

Premium H.264 DVR OSD Setup Manual

Version 1.4

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Menu System Overview

The detailed functions and settings of the **Premium H.264 DVR** can be set through the intuitive Graphical User Interface (GUI) OSD setup menu. Collaborating with a USB mouse, setting up the DVR can be easy as operating on a PC. This chapter particularizes the items and options in the OSD setup menu.

< Account and Password >

Press MENU and select an account to login. There are two preset accounts: "admin" and "user". The next step is to enter a corresponding password. The preset password for the administrator account "admin" is "1234", while the preset password for the account "user" is "4321".



NOTE: It is strongly suggested to change the preset password to prevent unauthorized access to the unit.

An icon displayed at the status bar will show the authority level of the account. Under logout condition, the icon will show "Guest". When an account is logged in, its authority level number (1~8) will be shown.

Before completely logout, other functions can also be accessed without having to login again. There are two ways to logout: manually logout by pressing ESC key at Live mode, or auto logout when keys are not pressed for 5 minutes at Live/ Menu mode.

< Key Usage >

The key usage differs under general OSD setup menu and in the virtual keyboard. The difference can be seen while setting some items, such as Unit Name and IP Address.

■ **Key Usage in OSD Setup Menu**

Below introduce some keys used frequently in the OSD setup menu.

<Direction Key>

In the OSD setup menu, Direction keys are used to move the cursor to select menu items. UP / DOWN are used to change the value in the selected field.

<ENTER>

In OSD setup menu or selection interface, press the key to make selection or save settings.

<ESC>

Press to cancel or exit from certain OSD setup menu without saving any changes.

■ **Key Usage in Virtual Keyboard**

A virtual keyboard shows in some setting items, such as camera title, e-mail address, etc. The virtual keyboard displays as below.

!	@	#	*	-	_	+	=	,	.	/	Back	
1	2	3	4	5	6	7	8	9	0	Del		
A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
a	b	c	d	e	f	g	h	i	j	k	l	m
n	o	p	q	r	s	t	u	v	w	x	y	z
<<		>>		Space			Cancel		OK			

<To input characters>

Move the cursor by pressing Direction keys and press ENTER to select characters.

<To move the cursor in title entry field>

Select "<<" / ">>" and press ENTER to move the cursor to left / right in the title entry field.

<To delete previous character>

Select <Backspace> and press ENTER.

<To delete current character>

Select <Delete> and press ENTER.

<To exit the virtual keyboard>

Select <OK> and press ENTER to save the settings and exit. Otherwise press ESC or select <Cancel> and press ENTER to exit without saving changes.



NOTE: If a USB keyboard is connected and when any key on the keyboard is pressed, the cursor on the virtual keyboard will be automatically moved to <OK>.

System Setup

Select <System Setup> from Main Menu and press ENTER to enter System Setup menu. The items in the System Setup menu are described in the following sections.

System Setup	
System/Version Info	
Language	English
Date/Time	
Unit Name	DVR
Show Unit Name	
User Management	
Network Setup	
RS485 Setup	
Audio Output/Key Beep	
User Interface	Graphic
IP Camera Support	0

< System/Version Info >

The System/Version Info menu allows user to view system information such as hardware and software version. From the System Setup menu, select <System/Version Info> and press ENTER. The following menu is displayed. The first seven items are “read only”, for users' information only. The items in this menu are described in the following subsections.

System/Version Info	
Model Name	****
Video System	NTSC
Hardware	**_**_**
Software	****_****_****_****
DSP	****_****_****_****
MAC Address 1	**.**.**.**.**.**.
MAC Address 2	**.**.**.**.**.**.
Software Upgrade Via Local Device	
Software Upgrade Via Internet	
FPGA Upgrade Via Local Device	

■ **Model Name**

This item shows the model name of the unit.

■ **Video System**

This item show the current video system of the unit.

■ **Hardware**

The item identifies the hardware version for this unit.

■ **Software**

The item identifies the software version installed on this unit.

■ **DSP**

This item identifies the digital signal processor (DSP) number of the unit.

■ **MAC Address 1**

This item identifies the first Media Access Control (MAC) address of the unit.

■ **MAC Address 2**

This item identifies the second MAC address of the unit.

■ **Software Upgrade Via Local Device**

This item is used for upgrading software of the **Premium H.264 DVR** by local device. The menu is displayed as follows.

Software Upgrade via Local Device	
Upgrade Version	Select
xxxx-xxxx-xxxx-xxxx	No

Connect an USB drive containing upgrade software to the unit, then the available upgrade files will be listed in the menu. To update the system, select a file and use UP / DOWN keys to choose <Yes>. Press ENTER to confirm the selection and start the upgrade process. The **Premium H.264 DVR** loads the software, updates the system files, and reboots automatically.

The upgrade may take several minutes to save the changes in the memory of the system. After the unit is rebooted, please check the software version again.



NOTE: No power interruption is allowed during the software update. Ensure that no power interruption can occur until the unit is completely rebooted.



NOTE: Do not remove the external USB ThumbDrive[®] / DVD+RW before the unit has completely shut down (hard drive and fan are off). Removing the external USB ThumbDrive[®] / DVD+RW before shut down can cause the system to update improperly.

■ **Software Upgrade Via Internet**

The item is used to upgrade the unit's software via the internet. Select one of the listed software versions and choose <Yes>. The **Premium H.264 DVR** downloads the software, updates the system files, and reboots automatically.

■ **FPGA Upgrade Via Local Device**

The item is used to upgrade the unit's firmware via a local device. Choose the firmware for upgrade and select <Yes>. The **Premium H.264 DVR** loads the firmware, updates the system files, and reboots automatically.

< Language >

The Language item allows user to select the language for the OSD setup menu and screen messages. Language selection takes effect immediately when the selection is done. Press UP / DOWN to select from listed languages and press ENTER to confirm.

< Date / Time >

Users can set the current date, time and other OSD parameters in this menu. In System Setup menu, select <Date/Time> and press ENTER; the Date/Time menu displays as follows.

Date/Time	
Date	2010/12/21
Time	PM 10:39:26
Time Zone	OFF
Date/Time Display	1 Row
Date Display Mode	Y/M/D
Time Display Mode	12 HR
Daylight Saving Time Setup	
Network Time Protocol Setup	



NOTE: The reset of date / time settings only applies to new videos. The date and time of previously recorded video will not be changed.



NOTE: To avoid record database corruption, clearing the database is recommended after changing Date / Time setting.

■ **Date / Time**

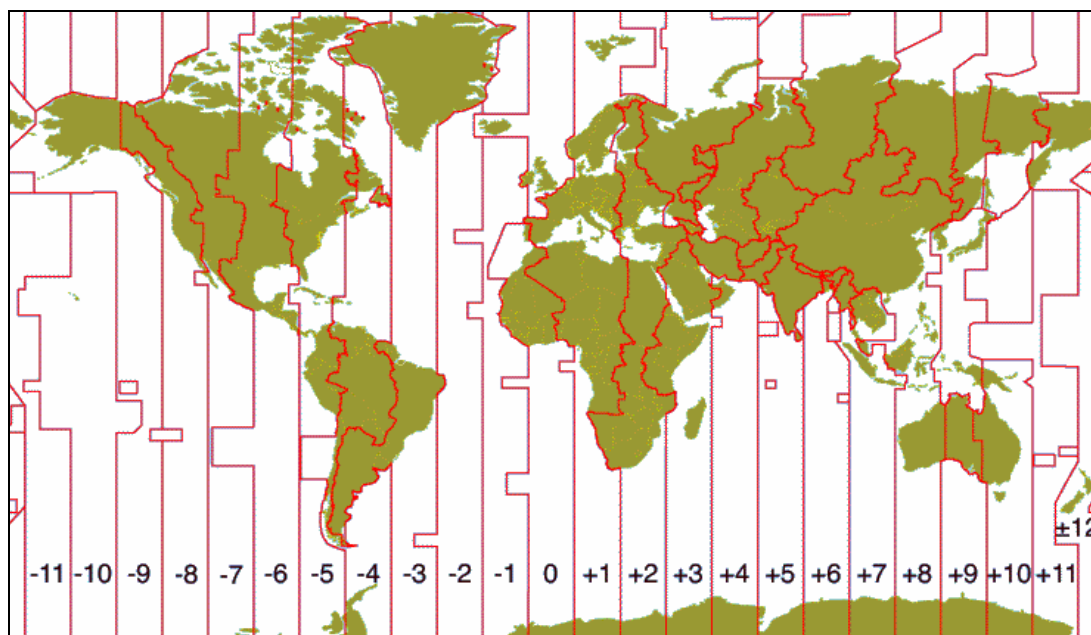
Select <Date> or <Time> and press ENTER for adjusting the settings. LEFT / RIGHT keys are used to move the cursor to previous or next field, ENTER is for selecting, and UP / DOWN are used to change the value in the selected field.

■ **Time Zone**

Select <**Time Zone**> to enter the time zone setting. To find out users' local time zone, please visit wgp.greenwichmeantime.com or refer to the following picture for information.



NOTE: The <**Time Zone**> must be set to users' local time zone or the <**Network Time Protocol Setup**> will not be accessible.



■ **Date / Time Display**

Users are allowed to set the date / time OSD displays in 1 or 2 rows. Use the UP / DOWN keys to change the setting.

■ **Date Display Mode**

This function allows user to set the OSD display type of the date. There are three options to select from: <Y/M/D>, <M/D/Y> or <D/M/Y>. “Y” represents “Year”, “M” represents “Month” and “D” represents “Day”. Use UP / DOWN keys to change the setting.

■ **Time Display Mode**

User can set the time format to <12HR> or <24HR>. Use the UP / DOWN keys to change the format.

■ **Daylight Saving Time Setup**

This menu is for people who live in certain regions to observe Daylight Saving Time (DST).

- **Daylight Saving Time**

Select <On> to enable, or <Off> to disable the function.

If the function is disabled, the DST Start/ End time and DST Bias will be grayed out and cannot be accessed. If this function is enabled, the date/time information will be shown on the screen with a DST icon when playing back recorded video or searching video in the event list. "S" indicates summer time and "W" indicates wintertime.

- **DST Start / End**

These items are used to set the daylight saving duration. Use LEFT / RIGHT to move the cursor to the next or previous field, UP / DOWN to change the settings.

- **DST Bias**

This item allows the user to set the amount of time to move forward from the standard time for daylight saving time. Available options are <30>, <60>, <90> and <120> minutes.

■ **Network Time Protocol Setup**

After entering the time zone, the <Network Time Protocol Setup> option will appear. Select the <Network Time Protocol Setup> to set the time server. The default time server is time.nist.gov, but the user can change it to other time servers when desired. A list of IP addresses of the time servers is listed below.

129.6.15.28	129.6.15.29	132.163.4.101
132.163.4.102	132.163.4.103	128.138.140.44
192.43.244.18	131.107.1.10	69.25.96.13
206.246.118.250	208.184.49.9	64.125.78.85
207.200.81.113	64.236.96.53	68.216.79.113

After the time server is set, set <Manually Time Sync> to <Yes> to sync the time immediately. The time sync can also be updated periodically. Set <Automatically Time Sync> to <On> and the time will be automatically synced once an hour.

< Unit Name >

Users are allowed to assign a name, up to 11 characters, to the **Premium H.264 DVR**.

Follow the steps to edit the unit name.

- Select <Unit Name> from System Setup menu and press ENTER. A virtual keyboard displays.

!	@	#	*	-	_	+	=	,	.	/	Back	
1	2	3	4	5	6	7	8	9	0	Del		
A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
a	b	c	d	e	f	g	h	i	j	k	l	m
n	o	p	q	r	s	t	u	v	w	x	y	z
<<		>>		Space			Cancel		OK			

- Use Direction keys to move the cursor to the wanted character.
- Press ENTER to add the character to the entry field (up to 11 characters).
- When done, move the cursor to <OK> and press ENTER to save the settings and exit.

< Show Unit Name >

This item enables the unit name of the **Premium H.264 DVR** to be shown on the monitor. Select <Yes> to show or select <No> to hide.

< User Management >

The DVR provides the option to create up to seven sets of usernames and passwords with customized authority, excluding the preset “admin” account. The menu is as the following.

User Management	
Password Protection	On
Account Setup	
Authority Setup	
Load Default Setting	No

■ **Password Protection**

Select <On> to request for username and password for accessing functions listed in Authority Setup menu, or select <Off> to allow free access.

■ Account Setup

Setup customized account, password, and privilege level in this menu. The account is case sensitive. The privilege level rank from level 1~8, and level 8 has highest privilege. Alternatively, select <Disable> to stop using the account. A second password can also be specified, if required.

Account Setup		
Account:	admin	Mod
Password:	****	Mod
Privilege:	Level 8	
2nd PWD S	OFF	
2nd PWD:		Mod
	Confirm	
	Cancel	



NOTE: The account and privilege level of the preset administrator account “admin” cannot be changed.

■ Authority Setup

Setup permitted authority level for accessing the functions listed in this menu. The functions include: Playback/Search, Covert Camera, Dome Control, Live Operation, Call Control, Export Data, Menu Access, System Setup, Monitor Setup, Camera Setup, Record Setup, Sequence Setup, Event Setup, Database Setup, Configuration, POS Setup, and Shutdown. Press Direction keys and ENTER to select items. The authority level rank from level 1~8, and level 8 has the highest authority. Alternatively, select <Disable> to allow free access.

Authority Setup	
Item	Authority
Playback/Search	Level 4
Covert Camera	Level 4
Live Operation	Level 4
Dome Control	Level 4
Live Operation	Level 4
Call Control	Level 4
Export Data	Level 4



NOTE: The “Menu Access” cannot be set to <Disable>.

When the account does not have authority to access certain functions, an error message will be displayed on the screen.

■ **Load Default Setting**

This item is for restoring the default settings. Select <Yes> to load default setting or select <No> to exit.

< Network Setup >

The Network Setup menu allows users to setup the network by specifying the network related settings, such as IP address, Netmask, etc. Check with the network administrator and/or network service provider for specific information. The menu is as the following.

Network Setup	
LAN Select	LAN
LAN Setup	
Wireless Network Setup	
Modem Setup	
Trigger Port	80
Email Address	
SMTP Setup	
DDNS Setup	
UPnP Setup	

Items in this menu are described in the following sections.

■ **LAN Select**

This item allows users to select the service type among <LAN>, <PPPoE>, <WLAN>, and <None>. If users are using a wired or wireless local area network communication, please select <LAN> or <WLAN>. If users are using a broadband medium, such as DSL Line or cable modem, please select <PPPoE>.

PPPoE stands for Point-to-Point Protocol over Ethernet. It is a specification for connecting the users on an Ethernet to the Internet through a common broadband medium.

If <None> is selected, then there is no need to set further LAN/ PPPoE/ WLAN settings. Therefore, the second item <LAN Setup> and third item <Wireless Network Setup> will be inaccessible.

■ LAN Setup

The network related settings in the LAN Setup menu should be associated with the network service type. If users select <LAN> for <LAN Select>, then the PPPoE related menu items will not be displayed.

Select <LAN Setup> in Network Setup menu and press ENTER for setting the parameters; the menu displays as follows.

LAN Setup		
DHCP		OFF
IP		192.168.1.150
Netmask		255.255.255.0
Gateway		192.168.1.1
DNS		0.0.0.0
PPPoE Account		
PPPoE Password		
PPPoE Max Idle		35 Min
Connect At Booting		Yes
Network Restart		No

- DHCP

This item allows user to obtain a dynamic IP address from DHCP (Dynamic Host Configuration Protocol) server when the unit boots up. When using DHCP, the settings are dynamic and they will be changed every time users power up and power off the unit, depending on the network's setup.

If the item is enabled (ON), a dynamic IP will be assigned to the **Premium H.264 DVR**. In this case, user does not need to configure a static IP and the Ethernet settings, including IP address, Netmask, Gateway and DNS settings, will be read only.

If users are using permanent addressing, set DHCP to <OFF> for setting the IP Address, Netmask, Gateway, and DNS. Check with the network system administrators or IT personnel for appropriate values for these settings.

- IP

The item is used to configure the IP (Internet Protocol) address of the unit. The IP address is the identifier for the computer or device on a TCP/IP LAN or WAN. Please note that to set a static IP address, DHCP must be set to <OFF>.



NOTE: The IP address cannot be set to “192.168.50.*” due to the specific IP is reserved for NAS devices.

- Netmask

A netmask is a 32-bit mask used to divide an IP address into subnets and specify the networks available hosts. Its value is defined by the network administrator. It takes the form as `***.***.***.***`, for example, 255.255.255.255.

This item allows users to enter the value of the Netmask for the unit. Please note that to configure the item, DHCP must be set to <OFF>.

- Gateway

Gateway is a node on a network that serves as an entrance to another network. Users are allowed to specify the IP address of the gateway or router associated with this unit. To configure this item, DHCP must be set to <OFF>.

- DNS

DNS is the abbreviation for “Domain Name System”, which is an Internet service that translates domain names (eg: www.DNS.com) into IP addresses. It helps to make our life easier because we do not have to memorize IP address but just the domain names, which are easier to be memorized.

The item allows users to specify the IP address of the Domain Name System associated with the unit. To configure this item, DHCP must be set to <OFF>.

If the network server is unavailable when using DHCP, the unit searches for the network server and boots up slower than as usual. The search of network continues until it times out.

- PPPoE Account

The item allows users to setup the PPPoE login username.



NOTE: For accessing the PPPoE settings, select <PPPoE> as the Network Type under LAN Select menu.

To setup the login username, follow the steps:

- Select <PPPoE Account> from LAN Setup menu and press ENTER. A virtual keyboard displays. Use Direction keys to move the cursor to the desired character.
- Press ENTER to add the character to the entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the setting and exit.

- PPPoE Password

The item allows users to setup the PPPoE password. Follow these steps to setup the login password.

- Select <PPPoE Password> from LAN Setup menu and press ENTER. A virtual keyboard displays.
- Use Direction keys to select from characters.
- Press ENTER to add the selected character to the entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the setting and exit.

- PPPoE Max Idle

The item indicates the duration that the modem connection remains active if there is no acknowledgement from the remote PC. Users can select the idle time from 0 to 600 minutes.

- Connect At Booting

The unit is allowed to automatically connect to the internet when powered up. Select <Yes> to connect at booting, otherwise select <No>.

- Network Restart

Network restart is required after network settings are changed. Select <Yes> to restart the network connection.

■ **Wireless Network Setup**

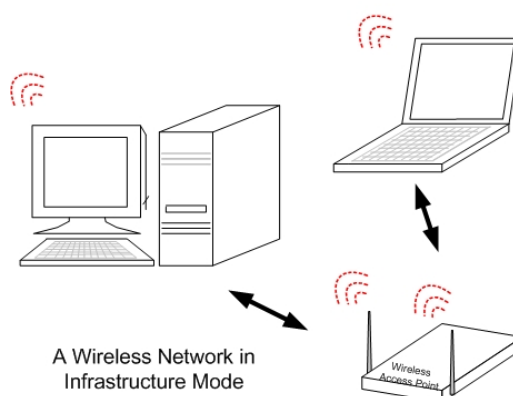
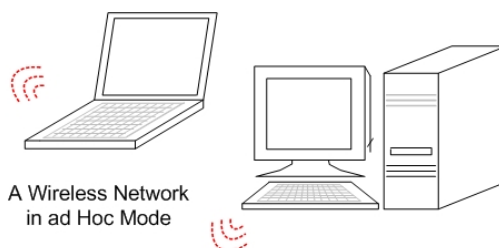
A wireless network consists of a number of computers which are equipped with wireless networking interface card respectively. Each of these computers can communicate directly with all of the other wireless enabled computers. Select <Wireless Network Setup>, which is under <Network Setup> Menu, and press ENTER, the menu displays as below.

Wireless Network Setup	
Operating Mode	Infrastructure
Choose A Wireless Network	
Network Name (ESSID)	H264DVR
Network Authentication	Shared
Data Encryption	Disable
Data Encryption Level	64bits
Key Index	1
Enter Network Key	xxxxxxxx
Network Setting	
Connect	No

- **Operating Mode**

Devices in a wireless network are set up to either communicate indirectly through a central place -- an Access Point (AP); or directly, one to the other. The prior one is called "Infrastructure Mode" and the other one is called "Ad Hoc Mode" (also referred as peer-to-peer).

Ad Hoc Mode does not require an Access Point. It is easier to set up, especially in a small or temporary network.





NOTE: Users may select either mode for the wireless network. However, all devices communicating directly with each other must operate under the same mode.

- Choose A Wireless Network

This function enables the unit to scan for available wireless network connections in surrounding area and list them as shown below.

Choose A Wireless Network		
Mode	ESSID	ENCRYPT
Infrastructure	Wireless-ap	OFF
Infrastructure	zeroneoffice	OFF

The list shows operating mode, network name (ESSID) and the encrypt status of each wireless network. "Mode" indicates the operating mode; "ESSID" indicates the name of the wireless network found; and "Encrypt" indicates whether the transferring data has been encrypted.

Move the cursor to the desired wireless network and press ENTER to select it. Once users select a wireless network, some related items, such as <Operating Mode>, <Network Name> and <Data Encryption>, are already set for users.



NOTE: A Wireless USB Adapter must be connected to the DVR before choosing a wireless network under this submenu.

- Network Name (ESSID)

This item is used for setting the name of a wireless network. The set name will be shared by every member of the wireless network. Note that the Network Name should be one word without space.

Follow these steps to set the name of a wireless network.

- In the <Wireless Network Setup> Menu, move the cursor to <Network Name (ESSID)> and press ENTER. A virtual keyboard with alphanumeric characters is displayed.

!	@	#	*	-	_	+	=	,	.	/	Back	
1	2	3	4	5	6	7	8	9	0	Del		
A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
a	b	c	d	e	f	g	h	i	j	k	l	m
n	o	p	q	r	s	t	u	v	w	x	y	z
<<			>>			Space		Cancel		OK		

- Use Direction keys to move the cursor through the virtual keyboard and press ENTER to add the selected character to the entry field. Repeat the procedures until the Network Name has been established.
- When finished, move the cursor to <OK> and press ENTER to complete the setting; or, abort the setting by either ways: press ESC, or move the cursor to <Cancel> and press ENTER.

- Network Authentication

For additional security on the wireless network, the Authentication type can also be set when Encryption is enabled.

If <Shared> is chosen, the Access Point will not be available on the wireless network except to those wireless clients that share the same WEP (short for Wired Equivalent Privacy) key.

If <Open> System is chosen, only those wireless clients with the same WEP key will be able to communicate on the wireless network, but the Access Point will be visible to all devices on the network.



NOTE: Wired Equivalent Privacy is a security protocol for WLANs defined in the 802.11b standard. WEP aims to provide security by encrypting data over radio waves so that it is protected when the data is transmitting from one end point to another.

- Data Encryption

This function is used to translate the data into a secret code. Data encryption is the most efficient way to achieve data security. To read an encrypted file, users must have access to a secret key or password that enables users to decrypt it.

Once users enable this function, users have to specify the secret key level (64 bits or 128 bits) and key index.

- Data Encryption Level

This item allows users to select the data privacy algorithm, including 64 or 128 bits WEP type. If users select 64 or 128 bits WEP type, a set of WEP key will be generated. 128 bits WEP type provides higher secure level than 64 bits WEP type.

If <64bits> is chosen, then 10 hexadecimal digits can be entered for <Enter Network Key>; and 26 hexadecimal digits for <128bits>.



NOTE: A hexadecimal digit values in the range of 0~9, A~F and a~f, e.g. abcde12345.

- Key Index

Key index refers to the location where the secret key is stored. Users can select from 1 to 4. The option users selected here should be corresponding to Wireless USB Adapter's setting.

- Enter Network Key

This item is to specify a secret key for encryption. Select <Enter Network Key> and press ENTER, a virtual keyboard shows as below.

!	@	#	*	-	_	+	=	,	.	/	Back	
1	2	3	4	5	6	7	8	9	0	Del		
A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
a	b	c	d	e	f	g	h	i	j	k	l	m
n	o	p	q	r	s	t	u	v	w	x	y	z
<<			>>			Space		Cancel		OK		

Follow the same setup procedures described in <Network Name (ESSID)> to specify a secret key.



NOTE: If <64bits> is chosen as option for <Data Encryption Level>, then 10 hexadecimal digits can be entered; and 26 hexadecimal digits for <128bits>.

- Network Setting

This item is to configure the related settings of the WLAN Network, including <WLAN DHCP>, <WLAN IP>, <WLAN Netmask>, <WLAN Gateway> and <WLAN DNS>. Select this item and press ENTER, the sub-menu displays as below.

Network Setting	
WLAN DHCP	OFF
WLAN IP	192.168.70.100
WLAN Netmask	255.255.255.0
WLAN Gateway	0. 0. 0. 0
WLAN DNS	0. 0. 0. 0

<WLAN DHCP> allows users to obtain a dynamic IP address from DHCP server. If users select <ON>, then the remaining items will be assigned automatically. Alternatively, if <OFF> is selected, users have to enter the remaining items manually.



NOTE: The item <LAN Select>, which is under <Network Setup> menu, should be set to <WLAN>, otherwise, this submenu <Wireless Network Setup> cannot be accessed.

- Connect

After the above settings have been set completely, move cursor to this item and select <Yes> to activate a wireless network (if any has been detected), and <No> to abort.

■ **Modem Setup**

The **Premium H.264 DVR** can connect to the internet via an external installed modem.

Modem Setup	
Dial-in Setup	
Dial-out Setup	
Dial Port Selection	None

- **Dial-in Setup**

The Dial-in function enables users to establish dial-up modem communication to and from the **Premium H.264 DVR** for the remote software use. Users are allowed to connect only one modem to a **Premium H.264 DVR**.

For more information on dial-up setting on PC, see **Appendix B: Dial-up Connections via Modem.**



NOTE: The Dial-in Service is not available if no modem connects to the unit.

In Network Setup menu, select <Dial-in Setup> and press ENTER to enter the Dial-in menu. The menu displays as follows.

Dial-in Setup	
Dial-in Service	OFF
Dial-in Account	user
Dial-in Password	user
Server IP	192.168.0.1
Client IP	192.168.0.2
Dial-in Idle Time	0 Min
Dial-in Max Time	0 Min

Dial-in Service

If the **Premium H.264 DVR** does not connect to the Internet, user can communicate to the unit from remote PC through a modem as well. Select <ON> to enable the Dial-in function, or <OFF> to disable. If users select <OFF> for this item, then the rest items will be inaccessible.

Dial-in Account

This item enables users to protect the unit by establishing or changing a dial-in user name for modem connection.

To setup the Dial-in Account, follow the steps.

- Select <Dial-in Account> from Dial-in Setup menu and press ENTER. A virtual keyboard displays.

!	@	#	*	-	_	+	=	,	.	/	Back	
1	2	3	4	5	6	7	8	9	0	Del		
A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
a	b	c	d	e	f	g	h	i	j	k	l	m
n	o	p	q	r	s	t	u	v	w	x	y	z
<<		>>			Space			Cancel		OK		

- Use Direction keys to move the cursor to the desired character.
- Press ENTER to add the selected character to the entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.



NOTE: The Sever IP and the Client IP must be different. However, they have to be set in the same domain.

For example: Server IP: 192.168.0.1

Client IP: 192.168.0.2

Dial-in Password

The item allows users to setup the Dial-in password. Follow these steps to setup the login password.

- Select <Dial-in password> from Dial-in Setup menu and press ENTER. A virtual keyboard displays.
- Use Direction keys to select character.
- Press ENTER to add the selected character to the entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.

Server IP

The item is for setting the IP address that identifies the **Premium H.264 DVR** over modem connection. To set the server IP, follow these steps:

- Select <Server IP>.
- Using LEFT / RIGHT to move the cursor to select the area users want to change.
- Press ENTER, and then use UP/ DOWN to change the value.
- When it's done, press ENTER again to exit.
- Repeat the procedures until the IP is set completely.

Client IP

The item determines the remote PC's IP address for connection with the **Premium H.264 DVR**. To set the Client IP, follow these steps:

- Select <Client IP>.
- Using LEFT/ RIGHT to move the cursor to select the area users want to change.
- Press ENTER, and then use UP/ DOWN to change the value.
- When it's done, press ENTER again to exit.
- Repeat the procedures until the IP is set completely.

Dial-in Idle Time

This item indicates the longest amount of time that the modem connection remains active if there is no acknowledgement from the remote PC. The value can be set in the range of 0 min to 600 min.

Dial-in Max Time

The item indicates the longest amount of time that the connection via modem remains active. The value can be set in the range of 0 min to 600 min.

- Dial-out Setup

The Dial-out function enables user to establish dial-up modem communication to and from the **Premium H.264 DVR** for remote notification. Users can connect one modem to a **Premium H.264 DVR**. For more information on dial-up setting on PC, see **Appendix B: Dial-up Connections via Modem**.



NOTE: The Dial-out Service is not available if there is no modem connected to the unit.

In Network Setup menu, select <Dial-out Setup> and press ENTER to enter the Dial-out menu. The menu displays as follows.

Dial-out Setup	
Dial-out DHCP	OFF
Dial-out IP	192.168.254.1
Dial-out Netmask	255.255.255.0
Dial-out Gateway	192.168.254.254
Dial-out DNS	192.168.254.254
Phone Number	1234
Dial-out Account	user
Dial-out Password	user
Dial-out Idle Time	0 Min
Dial-out Max Time	0 Min
Connect	No

Dial-out DHCP

This item allows users to obtain a dynamic IP address from DHCP (Dynamic Host Configuration Protocol) server over modem connection. If the item is enabled (ON), a dynamic IP will be assigned to the **Premium H.264 DVR**. In this case, users do not need to configure a static IP and the following settings will be read only.

Select <ON> to enable the DHCP function, or <OFF> to set the dial-out IP address, Netmask, Gateway and DNS manually.

Dial-out IP

The item is for setting a static IP address that identifies the **Premium H.264 DVR** over modem connection. Set the <Dial-out DHCP> to <OFF> for accessing this item.

Move the cursor over <Dial-out IP> and press ENTER, and then press UP / DOWN keys to change the values in the selected field.

Dial-out Netmask

The item is for setting the Netmask that identifies the **Premium H.264 DVR** over modem connection. To configure the item, DHCP must be set to <OFF>.

Move the cursor over <Dial-out Netmask> and press ENTER, and then press UP / DOWN keys to change the values in the selected field.

Dial-out Gateway

Users are allowed to specify the IP address of the gateway or router associated with this unit. To configure this item, DHCP must be set to <OFF>.

Move the cursor over <Dial-out Gateway> and press ENTER, and then press UP / DOWN keys to change the values in the selected field.

Dial-out DNS

The item allows users to specify the IP address of the Domain Name System (DNS) associated with the unit. To configure this item, DHCP must be set to <OFF>. Enter this item and press UP / DOWN keys to change the values in the selected field.

Phone Number

The item is used to set the dial-out phone number. Follow these steps to setup the phone number.

- Select <Phone Number> from Dial-out Setup menu and press ENTER. A virtual keyboard displays.
- Use Direction keys to move the cursor for selecting number.
- Press ENTER to add the selected number to the entry field.
- When it's done, press ENTER to save the settings and exit.

Dial-out Account

This item enables user to set the Dial-out user name, which is used for dialing out to Internet Service Provider server. Contact the network service provider for more specific information.

To setup the Dial-out Account, follow the steps.

- Select <Dial-out Account> from Dial-out Setup menu and press ENTER. A virtual keyboard displays.

!	@	#	*	-	_	+	=	,	.	/	Back	
1	2	3	4	5	6	7	8	9	0	Del		
A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
a	b	c	d	e	f	g	h	i	j	k	l	m
n	o	p	q	r	s	t	u	v	w	x	y	z
<<		>>		Space			Cancel		OK			

- Use Direction keys to move the cursor to the desired character.
- Press ENTER to add the selected character to the entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.

Dial-out Password

The item allows user to setup the Dial-out password. Follow these steps to setup the login password.

- Select <Dial-out password> from Dial-out Setup menu and press ENTER. A virtual keyboard displays.
- Use Direction keys to move the cursor for selecting from characters.
- Press ENTER to add the selected character to the entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.

Dial-out Idle Time

This item indicates the longest duration of time that the modem connection remains active if there is no acknowledgement from the remote PC. The value can be set in the range of 1 min to 600 min. If selecting <0>, the modem connection remains active constantly.

Dial-out Max Time

The item indicates the longest duration of time that the connection via modem remains active. The value can be set in the range of 1 min to 600 min, or <0> to keep the connection indefinitely.

Connect

When the Dial-out related settings are configured, set this item to <Yes> to start dial-out or select <No> to disconnect.

- Dial Port Selection

The Dial Port Selection enables the user to assign the Dial-In/Out, SMS, Text to the designated port of the DVR. For instance, when the cable of a POS system is connected to the Serial Port of the DVR, enter the Dial Port Selection menu and assign Text to the Serial Port. The DVR will now be able to obtain data from the POS system.

Dial Port Selection	
Serial Port	Text
USB Port-Front	None
USB Port-Rear Top	None
USB Port-Rear Bottom	None

■ ***Trigger Port***

To avoid the default service port (port 80) being jammed, the item enables users to change port 80 to another port.

To change the trigger port, move the cursor over <Trigger Port> and press ENTER, then adjust the setting using UP / DOWN keys.

■ ***Email Address***

This item is used to edit the e-mail address where alarm event information will be sent. Follow these steps to setup the e-mail address.

- Select <Email Address> from Network Setup menu and press ENTER. A virtual keyboard displays.
- Use Direction keys to move the cursor for selecting from characters.
- Press ENTER to add the selected character to the entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.

■ SMTP Setup

Simple Mail Transfer Protocol (SMTP), a protocol for sending e-mail messages between servers. SMTP is a relatively simple, text-based protocol that one or more recipients of a message are specified and the message text is transferred.

Select < SMTP Setup> from Network Setup menu and press ENTER; the menu displays as follows.

SMTP Setup	
Email via SMTP	On
SMTP Server	
SMTP Port	25
SMTP Account	
SMTP Password	
Use SSL Connection	Off

- Email via SMTP

The item enables users to determine if the unit sends e-mail via SMTP. Select <On> to send e-mail via SMTP using direction keys; if not, select <Off>.

- SMTP Server

This item enables users to set the SMTP server. Contact the network service provider for more specific information.

Follow the steps to setup the SMTP Server.

- Select <SMTP Server> from SMTP Setup menu and press ENTER. A virtual keyboard displays.

!	@	#	*	-	_	+	=	,	.	/	Back	
1	2	3	4	5	6	7	8	9	0	Del		
A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
a	b	c	d	e	f	g	h	i	j	k	l	m
n	o	p	q	r	s	t	u	v	w	x	y	z
<<		>>		Space			Cancel		OK			

- Use Direction keys to move the cursor to the desired character.
- Press ENTER to add the selected character to the entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.

- **SMTP Port**

The item is used to change SMTP port to another port, if necessary. SMTP usually is implemented to operate over Internet port 25.

To change the SMTP port, move the cursor to <SMTP Port> in SMTP Setup menu and press ENTER. Use UP / DOWN keys to change the values in the selected field.

- **SMTP Account**

The item allows users to setup the SMTP username. Follow these steps to setup the login username.

- Select <SMTP Account> from SMTP Setup menu and press ENTER. A virtual keyboard displays.
- Use Direction keys to move the cursor for selecting from characters.
- Press ENTER to add the selected character to the entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.

- **SMTP Password**

The item allows users to setup the SMTP password. Follow these steps to setup the password.

- Select <SMTP password> from SMTP Setup menu and press ENTER. A virtual keyboard displays.
- Use Direction keys to move the cursor for selecting from characters.
- Press ENTER to add the selected character to the entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.

- **Use SSL Connection**

SSL stands for Secure Sockets Layer, which provides communications security over the Internet. Select <On> for this item to enable SSL connection. Otherwise, select <Off> to disable SSL connection.

■ DDNS Setup

Dynamic Domain Name System (DDNS) allows a DNS name to be constantly synchronized with a dynamic IP address. In other words, it allows those using a dynamic IP address to be associated to a static domain name so others can connect to it by the domain name.

Once the setting is completed, the DDNS address will be:

<http://hostname.ddns.iview-ddns.com>

Fore example, if the chosen host name is "H264DVR", then the address will be: <http://H264DVR.ddns.iview-ddns.com>

Select <DDNS Setup> from Network Setup and press ENTER. The menu displays as below.

DDNS Setup	
Enable DDNS	On
Host Name	XXXXXX
DDNS Port	80
Submit/Update	No
ezDDNS	No

- Enable DDNS

The item is used to enable or disable the Dynamic Domain Name Service. Select <On> to enable the service, or <Off> to disable.

- Host Name

The item allows users to setup a domain name, which is used for accessing the **Premium H.264 DVR** through the internet on the remote PC.

To setup the Host Name of the unit, follow the steps.

- Select <Host Name> from DDNS Setup menu and press ENTER. A virtual keyboard displays as below.

!	@	#	*	-	_	+	=	,	.	/	Back
1	2	3	4	5	6	7	8	9	0	Del	
A	B	C	D	E	F	G	H	I	J	K	L
N	O	P	Q	R	S	T	U	V	W	X	Y
a	b	c	d	e	f	g	h	i	j	k	l
n	o	p	q	r	s	t	u	v	w	x	y
<<		>>		Space			Cancel		OK		

- Use Direction keys to select characters.
- Press ENTER to add the selected character to the entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.



NOTE: There cannot be more than one **Premium H.264 DVR** setting to the same Host Name.

- **DDNS Port**

The item allows user to setup the port for DDNS. Press UP / DOWN Direction keys to change the port.

- **Submit/Update**

When it's done, move the cursor to this item and press ENTER to submit the settings.



NOTE: If there are more than one **Premium H.264 DVR** set to the same domain name, then only the first one will be able to submit successfully.

- **ezDDNS**

ezDDNS enables the users to register for the host name automatically. Press ENTER and select <Yes>. The following will be displayed.

ezDDNS Submit/update ok!
Host name is XXXXXX.ddns.iview-ddns.com
Press any key to return



NOTE: The DVR must be connected to the *Real IP address, or be assigned a specific port using **Port Forwarding technique.
*A "**Real IP**" is the IP address that is assigned to users by the ISP.
A "Virtual IP**" is the IP address assigned either manually or through DHCP. When the user is assigned a Virtual IP, the user must use **Port Forwarding** technique to assign a specific port to the DVR.

■ **UPnP Setup**

UPnP is the abbreviation for Universal Plug and Play, which is a relatively new technology that integrates a universal protocol for widespread plug-and-play devices to ease the network implementation. When a PC and a DVR both installed the UPnP function, the PC can automatically recognize the DVR in the same local area network. The advantage of this function is that PCs can connect to the DVR via the remote control software by directly clicking on the icon representing the DVR in **<My Network Places>** folder. The menu will be as the following.

UPnP Setup	
UPnP	On
UPnP NAT Traversal	No

- **UPnP**

Set the first item UPnP to **<ON>** and the DVR is now with UPnP function.

- **UPnP NAT Traversal**

The UPnP NAT traversal function will help to automatically setup a router if the DVR connects to the internet via a router. Select **<Yes>** and the settings of router will be taken care by the DVR itself.

< RS485 Setup >

This menu allows users to set up the parameters of the unit's RS-485 communication port. From the System Setup menu, select **<RS485 Setup>** and press ENTER. The following menu is displayed.

RS485 Setup	
Unit ID	224
Baud Rate	9600
Bits	8
Stop	1
Parity	None

■ **Unit ID**

This item is used to change the RS-485 ID address of the unit. The ID is in the range of **<1>** to **<255>**. The default is **<224>**.

■ **Baud Rate**

The Baud rate options associated with the protocol are <2400>, <4800>, <9600>, <19200> and <38400>. The default is <9600> baud.

■ **Bits**

The bits options associated with the protocol are <6>, <7> and <8> bits. The default is <8> bits.

■ **Stop**

The stop bit options associated with the protocol are <1> and <2> stop bits. The default is <1> stop bit.

■ **Parity**

The parity options associated with the protocol are <ODD>, <EVEN>, and <None>. The default is <None>.

< Audio Output/ Key Beep >

Enter this item to setup the audio output or key beep.

Audio Output/Key Beep	
Audio Output Key Beep	Live/PB On

■ **Audio Output**

The item is used to set the audio output mode. The available options are as follows.

Live/PB:

Select the item to play the recording sounds of live image in live mode, and sounds of recorded video in playback mode respectively.

Always Live:

Select the item to play live sounds in both live mode and playback mode.

OFF:

Select the item to disable the audio output function.

■ **Key Beep**

The item is used to enable or disable the key tone. Select <On> to enable the key tone, or <Off> to disable.

< User Interface >

The OSD system can be displayed in graphic mode or text mode according to users' preference. Set this menu to <Graphic> and the OSD system will be displayed in GUI mode. Alternatively, set this menu to <Text> and the OSD system will be displayed in text mode.

< IP Camera Support >

Enter this item to add IP cameras to the DVR. Setting this item to <0> will make DVR act as a traditional analog DVR. Select any other number to add corresponding number of IP cameras to the DVR.

After a number is selected, the following message will be displayed. Press ENTER to apply the changes, or ESC to exit.

Notice!!

DVR must be reboot to apply the change

ENTER: Yes ESC: No

**Note:**

1. The existing database will NOT be re-formatted after switching to this function.
2. Alarm I/O, Motion detection function, and audio of the IP camera currently are NOT supported.

Monitor Setup

The DVR supports dual main monitor output. To configure the monitor settings, select <Monitor Setup> from the Main menu and press ENTER. The following menu is displayed.

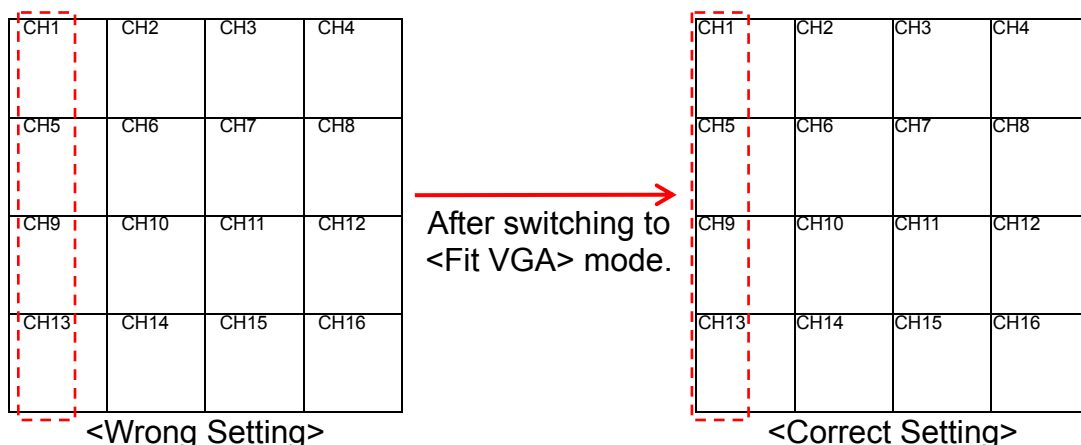
Monitor Setup	
Show Camera Title	Yes
Title Position	Fit VGA
Main Monitor Output Select	AUTO
Simultaneous Output	No
Monitor Brightness	0
Monitor Contrast	0
Monitor Chrominance	0
VGA Frequency	60Hz
Show Color Bar	

< Show Camera Title >

This item allows users to choose whether to display the camera title on the screen or not. The default is <YES>, which displays the camera titles with the video.

< Title Position >

This item allows the DVR to display the proper screen size on either a PC Monitor (VGA) or a CRT CCTV Monitor (BNC). For instance, if users are using a CRT CCTV monitor, set this item to <Fit BNC>; or set this item to <Fit VGA> for PC monitor.



PC Monitor is used in the example above. In the <Wrong Setting>, the Title Position is set to <Fit BNC> instead of <Fit VGA>. Since it is not the right setting, the titles of CH1, CH5, CH9, and CH13 are slightly shifted toward the center screen of each channel. After switching to <Fit VGA>, the titles have been shifted back to the proper position as shown in the <Correct Setting>.

< Main Monitor Output Select >

Users can select to connect <BNC> or <VGA> main monitor. Alternatively, select <AUTO> to let the DVR automatically detects the connection. Under normal condition, BNC and VGA main monitor cannot coexist at the same time. Thus when BNC and VGA are both connected, only the first connected monitor (BNC or VGA) will work. The active connection can switch from BNC to VGA and vice versa.

< Simultaneous Output >

For users who wish to show BNC and VGA main monitors at the same time, set Simultaneous Output to <Yes>. The menu items will be slightly changed as the following:

Monitor Setup	
Show Camera Title	Yes
Title Position	Fit VGA
Simultaneous Output	Yes
Monitor Brightness	0
Monitor Contrast	0
Monitor Chrominance	0
VGA Resolution	1024×768
VGA Frequency	60Hz
Show Color Bar	



NOTE: Main Monitor Output Select will disappear; Monitor Brightness, Contrast, and Chrominance will become unavailable; and a new item VGA Resolution will show up.



NOTE: The resolution for BNC and S-Video monitors will always be 800×600. Hence there is no menu item for changing the resolution of BNC/S-Video monitors.

< Monitor Brightness >

The function allows users to adjust the brightness of the monitor. Move the cursor to the item then press ENTER, and use UP / DOWN keys to adjust the numeric value. The range of brightness values is <-32> to <31>.

< Monitor Contrast >

The item is used to adjust the color contrast of the monitor. The range of contrast values is <-32> to <31>.

< Monitor Chrominance >

Move the cursor to this item and press ENTER for adjusting the chrominance of the monitor. Use UP / DOWN keys to adjust the numeric value. The range of chrominance values is <-32> to <31>.

< VGA Resolution >

The item allows users to select appropriate VGA resolution for the VGA monitor connected to the unit. The options are <800×600>, <1024×768>, <1280×1024>, and <720p>.



NOTE: If the selected VGA resolution is too high for the monitor, an error message will be shown on the screen. Connect the DVR via the remote monitoring software through the internet and change the VGA resolution from the configuration menu remotely.

< VGA Frequency >

Enter this item to select appropriate VGA frequency for the VGA main monitor connected to the unit. The options are <60Hz> and <75Hz>.

< Show Color Bar >

Choose this item to display a color bar pattern on the screen. The color bar helps to adjust the monitor hue, saturation, text color, and display options. Press ESC to exit the color bar pattern display and return to the OSD setup menu.

Camera Setup

The items in the Camera Setup menu enable users to set camera parameters, including camera title, dome protocol and ID for each connected camera. Note that there will be separated menus for analog cameras and IP cameras. Please refer to <Analog Camera> section if users are setting an analog camera, or refer to <IP Camera> when users are setting an IP camera.

< Analog Camera >

If users are using an analog camera, please continue with this section. Items in this menu are described in the following subsections.

Analog Camera	
Analog Camera Select	CH3
Dome Protocol	None
Dome ID	0
Camera Title	Ch3
Covert/Privacy Mask	
Termination	On
Brightness	-0
Contrast	0
Saturation	0
Hue	0
Audio Association	Yes
Copy Settings	

■ **Analog Camera Select**

The item is used to select a camera for setting it's parameters. The related settings will follow the selected camera, such as dome protocol and camera title. Move the cursor to <Analog Camera Select> and press ENTER, then select a channel using UP / DOWN keys.

■ **Dome Protocol**

Select the communications protocol associated with the user's dome camera using ENTER and Direction keys.

■ **Dome ID**

This item is used to assign an ID number (0 to 255) to the selected dome camera. Note that ID number must match the ID address set by the dome camera.

■ **Camera Title**

This item allows the users to change the title of each camera connected to the unit. By default, the titles of cameras are numbered from 1 through 16 respectively. The new title will be displayed on the upper left-hand corner of the screen after it's set.

Follow these steps to enter a new title for a camera.

- In the Camera setup Menu, move the cursor to <Camera Title> and press ENTER. A virtual keyboard with alphanumeric characters is displayed.

!	@	#	*	-	_	+	=	,	.	/	Back	
1	2	3	4	5	6	7	8	9	0	Del		
A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
a	b	c	d	e	f	g	h	i	j	k	l	m
n	o	p	q	r	s	t	u	v	w	x	y	z
<<			>>			Space		Cancel		OK		

- Use Direction keys to position the cursor in the entry field above the virtual keyboard.
- Use Direction keys to move the cursor through the lists of characters to the one users need. Press ENTER to select a character. Continue until the desired name is entered. Each title can contain up to 11 characters.
- After title entry is finished, move the cursor to <OK> and press ENTER; otherwise, either press ESC, or move the cursor to <Cancel> and press ENTER to abort.

■ **Covert/Privacy Mask**

Enter this menu to configure settings of covert and privacy mask functions.

Covert/Privacy Mask	
Covert	No
Privacy Mask	Off
Privacy Mask Select	

- **Covert**

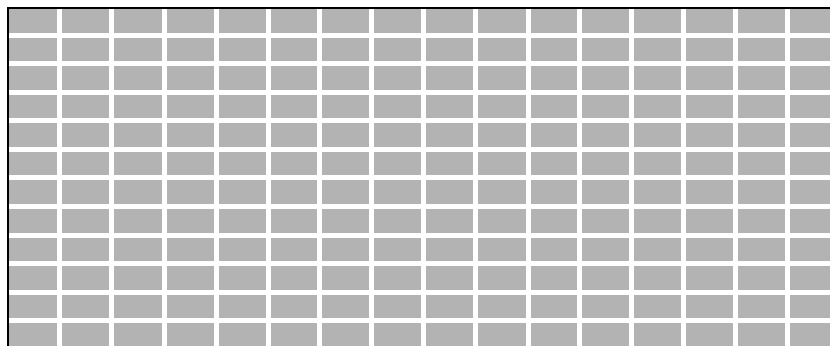
This function allows user to choose certain camera to be covert while the unit is continuing recording video. Choosing <Yes> means to covert the selected camera; and <No> to remain the selected camera non-covert.

- Privacy Mask

The privacy mask function allows the user to block selected regions that might involve privacy issue. Select <On> to enable the function, or select <Off> to disable the function.

- Privacy Mask Select

Enter this menu to setup privacy mask regions. Use Direction keys to select any grid and press ENTER to select or deselect the grid. Press MODE to select all of the grids for detection; press MODE again to de-select all of the grids. If a mouse is connected, follow the special operation described in appendix **USB Mouse Operation** of the User's Manual for faster setup steps.



■ Termination

This item is used to enable / disable the 75-termination resistor inside the unit to adjust the image quality of each camera. <Yes> = termination resistor enabled, <No> = termination resistor disabled.



NOTE: If the camera loop-out connectors have not been used, the termination resistor should be enabled for appropriate signal termination.

■ Brightness

Move the cursor to the item and press ENTER for adjusting the brightness of the camera. Use UP / DOWN keys to adjust the numeric value. The range of brightness values is <-128> to <127>.

■ Contrast

Move the cursor to the item and press ENTER for adjusting the contrast of the camera. Use UP / DOWN keys to adjust the numeric value. The range of contrast values is <-128> to <127>.

■ **Saturation**

Move the cursor to the item and press ENTER to adjust the color saturation of the camera by using UP / DOWN keys. This value will be ignored on monochrome monitors. The range of saturation values is <-128> to <127>.

■ **Hue**

Move the cursor to the item and press ENTER for adjusting the hue of the camera. Use UP / DOWN keys to adjust the numeric value. The range of hue values is <-128> to <127>.

■ **Audio Association**

The item is used to establish the connection between the selected camera and its corresponding audio-in channel. Move the cursor to <Audio Association> in Camera Setup menu and press ENTER, then select <Yes> or <No> by UP / DOWN keys to set up the connection.

■ **Copy Settings**

This item allows users to copy the settings of the current selected analog camera to any other connected analog cameras. Enter this menu and select one or more target analog cameras. Then select <Confirm> to apply the settings.

Copy Settings							
COPY TO:							
01	02	03	04	05	06	07	08
09	10	11	12	13	14	15	16
Select All		Deselect All		Confirm		Cancel	

< IP Camera >

If users are using an IP camera, please continue with this section. After the <IP Camera Support> is set to any number greater than 0 and the DVR is rebooted, the user will be able to setup the IP camera. Items in this menu are described in the following subsections.

IP Camera	
IP Camera Select	CH16
IP Camera Title	Ch16
IP Camera Covert	Off
Device Search	
Hostname/IP	X.X.X.X
Model	ONVIF
Connection Setup	
Device Setup	
Activated	No
Status	
Copy Settings	



NOTE: If the IP camera is already activated, items <Device Search>, <Hostname/IP>, <Model>, <Connection Setup>, and <Copy Settings> will be grayed out and cannot be accessed.

■ *IP Camera Select*

Select the corresponding channels. If users chose <1> in <IP Camera Support>, then last channel will be the corresponding channel for IP camera. When users choose <2> in <IP Camera Support>, the last two channels can be used to setup the IP cameras, and so on.

■ *IP Camera Title*

This item allows the user to change the title of each camera connected to the unit. By default, the titles of cameras are numbered from 1 through 16 respectively. The new title will be displayed on the upper left-hand corner of the screen after it's set.

Follow these steps to enter a new title for an IP camera.

- ENTER <IP Camera Title> and a virtual keyboard with alphanumeric characters is displayed.

!	@	#	*	-	_	+	=	,	.	/	Back	
1	2	3	4	5	6	7	8	9	0	Del		
A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
a	b	c	d	e	f	g	h	i	j	k	l	m
n	o	p	q	r	s	t	u	v	w	x	y	z
<<		>>			Space			Cancel		OK		

- Use Direction keys to move the cursor through the lists of characters to the one users need. Press ENTER to select a character. Continue until the desired name is entered. Each title can contain up to 11 characters.
- After title entry is finished, move the cursor to <OK> and press ENTER; otherwise, either press ESC, or move the cursor to <Cancel> and press ENTER to abort.

■ **IP Camera Covert**

If users want to hide the display of image from the IP camera, select <On>. Note that the display in the remote monitoring software will also be hidden. Otherwise select <Off> and the live image will be shown on the monitor.

■ **Device Search**

Select this item and press ENTER to automatically search for IP cameras installed in the same LAN network to the DVR. If the IP cameras are ONVIF devices, "Brand Name/Onvif" will be shown under the "Brand" column.



NOTE: If the model is selected as <ONVIF> in advance to starting device search, the search result will only show ONVIF devices.

■ **Hostname/IP**

If the IP camera is not UPnP compatible, manually enter the hostname or IP address of the IP camera (e.g. 192.168.1.123).

■ **Model**

Enter this item to choose the IP camera model. The DVR supports the following IP camera models.

■ **Connection Setup**

This item is used to setup the connection of the IP camera. Enter this item and the following menu will be displayed.

Connection Setup	
Account	****
Password	****
Management Port	80
Streaming Format	MJPEG
I-frame Only Mode	Off
Advanced Streaming Option	Off
Streaming Port	8090
Streaming Protocol	RTP+RTSP
IP Dome Protocol	None

- **Account**

To be entered with the account name of the IP camera.

- **Password**

To be entered with the password of the IP Camera.

- **Management Port**

The management port is the default port of the IP camera. Different IP cameras may have different management ports.

- **Streaming Format**

Access this item to select the streaming format, <MPEG4>, <MJPEG> or <H264>, of the IP camera. Note that the streaming format for ONVIF devices will be automatically selected by the DVR, with the priority as H.264 > MJPEG > MPEG4.

- **I-frame Only Mode**

Users can select <On> for this item to limit the Live display to 1PPS to avoid DVR overloading when the IP camera sends excessive data. The recorded video will not be affected. This item will be accessible only when the streaming format is set to <MPEG4> or <H.264>.



NOTE: The DVR will automatically switch to I-frame mode when excessive data is received.

- **Advance Streaming Option**

Select <Off> and the Streaming Port and Streaming Protocol will be set automatically according to the camera model selected. Alternatively, select <On> to manually set the Streaming Port and Streaming Protocol.

- **Streaming Port**

Streaming port is used for transmitting video and related commands.

- **Streaming Protocol**

Enter this item to choose the streaming protocol of the IP camera model. The DVR supports the following streaming protocols, <RTP+RTSP>, <RTP/RTSP>, <RTP/RTSP/HTTP>, and <HTTP>.



NOTE: Please contact the manufacturer of the IP camera for assistance if users cannot find the information of the Management Port/Streaming Port/ Streaming format/ Streaming Protocol for the IP camera.

- **IP Dome Protocol**

If the connected device is an IP Dome Camera, then select an appropriate IP Dome Protocol from the provided options.

■ **Device Setup**

Enter this item to set the basic settings of the IP camera. Upon entering this item, the following message will be displayed.

Collecting data
Please wait!

If the connection cannot be detected, the following message will be displayed. Please check the <Hostname/IP>, <Model>, and <Connection Setup> again to make sure the settings are correct.

Cannot get config from the IP device

When the connection is detected, the following menu will be displayed.



NOTE: The <Device Setup> menu may have fewer or more items than the menu below since the <Device Setup> menu is retrieved from the menu items of the IP camera.

Device Setup	
Product ID	****
Image Resolution	CIF
FPS	15
Compression	40
Quality	Best
Sharpness	0
Brightness	20
Contrast	50
Saturation	30
Hue	40
Apply	No

- Product ID

This item will display the product name of the IP camera.



NOTE: The contents of the <Device Setup> menu differ from camera model to camera model. For instance, when users connect to IP Camera Brand A, users may have all items available. However, when users connect to IP Camera Brand B, users may only see 7 or 8 items.

<IP Camera Brand A>

Device Setup	
1. Product ID	****
2. Image Resolution	CIF
3. FPS	15
4. Compression	40
5. Quality	Best
6. Sharpness	0
7. Brightness	20
8. Contrast	50
9. Saturation	30
10. Hue	40
11. Apply	No

<IP Camera Brand B>

Device Setup	
1. Product ID	****
2. Image Resolution	CIF
3. FPS	15
4. Quality	Best
5. Sharpness	0
6. Contrast	20
7. Saturation	50
8. Apply	No

- Image Resolution/ FPS/ Compression/ Quality

These can be used to setup the Image Resolution/FPS (Frames Per Second)/Compression/Quality of the IP camera.

- **Sharpness/ Brightness/ Contrast/ Saturation/Hue**

Move the cursor to the item and press ENTER for adjusting the Sharpness/Brightness/Contrast/Saturation/Hue of the camera. Use UP / DOWN keys to adjust the numeric value.

- **Apply**

Select <Yes> to apply the above settings, and the following message will be displayed.

Re-collecting data
Please wait!

When the settings cannot be applied, the following message will be displayed. Users may need to reduce the resolution, or FPS of the IP camera.

Cannot set the IP device

Otherwise, the <Device Setup> setting is completed.



NOTE: After changing any item under <Device Setup> menu, users **MUST** select <Apply> to apply the changes, or the settings will remain unchanged.

■ **Activated**

Select <Yes> to activate the IP camera, or <No> to deactivate it.



NOTE: Once the connection to the IP camera is activated, menu items <Device Search>, <Hostname/IP>, <Model>, <Connection Setup>, and <Copy Settings> will be grayed out and cannot be accessed.

■ **Status**

After activating the IP camera, the <Status> item will be shown. Enter this item to see the current status of the IP camera.

Status	
Model	ONVIF
Streaming Format	H264(MP)
Resolution	1280×720
PPS	30.00
Bandwidth	511.37 KB/Sec
Pkg. lost rate	0.00%

Under the <Status> menu, the user will be able to see the model, streaming format, resolution, PPS, bandwidth, and package lost rate of the IP camera. The information is “read only”.



NOTE: The streaming format will show “MP” (main profile) or “BL” (base line) according to the compression of the IP camera. The main profile has higher compression technology.

■ **Copy Settings**

This item allows users to copy the settings of the current selected IP camera to any other connected IP cameras. Enter this menu and select one or more target IP cameras. Then select <Confirm> to apply the settings.

Copy Settings							
COPY TO:							
01	02	03	04	05	06	07	08
09	10	11	12	13	14	15	16
Select All		Deselect All		Confirm		Cancel	

Record Setup

The following factors will effect the total record time of the **Premium H.264 DVR**:

- HDD capacity
- Recording rate (Picture per Second)
- Image quality settings

The greater the recording rate and the higher the quality setting, the shorter the recording time. Most of the related factors can be set here in this submenu.

The Record Setup menu allows user to set recording quality, recording schedules, and other recording parameters. In the Main menu, move the cursor to <Record Setup> and press ENTER. The following menu is displayed.

Record Setup	
Record Mode Setup	
Schedule Setup	
Preset Config	Best Quality
Per Camera Config	
ezRecord Setup	
Data Lifetime Setup	
Pre-Alarm Recording	15 Sec
Circular Recording	On
Audio Recording	On
Purge Data	

< Record Mode Setup >

The Record Mode Setup menu is for selecting resolution and recording format. The relative record settings, such as preset configuration, will follow the record mode setting. The menu is displayed as the following.

Record Mode Setup	
Record Resolution	720*240
Record Format	H264
Max Rec PPS	240
CBR/VBR	VBR

■ **Record Resolution**

Select resolution of the recorded video. If the recording is set to NTSC system, the selections are 720*480, 720*240, and 352*240. If the recording is set to PAL system, the selections are 720*576, 720*288, and 352*288.

■ **Record Format**

Select format of the recorded video from <H264> or <MJPG> or <MPEG4>.

■ **Max Rec PPS**

This item will be automatically changed according to the setting of the previous two items.

■ **CBR/VBR**

This item allows users to select an encoding method for the unit.

CBR, standing for Constant Bit Rate, means a way to encode a file at a fixed rate. That also indicates a CBR file has consistent file size and quality.

VBR, standing for Variable Bit Rate, allocates an appropriate amount of data per second, depending on the complexity of the video file.

It's strongly suggested to use VBR encoding when reliable video quality is the top priority.



NOTE: Since a VBR file doesn't have a fixed size, the HDD space usage cannot be calculated and thus ezRecord function is not supported for VBR mode. Therefore, if ezRecord is selected as the preset record configuration, the option of this menu item will automatically be set as <CBR>.

< Schedule Setup >

This submenu is used to set the day and night time, or weekend recording schedule. The Night and Day schedules are used to define daytime and night time; the Weekend schedule is tailored for weekends and holidays. Select <Schedule Setup> from the Record Setup menu and press ENTER; the following menu is displayed.

Schedule Setup	
Day Time Start	AM 06:00
Day Time End	PM 06:00
Night Time Start	PM 06:00
Night Time End	AM 06:00
Weekend Schedule	On
Weekend Start	Fri 18:00
Weekend End	Mon 06:00

■ **Day / Night Time Start/ End**

The Day/Night Start Time and End Time determines the duration of day/night recording time. Time is indicated in 1-minute increments. The time display format in this menu is based on the setting of <Time Display Mode> in <System Setup>.

■ **Weekend Schedule**

The Weekend Schedule determines whether a weekend schedule is in effect. Choose <On> to take effect the related weekend settings.

■ **Weekend Start / End**

The Weekend Start Time indicates the specific day and time that a weekend begins, for example, Fri 18:00. The Weekend End Time indicates the specific time and day that a weekend ends, for example, Mon 06:00. Time is indicated in 1-minute increments.

Note that the value users have set indicates when the regular Day and Night scheduling ends, and Weekend recording begins.

< Preset Record Configuration >

The <Preset Config> is used to select the preset recording quality and frame rate. Different preset recording quality levels are offered for users to choose: <Best Quality>, <Standard>, <Extended Record>, <Event Only>, <ezRecord>, and <OFF>. The default setting is <Best Quality>. According to various Record modes, the preset configuration options for normal and event status are described in terms of relative recording rate (PPS) and recording size for each channel in the table below. The preset conditions override any other quality and rate settings.

Record Mode: Full-D1 mode (NTSC: 720x480@120PPS) (PAL: 720x576@100PPS)					
Preset Config.	Normal PPS	Normal Quality	Event Max PPS	Event Quality	Event Active
Best Quality	7.5 NTSC (6.25 PAL)	22 KB	30 NTSC (15 PAL)	22 KB	Both (Alarm+Motion)
Standard	7.5 NTSC (6.25 PAL)	14 KB	30 NTSC (15 PAL)	22 KB	Both
Extended Record	7.5 NTSC (6.25 PAL)	6 KB	30 NTSC (15 PAL)	22 KB	Both
Event Only	0 NTSC (0 PAL)	NA	30 NTSC (25 PAL)	22 KB	Both
ezRecord	Auto	Auto	30 NTSC (25 PAL)	22 KB	Both

Record Mode: Half-D1 mode (NTSC: 720×240@240PPS) (PAL: 720×288@200PPS)					
Preset Config.	Normal PPS	Normal Quality	Event Max PPS	Event Quality	Event Active
Best Quality	15 NTSC (12.5 PAL)	12 KB	30 NTSC (25 PAL)	12 KB	Both (Alarm+Motion)
Standard	15 NTSC (12.5 PAL)	8 KB	30 NTSC (25 PAL)	12 KB	Both
Extended Record	15 NTSC (12.5 PAL)	4 KB	30 NTSC (25 PAL)	12 KB	Both
Event Only	0 NTSC (0 PAL)	NA	30 NTSC (25 PAL)	12 KB	Both
ezRecord	Auto	Auto	30 NTSC (25 PAL)	12 KB	Both

Record Mode: CIF mode (NTSC: 352×240@480PPS) (PAL: 352×288@400PPS)					
Preset Config.	Normal PPS	Normal Quality	Event Max PPS	Event Quality	Event Active
Best Quality	30 NTSC (25 PAL)	5 KB	30 NTSC (25 PAL)	5 KB	Both (Alarm+Motion)
Standard	30 NTSC (25 PAL)	3 KB	30 NTSC (25 PAL)	5 KB	Both
Extended Record	30 NTSC (25 PAL)	1 KB	30 NTSC (25 PAL)	5 KB	Both
Event Only	0 NTSC (0 PAL)	NA	30 NTSC (25 PAL)	5 KB	Both
ezRecord	Auto	Auto	30 NTSC (25 PAL)	5 KB	Both

< Per Camera Configuration >

This sub-menu is used to set the Day / Night / Weekend PPS (Picture per Second) and recording quality for each channel. The <Preset Config> must be set to <OFF> for accessing these relating settings. The menu is displayed as below. The presets shown below are from settings of 720×240@240PPS in NTSC / 720×288@200PPS in PAL.

Per Camera Config			
Cameral Select	Day	Night	CH01 Weekend
Normal PPS	15	15	15
Normal Qlty	Mid	Mid	Mid
ABR (KByte)	72	72	72
Event Max PPS	30	30	30
Event Qlty	Best	Best	Best
Event Act	Both	Both	Both



NOTE: For V and U models, two extra menu items (<Normal Res.> and <Event Res.>) will be displayed to allow users to individually setup image resolution for each camera.

■ ***Camera Select***

The item is used to select a desired channel for setting the parameters. Move the cursor to <Camera Select> and press ENTER, then select a channel using UP / DOWN keys. Press ENTER again to confirm the setting.

■ ***Normal PPS***

Normal PPS (Picture per Second) is used to set the recording rate for normal status. Please note that the normal PPS for all channels can be added up to the maximum PPS for each Record mode. To increase one channel's PPS, users may have to reduce others' first. Event PPS is not restricted to this rule, since a smart event calculating program of the unit will handle the total PPS to meet the maximum PPS with a correct weighting. For example, if channel 1 is set to event mode with 30PPS, the remaining 30 PPS will be equally distributed to other 15 channels, which means each channel will be set to 2 PPS.

■ ***Normal Qlty***

The item is used to set the picture size for normal status recording. The available options are listed as follow: <Low>, <Fair>, <Mid>, <High> and <Best>.

■ ***ABR (KByte)***

<ABR (KByte)> is a "read-only" information showing the Average Bit Rate.

■ ***Event Max PPS***

Event Max PPS is used to set the event recording rate for Event status. Normally, the Event PPS is set to equal or greater than Normal PPS; the setting is depending on the application. If the Event PPS is set to <0>, the **Premium H.264 DVR** stops recording event video during alarms.

■ ***Event Qlty***

The item is used to set the picture size for event status recording. The available options are <Low>, <Fair>, <Mid>, <High> and <Best>.

■ ***Event Active***

Users are allowed to choose which alarm type will be recorded. The available options are <Alarm> (alarm events), <Motion> (motion detection events), <Both> (alarm event + motion detection), and <None> (no events active).

< ezRecord Setup >

This item aims to ease the complicated record settings, and to make the setup much easier. Note that the item can be reached only when users select <ezRecord> as the option for <Preset Config>.

Select <ezRecord Setup> from <Record Setup> and press ENTER, the sub-menu appears as below figure:

ezRecord Setup	
How Many Days To Record	11 Days
Daytime Record	Yes
Night Record	Yes
Weekend Record	Yes
Average Normal PPS	30
Average Normal Quality	Best
Day ABR (KByte)	0
Night ABR (KByte)	0
Weekend ABR (KByte)	0

Follow these steps to Setup ezRecord:

- Select <How Many Days To Record> and press ENTER, then press UP/DOWN to choose an option. The average normal PPS & Quality will be adjusted automatically. The maximum of days depends of the size of the HDD. In other words, the larger the size of the installed HDD, the more days the unit can record.
- Move to <Daytime Record> and press ENTER. This item is for users to select whether users want the DVR to record during daytime. If so, use UP/DOWN to select <Yes> to enable daytime recording; or select <No> to disable.
- Repeat the same procedures through the 3rd and 4th item, respectively. Note that <Weekend Record> will be inaccessible if users select <No> for the item <Weekend Schedule> in <Schedule Setup>.
- Select <Average Normal PPS> and press ENTER, then press UP/DOWN to make a choice. The <How Many Days To Record> will be computed automatically.
- Select <Average Normal Quality> and press ENTER, then press UP/DOWN to make a choice. The <How Many Days To Record> will be computed automatically.
- Day/ Night/ Weekend ABR (KByte) are “read-only” information showing the Average Bit Rate of day/night/weekend recording.



NOTE: The current number of connected cameras will affect the recording quality automatically calculated through the <ezRecord Setup>. Therefore, once users disconnect cameras or connect more cameras to the unit, users should reset the <ezRecord Setup>.

< Data Lifetime Setup >

Data Lifetime indicates the duration that a video is saved and recallable in the HDD. Only those video recorded within Data Lifetime can be displayed on the screen and played back. The video exceeded Data Lifetime will be hidden and cannot be retrieved for playback.

Data Lifetime Setup	
Data Lifetime Mode	General
Data Lifetime	0 Days
Data Lifetime By Day	
Data Lifetime By Channel	



NOTE: If users want to playback a video which is beyond the data lifetime, please extend the duration till the recording data/time of the video is included.

■ **Data Lifetime Mode**

This item allows the user to choose preferred data lifetime mode. There are three types of data lifetime mode: General, By Day, and By Channel. When a specific mode is selected, the other two will be grayed out and cannot be accessed.

■ **Data Lifetime**

When data lifetime mode is set as <General>, this item will be accessible. Press ENTER to select this item and press UP / DOWN keys to set the data lifetime. The value ranges from <1> to <365> days. Alternatively, select <0> to disable this function.

■ **Data Lifetime By Day**

When data lifetime mode is set as <By Day>, this item will be accessible. Enter this menu and users can setup data lifetime of each weekday independently. The value ranges from <1> to <365> days. Alternatively, select <0> to disable this function.

■ **Data Lifetime By Channel**

When data lifetime mode is set as <By Channel>, this item will be accessible. Enter this menu and users can setup data lifetime of each channel independently. The value ranges from <1> to <365> days. Alternatively, select <0> to disable this function.

< Pre-Alarm Recording >

This item is used to set the recording duration of pre-alarm video. The pre-alarm recording function aims to allow users to view a complete event video. What users can view is not only the video recorded after the alarm is triggered, but also the video recorded few seconds before the alarm is triggered.

When an event is triggered while normal recording is in effect, the unit will start copying the pre-alarm and the post-alarm video to the event video. The pre-alarm duration can be set from 0~30 seconds. The quality of the pre-alarm video is the same as the quality setting for normal record video; and the quality of the post-alarm video is the same as the quality setting for event record video.

< Circular Recording >

Users can choose to record video in circular mode or in linear mode. If circular mode is selected, the DVR will store new video into the HDD spaces while overwrite the oldest recorded video. Alternatively, if linear mode is selected, the DVR will stop recording when the HDD is full. In the meantime, the internal buzzer will start beeping and a message will be shown on the screen informing users that the disk is full.

From the Record Setup menu, move the cursor to <Circular Recording> and press ENTER, then select <On> / <Off> using UP / DOWN keys.

< Audio Recording >

This item allows users to enable / disable Audio recording function of the unit. When it's set to <On>, audio input is recorded and saved with the video. When it's set to <Off>, audio is ignored.

< Purge Data >

This item is used to delete the Normal or Event recording video. In Record Setup menu, move the cursor to <Purge Data> and press ENTER; the Purge Data menu is displayed.

Purge Data	
Purge All Data	No
Purge All Event Data	No
Purge Event Before	2010/01/01
Start To Purge	No

■ ***Purge All Data***

The item is used to delete all recorded video from database(s). Set this item to <Yes> using UP / DOWN keys, and start the deleting by enable (Yes) the <Start to Purge> function.

■ ***Purge All Event Data***

The item is used to delete all event video from database(s). Using UP / DOWN keys to select <Yes> and start the deleting by setting the <Start to Purge> to <Yes>.

■ ***Purge Event Before***

The item is used to delete event video before a specific date. Use LEFT / RIGHT keys to move the cursor to next or previous field, ENTER to select the item and UP / DOWN to adjust the value.

■ ***Start To Purge***

After selecting the video users want to delete or setting the date for deletion, set this item to <Yes> for starting the deletion or choose <No> to cancel.

Sequence Setup

The Sequence Setup menu allows users to set the camera sequence schedule and dwell time for main and call monitor. Select <Sequence Setup> in Main menu and press ENTER; the menu displays as follows. Items in the Sequence Setup menu are described in the subsections.

Sequence Setup	
Main Monitor Dwell	5 Sec
Main Monitor Schedule	
Call Monitor Dwell	5 Sec
Call Monitor Schedule	



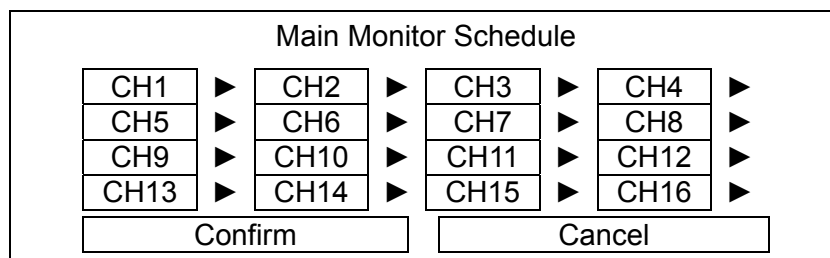
NOTE: When the second main monitor is connected, there will be extra menu items for configuring dwell and schedule settings of the second main monitor.

< Main / Call Monitor Dwell >

These items are used to set the dwell time, which is the duration of time elapsed before switching to the next channel, of the Main / Call Monitor. The dwell time is in the range of 1 to 120 seconds.

< Main / Call Monitor Schedule >

These items are used to set sequence schedules of the Main / Call Monitor. Move the cursor to <Main Monitor Schedule> and press ENTER; the menu is displayed as follows.



Follow these steps to set a sequence:

- Press LEFT / RIGHT direction keys to move to previous / next sequence order.
- Press UP / DOWN keys to assign a channel to that order in the sequence.
- Continue the steps until the sequence is completed.
- To setup a sequence with less than 16 entries, select <Circular> to end the sequence.

A sequence can have up to 16 entries, while the Call Monitor may have less due to the limit of IP camera display. The sequence can include one or more cameras multiple times.

Event Setup

This menu allows users to determine behaviors of the **Premium H.264 DVR** in response to alarm events. In the Main menu, select <Event Setup> and press ENTER. The following menu is displayed. Items in the Event Setup menu are described in the following subsections.

Event Setup	
Internal Buzzer	On
Event Icon	On
Email Notice	Off
Email Attachment	Off
Alert Notification Setup	
Event Full Screen	None
Event Duration	10 Sec
Per Channel Config	

< Internal Buzzer >

This item allows users to enable / disable internal buzzer of the **Premium H.264 DVR**. If set to <On>, the buzzer is activated in response to an alarm. If set to <Off>, the buzzer is not activated.

< Event Icon >

The item enables (On) / disables (Off) the display of Event Icon on the main monitor when an alarm event occurs. The event types are represented by a letter respectively; the descriptions are as below table.

Event type	Description
A	Alarm In event
M	Motion detection event
L	Video loss event

< Email Notice >

The item enables (On) / disables (Off) the Email notification of an event. When an alarm event is triggered and <Email Notice> is enabled, an e-mail concerning the alarm event will be sent.



NOTE: In order to send an event notification e-mail successfully, ensure that the unit connects to the internet.

< Email Attachment >

The function allows the unit to send out brief AVI video regarding the event. The number of the attached AVI video will be equivalent to the number of cameras connected to the unit. For example, if the unit has been connected with 8 cameras, then 8 videos will be attached to the notice email. The total size of the video will be about 2 MB.

Select <On> to enable this function; and <Off> to disable it.



NOTE: The video clips of the Email Attachment will ONLY be in *.avi format. Please download the Divx Player from www.divx.com to play the *.avi files.

< SMS Setup >

SMS is the acronym for Short Message Service. SMS messages are short text messages that are sent directly to a mobile phone. They are also known as text messages. This function allows users to send an SMS message to any mobile phone on a GSM network.

To perform this function, users need a GSM/GPRS Modem. The following three models are recommended: **TC35i Terminal**, **MC35i Terminal**, and **TC65 Terminal**.

Connect the GSM/GPRS Modem via the RS232 connector to the port that located on the rear panel of the unit. Then enter the OSD setup menu and select <SMS Setup>. The following menu displays.

SMS Setup	
SMS Notice	Off
PIN Authentication	Off
PIN Code Setup	
Receiver Number	
Send Test Message	
Port Selection	

■ **SMS Notice**

Select <On> to send out short message to the assigned mobile phone; or select <Off> to disable this function.

■ **PIN Authentication**

If users have set PIN code to protect the mobile phone, then users have to select <On> for this item and enter the corresponding PIN code in the next item.

■ ***PIN Code Setup***

Users can enter the PIN code which has been set for protecting the mobile phone.

■ ***Receiver Number***

Users can enter the number of the assigned mobile phone, which the short message will be sent to.

■ ***Send Test Message***

Select this item to send a test message to see if the setup is successful.

■ ***Port Selection***

The Port Selection enables the user to assign <Dial-In/Out>, <SMS>, or <Text> to the designated port of the DVR. For instance, when the cable of a POS system is inserted to the Serial Port of the DVR, enter the Port Selection menu and assign <Text> to the Serial Port. Then the DVR will now be able to obtain data from the POS system.

Port Selection	
Serial Port	Text
USB Port-Front	None
USB Port-Rear Top	None
USB Port-Rear Bottom	None

< Alert Notification Setup >

This function allows users to send alert notifications to the CMS program which had been installed to the computer. For detailed setup instruction, please refer to the CMS user's manual.

Alert Notification Setup	
Alert Configuration Set	1
Alert Notification	OFF
Alert IP	0.0.0.0
Alert Port	9999
Alive Interval	120 Sec

■ ***Alert Configuration Set***

<Alert Configuration Set> provides 3 combinations of Alert Notification, IP, and Port.

■ **Alert Notification**

4 options are included in this item; <OFF>, <Event>, <Alive>, and <Both>.

<OFF>: The Alert Notification is turned off.

<Event>: When the alarm is triggered, the DVR will send an alert message to the CMS.

<Alive>: The DVR will send an alive message to the CMS every *N* second just to show users that the connection between the DVR and CMS is in effect. The time interval *N* can be adjusted in <Alive Interval>.

<Both>: This enables the DVR to send both Event and Alive alert messages to the CMS.

■ **Alert IP**

The Alert IP must match the IP address of the computer.

■ **Alert Port**

The ports for DVR and the CMS Alert MUST be the same.

■ **Alive Interval**

Users can define the time interval (1 to 255 seconds) between each alive message. This item will not be accessible if the alert notification menu is set to <OFF> or <Event>.

< Event Full Screen >

This function allows the unit to display the alarm channel in full screen size when an alarm is triggered.

Select <None> to disable this function; select <Main> to display the alarm channel on Main Monitor when an alarm is triggered; select <Call> to display the alarm channel on Call Monitor; and select <Both> to display the alarm channel on both Main Monitor and Call Monitor.

< Event Duration >

This item determines the duration of the buzzer and Alarm Out relay function once an alarm is triggered. The available event duration range is from 5 seconds to 999 seconds.

< Per Channel Config >

This menu is used to configure the event related settings for each channel. The menu is displayed as below.

Per Channel Config	
Channel Select	CH01
Video Loss Detect	On
Motion Detect	On
Detection Config	
Alarm In	OFF
Alarm Out	None
Event Trigger Preset	OFF
Copy Event Settings	

■ **Channel Select**

The item is used to select a desired channel for setting the parameters. Move the cursor to <Channel Select> and press ENTER, then select a channel using UP / DOWN keys. Press ENTER again to confirm the setting.

■ **Video Loss Detect**

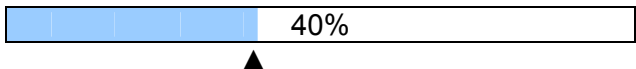
This item allows users to enable / disable Video Loss acknowledged as an alarm event. Select <On> to enable Video Loss acknowledged as alarm events, <Off> to disable.

■ **Motion Detect**

Use to enable or disable the motion detection function of the **Premium H.264 DVR**. If motion detection function is enabled, it is required to define the motion detection parameters such as detection area and sensitivity settings.

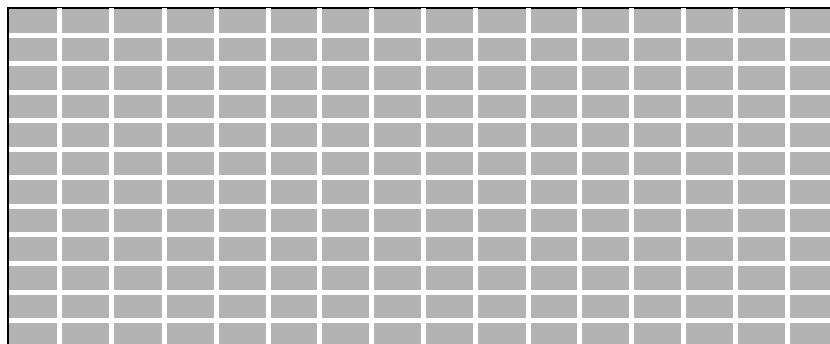
■ **Detection Config**

If motion detection function is enabled, it is required to define the motion detection parameters such as detection area and sensitivity settings. Select a channel for setting the parameters, move the cursor to <Detection Config> and press ENTER. The Detection Configuration menu displays as follows.

Detection Config	
Detected Area Setup	
Sensitivity	88%
Area Threshold	6%
	

- Detected Area Setup

The Detect Area is displayed as follows after selecting this item. The detection area consists of 192 (16×12) detection grids.



Use the Direction keys to move the cursor and press ENTER to enable or disable a grid. Press MODE to select all of the grids for detection; press MODE again to de-select all of the grids. If a mouse is connected, follow the special operation described in appendix **USB Mouse Operation** of the User's Manual for faster setup steps.

- Sensitivity

The item is used to set the sensitivity of detection grids for the camera. A greater value indicates more sensitive motion detection. A motion alarm will be triggered once the amount of motion detected exceeds the Threshold value

Move the cursor to <Sensitivity> and press ENTER, and then use UP / DOWN keys to adjust the value. The value is increased by 4% increment.

- Area Threshold

<Area Threshold> means the motion alarm triggered level. If the percentage of triggered grids from the total detection area is greater than the set value, the motion alarm will be triggered.

For example, if 10 grids are selected and the <Area Threshold> value is 70%, the motion alarm will be triggered when 7 grids are motion detected.

Move the cursor to <Area Threshold> and press ENTER, and then use UP / DOWN keys to adjust the value. The value is increased by 1% increment.

■ **Alarm In**

This item allows users to enable / disable alarm input detection. According to the application, select <N/O> (Normal Open) or <N/C> (Normal Close) to enable the alarm input detection or select <OFF> to disable the detection.

If users set this item to <N/C> but no device is installed, the alarm will be triggered and the Event Icon will always be displayed on the screen until this item is changed to <N/O>, <OFF> or a device is installed to the unit.

■ **Alarm Out**

This item allows users to assign an alarm output on certain channel to activate the relays. These signals can be used to drive a light or siren to caution an alarm event. The available options and the corresponding activated alarm outs are listed as below table:

Option	Activating Relay	Option	Activating Relay
<A only>	Alarm Out A	<B+C>	Alarm Out B & Alarm Out C
<B only>	Alarm Out B	<A+C>	Alarm Out A & Alarm Out C
<C only>	Alarm Out C	<All>	All Alarm Out
<A+B>	Alarm Out A & Alarm Out B	<None>	No Alarm Out

■ **Event Trigger Preset**

For dome cameras, this item allows users to enable automatic pan/tilt of the dome camera lens to a selected preset point (1~255) once an event was triggered. Alternatively, select <OFF> to disable this function.

■ **Copy Event Settings**

This item allows users to copy the event settings of the current selected analog camera to any other connected analog cameras. Enter this menu and select one or more target analog cameras. Then select <Confirm> to apply the settings.

Copy Event Settings

COPY TO:

01	02	03	04	05	06	07	08
09	10	11	12	13	14	15	16

Database Setup

The menu displays information of internal and external disks. In the Main menu, move the cursor to <Database Setup> and press ENTER. The following menu is displayed.

Database Setup	
Total Size	xxxGB
Free Size	xxxGB (Circular)
Avail. Rec Time	(Circular)
Est. Rec Period	3Days 10Hrs
Internal Disks	
External Disks	
NAS Device	
Data Protection	
Repair On Power Loss	On



NOTE: If detection of the hard disk fails, the “HDD fail” icon will be displayed.

< Total / Free Size of HDD >

The Total Size of HDD shows the total capacity of HDD that has been added to the database. The Free Size of HDD indicates the free space for recording into the HDD that's added to the database. The information is “read only”.

< Avail. Rec Time >

The Avail. Rec Time indicates the available time duration for recording. If the unit is set to record in circular mode, the item will show “Circular”. The information is “read only”.

< Est. Rec Period >

This item displays the estimated total recording duration, according to the current recording settings. The information is “read-only”.

< Internal / External Disks >

Select <Internal Disks> or <External Disks> to see information of the storage devices connected to the unit. For example, the Internal Disks menu is displayed as below.

Internal Disks			
Device Name	Temp.	Active	Action
#: xxxxxxx-xxxxxxx	33°C	Yes	None

<Device Name> and <Temp.> are read-only. For internal disks, the number in front of the device name represents the SATA port that the HDD is connected to. If no storage device can be found, the message “No Available Items!” will be displayed.



NOTE: If the file system of the internal HDD is not compatible for the DVR, the system will format the internal HDD with notification.

Active

The item indicates if the storage device is added to the database or not. <Yes> means the device has been added into database.

Action

The item allows users to add the storage device to the database or remove the device from the database.

The options are <None> (no action), <Add> (add the selected device to the database), <Remove> (remove the selected device from the database), <Repair> (repair the selected device), and <Format> (format the selected device).



NOTE: Before removing external devices from the unit, remember to remove the devices from the database first.

< NAS Devices >

The DVR can connect Network Attached Storage (NAS) devices to expand the size of the database. Before connecting the NAS device, the DVR has to be shut down. After the NAS device is connected and the DVR is rebooted, access <Database Setup> → <NAS Devices> and the menu will be displayed as below. The items <Active> and <Action> is the same as in Internal / External Disks menu.

NAS Devices			
Device Name	Active	Detail	Action
xxxxxxxxxx	Yes	Yes	None

Detail

Set this item to <Yes> and the detailed information of the NAS device will be shown on the monitor. Refer to the following for an example. The information is “read only”.

NAS Detailed Info			
Device Name: xxxxxxxxxxxx			
IP: 192.168.50.2			
Port: 8080			
Netmask: 255.255.255.0			
Storage Status			
Index	Status	Free Size	Total Size

< Data Protection >

Enter this menu to select the data users wish to protect from data purging or overwriting. The menu will be displayed as below.

Data Protection			
Date Time		Event	Lock
2010/12/06	PM 01:29:08	Yes	NO
2010/12/06	PM 01:42:41	Yes	NO
2010/12/07	AM 09:36:02	Yes	NO

The first column shows the date/time information. The second column shows whether if the data contains event videos. From the third column, users can change the option to <YES> to protect the selected data. When the data is no more important, users can change the option back to <NO>.

< Repair On Power Loss >

This item enables the DVR to do auto HDD scan after powered on, if the DVR previously experienced unexpected power loss or was not shutdown properly. If auto scan failed, formatting of HDD is required. The preset is <On>. This helps to secure the data saved in the HDD. Therefore, it is suggested to keep this function enabled.



NOTE: If password protection is enabled, login with authorized account will be prompted before HDD format. Regarding details of HDD scan, please refer to the User's Manual for more information.

Configuration

The Configuration menu can be used to restore the default factory settings, import/export configuration, and view/export system log. Select <Configuration> from the Main menu and press ENTER. The following menu is displayed. Items in this menu are described in the following subsections.

Configuration	
Load Factory Default	No
Import Config	
Export Config	
System Log	
Operation Log	Off

< Load Factory Default >

This item is used to load the factory setting. Select <Yes> to restore the factory default setup configuration from the read-only memory. Otherwise, select <No> to cancel.

< Import Configuration >

This item allows users to load a unit configuration that was saved in an external drive. To import a configuration that was previously exported, make sure the device that saved the configuration is connected to the unit. Select <Import Config> from the Configuration menu and press ENTER. The following menu is displayed.

Import Config	
Config Name	Select
xxxx-xxxx	No
xxx-xx	No

Press UP / DOWN to select one of the listed configuration files, and choose <Yes> to start importing the configuration.



NOTE: If the imported configuration has different record mode comparing to the DVR's current setting, the warning message "This config has different record mode. This will FORMAT ALL HARDDISKS." will show.



NOTE: Remove the ThumbDrive[®] used for importing configuration after the unit restarts, or it will be formatted as well.

< Export Configuration >

Users are allowed to save the DVR configuration by exporting it to an external drive, such as a USB Flash Drive. Before exporting the configuration, make sure the device in which the configuration will be saved is connected to the unit appropriately. Select <Export Config> from the Configuration menu and press ENTER. The following menu is displayed. Items in this menu are described in the following sections.

Export Config	
Copy Destination	
Config Name	
Begin Export	No

■ **Copy Destination**

Select this item to list available destinations (external memory devices) to which the configuration can be exported. Press UP / DOWN to choose a destination. Please note that saving a different configuration to the same copy destination with the same file name will overwrite the previous configuration file without warning.



NOTE: Users are not allowed to select any DVD+RW as a copy destination, including built-in DVD+RW.

■ **Configuration Name**

This item allows users to assign a name to the exported configuration file. Use the virtual keyboard to enter the configuration file name. Note that the file name can contain up to 15 characters, with no spaces.

■ **Begin Export**

Select <Yes> to begin exporting the configuration file, or <No> to abort the export.



NOTE: We strongly recommend users to export configuration before upgrading the system, and back it up routinely, just in case for unexpected situation.

< System Log >

Select <System Log> and a list of system logs will be displayed on the screen. Users can export the system log as a data file to an external storage device. Connect a USB storage device and select <Export> to export the system log file to the USB storage device. Alternatively, press COPY can also export the system log file. Note that in the mean time, a digital signature file will also be exported.

< Operation Log >

Set <Operation Log> to <On> and operation logs will start to be recorded in the system log. Alternatively, set to <Off> and operation logs will not be part of the system log.

Video Export

The Video Export menu enables users to export recorded video with or without digital signature to a USB ThumbDrive®, or to a DVD+RW. Make sure an external storage device is available and connected to the appropriate port for video export.

If the <Pre-Alarm Recording> function is enabled, the event video will be exported into two files, including the pre-alarm video and the video recorded after the alarm is triggered.

When the recorded video is exported with digital signature, the output will be four files, including *.gpg, *.avi (*.drv), *.sig and readme.txt. Exporting a video whose size is 1GB with digital signature may take about 30 minutes.

From the Main menu, select <Video Export> and press ENTER. The following menu is displayed. Items in the menu will be described in the following section



NOTE: The inserted DVD+RW will be ejected when its capacity is 99% full.

Video Export						
Select Device						
Select Ch:	Ch1	Ch2	Ch3	Ch4	Ch5	Ch6
From						2010/12/19 AM 07:50:05
To						2010/12/28 PM 03:09:18
Select Events						
Data Type						Normal
Export Format						DRV
Digital Signature						No
Erase Disc						No
Begin Export						No



NOTE: The system log will keep records of all video exportations, including duration, start time, and end time.

< Select Device >

The available external devices for exporting video will be listed by name and free size in Select Device menu. The Select Device menu displays as follows.

Select Device			
Device Name		Available	Sel
xxx-xxx-x-x-xx		256 MB	No
xx-xxx-xx-xxxx		1.5 GB	No

Device Name

The item shows the name of the available devices.

Available

The item shows the free space of the available devices.

Sel

Set this item to <Yes> to set the selected device as the exporting destination.



NOTE: The item <Erase Disk> from Video Export menu will be grayed out when the selected device is not a DVD+RW or when the device is not selected yet.

< Select Channel >

The item is used to select channels for export. Move the cursor to the desired channel using LEFT / RIGHT keys, select or de-select a channel by pressing ENTER.

< From / To Time >

These items are used to set the time which data export begins and ends. Move the cursor using Direction keys, and press ENTER to select the date / time items; adjust the selected date and time value by UP / DOWN keys.



NOTE: When the Start / End Time are set, remember to select the exporting Data Type.

< Select Events >

Select the item to display the event list for exporting event video. Move the cursor to scroll the event list and press ENTER to select the events users want to export.



NOTE: Users will not be allowed to access the <Select Events> if the Data Type is set to <Normal>.

< Data Type >

This item is used to select exporting video type. The options are <Normal> (export normal video only), <Event> (export event video only) and <Both> (export both normal and event video).



NOTE: If users want to export selected event video using the item <Select Event>, users have to set <From> and <To> to the same day and time. Otherwise, not only the selected event video will be exported to the selected destination, but also other event video recorded during the period between <From> and <To>.

< Export Format >

This item is for selecting exporting video format. The options are <DRV>, <AVI>, and <Original>. The DRV and AVI files are compressed video files while the original files are raw data of the unit's recorded video.

The DRV and original files can only be played back with the remote monitoring software and **DVRPlayer**, and multiple cameras video can be played back from one file. The AVI files can be played back with Windows Media Player. Note that if multiple channels are exported for AVI files, each channel is exported to a separate file.

< Digital Signature >

The Digital Signature function enables users to export video clip with the unit's unique signature key. It aims to authenticate that a video clip was exported from the unit and it has not been modified. Users can export video clips with or without a digital signature file (*.sig). Set the item to <Yes> to export with the signature file, or <No> to export without it.

Make sure that an external storage device, such as a USB Hard Drive or USB ThumbDrive®, is available and connected to the appropriate port for export.

For more information on verifying digital signature, see **Appendix C: DVR Player**.

< Erase Disc >

This function is used to remove information found on a DVD+RW disk prior to writing new information. Select <Yes> and press ENTER. The data on the DVD+RW will be erased when the exporting process begins.



NOTE: This item will be grayed out when the selected device is not a DVD recorder or when the device is not selected yet.

< Begin Export >

Select <Yes> and press ENTER to start exporting.

POS Setup

The <POS Setup> function provides a connection between a DVR and a Point-of-Sale equipment, such as cash registers. With this function, the financial transaction data can be linked to specific camera images and recorded to the DVR. To enable this function, enter OSD setup menu and select <POS Setup>. Press Enter and the menu will be shown as follows. Items in this menu are described in the following subsections.

POS Setup	
POS Function	On
POS Overlay	Live&PB
Exception POS Setup	
Input Setup	

< POS Function >

This item is used to enable/disable this function. Select <On>, the text database will be created on the hard disk.

< POS Overlay >

This item is for users to choose which mode users want to display the POS overlay on the monitor. Select <Live> to display the POS overlay in Live mode only; select <PB> to display the POS overlay in Playback mode only; and select <Live&PB> to display in both modes.



NOTE: POS overlay only shows in full screen mode.



NOTE: PB overlay is available only under x1 playback speed.

< Exception POS Setup >

This sub-menu is used to define the conditions that will be treated as an “Exception” and thus trigger an action (the function will be implemented later).

Exception POS Setup	
Exception No.	1
Trigger	On
Exception String	NO SALE
By Numerals	OFF
Value	
Value (Upper Limit)	

■ ***Exception No.***

Select an exception number for further settings. Users can select from <1> to <16>.

■ ***Trigger***

Select <On>, those transactions which contain “Exception Strings” and which meet the “Numerals” conditions will be marked as exceptions in the text database and will trigger preset actions such as alarm output.

■ ***Exception String***

This item allows users to define Exception String. The “Exception String” is case-sensitive. Only exactly matched ones will be marked as exceptions.

■ ***By Numerals***

“Exception String” must be defined before “By Numerals” takes effect. If “By Numerals” is enabled, only transactions which meet both “Exception String” and “By Numerals” condition will be marked as exceptions and thus trigger an action. Users can select from the following options:

OFF:

The function is disabled.

Specific:

The value of transaction meets a specific value will be marked as an exception. The specific value needs to be set through the following sub-menu <Value>.

Greater Equal Than:

The value of transaction greater than or equal to a certain value will be marked as an exception. The specific value needs to be set through the following sub-menu <Value>.

Less Equal Than:

The value of transaction less than or equal to a certain value will be marked as an exception. The specific value needs to be set through the following sub-menu <Value>.

Inside The Range:

The value of transaction within a certain range will be marked as an exception. The specific value needs to be set through the following sub-menus <Value> and <Value (Upper Limit)>.

Outside the Range:

The value of transaction outside a certain range will be marked as an exception. The specific value needs to be set through the following sub-menus <Value> and <Value (Upper Limit)>.



NOTE: Transactions will only be marked as exceptions in the text database after “Exception String” and “By Numerals” are set AND “Trigger” is <ON>. The data that has been stored before will not be marked as exceptions.

< Input Setup >

This item is used to choose the connection method between the POS Device and the DVR. Also some relative settings of the connection method can be configured.

Input Setup	
Port Selection	Serial Port
Input Source	Direct Connected
Camera Selection	1
Text Filter	ASCII
Manual Filter Setup	
Input Process	Canonical
Text Baud Rate	9600
Text Bits	8
Text Stop	1
Text Parity	None

■ **Port Selection**

It is essential to select a port for either the POS/cash register or modem when the POS function is set on. Meanwhile, also check whether the device is connected to the port selected.

Port Selection	
Serial Port	Text
USB Port-Front	None
USB Port-Rear Top	None
USB Port-Rear Bottom	None

■ **Input source**

Select whether the input source is directly connected or connected with the Data Converter. If the input source is directly connected, users may need to go to the next item, Camera Selection, to select a corresponding camera.

■ **Camera Selection**

Select a camera to display the POS overlay.

■ **Text Filter**

This item is used to choose the text filter. The supported models for pole display and printer are listed below.

Pole Display	Printer	POS Machine
Cache Technology VFD-202T	Citizen CBM-1000 II	Acula AQ-812
Citizen C2202	Citizen CT-S300	IBM SurePOS 700
Digipos CD5220	Dell T200	Samsung ER-380M
Emax Pole Display	Epson TM-T88II/ TM-T88III/ TM-T88IV	Samsung ER-655
Epson DM-D Series	Epson TM-T90	Senor POS
Logic Controls LD9000	Epson TM-930 II	
Logic Controls PD3000	Epson RP-U420	
Logic Controls PD6000	IBM SureMark TF6	
Logic Controls TD3000	IBM SureMark TM6	
Magellan	Ithaca iTherm 280	
Partnertech CD5220	Ithaca POSJet 1000	
Posiflex ICD-2002	POS-X Xr500	
Posiflex PD 302	Samsung SRP350	
Posiflex PD 303	Sensor TP-288	
Posiflex PD-2100	Star TSP100 futurePRNT	
Posiflex PD-2200	Star TSP600	
POS-X Xp8000	Star TSP700	
Scales	Star TSP800	
Sibnet	TPG (Axiohm) A794	
STAR SCD400-PD	WP-520(ESC/POS)	
Soteke VFD2025		
Soteke VFD2029		
TEC		
Toledo 8217		
TYSSO VFD Series		
Ultimate Technology PD1100XL		
Wedderburn DS-770		

■ **Manual Filter Setup**

After entering the Manual Filter Setup menu, users should key in hexadecimal digits. The menu of the item is shown as follows.

Manual Filter Setup
Header 1
Header 2

■ **Input Process**

If users will be using a Pole Display from a PC based POS, select <Canonical>. <Non-Canonical> is to be selected when using a Pole Display from a Standalone POS.

■ **Text Baud Rate**

This item allows users to setup the baud rate of RS232 which connects the POS Device and the DVR.

■ **Text Bit**

This item allows users to setup the bits of RS232.

■ **Text Stop**

This item allows users to setup the stop of RS232.

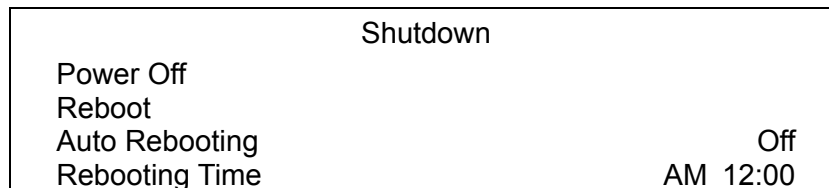
■ **Text Parity**

This item allows users to setup the parity of RS232.

Shutdown

This menu is used to shutdown or reboot the unit. If users must shutdown the **Premium H.264 DVR** for any reason, please use the proper shut down and power on procedures to avoid damage to the unit.

Select <Shutdown> in Main menu and press ENTER to access the Shutdown menu, which is displayed as follows.



< Power Off >

Select this item to shut down the unit. Do not remove the power during shut down until the message “You can safely turn off DVR now!” displays.

< Reboot >

Select this item to reboot the unit. The color bar and system checking information will be displaying on the monitor until the unit is completely rebooted.

< Auto Rebooting >

The **Premium H.264 DVR** series unit can be set to reboot automatically once a day/week at predetermined time in order to keep the DVR system more stable. Select <Off> to disable the auto rebooting function.

< Rebooting Time >

If the auto rebooting function is enabled, select a desired time to perform the auto rebooting function.

Appendix A: Record Duration

The record duration relates to recording rate, image quality, HDD capacity, and event settings. The following tables give sample calculation of record duration according to different recording rate, image quality, and HDD capacity, excluding consideration of events, for different models with different recording mode. The recording quality refers to the **Normal Qlty** setting of <Per Camera Config> in <Record Setup>, assuming all channel are set to the same quality at all times.

Per Camera Config			
Camera Select	CH1		
	Day	Night	Weekend
Normal PPS	15	15	15
Normal Qlty	<u>Mid</u>	<u>Mid</u>	<u>Mid</u>
ABR (KByte)	72	72	72
Event Max PPS	30	30	30
Event Qlty	Best	Best	Best
Event Act	Both	Both	Both



NOTE: Record duration times are based on actual tests and represent average file sizes. Performance may vary depending on specific installations and use. Audio recording requires 8 KB per second (or 0.7 GB per day) for data storage.

Record Duration (Days): Full-D1, Global [Day, Night, Weekend] (without Audio)

Recording Rate		Recording Quality Mode									
Total PPS of all Channels		Low		Fair		Mid		High		Best	
NTSC	PAL	NTSC (6 KB)	PAL (6 KB)	NTSC (10 KB)	PAL (10 KB)	NTSC (14 KB)	PAL (14 KB)	NTSC (18 KB)	PAL (18 KB)	NTSC (22 KB)	PAL (22 KB)
500 GB Internal Storage											
30	25	30.92	37.11	18.55	22.27	13.25	15.90	10.31	12.37	8.43	10.12
15	12.5	61.85	74.22	37.11	44.53	26.51	31.81	20.62	24.74	16.87	20.24
7.5	6.25	123.70	148.44	74.22	89.06	53.01	63.62	41.23	49.48	33.74	40.48
1 TB Internal Storage											
30	25	63.83	76.59	38.30	45.96	27.36	32.83	21.28	25.53	17.41	20.89
15	12.5	127.66	153.19	76.59	91.91	54.71	65.65	42.55	51.06	34.82	41.78
7.5	6.25	255.31	306.38	153.19	183.83	109.42	131.30	85.10	102.13	69.63	83.56

Record Duration (Days): Half-D1, Global [Day, Night, Weekend] (without Audio)

Recording Rate		Recording Quality Mode									
Total PPS of all Channels		Low		Fair		Mid		High		Best	
NTSC	PAL	NTSC (4 KB)	PAL (4 KB)	NTSC (6 KB)	PAL (6 KB)	NTSC (8 KB)	PAL (8 KB)	NTSC (10 KB)	PAL (10 KB)	NTSC (12 KB)	PAL (12 KB)
500 GB Internal Storage											
60	50	23.19	27.83	15.46	18.55	11.60	13.92	9.28	11.13	7.73	9.28
30	25	46.39	55.66	30.92	37.11	23.19	27.83	18.55	22.27	15.46	18.55
15	12.5	92.77	111.33	61.85	74.22	46.39	55.66	37.11	44.53	30.92	37.11
7.5	6.25	185.55	222.66	123.70	148.44	92.77	111.33	74.22	89.06	61.85	74.22
1 TB Internal Storage											
60	50	47.87	57.45	31.91	38.30	23.94	28.72	19.15	22.98	15.96	19.15
30	25	95.74	114.89	63.83	76.59	47.87	57.45	38.30	45.96	31.91	38.30
15	12.5	191.49	229.78	127.66	153.19	95.74	114.89	76.59	91.91	63.83	76.59
7.5	6.25	382.97	459.56	255.31	306.38	191.49	229.78	153.19	183.83	127.66	153.19

Record Duration (Days): CIF, Global [Day, Night, Weekend] (without Audio)

Recording Rate		Recording Quality Mode									
Total PPS of all Channels		Low		Fair		Mid		High		Best	
NTSC	PAL	NTSC (1 KB)	PAL (1 KB)	NTSC (2 KB)	PAL (2 KB)	NTSC (3 KB)	PAL (3 KB)	NTSC (4 KB)	PAL (4 KB)	NTSC (5 KB)	PAL (5 KB)
500 GB Internal Storage											
120	100	11.60	13.92	23.19	27.83	15.46	18.55	11.60	13.92	9.28	11.13
60	50	23.19	27.83	46.39	55.66	30.92	37.11	23.19	27.83	18.55	22.27
30	25	46.39	55.66	92.77	111.33	61.85	74.22	46.39	55.66	37.11	44.53
15	12.5	92.77	111.33	185.55	222.66	123.70	148.44	92.77	111.33	74.22	89.06
7.5	6.25	185.55	222.66	371.10	445.32	247.40	296.88	185.55	222.66	148.44	178.13
1 TB Internal Storage											
120	100	23.94	28.72	47.87	57.45	31.91	38.30	23.94	28.72	19.15	22.98
60	50	47.87	57.45	95.74	114.89	63.83	76.59	47.87	57.45	38.30	45.96
30	25	95.74	114.89	191.49	229.78	127.66	153.19	95.74	114.89	76.59	91.91
15	12.5	191.49	229.78	382.97	459.56	255.31	306.38	191.49	229.78	153.19	183.83
7.5	6.25	382.97	459.56	765.94	919.13	510.63	612.75	382.97	459.56	306.38	367.65

Appendix B: Dial-up Connections via Modem

A dial-up modem connection allows users to monitor via the remote software and receive alarm notice without an internet connection. Following are the steps for establishing the connection between a **Premium H.264 DVR** and a PC.

Establishing Dial-in Connection

The Dial-in function enables users to establish dial-up modem communication to and from the **Premium H.264 DVR** for monitoring via the remote software. Follow the description below to set up the DVR and PC.

DVR Configuration:

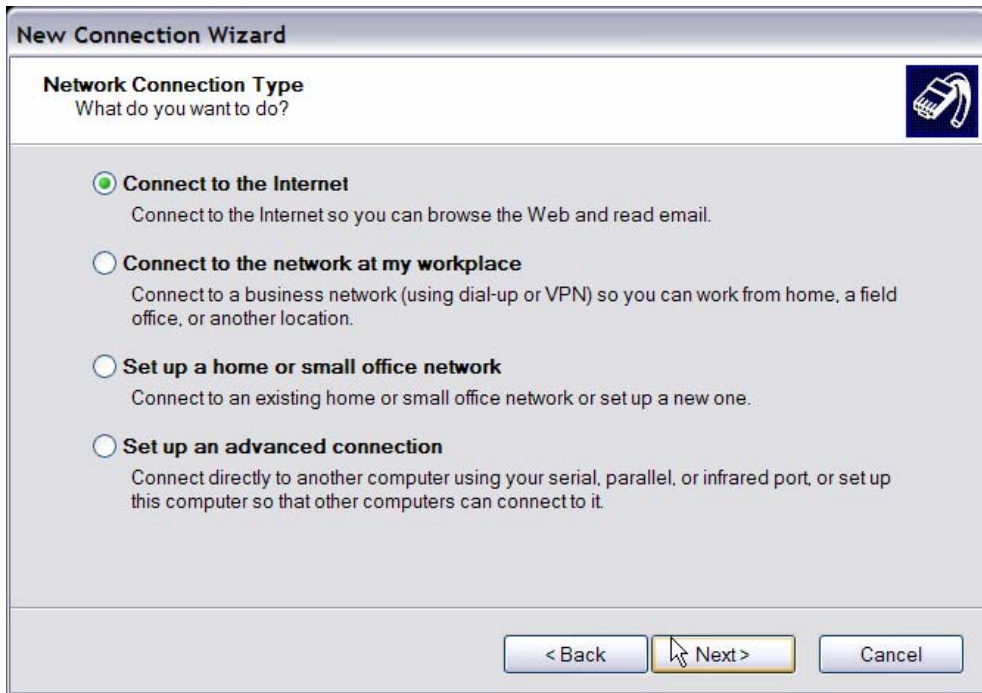
- Connect an USB modem to the USB socket and connect a working phone line to the modem.
- Press MENU and input correct username and password to access the OSD setup menu. Select <Network Setup> → <Modem Setup> → <Dial-in Setup> to set up the Dial-In settings, including Dial-in Account and password, etc.
- For more information on dial-in settings, see Section [Dial-in Setup](#).

PC Configuration:

- Click <Start>, <My Network Places>, <View Network Connections> and then select <Create New Connection>. The New Connection Wizard is displayed. Click <Next> to continue.



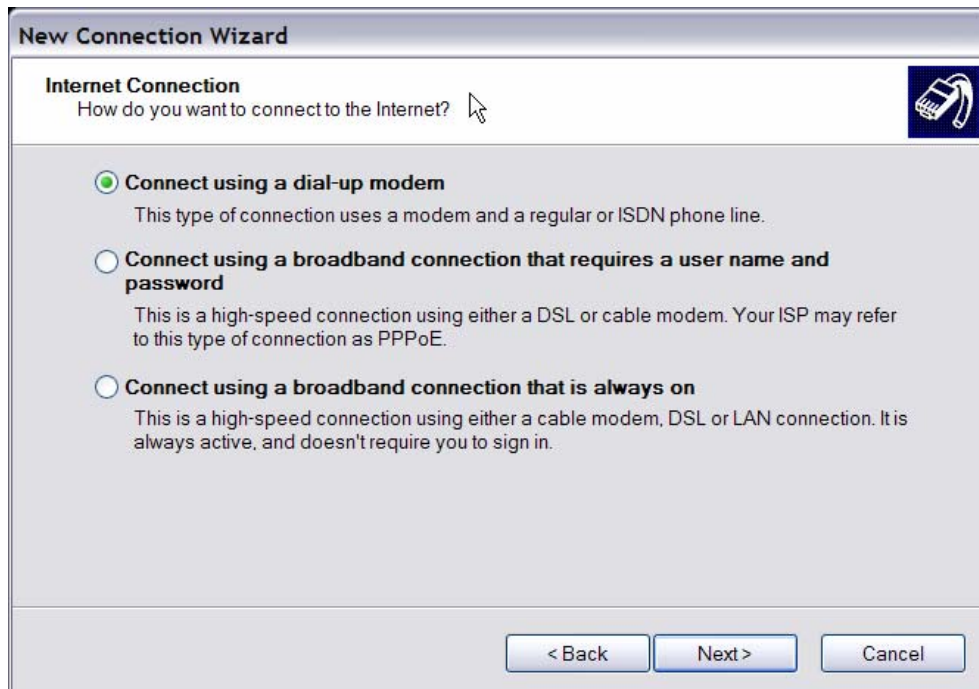
- Set up the network connection type. Select <Connect to the Internet> and click <Next> to continue.



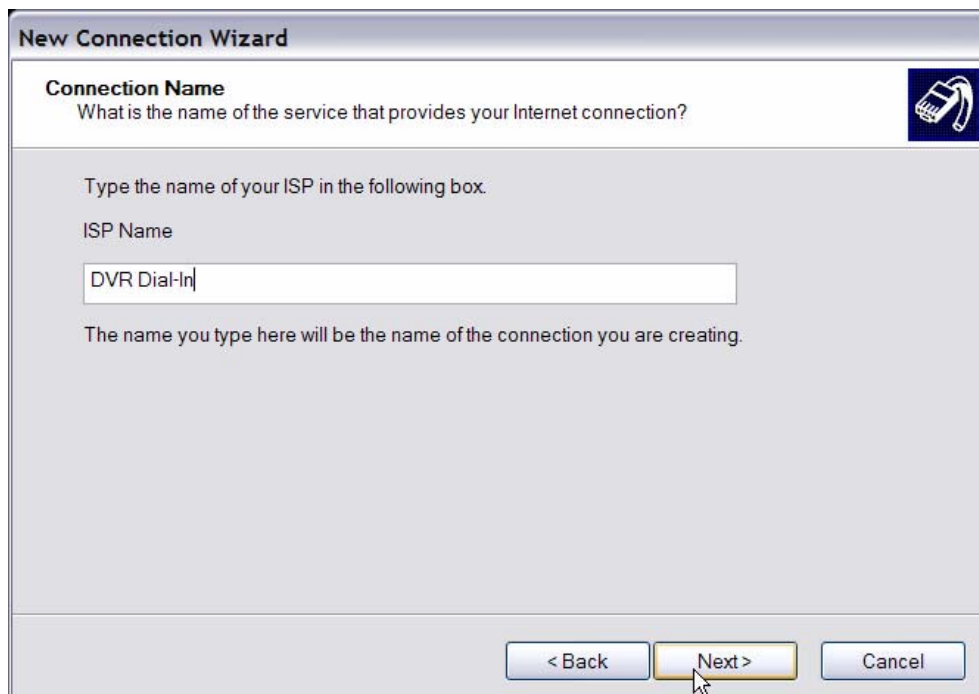
- Select <Set up my connection manually> and click <Next> to continue.



- Select <Connect using a dial-up modem> to connect to the internet through phone line and a modem. Click <Next> to continue.



- Type the name of the connection to be created.



- Enter the phone number of the modem that is connected to the unit.

The screenshot shows a window titled "New Connection Wizard" with a sub-header "Phone Number to Dial" and the question "What is your ISP's phone number?". A small icon of a modem is in the top right corner. The main area contains the instruction "Type the phone number below." followed by a label "Phone number:" and a text input field containing "****". Below the field is a paragraph: "You might need to include a '1' or the area code, or both. If you are not sure you need the extra numbers, dial the phone number on your telephone. If you hear a modem sound, the number dialed is correct." At the bottom, there are three buttons: "< Back", "Next >" (highlighted with a mouse cursor), and "Cancel".

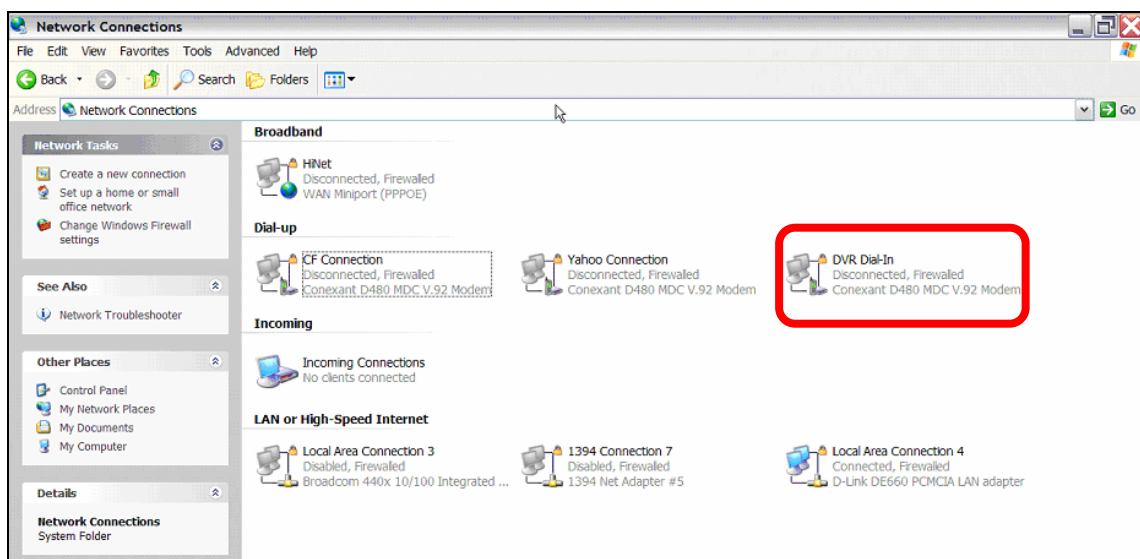
- Enter the Username and Password that has been set in the Dial-in Setup menu.

The screenshot shows a window titled "New Connection Wizard" with a sub-header "Internet Account Information" and the instruction "You will need an account name and password to sign in to your Internet account." A small icon of a modem is in the top right corner. The main area contains the instruction "Type an ISP account name and password, then write down this information and store it in a safe place. (If you have forgotten an existing account name or password, contact your ISP.)" followed by three labels and input fields: "User name:", "Password:", and "Confirm password:". Below these are two checkboxes: "Use this account name and password when anyone connects to the Internet from this computer" and "Make this the default Internet connection". At the bottom, there are three buttons: "< Back", "Next >" (highlighted with a mouse cursor), and "Cancel".

- Click <Finish> to complete the dial-in connection.



- Now the dial-in connection is established.



Establishing Dial-out Connection

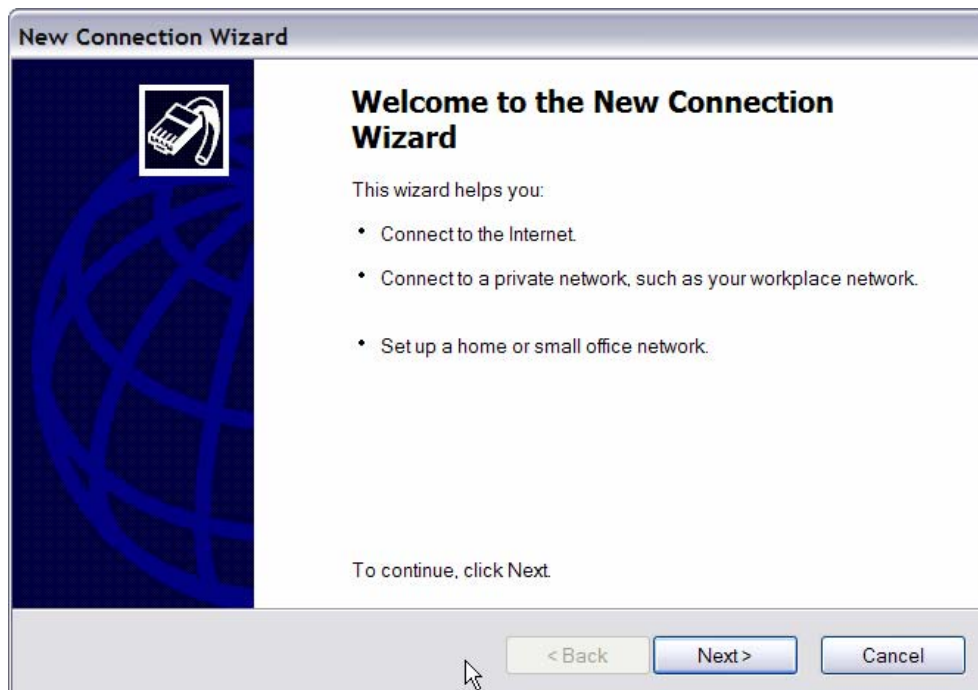
The Dial-out function enables user to establish dial-up modem communication to and from the **Premium H.264 DVR** for remote notification. Follow the description to set up the DVR and PC.

DVR Configuration:

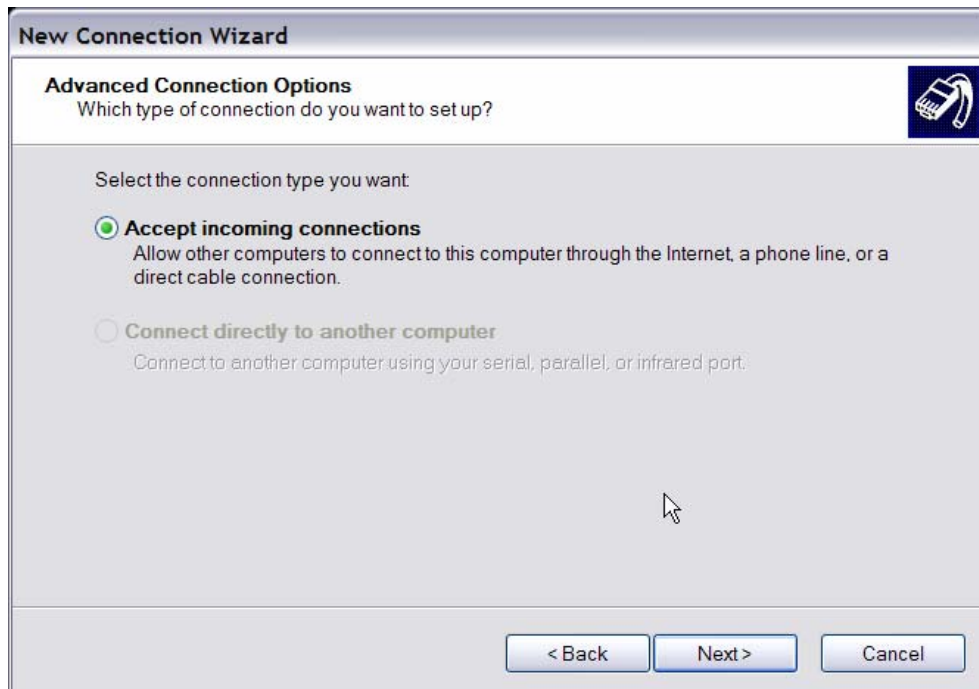
- Connect an USB modem to the USB port and connect a working phone line to the modem.
- Press MENU and input correct username and password to access the OSD setup menu. Select <Network Setup> → <Modem Setup> → <Dial-out Setup> to set up the Dial-out settings.
- Select the <Email Address> in Network Setup menu to edit an e-mail address for alarm notification.
- Select <Event Setup> in Main menu and set the Email Notice function to <ON> (enabled).
- Exit the OSD setup menu and save the configuration.
- For more information on dial-out settings, see Section [Dial-out Setup](#).

PC Configuration:

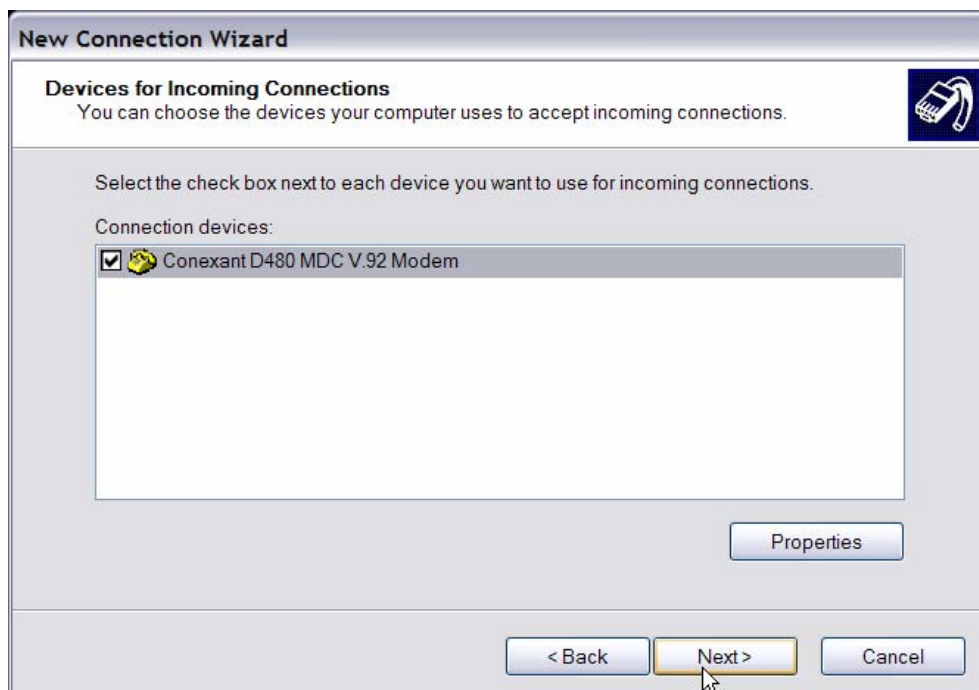
- Click <Start>, <My Network Places>, <View Network Connections> and then select <Create New Connection>. The New Connection Wizard is displayed. Click <Next> to continue.



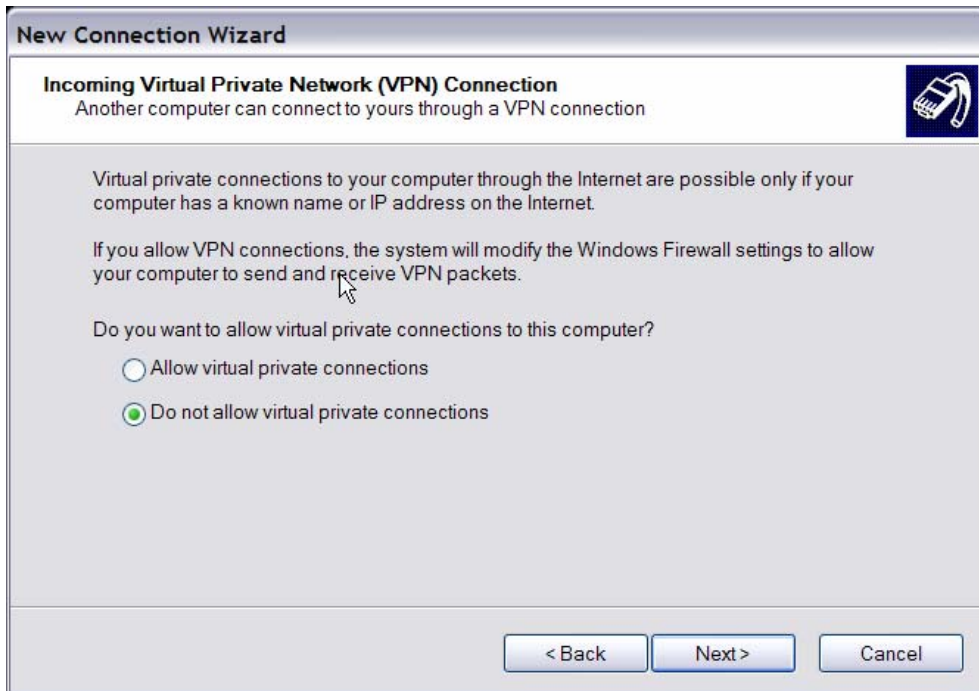
- Set up the network connection type. Select <Set up an advanced connection> and then <Accept incoming connections>. Click <Next> to continue.



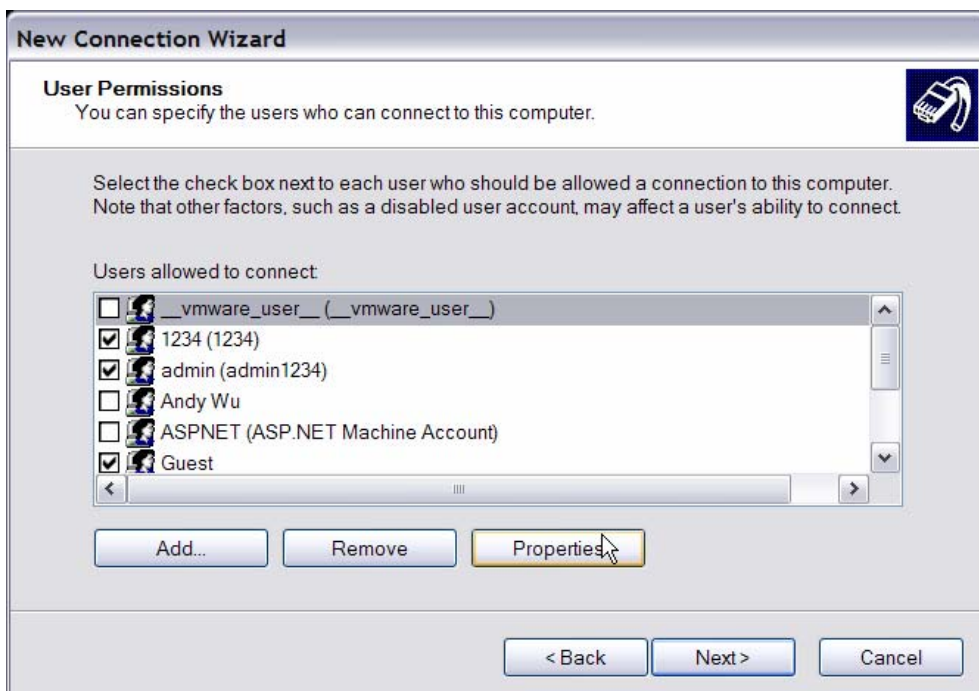
- Choose the modem device that will be used by the PC and click <Next>.



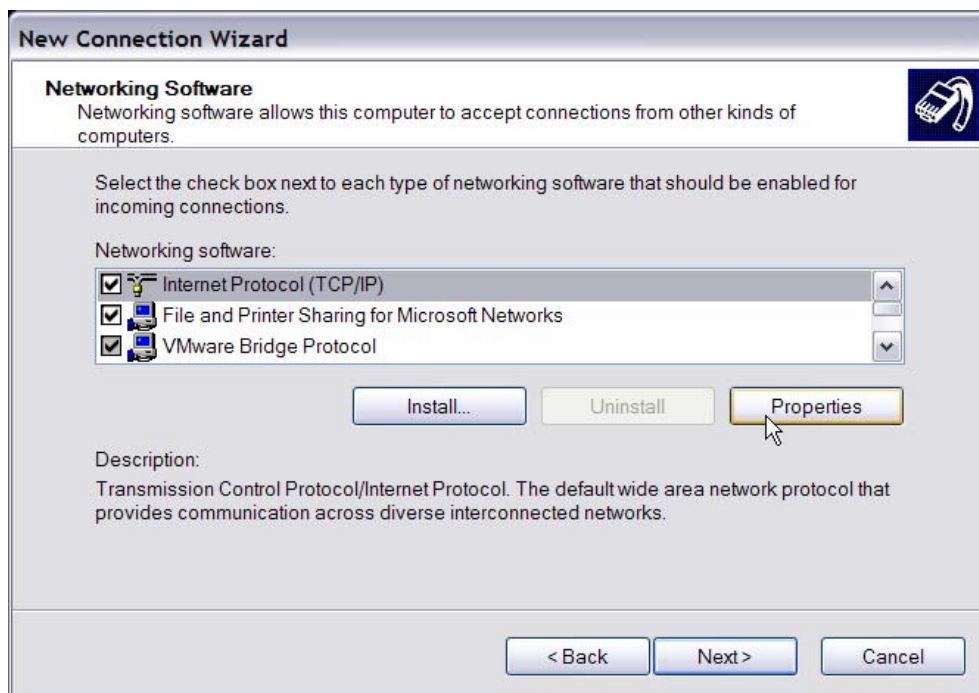
- In Incoming VPN Connection menu, choose <Do Not allow virtual private connections> and click on <Next>.



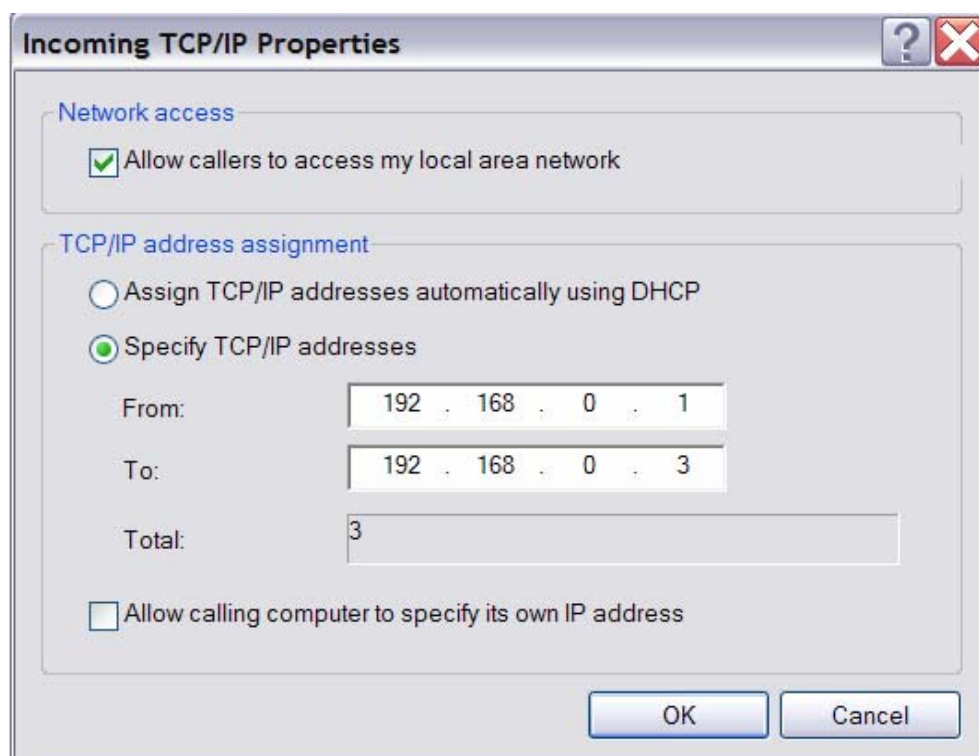
- In User Permission menu, select the users who need to use this connection. If needed, add a new user with the same user password that is set up in Dial-out Setup menu in local DVR. When it's done, click <Next> to continue.



- In Networking Software menu, select <TCP/IP> and click on <Properties>.



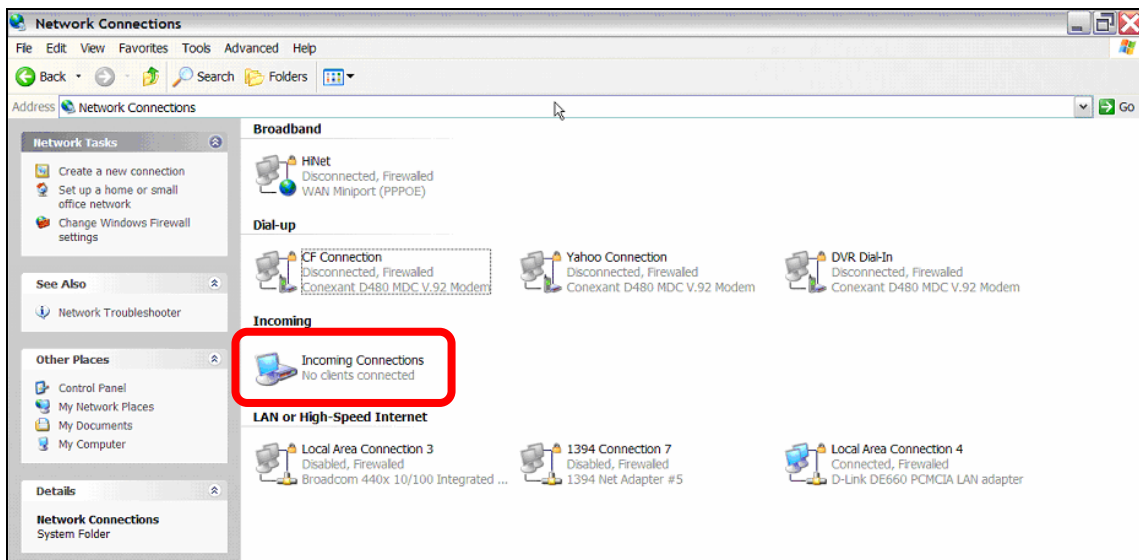
- In TCP/IP address assignment, if the PC has DHCP server, then choose <Assign TCP/IP addresses automatically using DHCP>, else choose <Specify TCP/IP addresses> and enter the range of IP addresses that users wish to use. Once done, click <OK> to confirm and back to Networking Software menu. Click on <Next> to continue.



- Click <Finish> to complete the process.



- The Incoming connection is established.



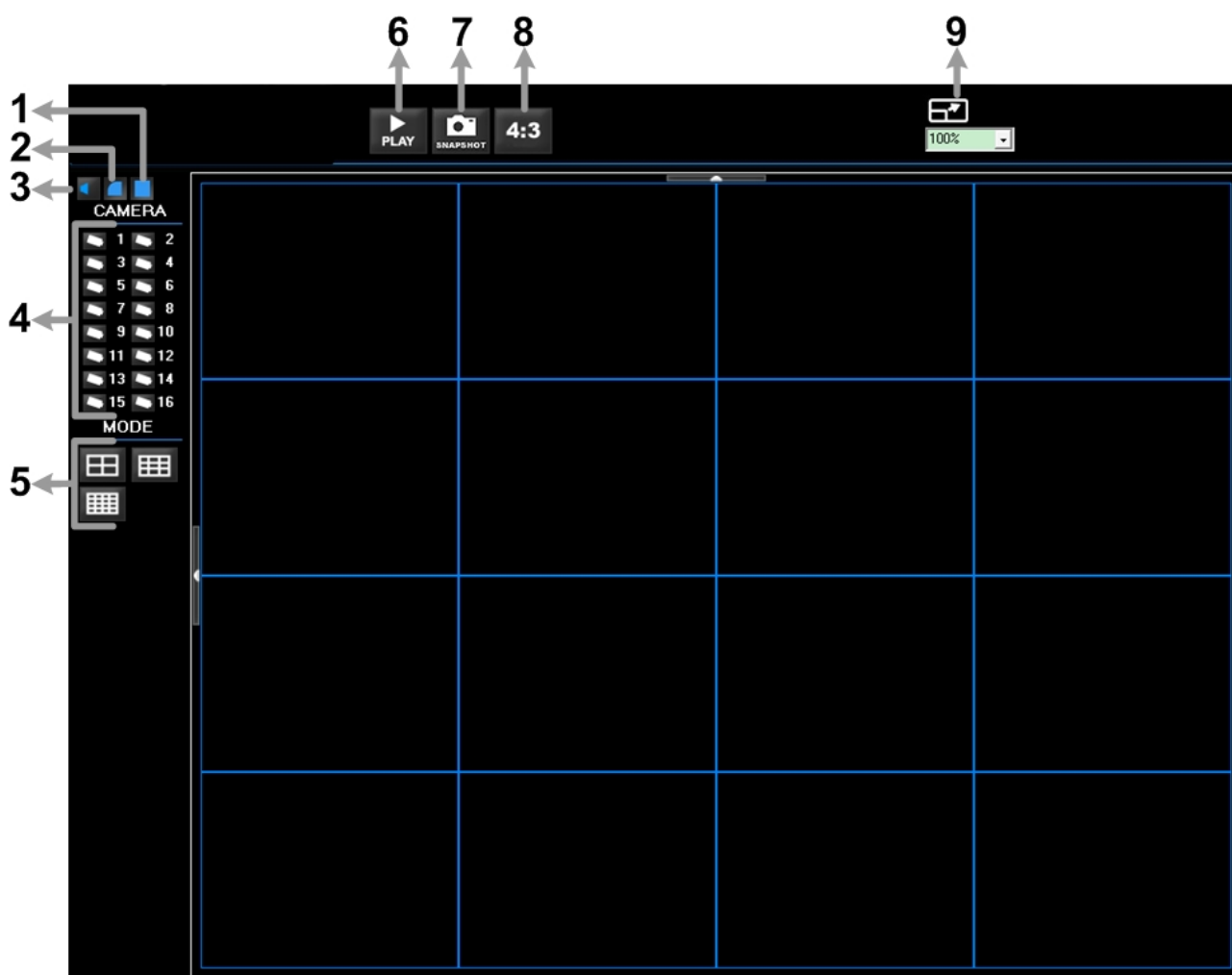
Appendix C: DVR Player

DVRPlayer is a software that enables users to playback the *.drv files recorded by the DVRs at a PC site.

NOTE: The **DVRPlayer** ONLY accepts and playback *.drv files.

First, connect to the DVR via **DVRRemote** and download the **DVRPlayer.zip** file by clicking on the link. Extract the zip file to the same folder. Click on the **DVR_Player.exe** file, and the main window of the **DVRPlayer** will show up as below.

The main window of the **DVRPlayer** displays a list of cameras and mode selection buttons at the left-hand side. Using the mode selection buttons, users can select a desired viewing mode, including 4-window, 9-window and 16-window.

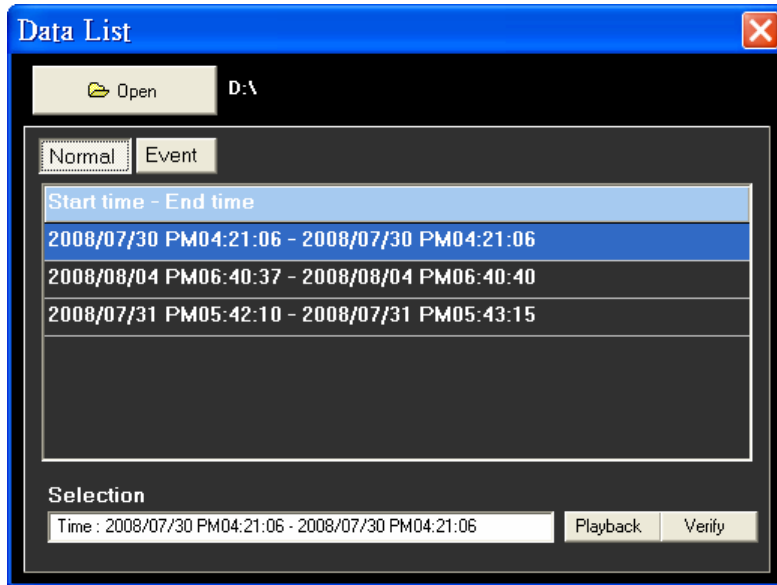


The functional items are:

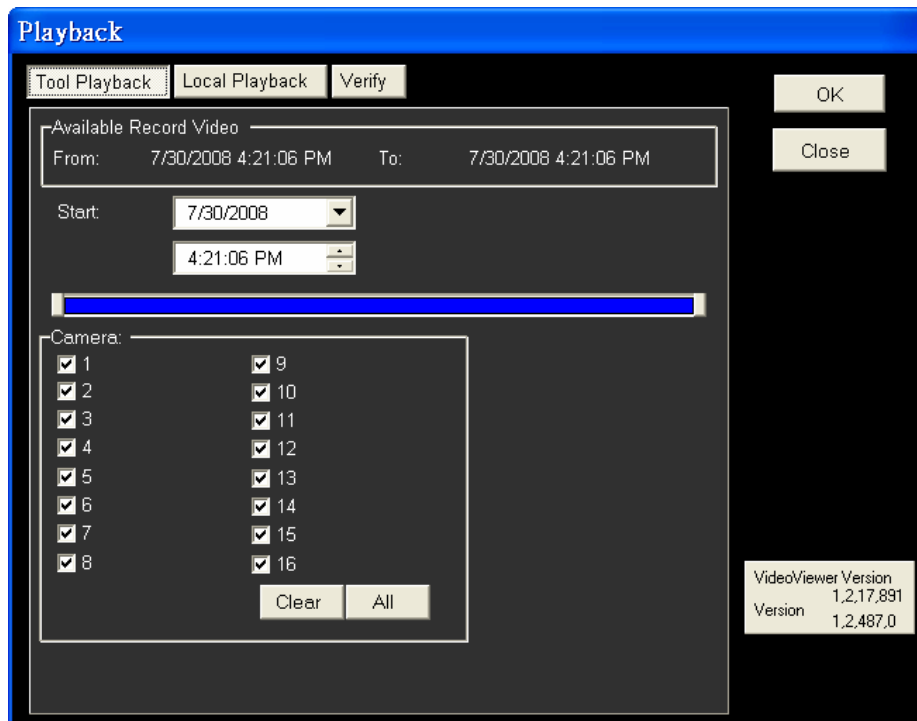
1	Deflicker On/Off	4	Camera Selection	7	Capture Snapshot
2	Smooth Image On/Off	5	Mode Selection	8	Change Viewing Aspect to 4:3
3	Audio On/Off	6	Play Recorded *.drv Files	9	Change Picture Size

Playback the videos on the Data List

Click <PLAY> on the toolbar at the top of the main window. The “Data List” window displays, shown as the figure below:



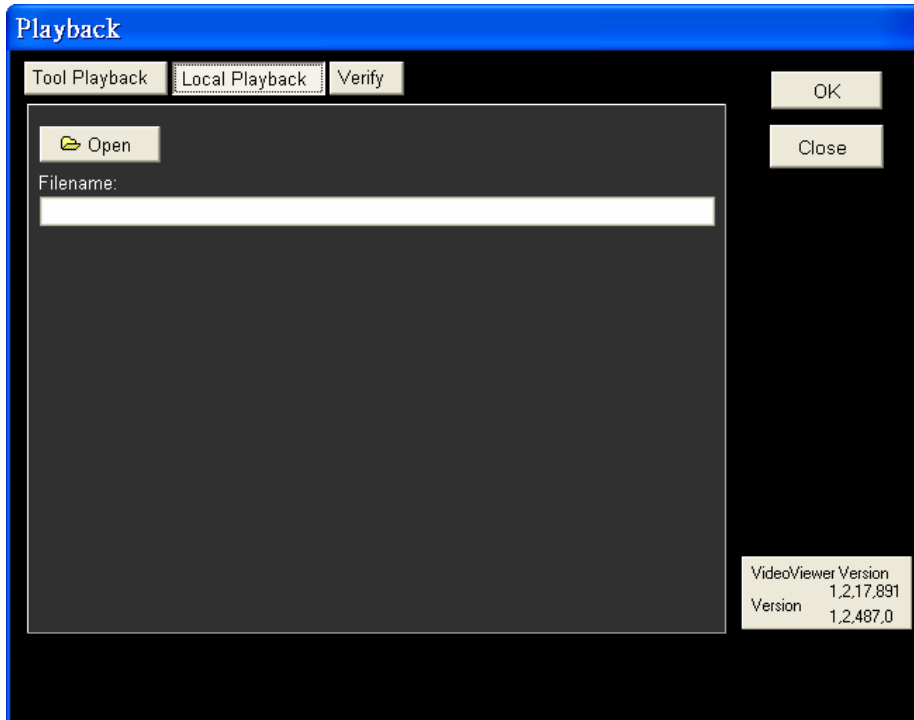
The “Data List” shows all recorded videos, “Normal” and “Event” separately, that are stored in the destination folder appeared at the top. Note that users can also click <Open> on the top to select a different folder which contains recorded videos. Select one from the list and click <Playback> at the bottom, then the “Playback” window will be shown as below:



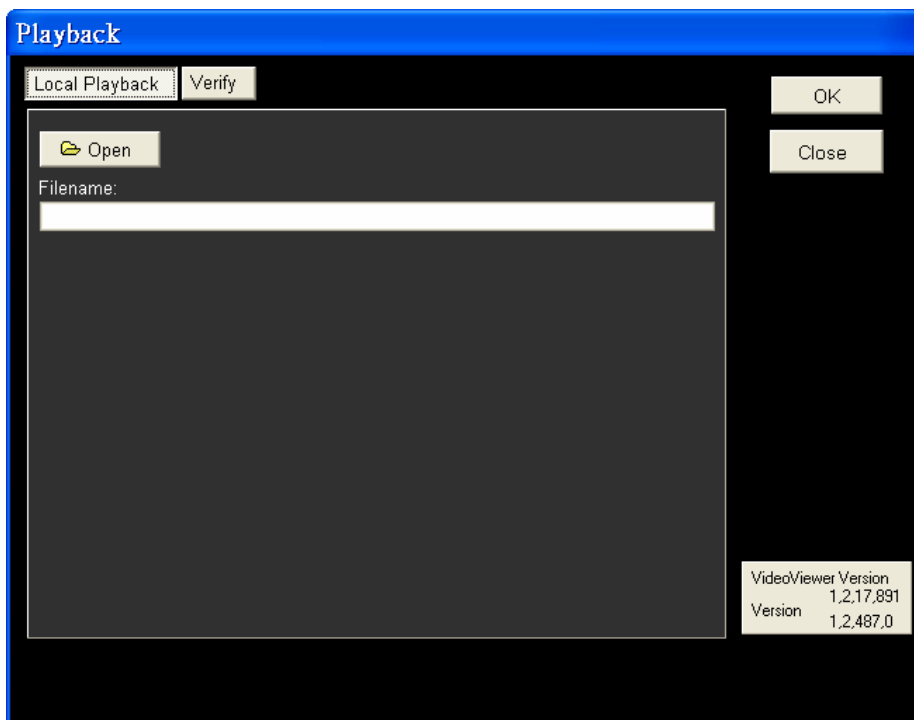
In the <Tool Playback> tab, users can set starting time and displaying cameras of the selected video. Then click <OK> on the upper right-hand corner of the window to start playback the video with selected starting time and displaying camera on the main window.

Local Playback the selected *.drv files

In the <Local Playback> tab, as shown below, users can click <Open> to select a specific *.drv file and click <OK> to playback the file on the main window.



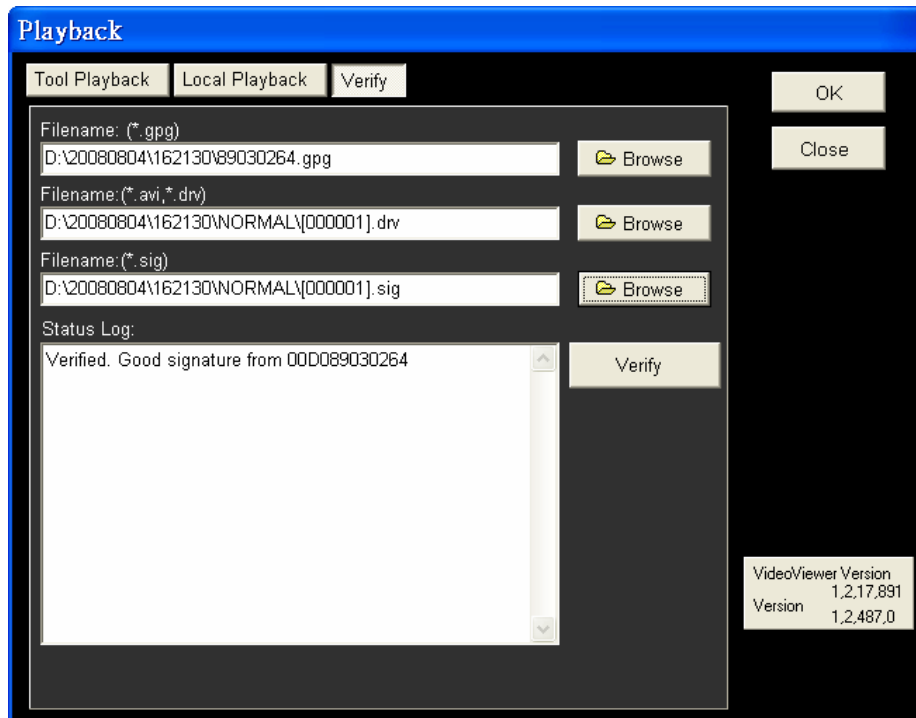
Note: If users click the close button at the top-right corner of the “Data List” window, the following “Playback” window with <Local Playback> tab and <Verify> tab only. The function of <Verify> tab will be described on the next page.



Verify digital signature of exported videos

In the <Verify> tab as shown below, users can authenticate videos with digital signatures. Follow the steps below to complete the verification.

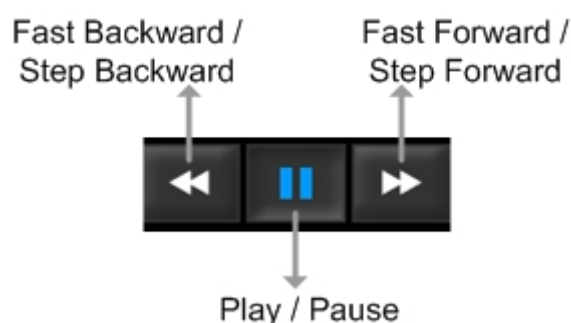
- Select any video from the Data List and click <Verify> at the bottom, then the “Playback” window will be displayed returning a GOOD or BAD signature result in the <Status Log> field. A GOOD signature indicates the exported clip has not been altered, whereas a BAD signature means the video might be changed at some point.



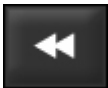


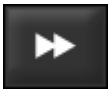
- Alternatively, click <Browse> to select the *.pgp, *.drv (or *.avi), *.sig files, which belong to the video to be authenticated, respectively. After all files are selected, click <Verify> button to start verifying digital signature.

Playback Controls

When the video starts to playback on the main window, the playback control buttons will be displayed on the toolbar at the top of the main window. Please refer to below picture:



Refer to the following table for description of playback control buttons used while playing back the *.drv file.

BUTTON	ICON	DESCRIPTION
Fast Backward / Step Backward		<ol style="list-style-type: none"> Click to playback the video backward. Click repeatedly to select the desired playback speed from 1X, 2X, 4X, 8X, 16X and 32X. When the playback is paused, click once to move one step backward.
Play		Click to resume the playback. The icon is displayed when the playback operation is paused.
Pause		Click to pause the playback. The icon is displayed while playing back the video.
Fast Forward / Step Forward		<ol style="list-style-type: none"> Click to playback the video forward. Click repeatedly to select the desired playback speed from 1X, 2X, 4X, 8X, 16X and 32X. When the playback is paused, click once to move one step forward.

Appendix D: ezRecord Diagram Sample

Diagram Sample(Full-D1)

NTSC:720x480@120PPS

PAL:720x576@100PPS

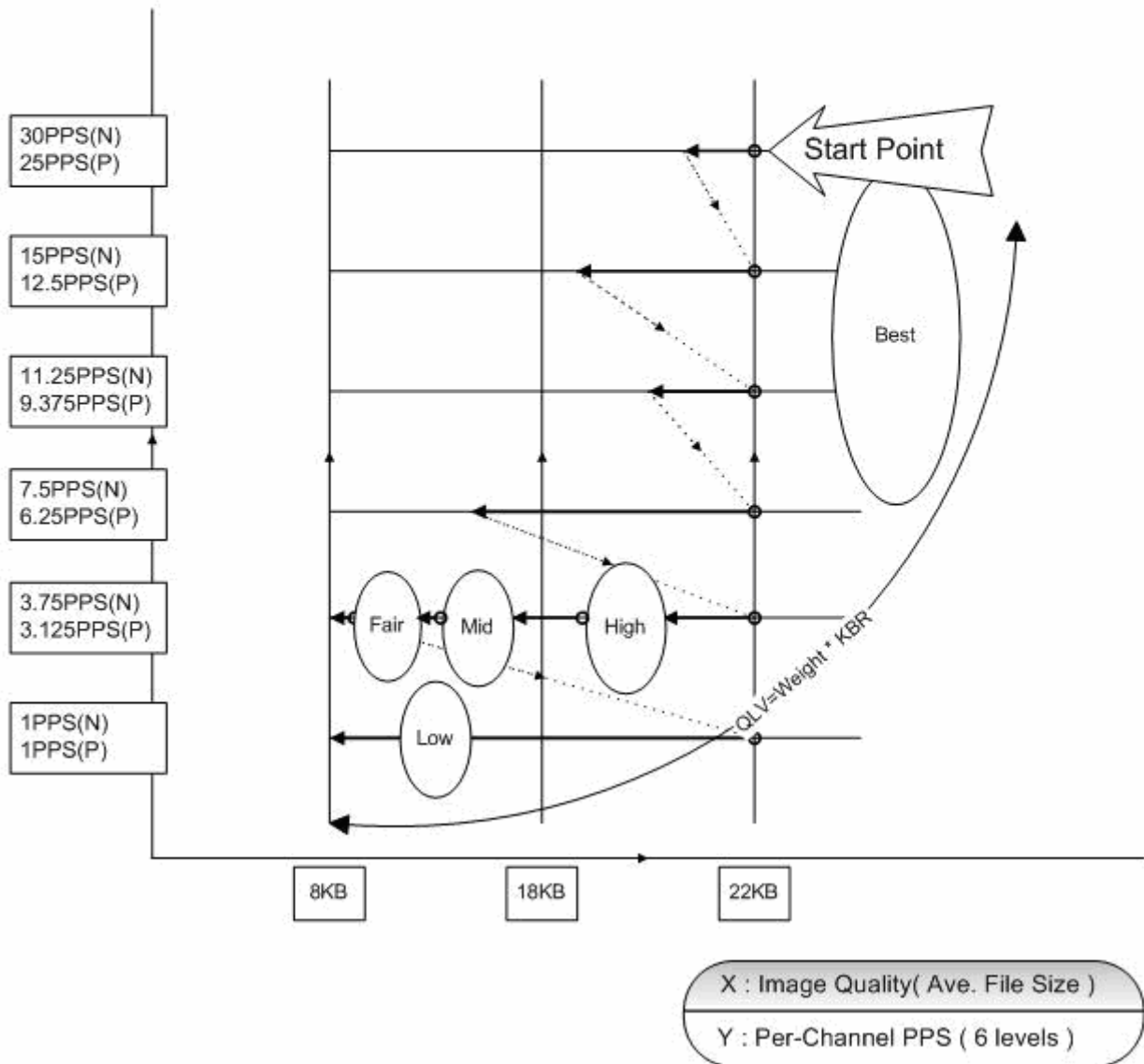


Diagram Sample(Half-D1)

NTSC:720x240@240PPS

PAL:720x288@200PPS

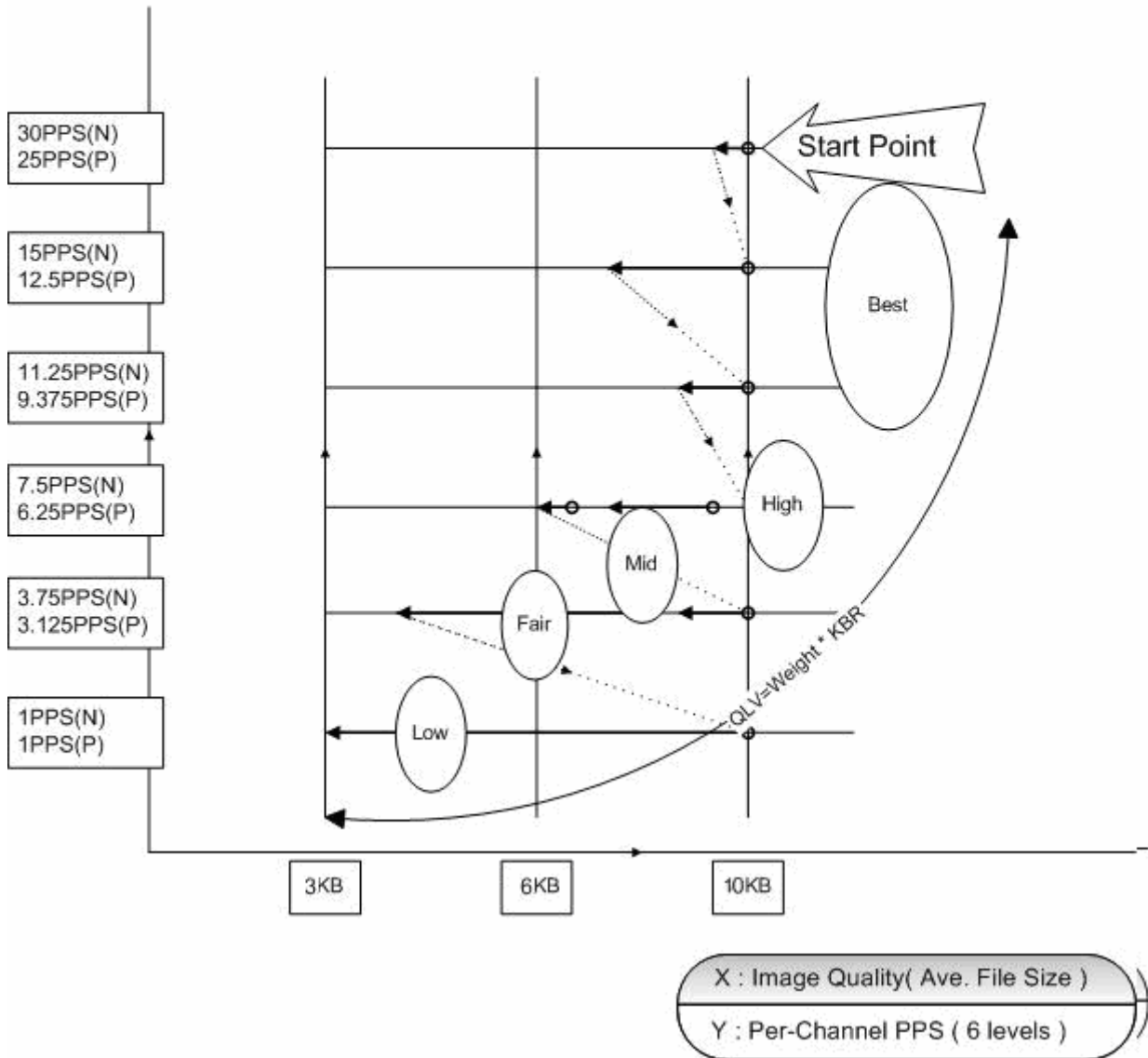
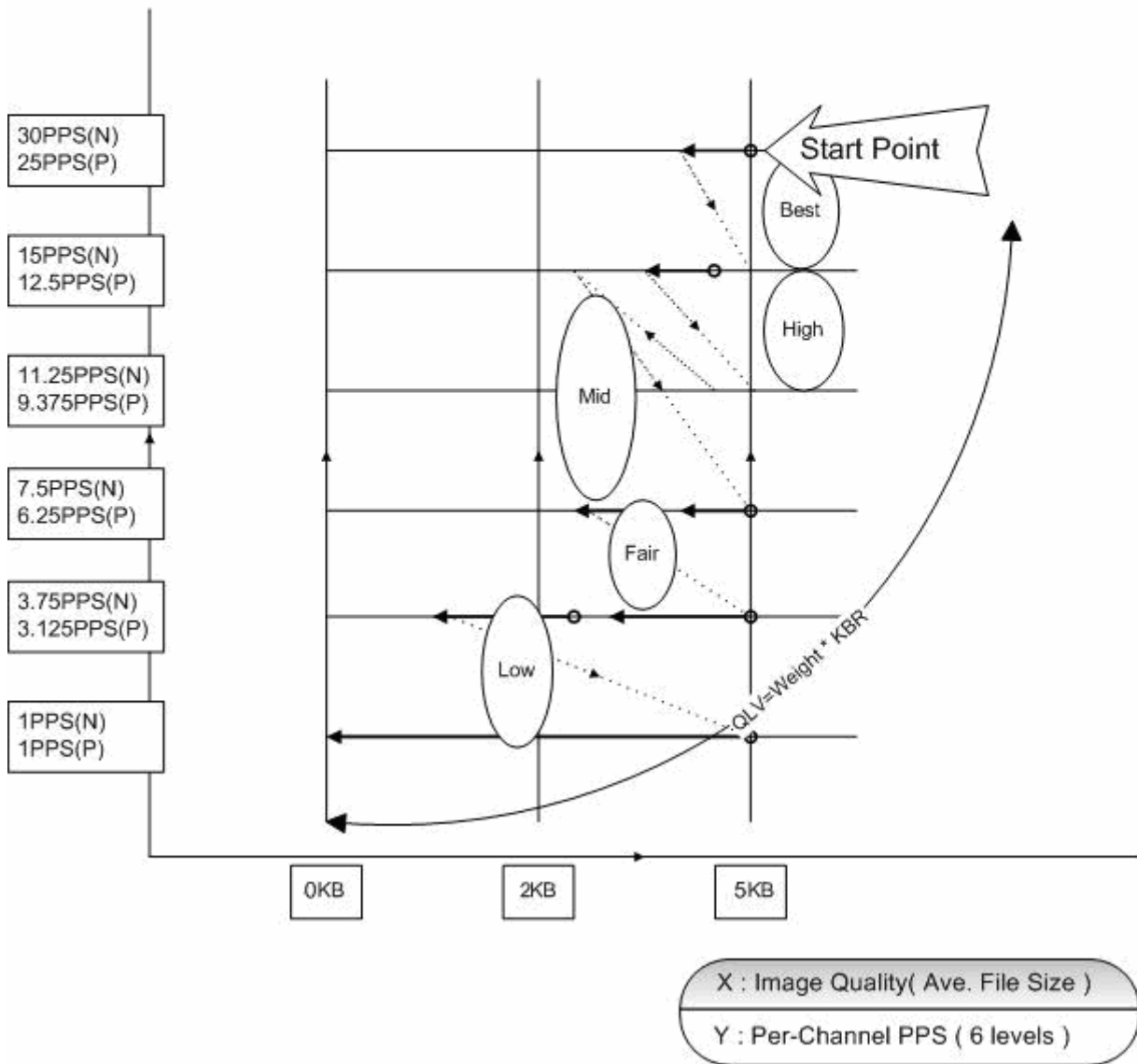


Diagram Sample(CIF)

NTSC:360x240@480PPS

PAL:360x288@400PPS



Appendix E: HDD COPY TOOL (EXT2IFS)

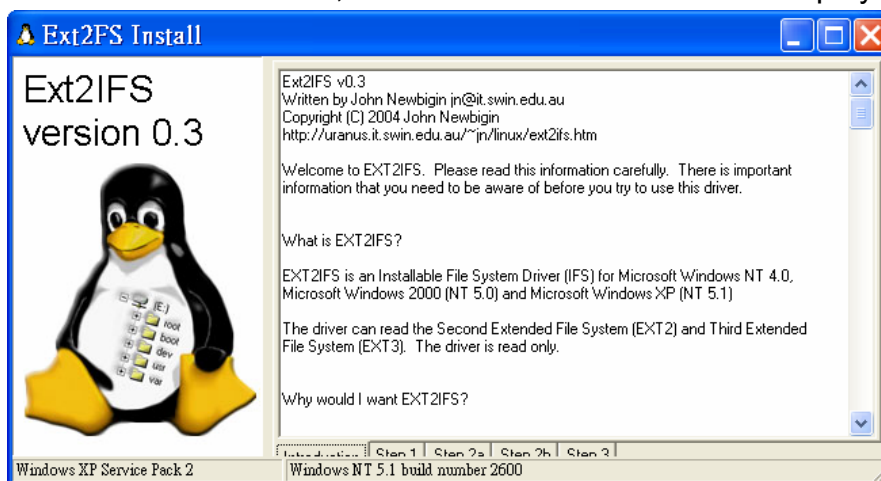
The data system of the DVR's HDD is totally different from Windows® based PC. So if users just simply plug the HDD onto the PC, the PC will not recognize its existence. Hence, in order to access data from the DVR's HDD, users will need a special HDD Copy Tool driver called EXT2IFS. This appendix section will introduce how to download, install, and setup EXT2IFS and the DVR's HDD.

Installation of the DVR's HDD

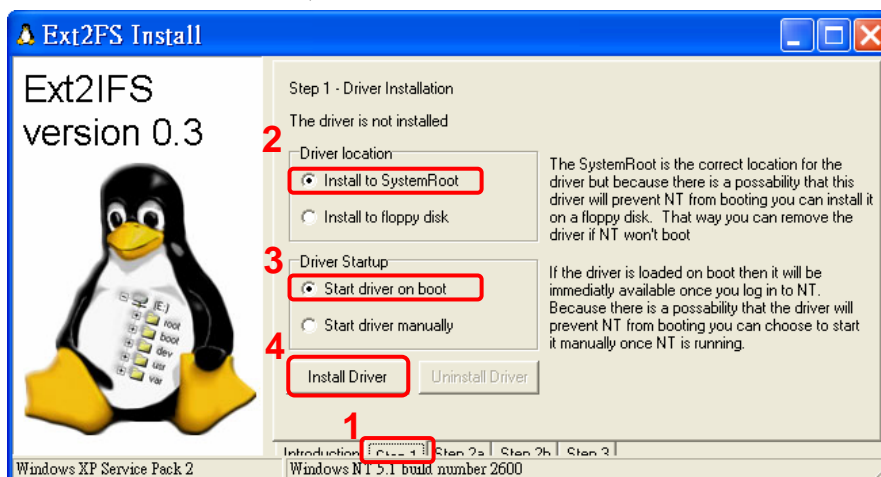
EXT2IFS can be found on the website: <http://uranus.it.swin.edu.au/~jn/linux/ext2ifs.htm>. A detailed description about the driver can also be found. Plug in the DVR's HDD to the PC, then follow the steps below.

Step 1. Download EXT2IFS to the PC from the website listed above.

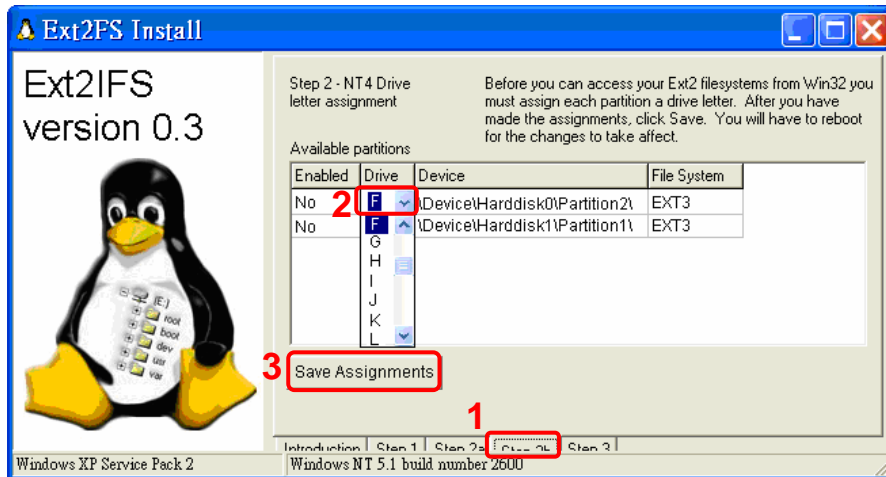
Step 2. Extract the EXT2IFS driver that was just downloaded. Open the extracted folder and double click on "service.exe", and the window below will be displayed.



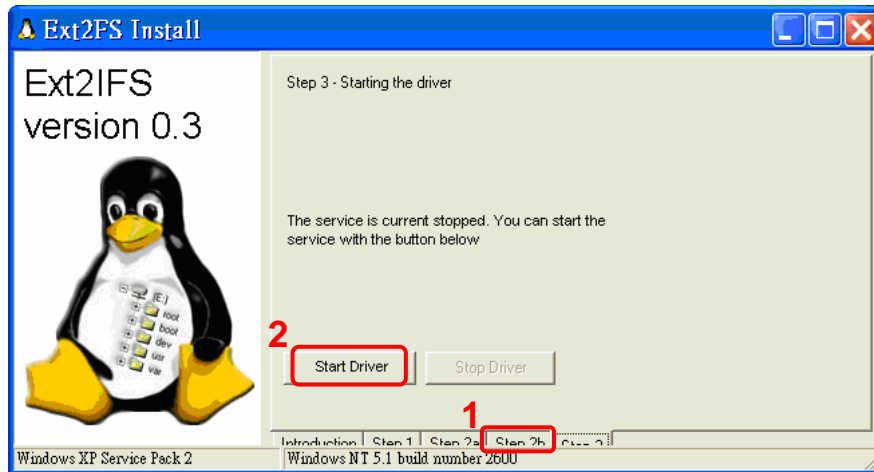
Step 3. Click <Step 1>, then choose <Install to SystemRoot> and <Start driver on boot> options, as shown below. Then, click <Install Driver> button.



Step 4. Click <Step2b>. Assign each partition to a drive letter. After the assignment of HDDs are made, click <Save Assignments> button.



Step 5. Click <Step3>. Then, click <Start Driver> button. Now, reboot the PC for the changes to take effect. The HDD installation is now completed.



After the DVR's HDD is correctly installed, videos in the DVR's HDD can be played back by using the DVRPlayer. Refer to **Appendix C: DVRPlayer** for detail instruction about the operation of the DVRPlayer.

Removal of the DVR's HDD

To remove the HDD from the PC, follow the instruction below.

Re-open the EXT2IFS, and go to <Step 1> menu. Click “Uninstall Driver”, and a message will be shown as: “The service is currently started. Users will have to reboot before the service is completely uninstalled.” Click on “OK” and turn off the PC. Remove the HDD from the PC, and reboot the PC. The removal of HDD is now completed.

