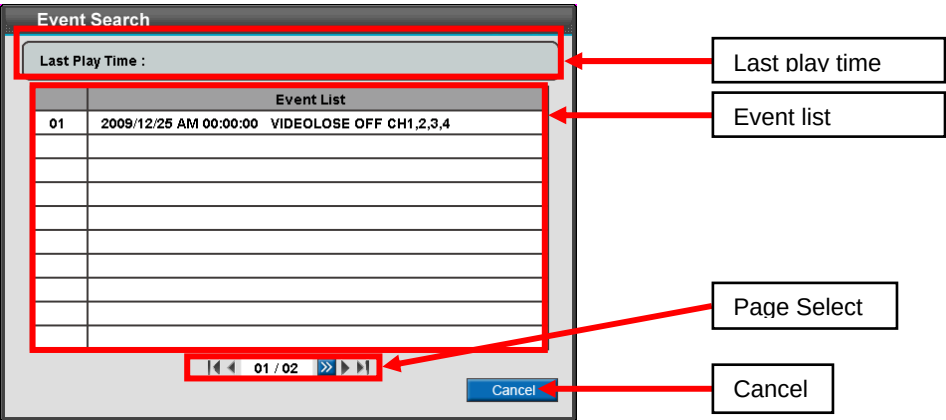
Video Loss

Video Loss indicates the moment that a video loss happened

The screenshot shows the 'Event Search' window with the following components labeled:

- Channel**: A dropdown menu at the top.
- Event Type**: A dropdown menu below the channel.
- Event Start**: A date and time selection area with fields for Year (2009), Month (10), Date (10), Hour (0), Min (0), and Sec (0).
- Event End**: A date and time selection area with fields for Year (2009), Month (10), Date (11), Hour (0), Min (0), and Sec (0).
- Cancel Search**: A button at the bottom right.
- Search**: A button at the bottom left.

Channel	Use this option to select the desired channels for event playback. You may choose an individual channel, a group of channels, or all channels.
Event Type	The event type option is used to choose what type of events you wish to search for. The options for the type of events are: Panic / Alarm / Motion / Video loss You may choose an individual event type.
Event Start	The event start is used to select a start time for the DVR to search for the specified events. You can specify both date and time.
Event End	The event end is used to select the end time for the DVR to search for the specified events. You can specify both date and time.
Cancel	The cancel button is used to close the current search window.
Search	The search button is use to initiate the event search process. By pressing the search button this will open the event search list window below.

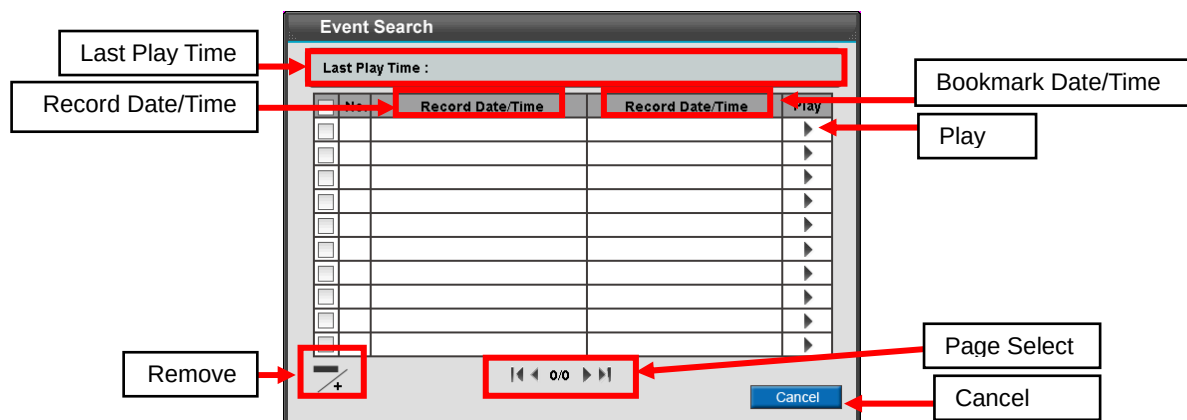


Last play time	The last play time indicates the latest playback time of a bookmark.
Event list	This list shows date and time at which the event was created. You may choose an event to play.
Cancel	The cancel button is used to close the current search window.

CHAPTER 10. PLAYBACK & PLAYBACK

3. Bookmark Search

Book mark search allows the user to search for recorded video data by the indicators (book marks) placed during playback. While reviewing recorded video data, you are able to place book marks by clicking “**b. mark**” from the pop-up menu, or by pressing “**B. Mark**” from the frontal keypad. To access the book mark search function, right click the live view screen with your mouse and choose **search** than **book mark**. From the front keypad, press **search** than choose **book mark**. The following window will be displayed.



Last Play Time	The last play time indicates the latest playback time of a bookmark.
Play	The play button begins the playback function of the selected bookmark.
Bookmark Date/Time	This list shows date and time at which the book mark was created.
Record Date/Time	This list shows the actual date and time from which the corresponding bookmark was created.
Cancel	This button closes the current search window.
Page Select	This function is used to go to the next page, or you may jump to a specific page by pressing the ... button and entering the page number.
Remove	This option enables you to remove the selected bookmark listed. Make sure to check the box next to the corresponding bookmark on the list before removing it.

CHAPTER

11

REMOTE CONNECT &
BACKUP PLAYER

Web Viewer supports for Remote Viewer and Search.

Remote Viewer allows user to watch live display by internet connection.

Remote Search allows user to watch recorded image by internet connection.

CHAPTER 11. REMOTE CONNECT & BACKUP PLAYER

1. Web Remote Viewer

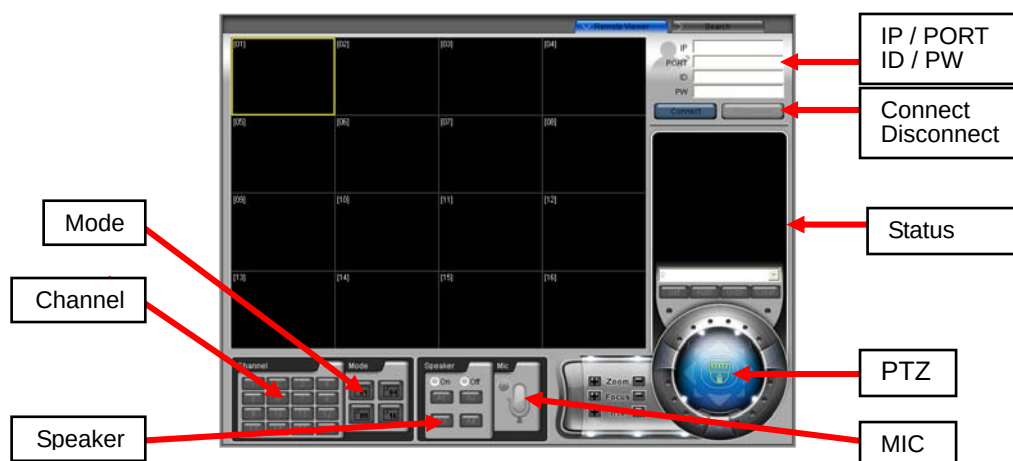
Remote Viewer allows user to watch live display by internet connection. User may input IP address of DVR on the address section of web browser. When it runs properly, user may input Port, ID and Password on the Login section. Then click 'Connect' allows connecting with DVR.



✳ **Directly place DDNS server address or DVR IP address on IE address bar for connection.**

For instance:

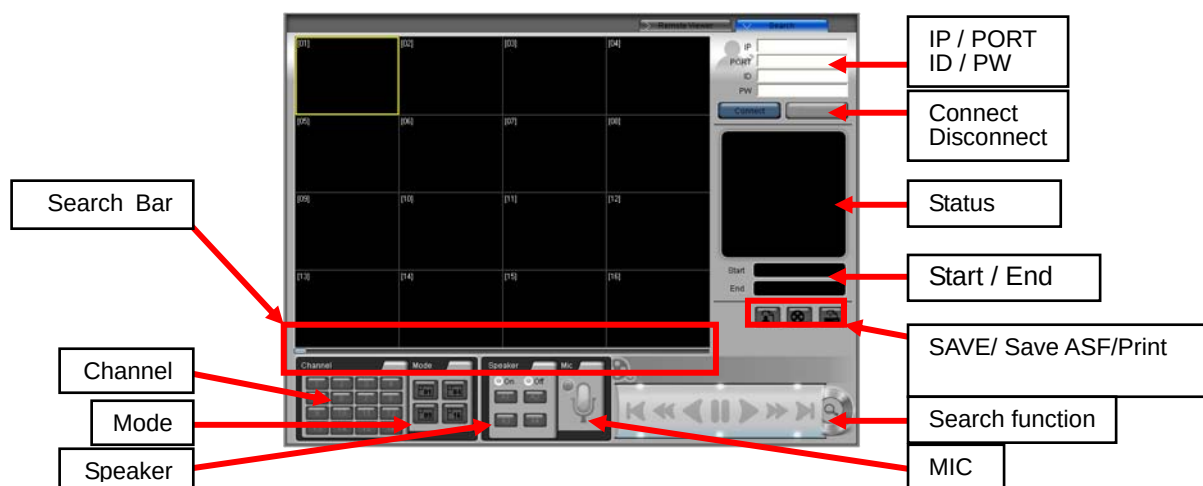
(1) <http://DVR IP : WEB PORT> (2) <http://DOMAIN.gotoddns.com:WEB PORT>



IP / PORT / ID / PW	Enter DVR IP address, port, ID and password manually, or retrieve information from IRS setup.
Connect / Disconnect	CONNECT- Connect to DVR. DISCONNECT- Stop the connection with DVR.
Status	Shows the current connection status.
PTZ	Control PTZ via network.
Channel 01~16	User may choose specific channel
Mode	Screen division mode.
Speaker	It allows selecting Audio on/off and Audio channel.
MIC	It allows communicating by Two-Way Audio when Mic function is on.

CHAPTER 11. REMOTE CONNECT & BACKUP PLAYER

2.Remote Search



IP / PORT / ID / PW	Enter DVR IP address, port, ID and password manually, or retrieve information from IRS setup.
Connect / Disconnect	CONNECT- Connect to DVR. DISCONNECT- Stop the connection with DVR.
Status	Shows the current connection status.
Start / End	It shows that the start time and end time of the recording Data.
Save / Save ASF/print	Save- Save current selected image by JPEG. Save ASF- Save the video of selected channel by ASF Print- Print current selected image
Channel 01~16	Select the channel number of camera to be displayed.
Mode	Screen division mode.
Speaker	It allows selecting Audio on/off and Audio channel.
MIC	It allows communicating by Two-Way Audio when Mic function is on.
Search Bar	Enables to search recorded data by using this bar.
Search function	Play panels-It allows operating all the playback function. (Forward, Backward, fast, pause, etc) Goto Search - User may search detail time and date.

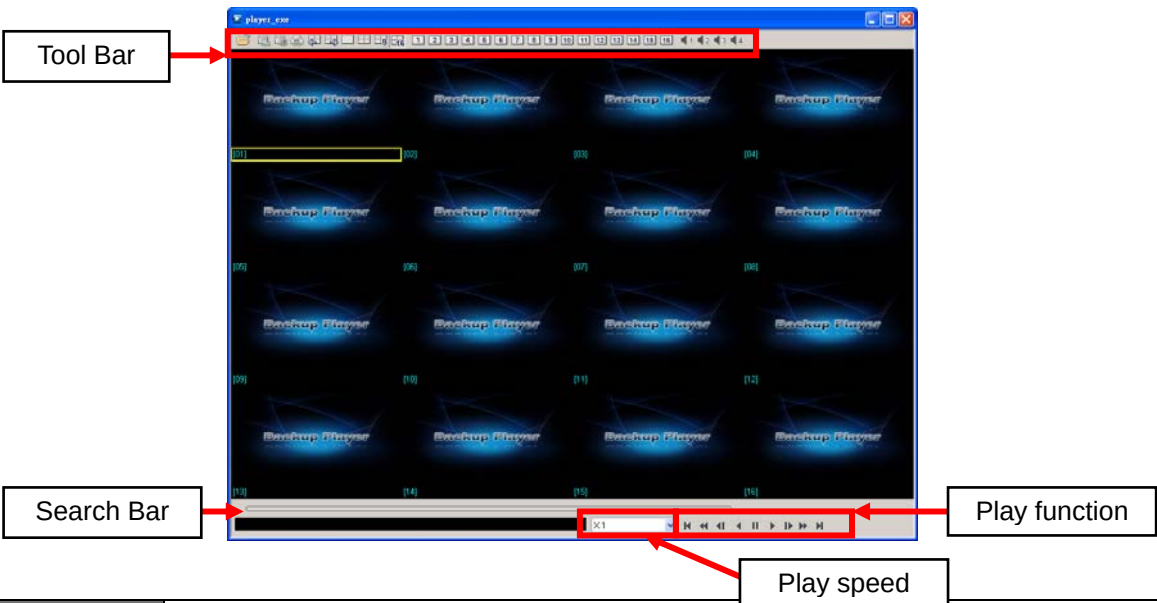
CHAPTER 11. REMOTE CONNECT & BACKUP PLAYER

3.Backup Player



When system backup record data to CD/DVD or USB memory stick it put backup player automatically .

Backup file format is : *.HR4



Tool Bar	Function for Open,Save,Split mode,Channel1~16 and Audio channel.
Search Bar	Enables to search recorded data by using this bar.
Play Speed	Select playback speed(1/6X~16X).
Play function	Function bar on playback.