
Premium H.264 DVR OSD Setup Manual

Version 1.1

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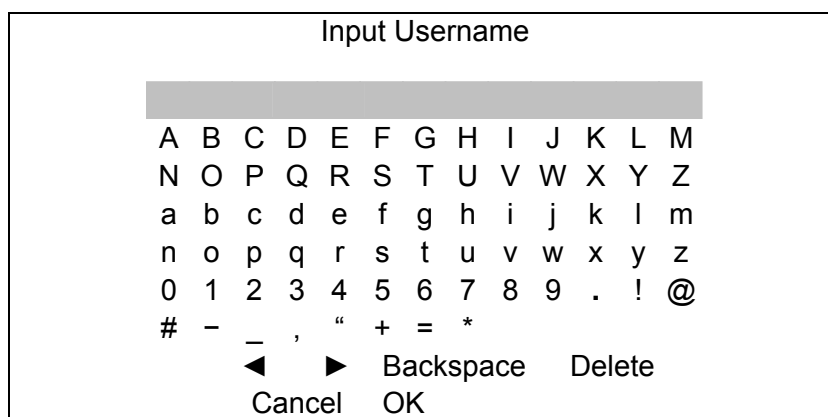
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Menu System Overview

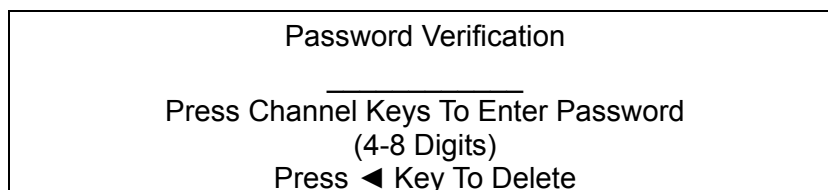
The detailed functions and settings of the **Premium H.264 DVR** can be set by entering the intuitive Graphical User Interface (GUI) OSD setup menu. Collaborating with a USB mouse, setting up the DVR can be easy as operating on a PC. This chapter particularizes the items and options in the OSD setup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


< Username and Password >

Press MENU and input a valid username. A preset username “admin” can be inputted via pressing the hot key MENU. Move to <OK> and press ENTER to proceed.



The next step is to enter a corresponding password. The preset password for “admin” is “1234”.



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

An icon displayed at the center-bottom of the screen will show the authority level of the account. Under logout condition, the icon will show “N”. 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 the OSD setup menu and in the Virtual keyboard. The difference can be seen while setting some items, such as Unit Name and IP Address, in the OSD setup menu.

■ *Key Usage in OSD Setup Menu*

Below introduce some keys used frequently to set up the unit via the OSD setup menu.

<Direction Key>

In the OSD setup menu, Direction keys are used to move the cursor to previous or next fields. UP / DOWN are used to change the value in the selected field.

<ENTER>

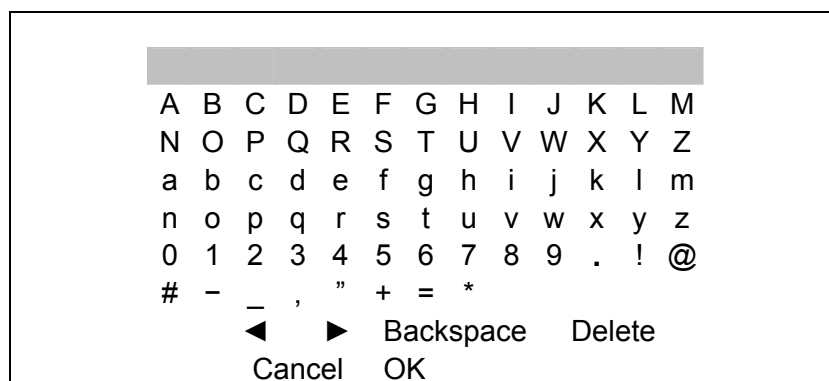
In OSD setup menu or selection interface, press the key to make selection or save settings.

<ESC>

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

■ *Key Usage in Virtual Keyboard*

A virtual keyboard shows when edit the settings, such as camera title, e-mail address, etc. The virtual keyboard displays as follows.



<To input characters>

Press Direction keys to select characters, and press ENTER to confirm the selection.

<To move the cursor in title entry field>

Select <◀> / <▶> and press ENTER, or press MODE and LEFT / RIGHT simultaneously to move the cursor to left / right in the title entry field.

<To delete previous character>

Select <Backspace> and press ENTER, or press DOME.

<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.

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	
1. System/Version Info	
2. Language	English
3. Date/Time	
4. Unit Name	DVR
5. Show Unit Name	
6. User Management	
7. Network Setup	
8. RS485 Setup	
9. Audio Output/Key Beep	
10. 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	.

■ **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.

< 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	
1. Date	2008/02/21
2. Time	PM10:39:26
3. Time Zone	OFF
4. Date/Time Display	1 Row
5. Date Display Mode	Y/M/D
6. Time Display Mode	24 HR
7. Date/Time Order	Date First
8. Daylight Saving Time Setup	
9. 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**

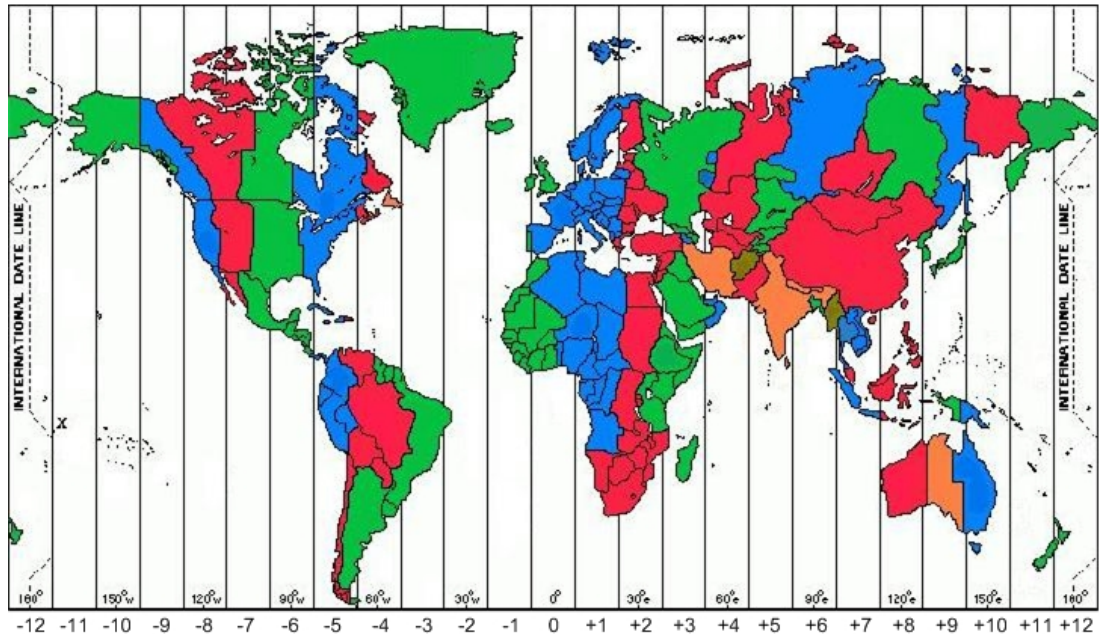
Select <Date> or <Time> and press ENTER for adjusting the settings. LEFT / RIGHT keys are used to move the cursor to previous or next field, ENTER is for selecting, and UP / DOWN are used to change the value in the selected field.

■ **Time Zone**

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



NOTE: The **<Time Zone>** must be set to your 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 <12 hour> or <24 hour>. Use the UP / DOWN keys to change the format.

■ ***Date/Time Order***

The item is used to set the order of Date/Time display to <Date First> or <Time First>. Select this item and press ENTER, then use UP / DOWN keys to change the setting.

■ ***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

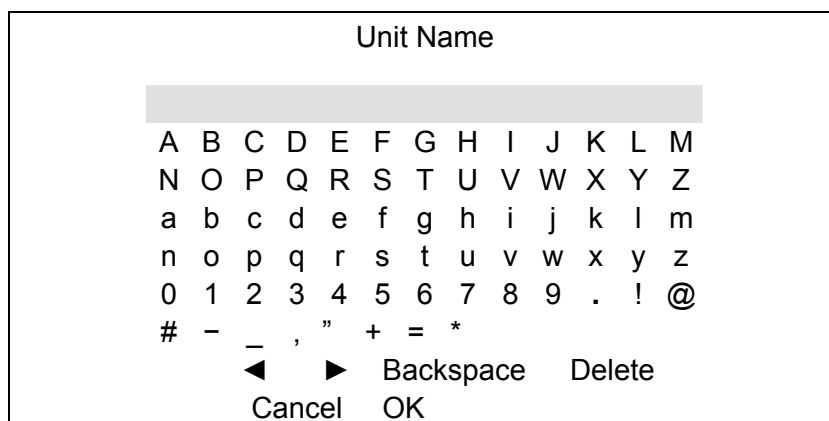
After the time server is set, select **<Manually Time Sync>** to sync the time. The time sync can also be updated periodically. Select **<Automatically Time Sync>**, and choose a desired time interval to sync the time.

< 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.



- 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	
1. Password Protection	ON
2. Account Setup	
3. Authority Setup	
4. 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 username, password, and authority level in this menu. Press Direction keys and ENTER to select items. The username(ID) is case sensitive. The authority level rank from level 1~8, and level 8 has highest authority. Alternatively, select <Disable> to stop using the account.

Account Setup			
Account	ID	PWD	Authority
admin	Edit	Edit	Level 8
user	Edit	Edit	Level 4
user1	Edit	Edit	Level 4
user2	Edit	Edit	Level 4
user3	Edit	Edit	Level 4
user4	Edit	Edit	Level 4
user5	Edit	Edit	Level 4
user6	Edit	Edit	Level 4
user7	Edit	Edit	Level 4



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

■ **Authority Setup**

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

Authority Setup	
Item	Authority
FIRST PAGE	
Playback/Search	Level 4
Dome Control	Level 4
Call Control	Level 4
Export Data	Level 4
Menu Access	Level 4
System Setup	Level 4
Monitor Setup	Level 4
Camera Setup	Level 4
Record Setup	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	
1. LAN Select	LAN
2. LAN Setup	
3. Wireless Network Setup	
4. Modem Setup	
5. Trigger Port	
6. Email Address	
7. SMTP Setup	80
8. DDNS Setup	

Items in this menu are described in the following sections.

■ **LAN Select**

This item allows you to select your service type among <LAN>, <PPPoE>, <WLAN>, and <None>. If you are using a wired or wireless local area network communication, please select <LAN> or <WLAN>. If you 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 you select <LAN> for <LAN Select>, then the 6th to 8th item will not be available.

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

LAN Setup		
1. DHCP		OFF
2. IP		192.168.1.150
3. Netmask		255.255.255.0
4. Gateway		192.168.1.1
5. DNS		0.0.0.0
6. PPPoE Account		
7. PPPoE Password		
8. PPPoE Max Idle		35min
9. Connect At Booting		Yes
10. 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 you power up and power off the unit, depending on your 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 you are using permanent addressing, set DHCP to <OFF> for setting the IP Address, Netmask, Gateway, and DNS. Check with your 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 your 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>.

- **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 your 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 user to setup the PPPoE login username.



NOTE: For accessing the PPPoE settings, select <PPPoE> as the Network Type in Network Setup menu.

To setup the login username, follow the steps:

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

PPPoE Account

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
0	1	2	3	4	5	6	7	8	9	.	!	@
#	-	_	,	"	+	=	*					
◀	▶									Backspace		Delete
										Cancel		OK

- Use Direction keys to move the cursor to the desired character.
- Press ENTER to add the character to the username 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 password 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. You 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

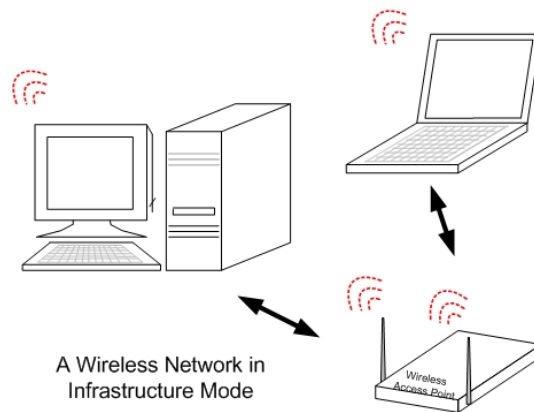
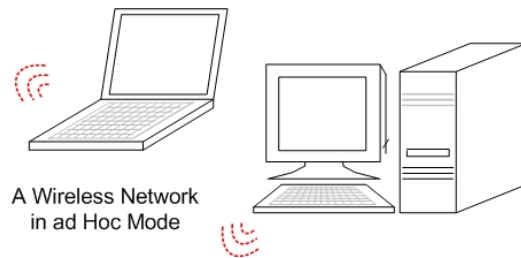
A wireless network consists of a number of computers which are equipped with wireless networking interface card respectively. Each of these computers can communicate directly with all of the other wireless enabled computers. Select <Wireless Network Setup>, which is under <Network Setup> Menu, and press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

Wireless Network Setup	
1. Operating Mode	Infrastructure
2. Choose A Wireless Network	
3. Network Name (ESSID)	H264DVR
4. Network Authentication	Shared
5. Data Encryption	Disable
6. Data Encryption Level	64bits
7. Key Index	1
8. Enter Network Key	xxxxxxxxx
9. Network Setting	
10. 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: You may select either mode for your wireless network; however, all devices communicating directly with each other must operate in the same mode.

- Choose A Wireless Network

This function enables the unit to scan for available wireless network connections in the surrounding area and list them on the table, shown as below figure:

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 you select a wireless network, some related items, such as <Operating Mode>, <Network Name> and <Data Encryption>, are already set for you.



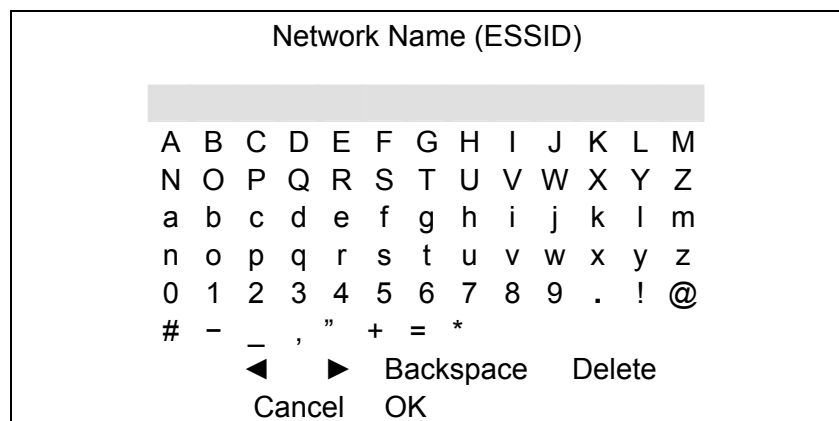
NOTE: A Wireless USB Adapter must be connected to the DVR before choosing a wireless network under this submenu.

- **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.



- Use Direction keys the <◀>, <▶>, <Backspace> or <Delete> to move the cursor in the title entry field.
- Use Direction keys to move the cursor through the virtual keyboard and press ENTER to add the selected character to the title 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, your 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, you must have access to a secret key or password that enables you to decrypt it.

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

- Data Encryption Level

This item allows you to select the data privacy algorithm, including 64 or 128 bits WEP type. If you 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>.



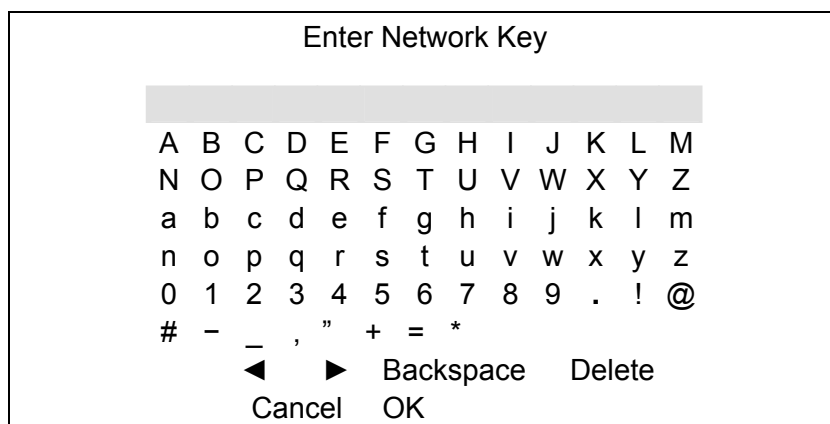
NOTE: A hexadecimal digit values in the range of 0~9, A~F and a~f. e.g. abcde12345.

- Key Index

Key index refers to the location where the secret key is stored. You can select from 1 to 4. The option you select 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 appears as below:



Follow the same setup procedures described in <Network Name (ESSID)>.



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				
1. WLAN DHCP				OFF
2. WLAN IP				192.168.70.100
3. WLAN Netmask				255.255.255.0
4. WLAN Gateway	0.	0.	0.	0
5. WLAN DNS5	0.	0.	0.	0

<WLAN DHCP> allows you to obtain a dynamic IP address from DHCP server. If you select <ON>, then the rest items will be assigned automatically; and if <OFF> is selected, you have to enter the rest 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	
1. Dial-in Setup	
2. Dial-out Setup	
3. 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		
1. Dial-in Service		OFF
2. Dial-in Account		user
3. Dial-in Password		user
4. Server IP	192.168.0.1	
5. Client IP	192.168.0.2	
6. Dial-in Idle Time	0 Min	
7. 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 you 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.

Dial-in Account												
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
0	1	2	3	4	5	6	7	8	9	.	!	@
#	-	_	,	"	+	=	*					
◀		▶		Backspace				Delete				
Cancel				OK								

- Use Direction keys to move the cursor to the desired character.
- Press ENTER to add the selected character to the username 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 password 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 you 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 you 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		
1. Dial-out DHCP		OFF
2. Dial-out IP		192.168.254.1
3. Dial-out Netmask		255.255.255.0
4. Dial-out Gateway		192.168.254.254
5. Dial-out DNS		192.168.254.254
6. Phone Number		1234
7. Dial-out Account		user
8. Dial-out Password		user
9. Dial-out Idle Time		0 Min
10. Dial-out Max Time		0 Min
11. 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.

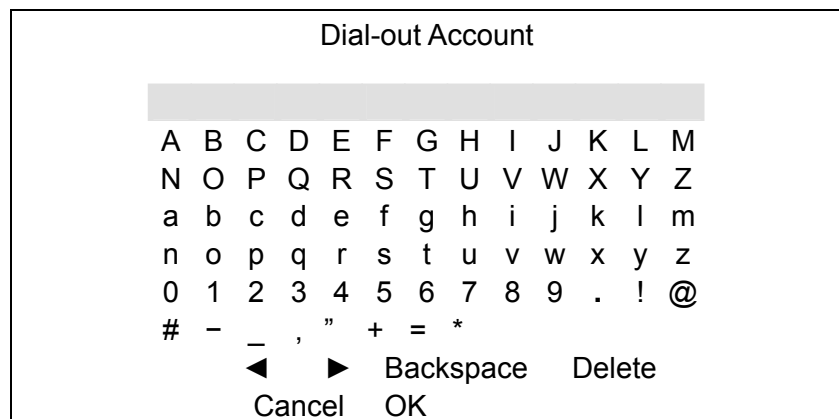
- Select <Phone Number> from Dial-out Setup menu and press ENTER. A virtual keyboard displays.
- Use Direction keys to move the cursor for selecting number.
- Press ENTER to add the selected number to the phone number entry field.
- When it's done, press ENTER to save the settings and exit.

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 your 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.



- Use Direction keys to move the cursor to the desired character.
- Press ENTER to add the selected character to the username 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 password 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	
1. Serial Port	Text
2. USB Port-Front	None
3. USB Port-Rear Top	None
4. 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 password 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	
1. Email via SMTP	ON
2. SMTP Server	
3. SMTP Port	25
4. SMTP Account	
5. SMTP Password	

- **Email via SMTP**

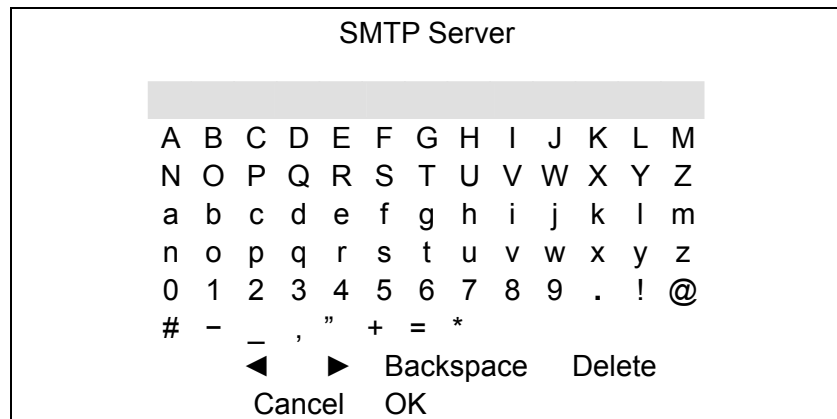
The item enables users to determine if the unit sends e-mail via SMTP. Select <ON> to send e-mail via SMTP using direction keys; if not, select <OFF>.

- **SMTP Server**

This item enables users to set the SMTP server. Contact your 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.



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

■ 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://yourhostname.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		
1.	Enable DDNS	ON
2.	Host Name	XXXX_XXXXXX
3.	DDNS Port	80
4.	Submit/Update	No
5.	ezDDNS	No

- Enable DDNS

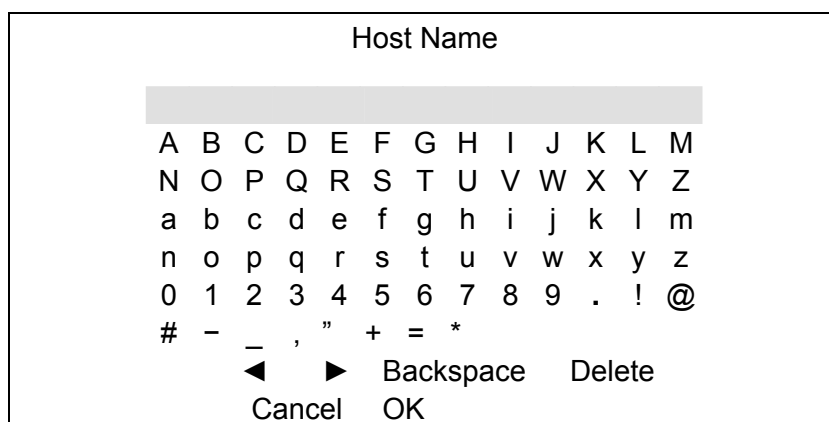
The item is used to enable or disable the Dynamic Domain Name Service. Select <ON> to enable the service, or <OFF> to disable.

- 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 your 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.



- Use Direction keys to select characters.
- Press ENTER to add the selected character to the password 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 screen will be displayed:

ezDDNS Submit/update ok!
Host name is XXXX_XXXXXX
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 you by your 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** >

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	
1. UPnP	ON
2. 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	
1. Unit ID	224
2. Baud Rate	9600
3. Bits	8
4. Stop	1
5. 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	
1. Audio Output	Live/PB
2. Key Beep	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.

< 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 are NOT currently 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.

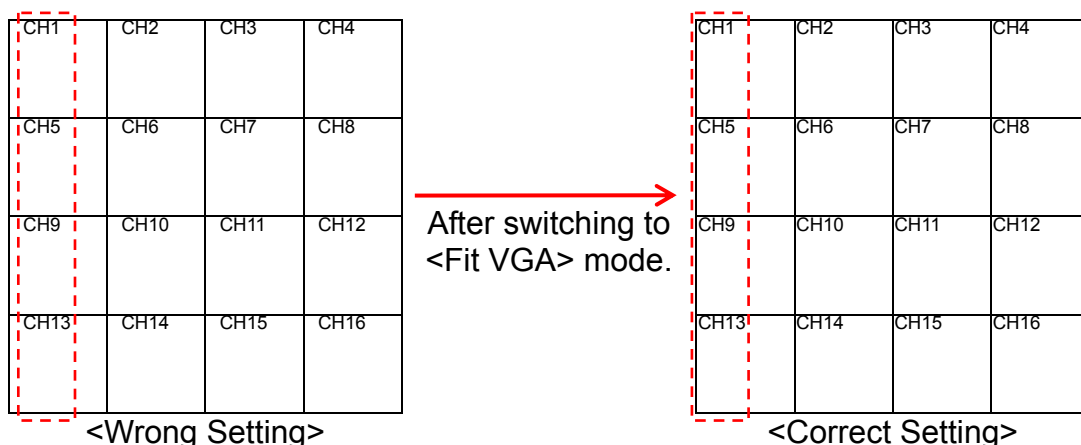
Monitor Setup	
1. Show Camera Title	Yes
2. Title Position	Fit VGA
3. Main Monitor Output Select	AUTO
4. Simultaneous Output	No
5. Monitor Brightness	0
6. Monitor Contrast	0
7. Monitor Chrominance	0
8. Screen Center Adjust	
9. VGA Frequency	60Hz
10. 2nd VGA Frequency	60Hz
11. Show Color Bar	Execute

< 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 you 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> to switch off the VGA1 connector. The items will be slightly changed as the following:

Monitor Setup	
1. Show Camera Title	Yes
2. Title Position	Fit VGA
3. Simultaneous Output	Yes
4. Monitor Brightness	0
5. Monitor Contrast	0
6. Monitor Chrominance	0
7. Screen Center Adjust	
8. VGA Resolution	800*600
9. VGA Frequency	60Hz
10. Show Color Bar	Execute



NOTE: Main Monitor Output Select and 2nd VGA Frequency will disappear; Monitor Brightness, Contrast, and Chrominance will become unavailable; and a new item VGA Resolution will show up.



NOTE: If users change the resolution to 1024x768 or 1280x1024, the BNC (and S-Video) output will be switch off.

< 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>.

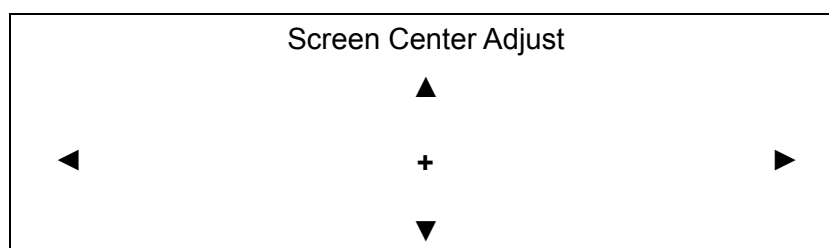
< Monitor Chrominance >

Move the cursor over the 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>.

< Screen Center Adjust >

The item is used to adjust the screen center of the main monitor display area. Follow the steps to set the center point.

- Select <Screen Center Adjust> from the Monitor Setup menu and press ENTER. The adjusting screen is as follows.



- Position the screen center position using the Direction keys.
- Press ENTER to exit when finished.

< 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> and <1280×1024>.



NOTE: If the selected VGA resolution is too high for the monitor, the message “No Signal” will be shown on screen. Then press ESC on the front panel to restore the original setting.

< VGA Frequency >

VGA Frequency

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

2nd VGA Frequency

Enter this item to select appropriate VGA frequency for the second 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 you are setting an analog camera, or refer to <IP Camera> when you are setting an IP camera.

< Analog Camera >

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

Analog Camera	
1. Analog Camera Select	CH3
2. Dome Protocol	None
3. Dome ID	0
4. Camera Title	CH3
5. Covert	No
6. Termination	Yes
7. Brightness	0
8. Contrast	0
9. Saturation	0
10. Hue	0
11. Audio Association	YES

■ **Analog Camera Select**

The item is used to select a camera for setting its 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 your dome camera using the ENTER and Direction keys. The available protocol includes <DynaColor>, <AD422>, <Pelco D>, <Pelco P>, <Fastrax 2>, <JVC>, <Panasonic_C>, <Panasonic_N>, and <None>.

■ **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.

■ **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.

< IP Camera >

If you 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		
1. IP Camera Select		CH16
2. IP Camera Title		CH16
3. Hostname/IP		X.X.X.X
4. Model		
5. Connection Setup		
6. Device Setup		
7. Activated		No
8. Status		

■ *IP Camera Select*

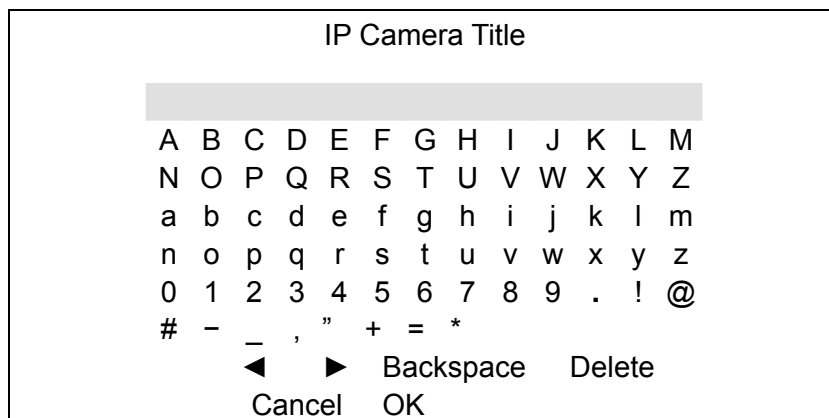
Select the corresponding channels. If you chose <1> in <IP Camera Support>, then last channel will be the corresponding channel for IP camera. When you choose <2> in <IP Camera Support>, the last two channels can be used to setup the IP cameras, and so on.

■ *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.



- Use Direction keys to position the cursor in the title entry field above the virtual keyboard.
- Use Direction keys to move the cursor through the lists of characters to the one you 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.

■ **Hostname/IP**

To be entered with the hostname or IP address of the IP camera (e.g. 192.168.1.123).

■ **Model**

Enter this item to choose your 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		
1. Account		****
2. Password		****
3. Management Port		80
4. Streaming Format		MPEG4
5. Advance Streaming Option		OFF
6. Streaming Port		8090
7. Streaming Protocol		RTP+RTSP
8. 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**

Enter this item to choose the streaming format of your IP camera model. The DVR supports the following streaming formats, <MPEG4>, and <MJPEG>.

- **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 your 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 your IP camera for assistance if you 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	
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

- 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 you connect to IP Camera Brand A, you may have all items available. However, when you connect to IP Camera Brand B, you 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. You 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, you **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: After activating the IP camera, <Hostname/IP>, <Model>, <Connection Setup> items under < IP Camera> menu will become unchangeable unless the selected IP camera is deactivated.

■ 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	
1. Model	****
2. Streaming Format	MPEG4
3. Resolution	720*480
4. PPS	10
5. Bandwidth	20 KB/Sec
6. Pkg. lost rate	0.1%

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”.

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	
1. Record Mode Setup	
2. Schedule Setup	
3. Preset Config	Best Quality
4. Per Camera Config	
5. ezRecord Setup	
6. Data Lifetime	0 Days
7. Pre-Alarm Recording	15 Sec
8. Circular Recording	ON
9. Audio Recording	ON
10. 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	
1. Record Resolution	720*480
2. Record Format	H264
3. Max Rec PPS	60

■ **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>.

■ **Max Rec PPS**

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

< 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	
1. Day Time Start	06:00
2. Day Time End	18:00
3. Night Time Start	18:00
4. Night Time End	06:00
5. Weekend Schedule	Yes
6. Weekend Start	Fri 18:00
7. 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 <Yes> 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 you 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: 720×480@30PPS) (PAL: 720×576@25PPS)					
Preset Config.	Normal PPS	Normal Quality	Event Max PPS	Event Quality	Event Active
Best Quality	3.75 NTSC (3.125 PAL)	24 KB	15 NTSC (12.5 PAL)	24 KB	Both (Alarm+Motion)
Standard	3.75 NTSC (3.125 PAL)	16 KB	15 NTSC (12.5 PAL)	24 KB	Both
Extended Record	3.75 NTSC (3.125 PAL)	8 KB	15 NTSC (12.5 PAL)	24 KB	Both
Event Only	0 NTSC (0 PAL)	NA	30 NTSC (25 PAL)	24 KB	Both
ezRecord	Auto	Auto	30 NTSC (25 PAL)	24 KB	Both

Record Mode: Half-D1 mode (NTSC: 720×240@60PPS) (PAL: 720×288@50PPS)					
Preset Config.	Normal PPS	Normal Quality	Event Max PPS	Event Quality	Event Active
Best Quality	3.75 NTSC (3.125 PAL)	12 KB	30 NTSC (25 PAL)	12 KB	Both (Alarm+Motion)
Standard	3.75 NTSC (3.125 PAL)	8 KB	30 NTSC (25 PAL)	12 KB	Both
Extended Record	3.75 NTSC (3.125 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: 360×240@120PPS) (PAL: 360×288@100PPS)					
Preset Config.	Normal PPS	Normal Quality	Event Max PPS	Event Quality	Event Active
Best Quality	7.5 NTSC (6.25 PAL)	6 KB	30 NTSC (25 PAL)	6 KB	Both (Alarm+Motion)
Standard	7.5 NTSC (6.25 PAL)	4 KB	30 NTSC (25 PAL)	6 KB	Both
Extended Record	7.5 NTSC (6.25 PAL)	2 KB	30 NTSC (25 PAL)	6 KB	Both
Event Only	0 NTSC (0 PAL)	NA	30 NTSC (25 PAL)	6 KB	Both
ezRecord	Auto	Auto	30 NTSC (25 PAL)	6 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@60PPS in NTSC / 720×288@50PPS in PAL.

Per Camera Config			
Camera Select	CH1		
	Day	Night	Weekend
Normal PPS	7.5	7.5	7.5
Normal Qlty	Mid	Mid	Mid
Event Max PPS	30	30	30
Event Qlty	Best	Best	Best
Event Act	Both	Both	Both

■ **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, you 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>.

■ **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 your 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 you 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	2 Days
Daytime Record	Yes
Night Record	Yes
Weekend Record	Yes
Record Info	
Average Normal PPS	3.75
Average Normal Quality	Best

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 your 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 you to select whether you 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 you 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.



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

< Data Lifetime >

Data Lifetime indicates the duration that a video is saved and recallable in the HDD. Only those video recorded during 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. Press ENTER to select this item in Record Setup menu, and then use UP / DOWN keys to set the data lifetime. The value ranges from <1> to <365> days, or select <0> to disable the function.



NOTE: If you 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.

< 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 you choose to record in circular mode, then the unit begins to store new video into the HDD spaces and overwrite the oldest recorded video. If you choose to record in linear mode instead, the unit stops recording when the HDD is full, and the internal buzzer starts beeping.

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		
1. Purge All Data		No
2. Purge All Event Data		No
3. Purge Event Before	2008/01/01	
4. 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 you 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	
1. Main Monitor Dwell	5 Sec
2. Main Monitor Schedule	
3. Call Monitor Dwell	5 Sec
4. 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 >

The Main / Call Monitor can be set to display full screen video of all installed cameras in sequence. This item is used to set the Main / Call Monitor dwell time, which is the duration of time elapsed before switching to the next channel. The dwell time is in the range of 1 to 120 seconds.

< Main / Call Monitor Schedule >

This item is used to set the Main / Call Monitor camera sequence in full screen format. Move the cursor to <Main Monitor Schedule> and press ENTER; the menu is displayed as follows.

Main Monitor Schedule	
█	▶▶▶▶▶▶▶▶▶▶
	▶▶▶▶▶▶▶▶▶▶
Press Channel Keys To Select Channel Press ◀ Key To Delete	

Follow these steps to set a sequence:

- Press LEFT direction key to delete the original setting.
- Press the desired Channel keys to assign a camera to that location in the sequence.
- Continue the steps until the sequence is completed.

A sequence can have up to 16 entries. User can select fewer than 16 entries for camera sequence and leave the remaining entries blank. The sequence can include a specific camera or 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	
1. Internal Buzzer	ON
2. Event Icon	ON
3. Email Notice	OFF
4. Email Attachment	OFF
5. Alert Notification Setup	
6. Event Full Screen	None
7. Event Duration	20 Sec
8. 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 you to send an SMS message to any mobile phone on a GSM network.

To perform this function, you 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		
1. SMS Notice		OFF
2. PIN Authentication		ON
3. PIN Code Setup		
4. Receiver Number		
5. Send Test Message		Execute
6. Port Selection		None

■ **SMS Notice**

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

■ **PIN Authentication**

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

■ ***PIN Code Setup***

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

■ ***Receiver Number***

You 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	
1. Serial Port	Text
2. USB Port-Front	None
3. USB Port-Rear Top	None
4. USB Port-Rear Bottom	None

< Alert Notification Setup >

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

Alert Notification Setup	
1. Alert Configuration Set	1
2. Alert Notification	OFF
3. Alert IP	0.0.0.0
4. Alert Port	9999
5. Alive Interval	120sec

■ ***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 you 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**

To define the time interval (1 to 255 seconds) between each alive message.

< 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 <Video Loss Detect>, <Motion Detect>, <Alarm In> and <Alarm Out> settings for each channel. The menu is displayed as below.

Per Channel Config	
1. Channel Select	CH1
2. Video Loss Detect	ON
3. Motion Detect	ON
4. Detection Config	
5. Alarm In	OFF
6. Alarm Out	None

■ **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.

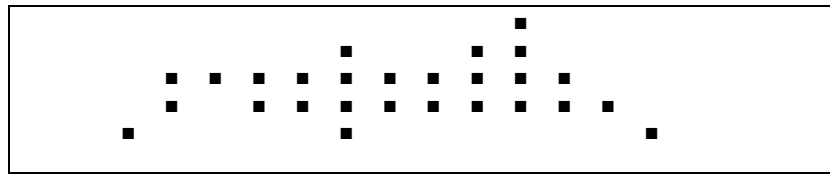
■ **Detection Config**

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	
1. Detected Area Setup	
2. Sensitivity	88%
3. Area Threshold	6%
	

- **Detected Area Setup**

The Detect Area is displayed as follows after selecting this item. The detection area consists of 165 (15×11) 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.

- **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 your 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 you 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

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		
1. Total Size		xxx GB
2. Free Size		xxx GB
3. Avail. Rec Time		3Days 7Hrs
4. Internal Disks		
5. External Disks		
6. NAS Device		



NOTE: If detection of the hard disk fails, the message “HDD fail” will display.

< 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”.

< 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	Active	Action
xxxxxxx-xxxxxxx	Yes	None

The information of built-in HDD and external storage devices will be listed by model name and status. If no storage device connects to the unit, the message “No Available Items!” will show on the screen.



NOTE: If the file system of the internal HDD is not compatible for the DVR, the system will format the internal HDD automatically without notice.

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), <Recover> (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
xxxxxxxxxxx	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

Configuration

The Configuration menu can be used to restore the default factory settings, import and export configuration. 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	
1. Load Factory Default	No
2. Import Config	
3. Export Config	

< Load Factory Default >

This item is used to load the factory setting. Select <Yes> to recall the factory default setup configuration from the read-only memory, or <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 available configuration files, and choose <Yes> to start import.



NOTE: If the imported configuration has different record mode from the unit's, 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 >

The user is allowed to save a unit 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	
1. Copy Destination	
2. Config Name	
3. 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 your system, and back it up routinely, just in case for unexpected situation.

Video Export

The Video Export menu enables the user to export recorded video with or without digital signature to a USB ThumbDrive®, or to a DVD+RW drive. 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 pre-alarm video and video recorded after the alarm is triggered.

When recorded video is exported with digital signature, the output will be four files, including *.gpg, *.avi (*.drv), *.sig and readme.txt. Exporting a file whose size is 1GB with digital signature may take you 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 CD/DVD will be ejected when its capacity is 99% full.

Video Export				
1. Select Device				
2. Select Ch:	CH1	CH2	CH3	CH4
3. From	2008/03/19 AM 07:50:05			
4. To	2008/03/28 PM 03:09:18			
5. Select Events				
6. Data Type				Normal
7. Export Format				DRV
8. Digital Signature				No
9. Erase Disc				No
10. Begin Export				No

< 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

The **Premium H.264 DVR** only supports EXT3 file system. Make sure the HDD format is EXT3 before connecting it with the unit. If not, please format the HDD to EXT3 format first.

Device Name

The item shows the name of the available device.

Available

The item shows the free space of the available device.

Sel

Set the item to <Yes> to set it as an exporting destination; or <No> to cancel.



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 you want to export.

< Data Type >

The 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 you want to export selected event video using the item <Select Event>, you 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>.



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

< Export Format >

This item is for selecting exporting video format. The options are <DRV> and <AVI>.

The *.drv file can only be played back with **DVRRemote** and **DVRPlayer**, and multiple camera video can be played from one file. The *.avi file can be played back with Windows Media Player. Note that if multiple channels are exported, 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 clip 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 you have an external storage device, such as a USB Hard Drive or USB ThumbDrive®, 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 CD-RW or DVD+RW disk prior to exporting new information to the drive. Select <YES> and press ENTER to start deleting data.



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

< Begin Export >

Select <Yes> and press ENTER to start exporting.

Text Setup

The <Text 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 your DVR. To enable this function, enter OSD setup menu and select <Text Setup>. Press Enter and the menu will be shown as follows. Items in this menu are described in the following subsections.

Text Setup	
1. Text Function	ON
2. Text Overlay	Live/PB
3. Exception Text Setup	
4. Input Setup	

< Text Function >

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

< Text Overlay >

This item is for you to choose which mode you want to display the text overlay on the monitor. Select <Only Live> to display the text overlay in Live mode; select <Only PB> to display the text overlay in Playback mode; and select <Live/PB> to display in both modes.



NOTE: Text overlay only shows in full screen mode.



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

< Exception Text 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 Text Setup	
Exception No.	1
Trigger	ON
Exception String	NO SALE
By Numerals	OFF
Value	
Value (Upper Limit)	

- ***Exception No.***

To select an exception for further settings; you 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. You 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 configured through the following sub-setting <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 configured through the following sub-setting <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 configured through the following sub-setting <Value>.

Inside The Range:

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

Outside the Range:

The value of transaction outside a certain range will be marked as an exception. The range need to be configured through the following sub-settings <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 won't be marked as exceptions.

< Input Setup >

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

Input Setup	
1. Port Selection	Serial Port
2. Input Source	Direct Connected
3. Camera Selection	1
4. Text Filter	ASCII
5. Manual Filter Setup	
6. Input Process	Canonical
7. Text Baud Rate	9600
8. Text Bits	8
9. Text Stop	1
10. Text Parity	None

■ **Port Selection**

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

Port Selection	
1. Serial Port	Text
2. USB Port-Front	None
3. USB Port-Rear Top	None
4. 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 text overlay.

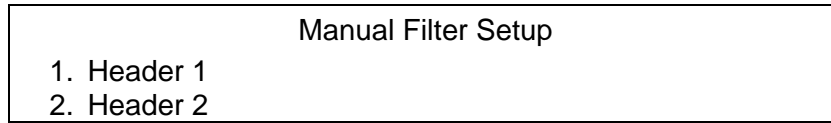
■ **Text Filter**

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.



■ **Input Process**

If you 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 your Text 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

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

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

Shutdown	
1. Power Off	Execute
2. Reboot	Execute

■ **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.

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 Setting>, assuming all channel are set to the same quality at all times.

Per Camera Config			
Camera Select	Day	Night	CH1 Weekend
Normal PPS	7.5	7.5	7.5
Normal Qlty	Mid	Mid	Mid
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 (8 KB)	PAL (8 KB)	NTSC (12 KB)	PAL (12 KB)	NTSC (16 KB)	PAL (16 KB)	NTSC (20 KB)	PAL (20 KB)	NTSC (24 KB)	PAL (24 KB)
160 GB Internal Storage											
30	25	10.52	12.63	4.79	5.74	276	3.31	1.81	2.17	1.29	1.55
15	12.5	21.04	25.25	9.57	11.49	5.52	6.62	3.62	4.34	2.58	3.09
7.5	6.25	42.09	50.50	19.15	22.98	11.03	13.24	7.24	8.69	5.16	6.19
320 GB Internal Storage											
30	25	21.56	25.87	9.81	11.77	5.65	6.78	3.71	4.45	2.64	3.17
15	12.5	43.12	51.75	19.62	23.55	11.31	13.57	7.42	8.90	5.28	6.34
7.5	6.25	86.25	103.49	39.24	47.09	22.61	27.14	14.83	17.80	10.57	12.68

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)
160 GB Internal Storage											
60	50	20.56	24.68	9.24	11.09	5.26	6.31	3.41	4.09	2.39	2.87
30	25	41.13	49.35	18.49	22.19	10.52	12.63	6.81	8.18	4.79	5.74
15	12.5	82.26	98.71	36.98	44.38	21.04	25.25	13.63	16.35	9.57	11.49
7.5	6.25	164.52	197.42	73.96	88.75	42.09	50.50	27.25	32.70	19.15	22.98
320 GB Internal Storage											
60	50	42.14	50.57	18.95	22.73	10.78	12.94	6.98	8.38	4.91	5.89
30	25	84.29	101.14	37.89	45.47	21.56	25.87	13.96	16.75	9.81	11.77
15	12.5	168.57	202.28	75.78	90.94	43.12	51.75	27.92	33.51	19.62	23.55
7.5	6.25	337.14	404.57	151.56	181.87	86.25	103.49	55.85	67.02	39.24	47.09

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 (2 KB)	PAL (2 KB)	NTSC (3 KB)	PAL (3 KB)	NTSC (4 KB)	PAL (4 KB)	NTSC (5 KB)	PAL (5 KB)	NTSC (6 KB)	PAL (6 KB)
160 GB Internal Storage											
120	100	40.67	48.80	18.18	21.81	10.28	12.34	6.62	7.94	4.62	5.55
60	50	81.33	97.60	36.35	43.62	20.56	24.68	13.24	15.88	9.24	11.09
30	25	162.67	195.20	72.70	87.25	41.13	49.35	26.47	31.77	18.49	22.19
15	12.5	325.33	390.40	145.41	174.49	82.26	98.71	52.95	63.53	36.98	44.38
7.5	6.25	650.67	780.80	290.82	348.98	164.52	197.42	105.89	127.07	73.96	88.75
320 GB Internal Storage											
120	100	83.34	100.01	37.25	44.70	21.07	25.29	13.56	16.28	9.47	11.37
60	50	166.68	200.01	74.50	89.40	42.14	50.57	27.13	32.55	18.95	22.73
30	25	333.35	400.02	148.99	178.79	84.29	101.14	54.25	65.10	37.89	45.47
15	12.5	666.70	800.04	297.99	357.58	168.57	202.28	108.50	130.20	75.78	90.94
7.5	6.25	1333.41	1600.09	595.97	715.17	337.14	404.57	217.00	260.40	151.56	181.87

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

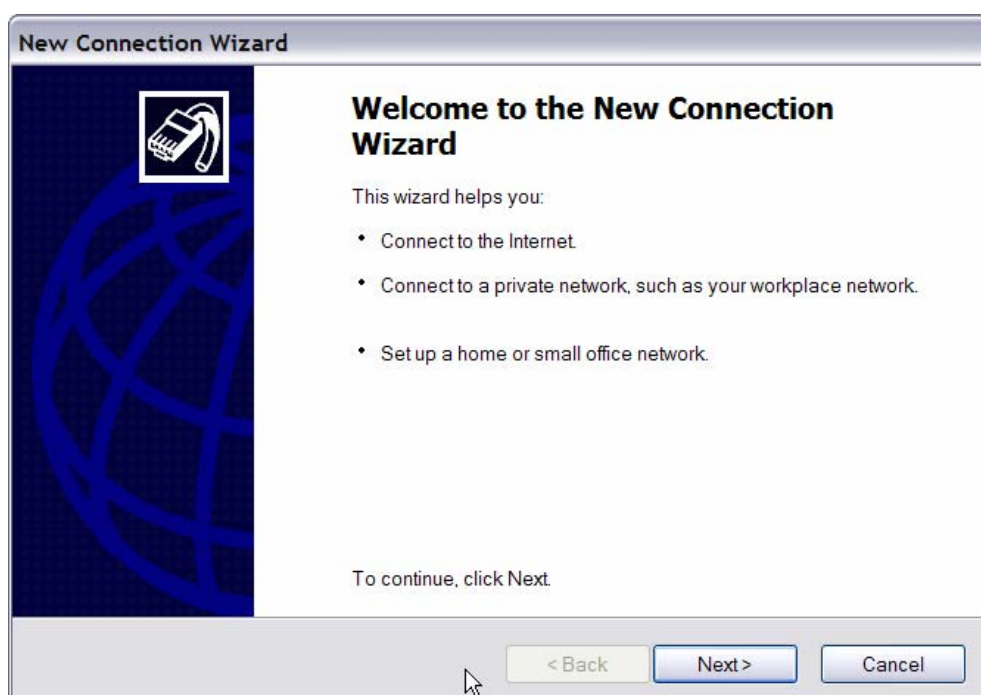
The Dial-in function enables users to establish dial-up modem communication to and from the **Premium H.264 DVR** for monitoring via the remote software. Follow the description below to set up your DVR and PC.

DVR Configuration:

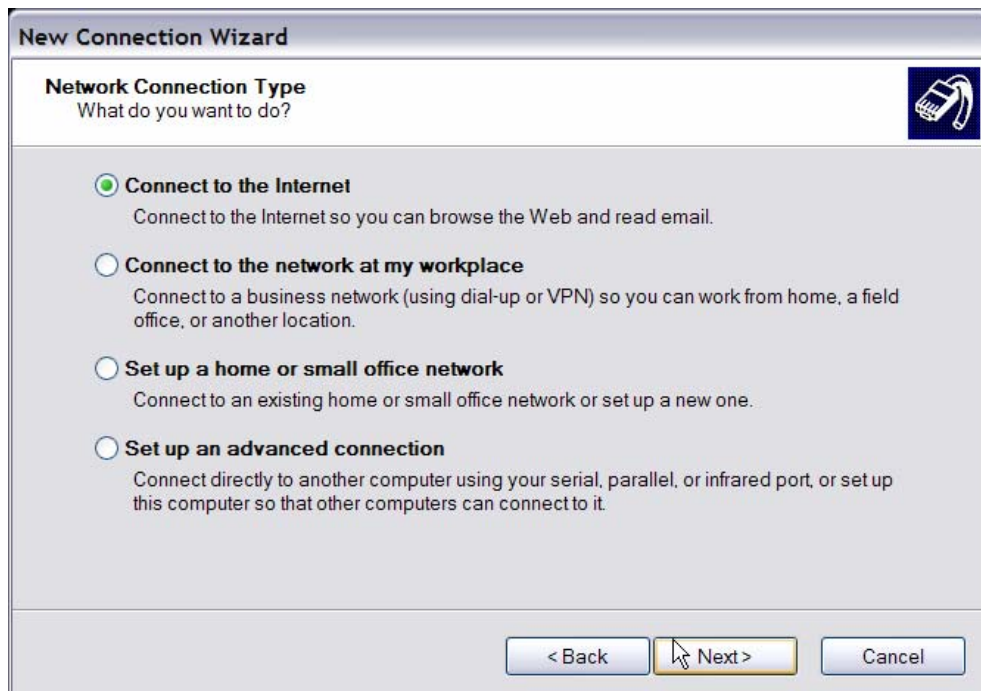
- Connect an USB modem to the USB socket and connect a working phone line to the modem.
- Press MENU and input correct username and password to access the OSD setup menu. Select <Network Setup> → <Modem Setup> → <Dial-in Setup> to set up the Dial-In settings, including Dial-in Account and password, etc.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

PC Configuration:

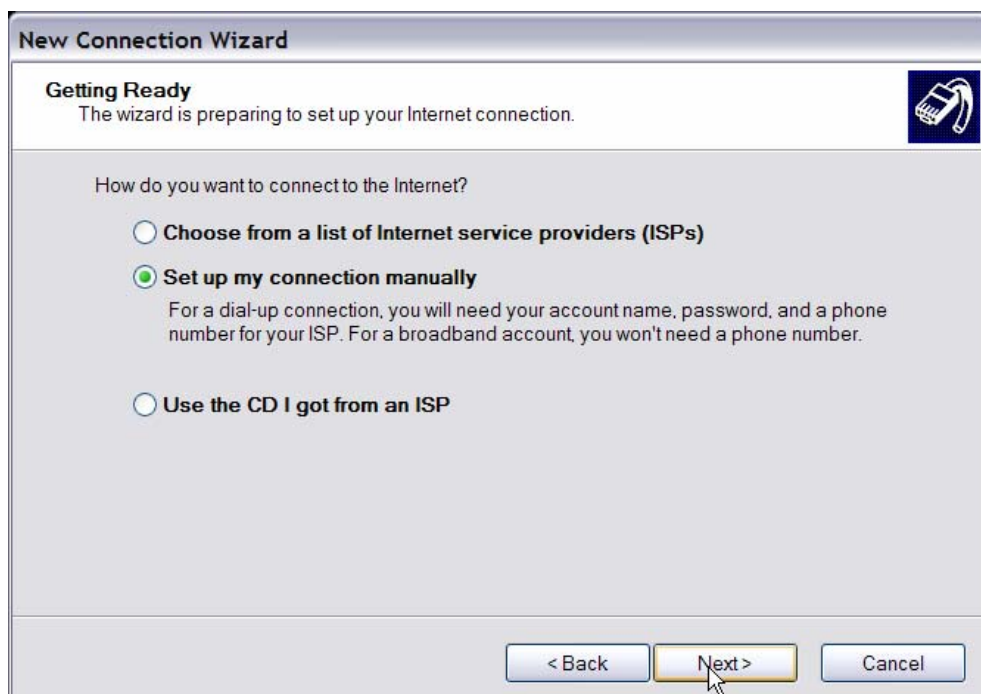
- Click <Start>, <My Network Places>, <View Network Connections> and then select <Create New Connection>. The New Connection Wizard is displayed. Click <Next> to continue.



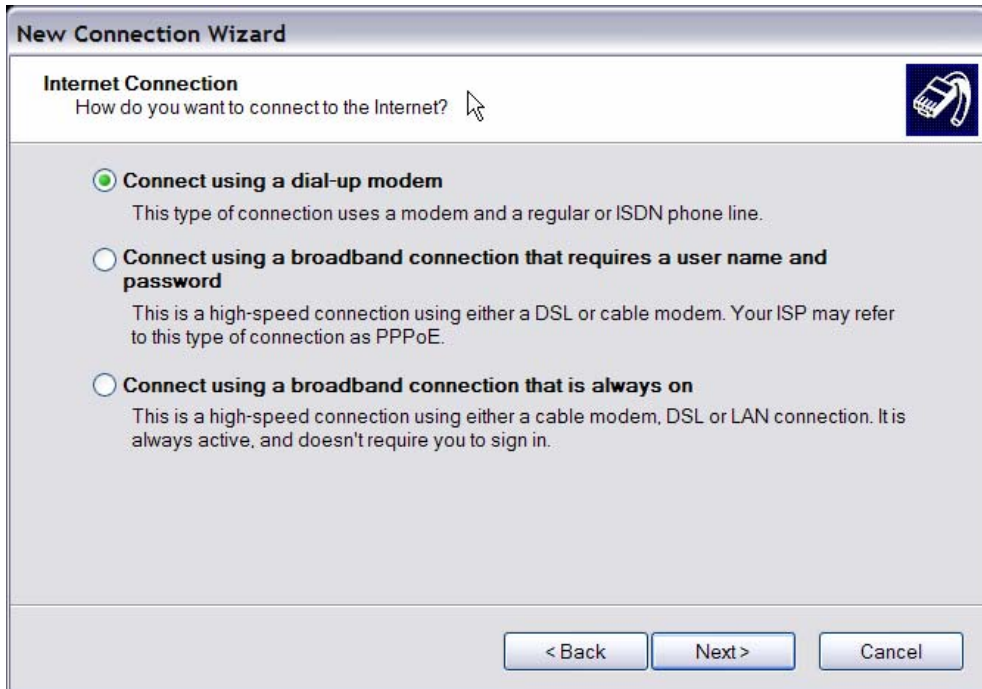
- Set up the network connection type. Select <Connect to the Internet> and click <Next> to continue.



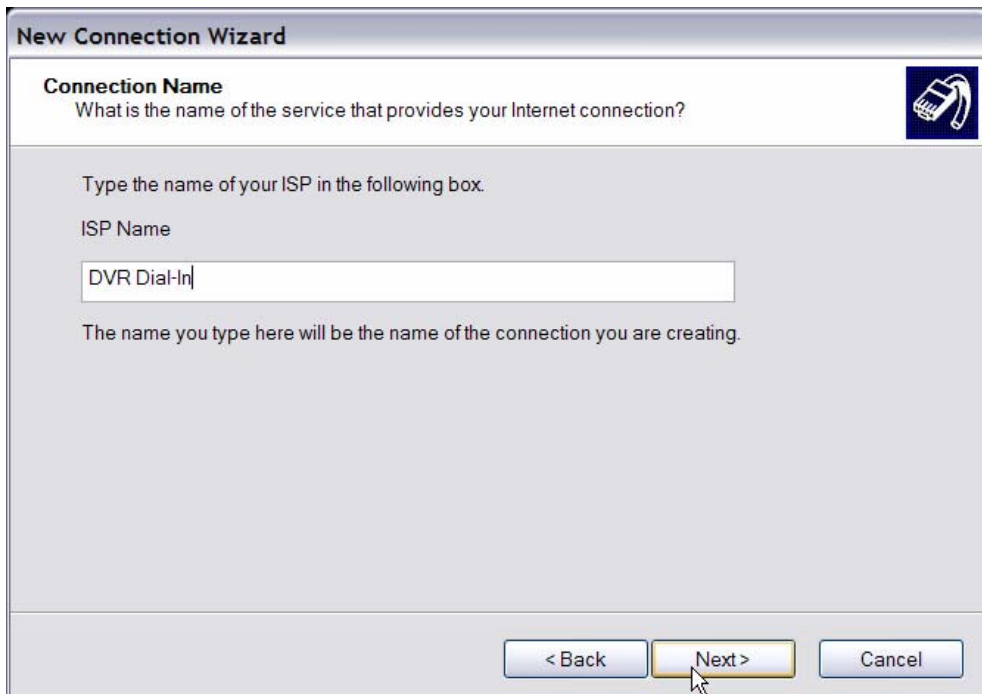
- Select <Set up my connection manually> and click <Next> to continue.



- 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 you are creating.



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



New Connection Wizard

Phone Number to Dial
What is your ISP's phone number?

Type the phone number below.

Phone number:
****|

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.

< Back Next > Cancel

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



New Connection Wizard

Internet Account Information
You will need an account name and password to sign in to your Internet account.

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.)

User name:

Password:

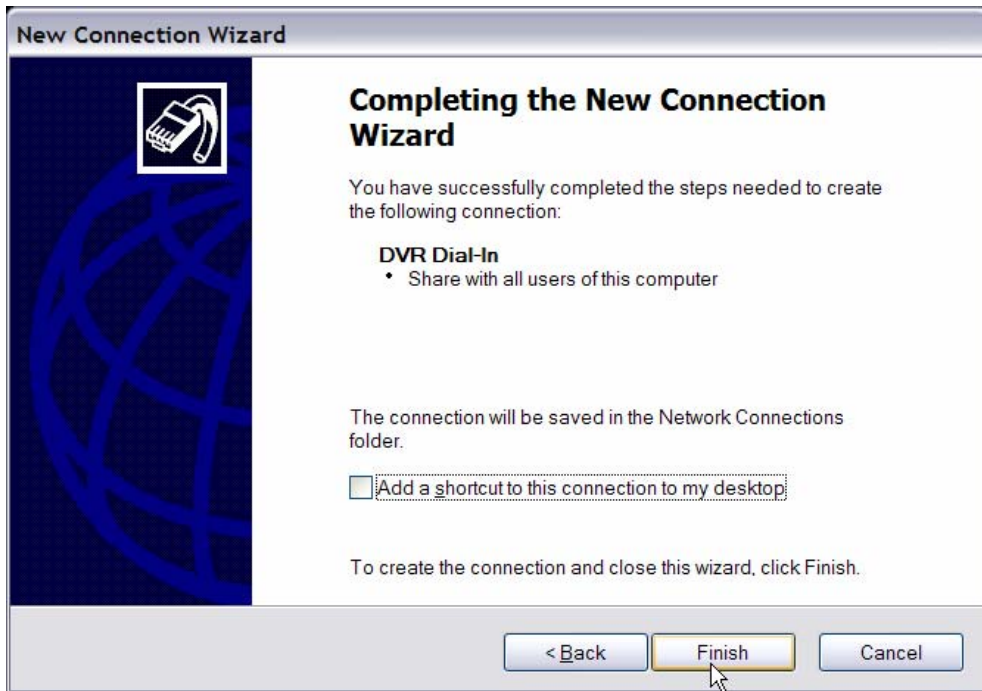
Confirm password:

Use this account name and password when anyone connects to the Internet from this computer

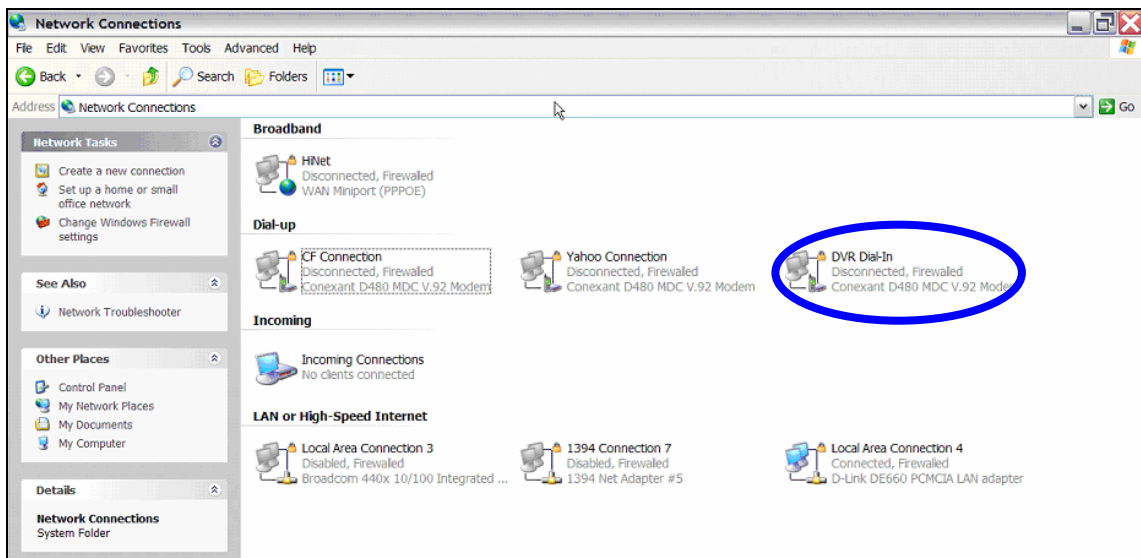
Make this the default Internet connection

< Back Next > 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 your DVR and PC.

DVR Configuration:

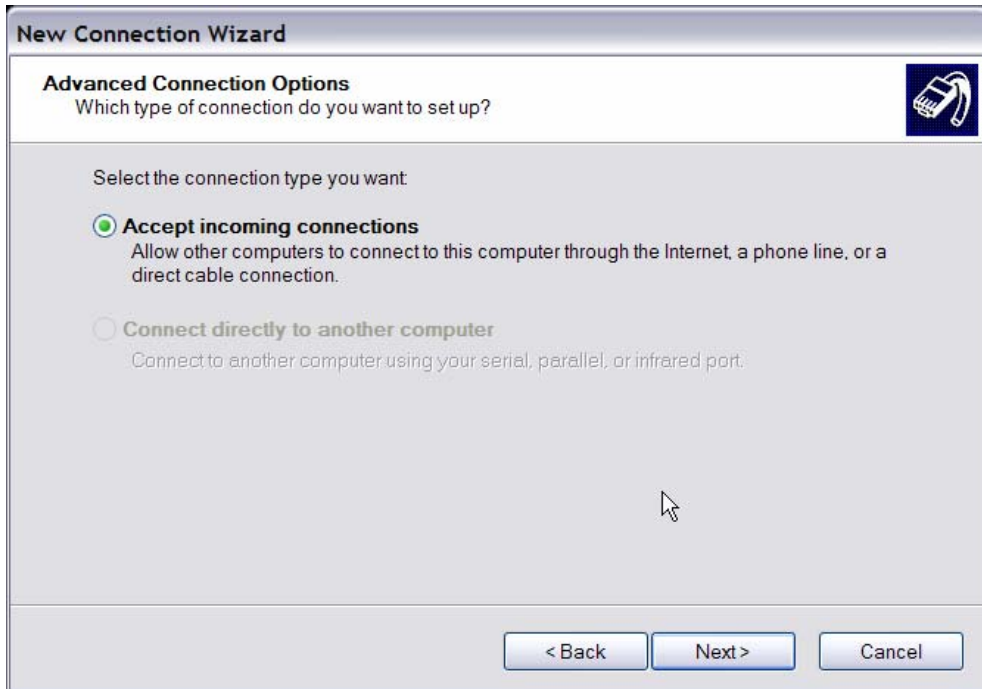
- Connect an USB modem to the USB port and connect a working phone line to the modem.
- Press MENU and input correct username and password to access the OSD setup menu. Select <Network Setup> → <Modem Setup> → <Dial-out Setup> to set up the Dial-out settings.
- Select the <Email Address> in Network Setup 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:

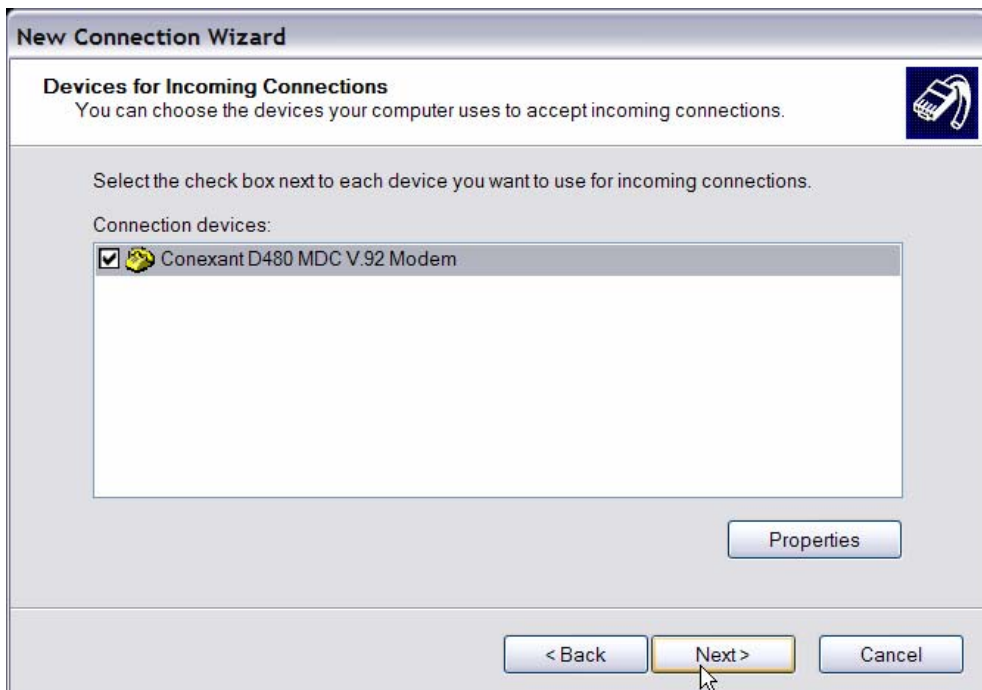
- Click <Start>, <My Network Places>, <View Network Connections> and then select <Create New Connection>. The New Connection Wizard is displayed. Click <Next> to continue.



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



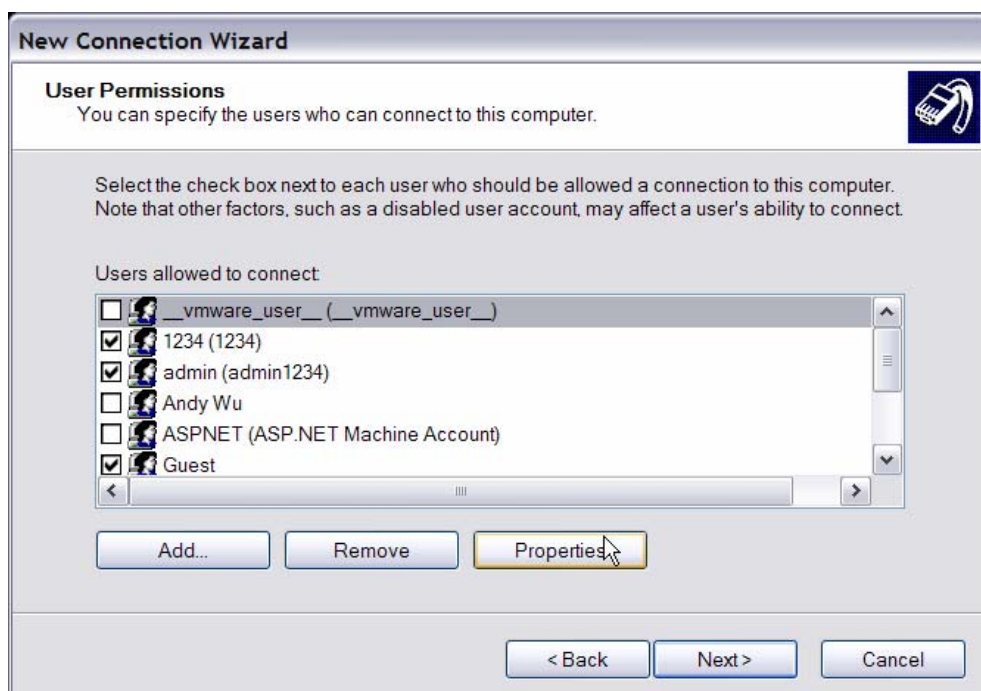
- Choose the modem device that will be used by the PC and click <Next>.



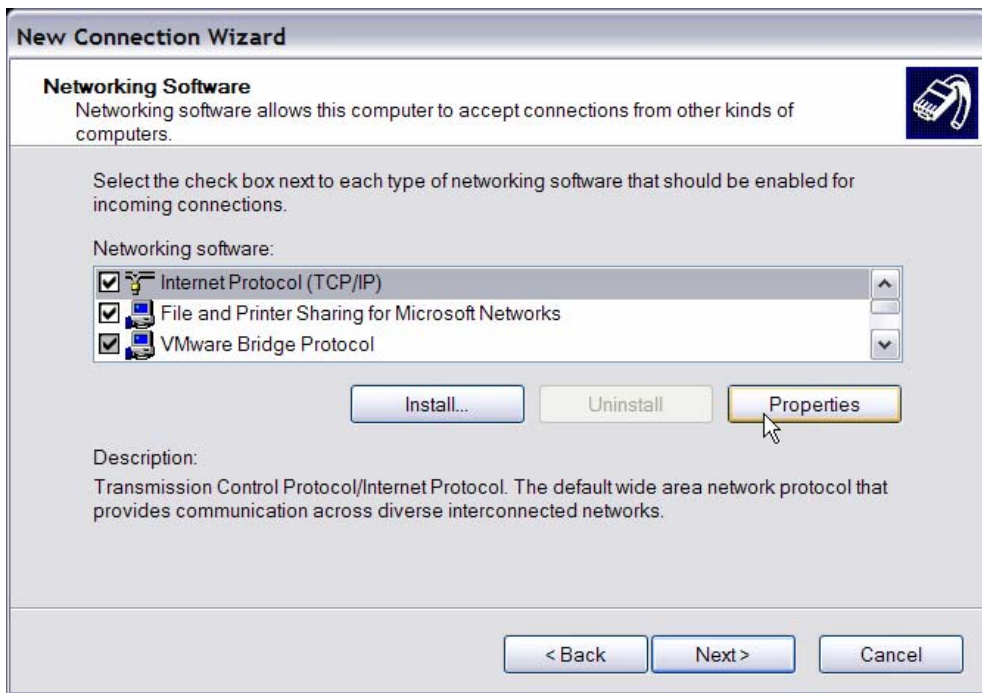
- In Incoming VPN Connection menu, choose <Do Not allow virtual private connections> and click on <Next>.



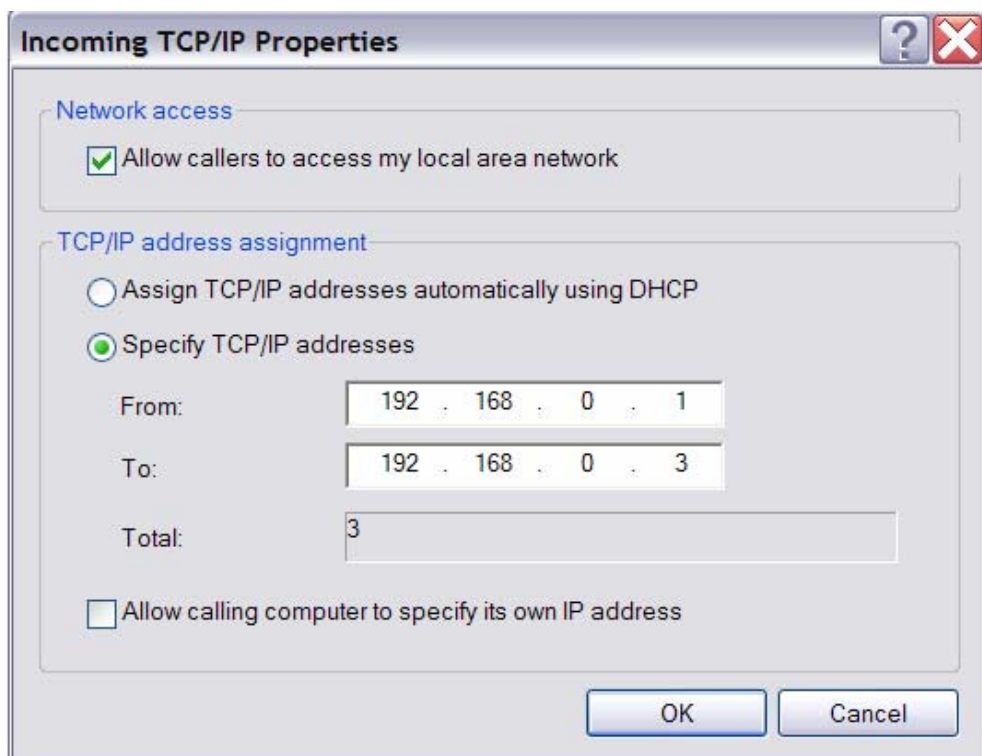
- In User Permission menu, select the users who need to use this connection. If needed, add a new user with the same user password that is set up in Dial-out Setup menu in local DVR. When it's done, click <Next> to continue.



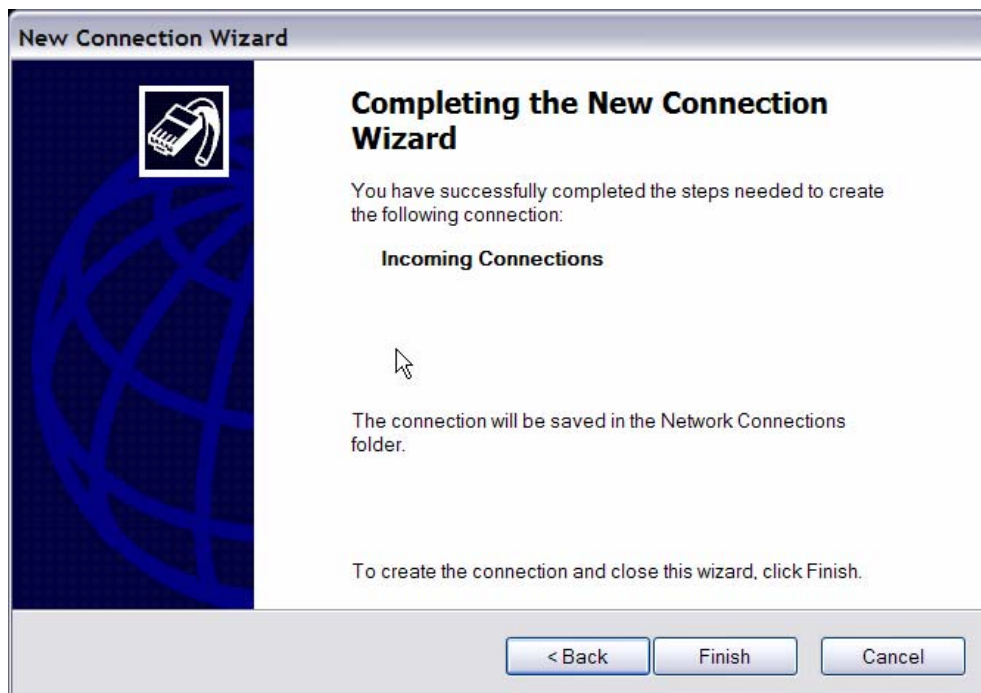
- In Networking Software menu, select <TCP/IP> and click on <Properties>.



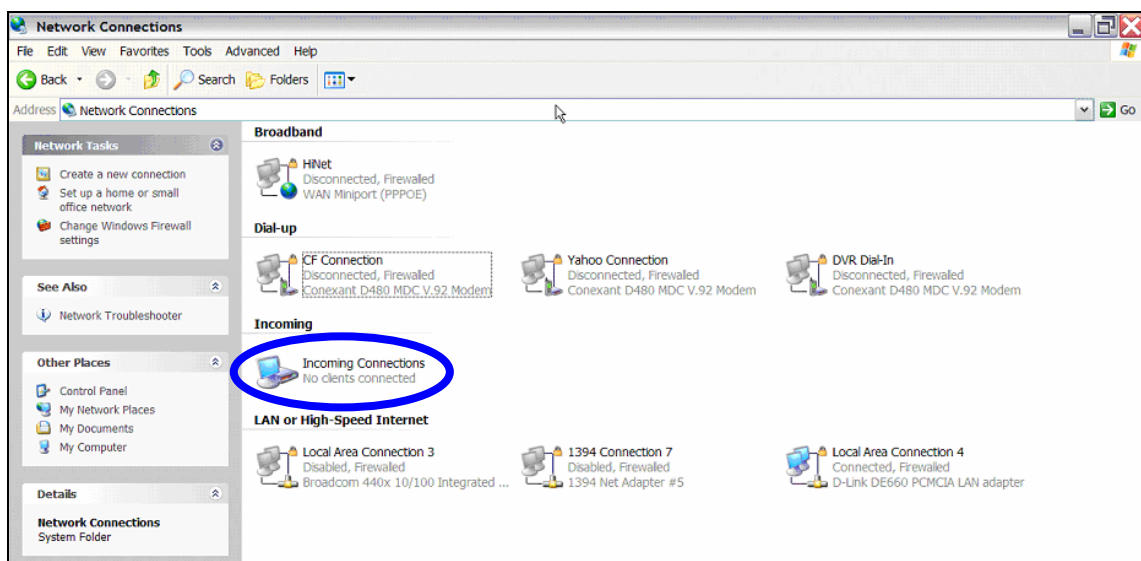
- In TCP/IP address assignment, if the PC has DHCP server, then choose <Assign TCP/IP addresses automatically using DHCP>, else choose <Specify TCP/IP addresses> and enter the range of IP addresses that you wish to use. Once done, click <OK> to confirm and back to Networking Software menu. Click on 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



- Click <Finish> to complete the process.



- The Incoming connection is established.



Appendix C: DVR Player

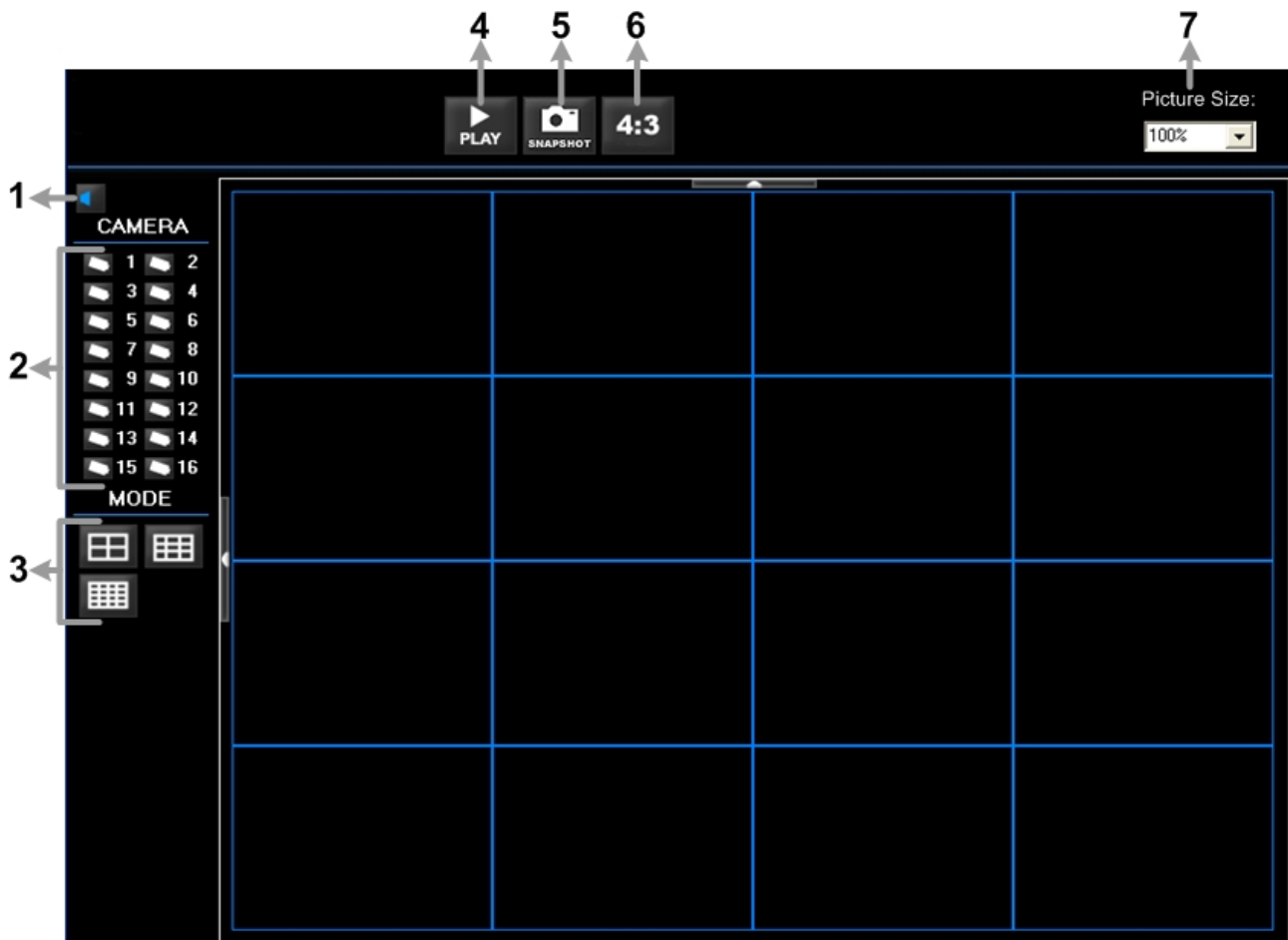
DVR**Player** is a software that enables users to playback the *.drv files recorded by the DVRs at a PC site.



NOTE: The DVR**Player** ONLY accepts and playback *.drv files.

First, connect to the DVR via DVR**Remote** and download the DVR**Player**.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 DVR**Player** will show up as below.

The main window of the DVR**Player** 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.

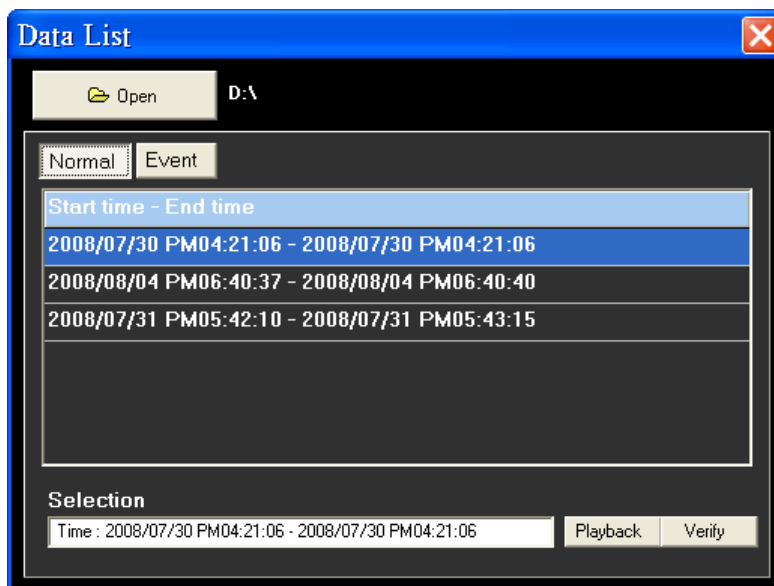


The functional items are:

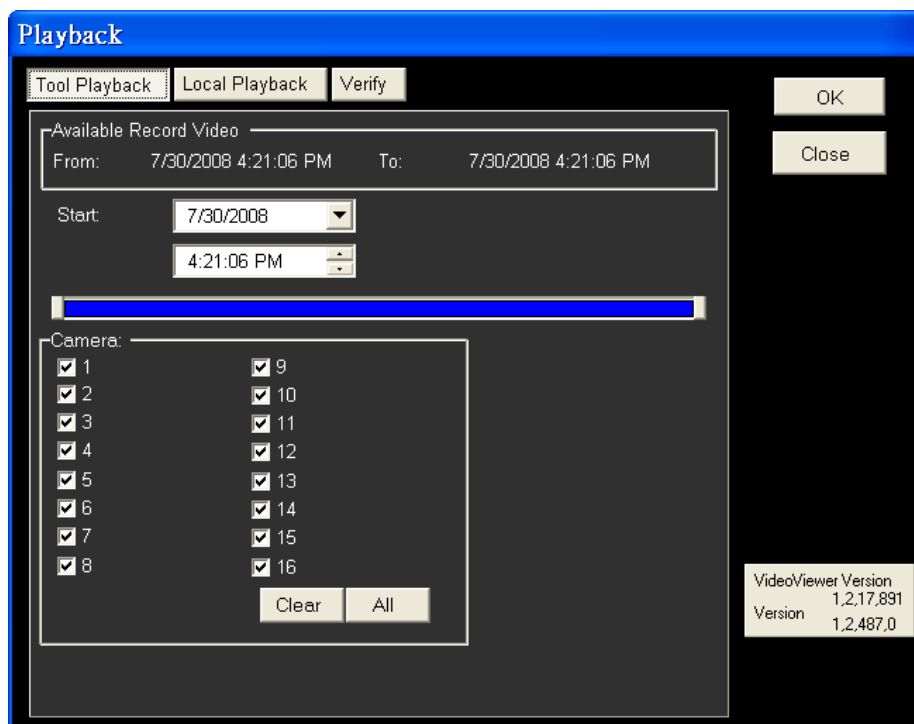
1	Audio On/Off	5	Capture Snapshot
2	Camera Selection	6	Change Viewing Aspect to 4:3
3	Mode Selection	7	Change Picture Size
4	Play Recorded *.drv Files		

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:



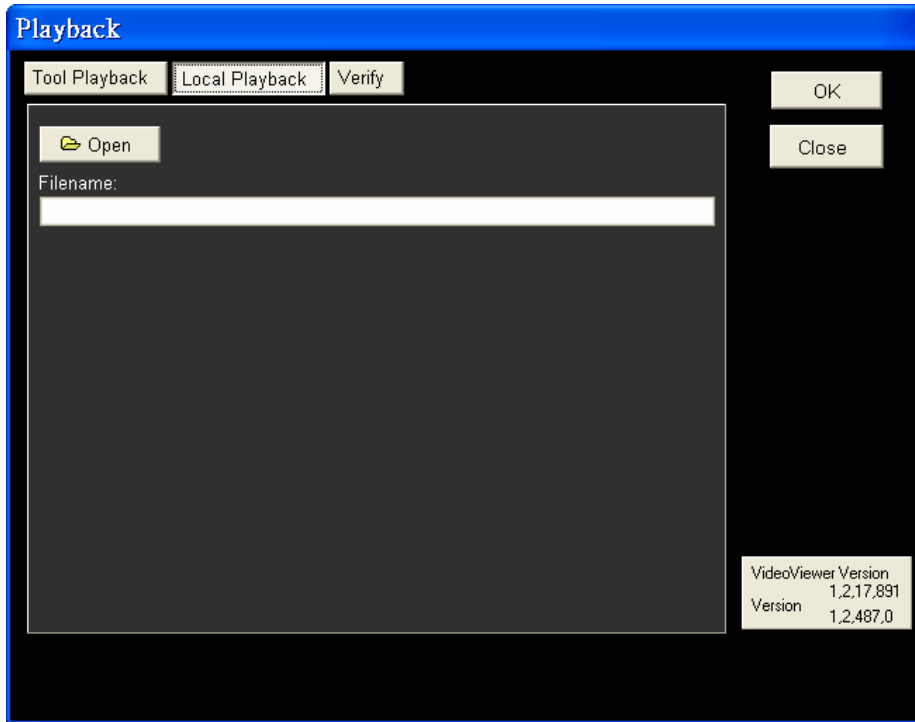
The “Data List” shows all recorded videos, “Normal” and “Event” separately, that are stored in the destination folder appeared at the top. Note that users can also click <Open> on the top to select a different folder which contains recorded videos. Select one from the list and click <Playback> at the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



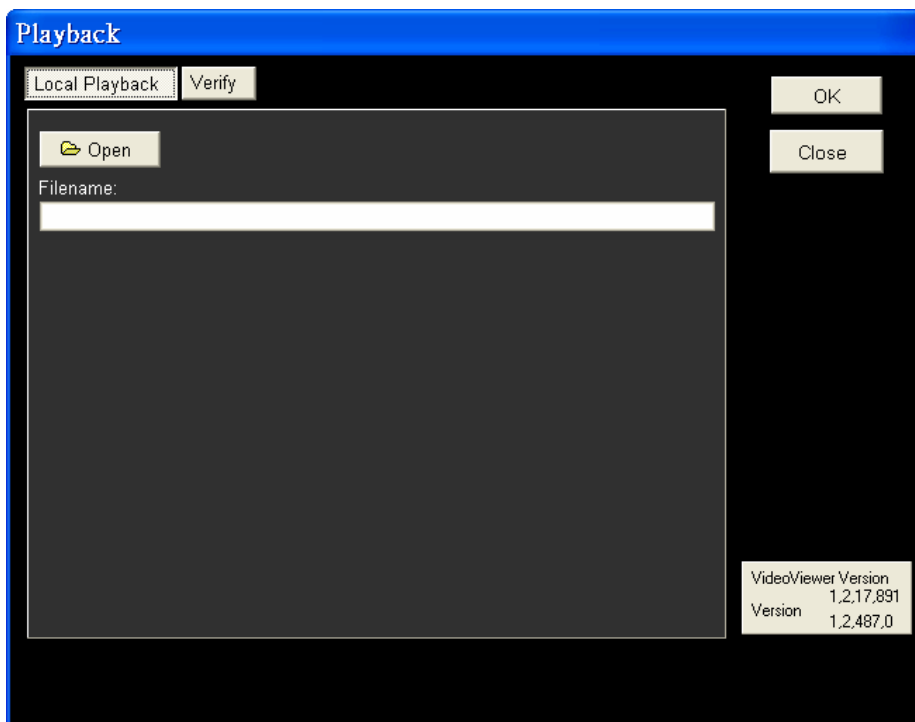
In the <Tool Playback> tab, users can set starting time and displaying cameras of the selected video. Then click <OK> on the upper right-hand corner of the window to start playback the video with selected starting time and displaying camera on the main window.

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.



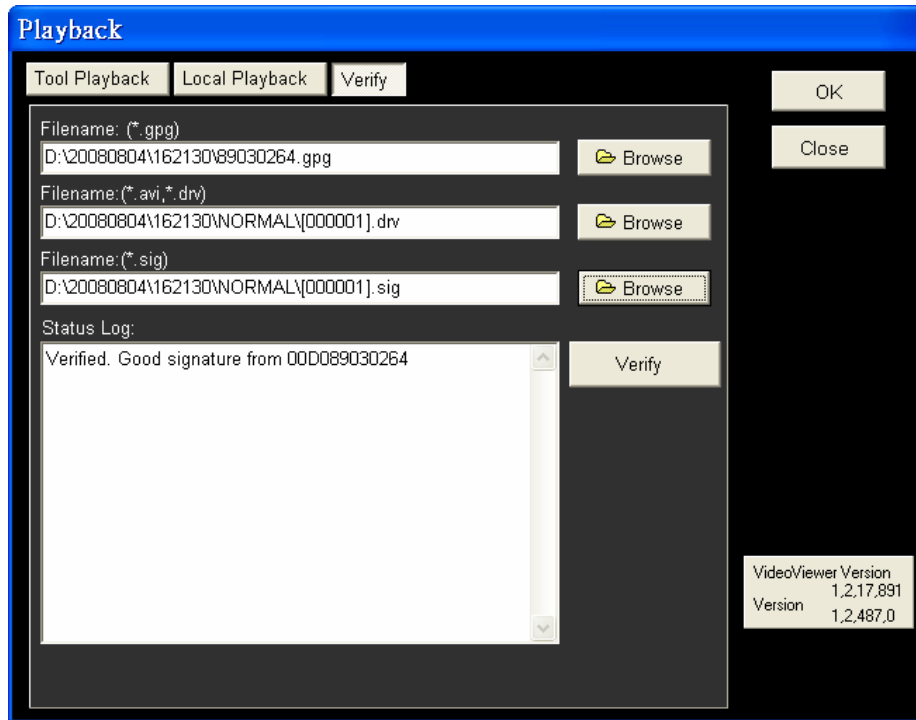
Note: If users click the close button at the top-right corner of the “Data List” window, the following “Playback” window with <Local Playback> tab and <Verify> tab only. The function of <Verify> tab will be described on the next page.



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.

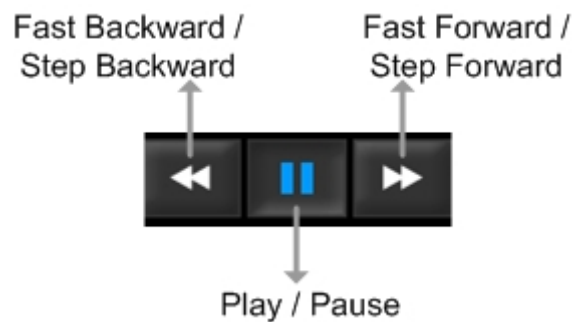
- Select any video from the Data List and click <Verify> at the bottom, then the “Playback” window will be displayed returning a GOOD or BAD signature result in the <Status Log> field. A GOOD signature indicates the exported clip has not been altered, whereas a BAD signature means the video might be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



- Alternatively, click <Browse> to select the *.gpg, *.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@30PPS

PAL:720x576@25PPS

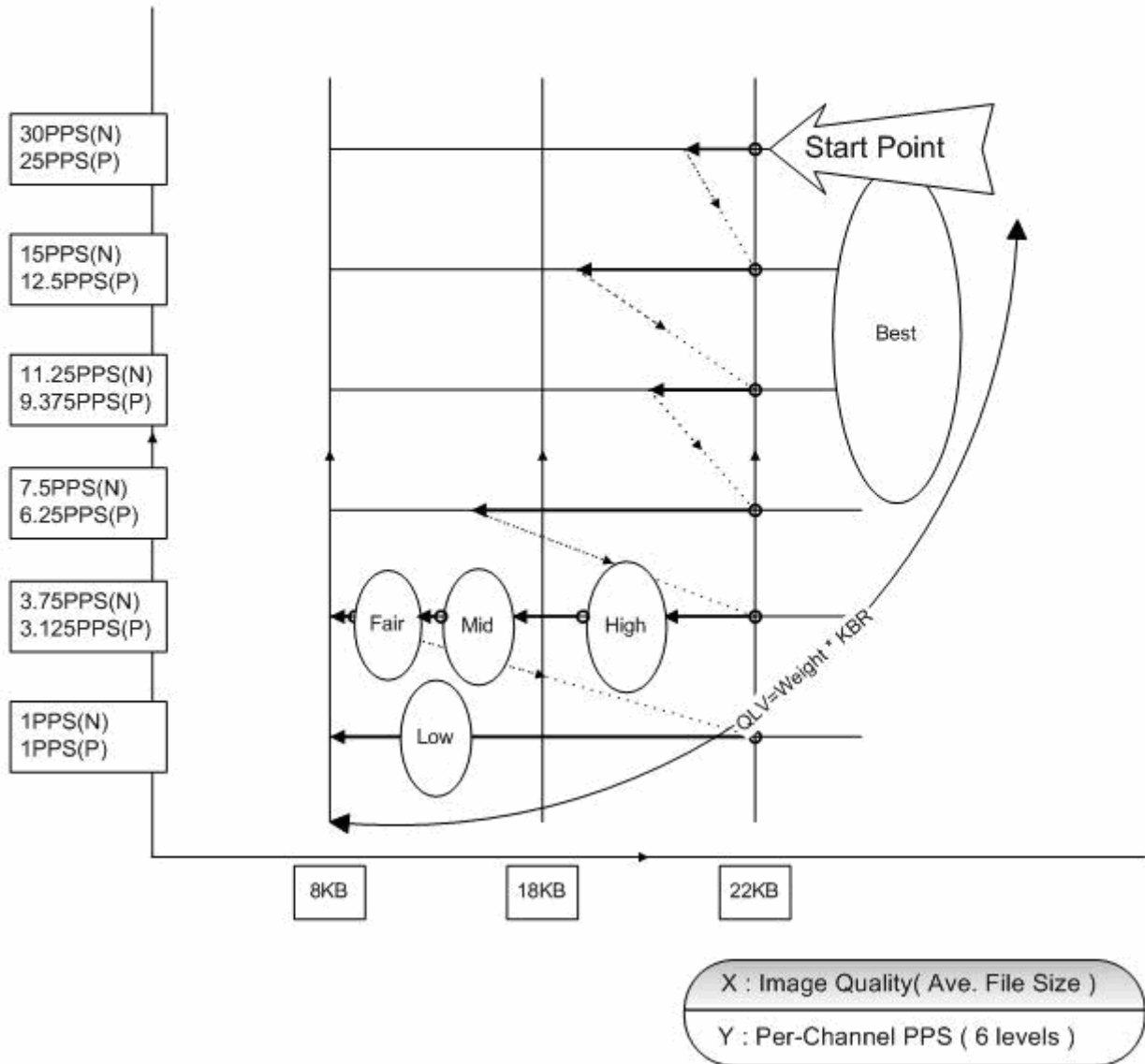


Diagram Sample(Half-D1)

NTSC:720x240@60PPS

PAL:720x288@50PPS

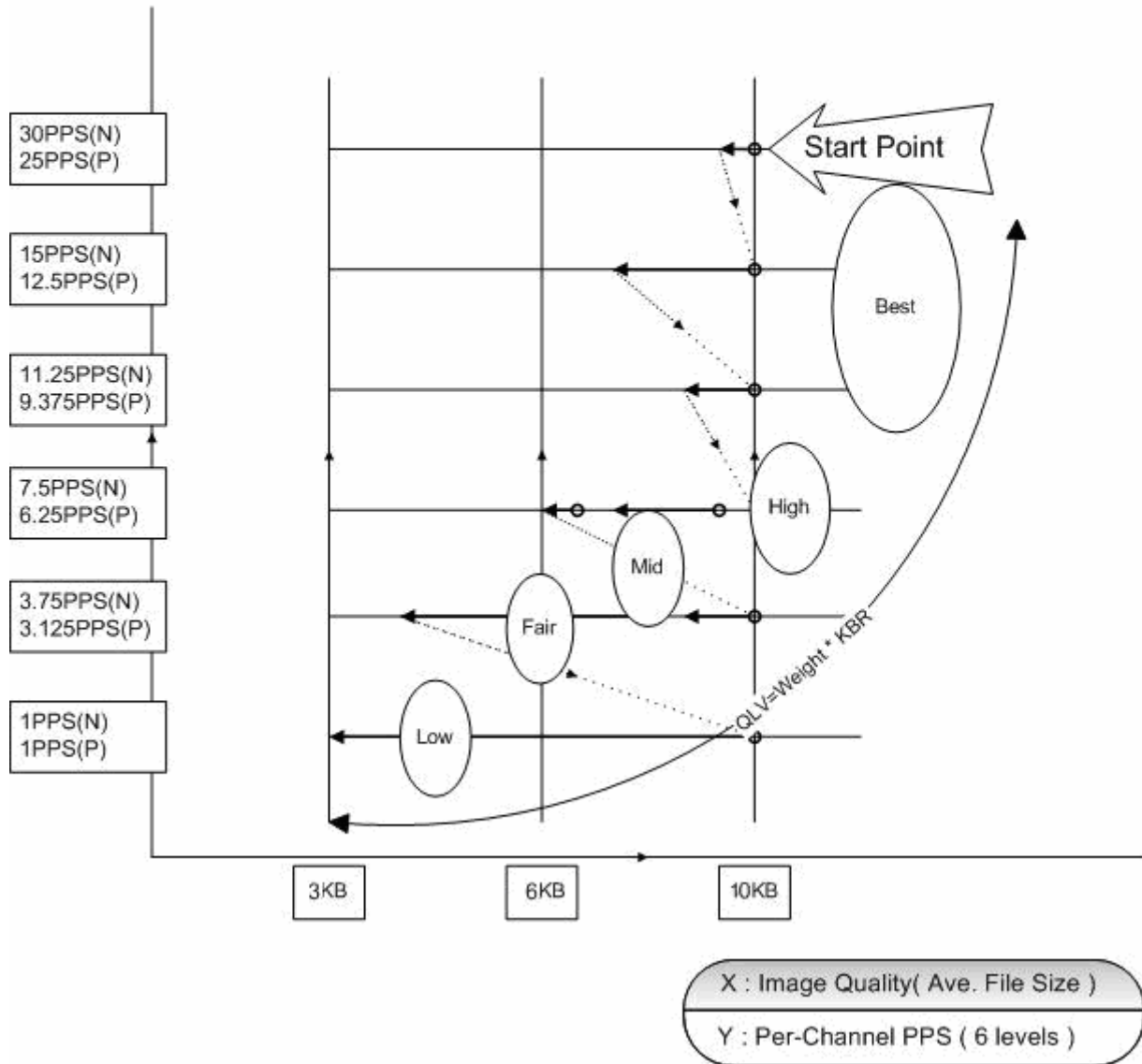
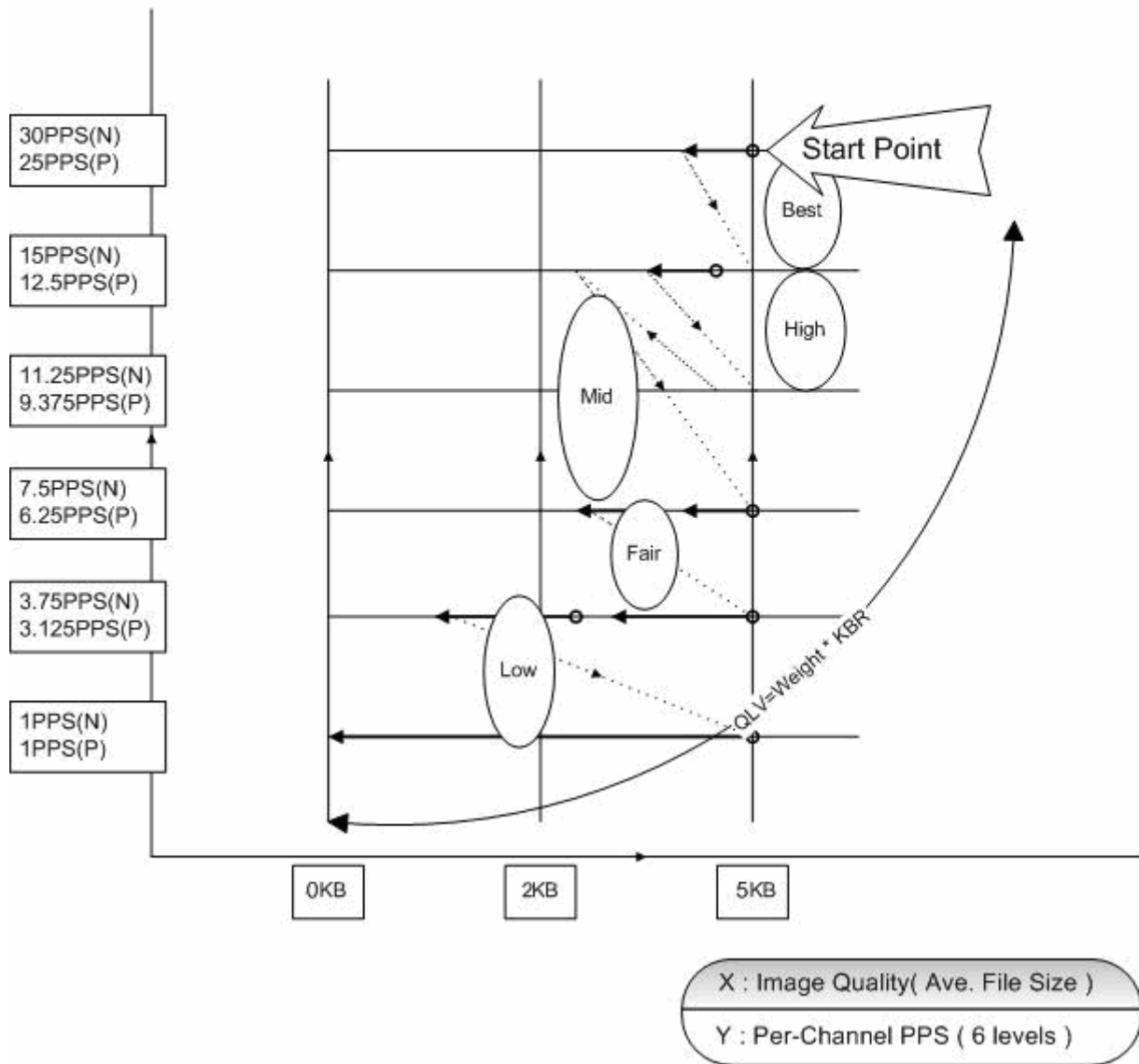


Diagram Sample(CIF)

NTSC:360x240@120PPS

PAL:360x288@100PPS



Appendix E: HDD COPY TOOL (EXT2IFS)

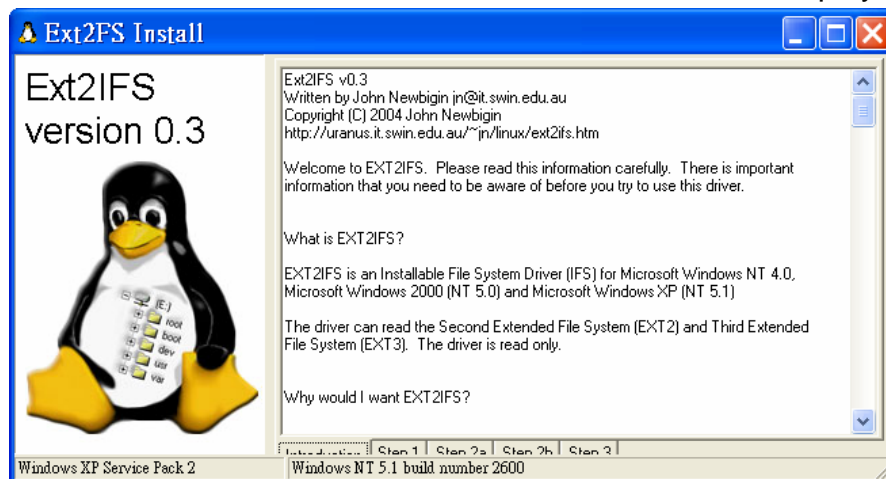
The data system of the DVR's HDD is totally different from Windows® based PC. So if users just simply plug the HDD onto the PC, the PC will not recognize its existence. Hence, in order to access data from the DVR's HDD, users will need a special HDD Copy Tool driver called EXT2IFS. This appendix section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

Installation of the DVR's HDD

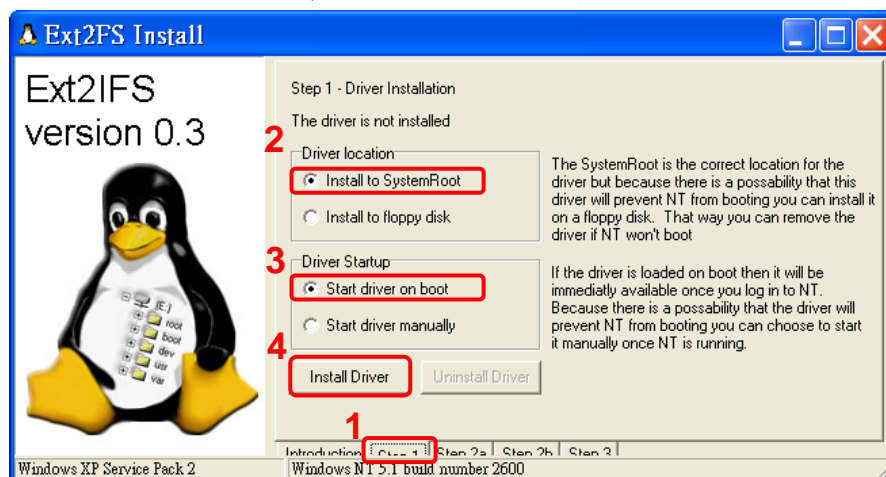
EXT2IFS can be found on the website: <http://uranus.it.swin.edu.au/~jn/linux/ext2ifs.htm>. A detailed description about the driver can also be found. Plug in the DVR's HDD to the PC, then follow the steps below.

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

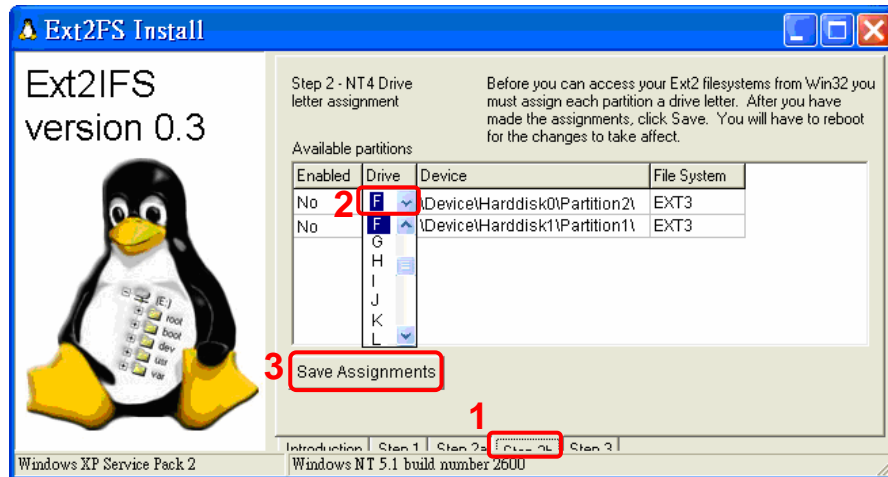
Step 2. Extract the EXT2IFS driver that was just downloaded. Open the extracted folder and double click on "service.exe", and the window below will be displayed.



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. You 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.

