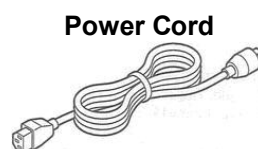
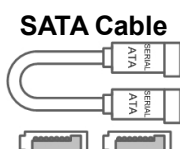
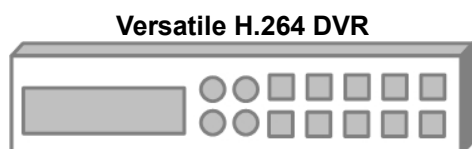


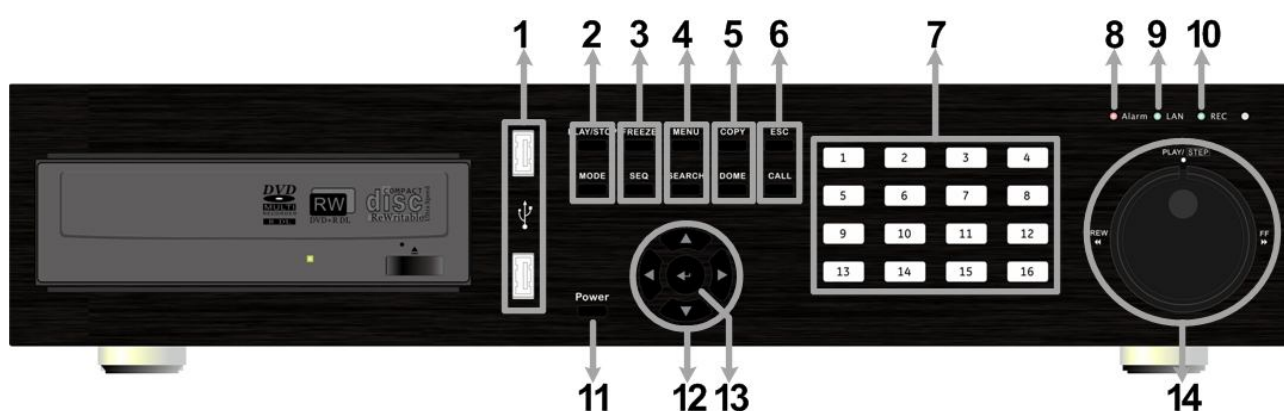
Versatile H.264 DVR Setup Guide

Package Content

Inspect the packaging carton. Make sure the **Versatile H.264 DVR** is properly delivered. Remove all items from the box and make sure the box contains the following items.



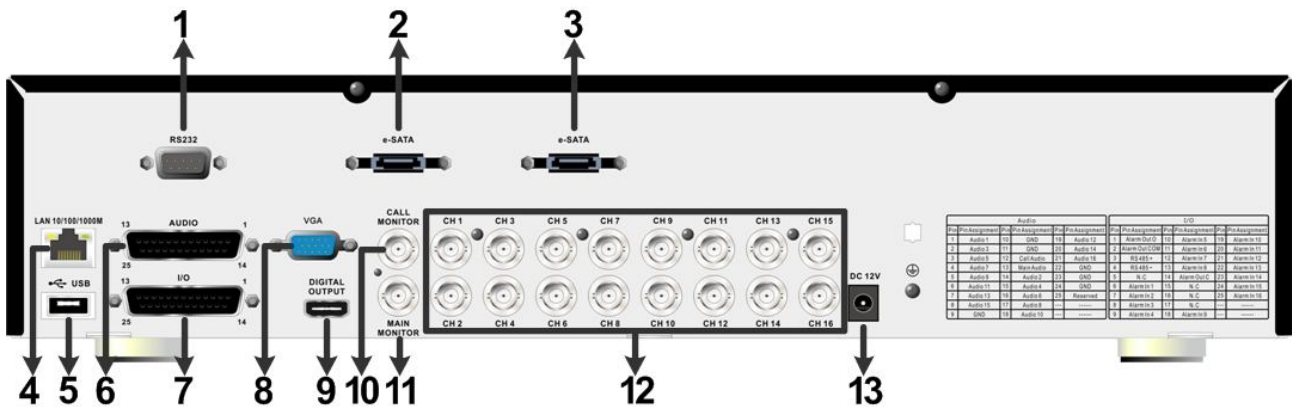
Front Panel



1	USB 2.0 Port	The USB 2.0 port allows users to connect an external USB device to the unit, such as a USB ThumbDrive or a USB mouse.
2	PLAY/STOP	Press once to start the playback of recorded video. Press again to exit.
	MODE	Press this key to view in full-screen or multiple window modes.
3	FREEZE	Press this key to freeze the current viewing screen.
	SEQUENCE	Press this key to start automatic sequence display of cameras.
4	MENU	Press this key to enter the OSD setup menu.
	SEARCH	Press this key to search recorded video by date/time or event.
5	COPY	This key is used for marking time in quick video export function.
	DOME	Press this key to enter Dome Camera Control mode.
6	ESC	Press this key to cancel or exit from certain control mode.
	CALL	Press this key to enter Call Monitor Control mode.
7	Channels	<ol style="list-style-type: none"> In Live and Playback modes, press any key to view the corresponding video in full-screen. In input interface, 1~10 can be used for direct input of numbers 0~9. In Dome Camera Control mode, 1 is for entering the Set/ Go preset menu; 11~16 is for quick access of preset points 1~6.
8	Alarm LED	It lights up when an alarm is triggered.
9	Network LED	It lights up when network is connected. In addition, it blinks when data is being transmitted via the network.
10	Record LED	It blinks when videos are being recorded.

11	Power Key	Press and hold this key to trigger the quick shutdown function.
12	Direction Keys	1. In Zoom mode, these keys function as normal direction keys. 2. In the OSD setup menu, the direction keys are used to move the cursor to previous or next fields. To change the value in the selected field, press UP / DOWN keys.
13	ENTER	1. In OSD menu or selection interface, press these key to make the selection or save settings. 2. In live full-screen viewing mode, press this key to view a 2× zoom image; press it again to return.
14	Shuttle/ Jog	This is used to control playback operations.

Rear Panel



1	RS232	The RS232 communication port is for connection to a POS device.
2	e-SATA (for Record)	Users can connect an e-SATA storage device via this port to expend HDD capacity of the DVR.
3	e-SATA (for Export)	Users can connect an e-SATA storage device via this port to export recorded videos in the DVR.
4	LAN 10/100/1000M (RJ-45)	The DVR is capable of networking. Once the unit is connected to the LAN network, users can remotely access the DVR through the remote software on a PC.
5	USB Port	This USB port allows users to connect a USB mouse with PS/2 protocol.
6	Audio	A D-Sub Audio connector is provided for the DVR to connect audio source devices and Main/Call monitors audio output devices.
7	Alarm I/O & RS-485	The DVR provides alarm I/O and RS485 ports that offer users the flexibility required to connect the DVR to other devices.
8	Main Monitor - VGA	The DVR can connect a VGA monitor via the VGA connector.
9	Main Monitor - Digital Output	The DVR can connect to a Digital Output monitor via an optional Digital Output connector.
10	Call Monitor (BNC)	The call monitor is used to display full screen video of all installed cameras in sequence. The BNC Call Monitor connector allows users to connect the DVR with an optional call monitor.
11	Main Monitor - BNC	The DVR can connect to a monitor via a BNC connector.
12	Video In (BNC)	A group of BNC connectors is provided for video input streams from installed cameras.
13	Power Jack	The DVR has a 12V DC power connection jack. Please connect the power supply adapter shipped with the unit.

Pin Definition of Alarm I/O & RS-485, and Audio In/Out

Audio:

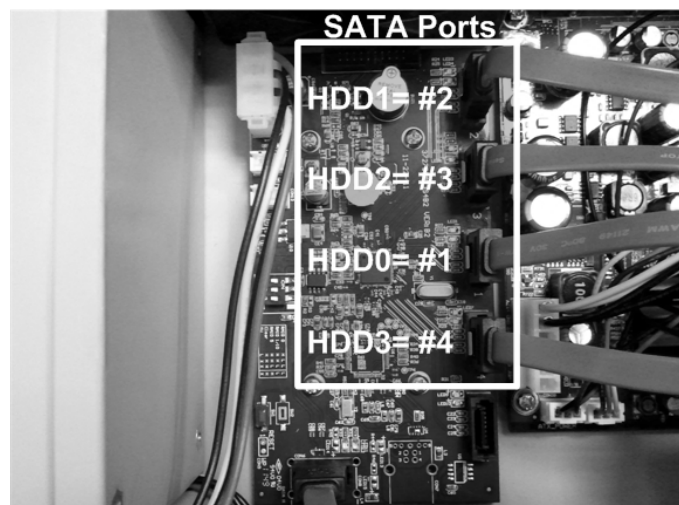
Pin	Definition	Pin	Definition	Pin	Definition
1	Audio In 1	10	GND	19	Audio In 12 (16CH only)
2	Audio In 3	11	GND	20	Audio In 14 (16CH only)
3	Audio In 5 (8CH & 16CH)	12	Call Audio Out	21	Audio In 16 (16CH only)
4	Audio In 7 (8CH & 16CH)	13	Main Audio Out	22	GND
5	Audio In 9 (16CH only)	14	Audio In 2	23	GND
6	Audio In 11 (16CH only)	15	Audio In 4	24	GND
7	Audio In 13 (16CH only)	16	Audio In 6 (8CH & 16CH)	25	Reserved
8	Audio In 15 (16CH only)	17	Audio In 8 (8CH & 16CH)		
9	GND	18	Audio In 10 (16CH only)		

Alarm I/O & RS-485:

Pin	Definition	Pin	Definition	Pin	Definition
1	Alarm Out Open	10	Alarm In 5 (8CH & 16CH)	19	Alarm In 10 (16CH only)
2	Alarm Out COM	11	Alarm In 6 (8CH & 16CH)	20	Alarm In 11 (16CH only)
3	RS485 D+	12	Alarm In 7 (8CH & 16CH)	21	Alarm In 12 (16CH only)
4	RS485 D-	13	Alarm In 8 (8CH & 16CH)	22	Alarm In 13 (16CH only)
5	Reserved	14	Alarm Out Close	23	Alarm In 14 (16CH only)
6	Alarm In 1	15	Reserved	24	Alarm In 15 (16CH only)
7	Alarm In 2	16	Reserved	25	Alarm In 16 (16CH only)
8	Alarm In 3	17	Reserved		
9	Alarm In 4	18	Alarm In 9 (16CH only)		

Install HDDs

Users can install up to 4 HDDs to create a preferred RAID disk type. Note the SATA port numbers on the SATA board (as shown in below figure) are linked to the indication numbers in the OSD menu. The installed HDDs must be the same storage capacity, and it is strongly recommended to use HDDs of the same model. Please refer to the following steps to install HDDs into the DVR.



NOTE: Please avoid using Seagate SV35 series and WD AVGP series HDDs.

- Release the screws and remove the cover of the **Versatile H.264 DVR**.
- First fix the HDDs onto the mounting kits. Then connect the power and SATA cables to the HDDs and fix the HDDs onto the bottom of the DVR.
- Connect the SATA cables to the SATA ports on the SATA board.
- Put the cover back to the DVR and connect the power cord and required equipments.

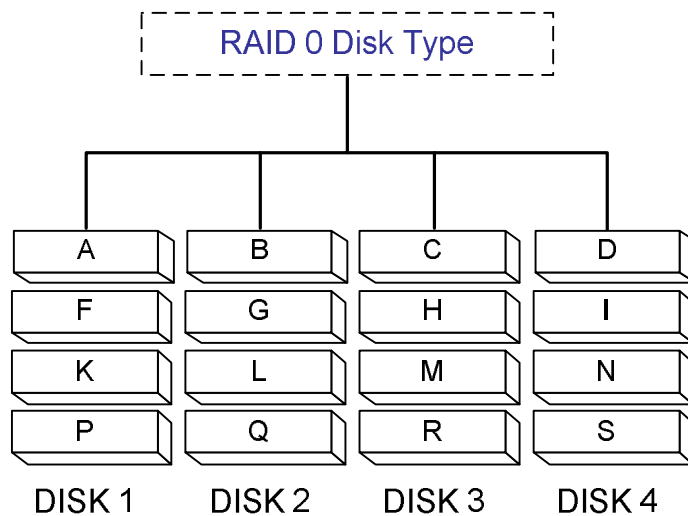
For users who are not familiar with RAID disk types, please read the next section about facts of different RAID disk types BEFORE creating the RAID disk in the DVR.

RAID Disk Types

RAID, the acronym for Redundant Array of Independent Disks, is a data storage scheme that stores data dispersedly in multiple disks to prevent data loss. The DVR provides three different types of RAID disks: RAID 0, RAID 1, and RAID 10. Refer to the description listed below, users can choose their preferred RAID disk types.

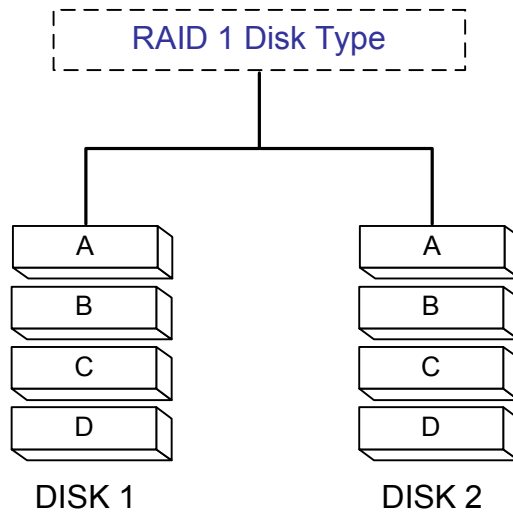
RAID 0:

Data in RAID 0 will be separately stored in a minimum of 2 different disks. This helps to increase writing speed. The order of how data blocks are stored is illustrated as below. RAID 0 is not fault tolerable. Just ONE disk failure in ANY disk of the array will destroy everything in the database.



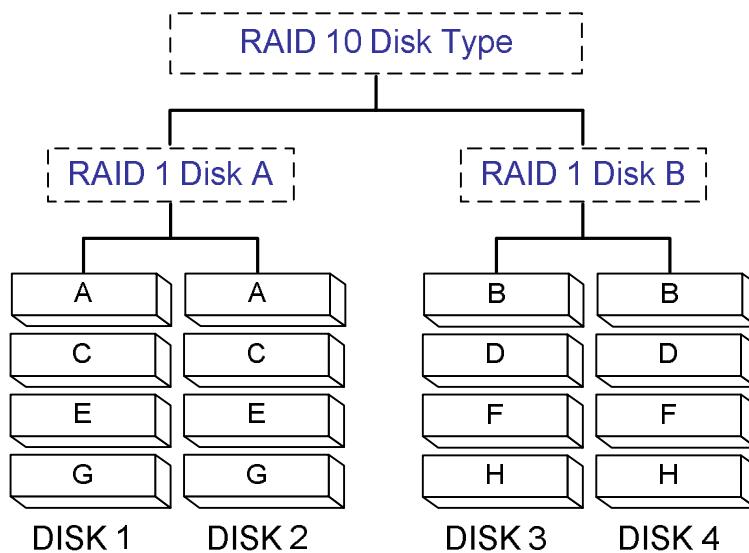
RAID 1:

RAID 1 enables the DVR to store data in 1 disk drive and make copies of the stored data to the other installed disk drive. RAID 1 requires two disks, and it is fully fault tolerable.



RAID 10:

RAID 10 is a combination of two RAID 1 disks, which splits data into two parts to increase data writing speed and in the mean time creates backups for each part. For example, 4 HDDs are connected to create two RAID 1 disks **A** & **B**, which will split data into two parts. RAID 1 disk **A** will store half of the video data to DISK 1 and mirroring to DISK 2. In the mean time, RAID 1 disk **B** will store the other half of the video data to DISK 3 and mirroring to DISK 4. Hence, RAID 10 disk will handle video faster than RAID 1 disk.



NOTE: Due to the characteristics of RAID 10 disk types, users must install 4 HDDs to create RAID 10 disk type.

Power On the DVR

Please follow the proper power on procedures to avoid damaging the DVR.

- Connect all necessary components, e.g. monitor and cameras, before power on the DVR.
- Check the type of power source before connecting the power adaptor to the DVR. The acceptable power input is between AC110V ~ AC240V.

Select Viewing Mode:

- Press **MODE** repeatedly to select the wanted display mode. The available viewing modes are full-screen, 2×2, 3×3, and 4×4 split-window.
- Press **FREEZE** to pause the current viewing image.

Create RAID Disk

Follow steps below to enter the OSD main menu and create RAID disk of the **Versatile H.264 DVR**.

Enter OSD Main Menu:

- Press **MENU** to enter the OSD main menu.
- Select the administrator account “**admin**” to login. Enter the preset password “**1234**”.
- It is strongly suggested to change the password to prevent unauthorized access.

Create RAID Disk:

- Go to <**Database Setup**> → <**Internal Disks**>, a new HDD will be listed because the RAID disk is not created yet. Move the cursor to the new HDD and press **ENTER**. Select <**Remove**> under the <**Action**> column so that it can be eliminated from current database.
- Go to <**Database Setup**> → <**RAID Disks**>, press **ENTER** at any displayed HDD and choose a preferred RAID disk type under the <**Action**> column.
- The DVR will reboot and start to format the HDDs after boot up.
- After the HDDs are formatted, the DVR will automatically add the created RAID disk to the database. Go to <**Database Setup**> → <**Internal Disks**> to confirm the RAID disk is created and added to the database.

Basic Setup

After RAID disk of the DVR is created, setup some basic configuration of the DVR. The basic configuration can be set via either the DVR or **DVRRemote**, the remote software.

Date / Time Setting:

Follow steps below to setup date/time before the recording starts. Refer to the User's Manual for advanced setup of Time Sync function.

- Select **<Date/Time>** in System Setup menu.
- Select the date and time using **LEFT/RIGHT** keys; then adjust the value using **UP/DOWN** keys.
- The new date and time settings take effect after the changes are confirmed.

Language Setting:

If users wish to change language of the DVR system, follow the steps below.

- Select **<Language>** in System Setup menu and press **ENTER**.
- Press the **UP/DOWN** keys to select the desired language.

Network Setup

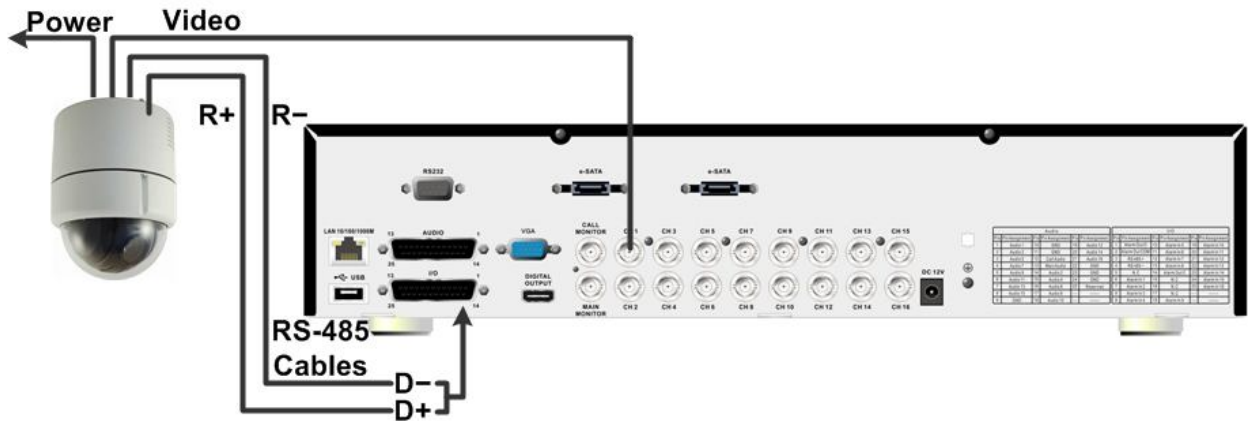
Configure the LAN setup for the DVR to properly function with Ethernet connection.

- From OSD main menu, select **<System Setup>** → **<Network Setup>**, set the **<LAN Select>** item to **<LAN>** or **<PPPoE>** according to the network application, and enter **<LAN Setup>**.
- For DHCP user, set the DHCP to **<ON>**. The IP address, Netmask, Gateway and DNS settings are retrieved from network servers. DHCP is dynamic that the settings change from time to time.
- For Non-DHCP user, set the DHCP to **<OFF>**. Enter an IP address, Netmask, Gateway, and DNS settings. Please obtain the information from the network service provider.
- To change the IP address, Netmask, Gateway and DNS value, press **UP/DOWN** keys to move the cursor to the item. Use **LEFT/RIGHT** keys to access each section of the value and press **ENTER**, then change the value using **UP/DOWN** keys.
- PPPoE users must set the **<PPPoE Account>**, **<PPPoE Password>** and **<PPPoE Max Idle>** as well.
- When the settings are complete, press **ENTER** to confirm and save the settings; or **ESC** to abort.

Dome Camera Control

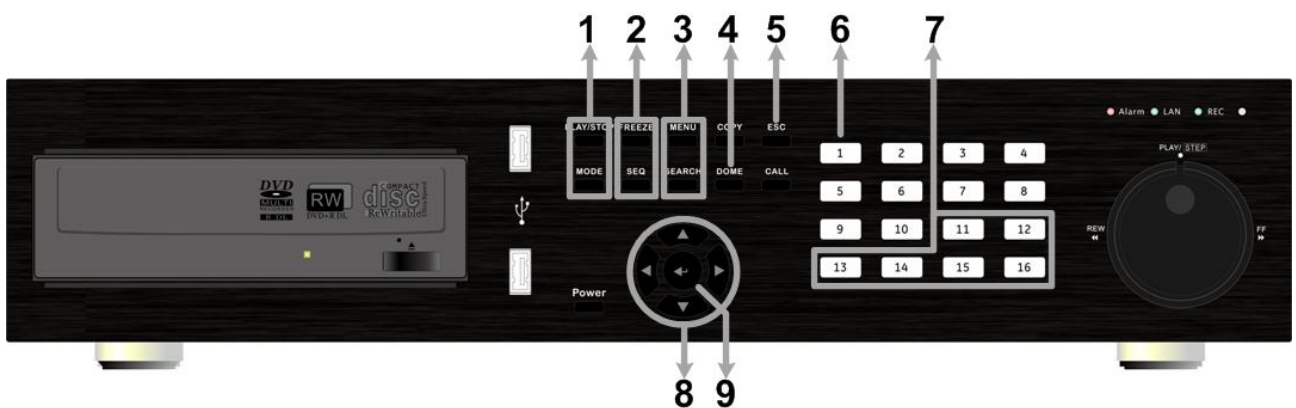
Dome Camera Connection & Settings:

- See section [Pin Definition of Alarm I/O & RS-485, and Audio In](#) for RS-485 port pin definition.
- Refer to the following figure. Connect the R+, R- terminals on the dome camera to the D+, D- terminals on the RS-485 port by RS-485 cables respectively.



- To set up dome camera's protocol and ID, press **MENU** to access the OSD main menu, and select **<Camera Setup>**. Then select **<Dome Protocol>** and choose the corresponding protocol. Next select **<Dome ID>** and choose a preferred ID number. Note that the ID number must match the ID address defined by the dome camera.
- To configure the RS-485 parameters, select **<System Setup>** from OSD main menu, and then select **<RS485 Setup>**. The default RS-485 settings are 9600 Baud, 8 Data Bits, 1 Stop Bit and No Parity.

Control Buttons in Dome Camera Control Mode:



1	Iris Close	3	Zoom In	6	Set / Go Preset
	Iris Open		Zoom Out	7	Go Presets 1~6
2	Focus Far	4	Enter Dome Camera Control Mode	8	Pan / Tilt
	Focus Near	5	ESC	9	Enter / Auto

Basic Playback Operation

Search by Time:

- Press **SEARCH** to enter the Search menu.
- Move the cursor to “From” and press **ENTER** will start playing recorded video from the specified “From” time.
- Move the cursor to “End” and press **ENTER** will start playing recorded video from the specified “End” time.
- Move the cursor to “Select” and press **LEFT/RIGHT** to choose date/time. Press **ENTER** and adjust the values by **UP/DOWN** keys. Press **ENTER** again to confirm or press **ESC** to abort.
- Move the cursor to **<Begin Playback>** and press **ENTER** to start playing back recorded video of the selected time. Press **PLAY/STOP** again to return to live video.



NOTE: If there is no available recorded video that matches the specified time and date, the unit starts to playback from the next available video.

Search by Event:

- Press **SEARCH** to enter the Search menu.
- To search event video that was recorded on a specific camera, use **LEFT/RIGHT** keys to move the cursor and press **ENTER** to select or de-select a channel.
- Move the cursor to **<Event List>** and press **ENTER** to list the event video of the selected channels.
- The list displays each event by date, time, triggered camera and alarm type. The latest recorded event video will be listed on the top. To exit the event list, press **ESC**.
- Use **UP/DOWN** keys to scroll through the Event List. Press **ENTER** to play back the selected event record.



NOTE: The event list displays only the first 1024 events; as some events are deleted, others are displayed.







Playback Controls:

Button	Description
LEFT	The button is for rewinding the recorded video while playing back. Press the button repeatedly to increase the speed of reverse playback by 1x, 2x, 4x, 8x, 16x, or 32x.
RIGHT	The button is used to play the recorded video fast forward. Press the button repeatedly to increase the speed of forward playback by 1x, 2x, 4x, 8x, 16x, or 32x.
FREEZE	Press FREEZE to pause the playback video. When the recorded video is paused, press LEFT / RIGHT to resume playback video single step reverse / forward respectively. Press FREEZE again to continue playing back video.
PLAY	Press to start the playback or to stop playing back video and return to live mode.

DVR Status Bar Icons

Icons that will be displayed in the status bar are listed in the following table with their descriptions.

Item	Icon	Description	Item	Icon	Description						
1		Main Monitor	13		Pause @ Playback mode						
2		Call Monitor	14		End of Video						
3		Monitor Active / Inactive	15		Quick Export						
4		Sequence	16		Stamp A						
5		Record	17		Stamp B						
6		Event Record	18		Disk Error						
7		Freeze @ Live Mode	19		Disk Full						
8		Dome Camera Control	20		Disk Overheat						
9		Zoom	21		No Disk						
10		Forward Playback Speed: 1x, 2x, 4x, 8x, 16x, 32x	22		Disk Almost Full						
			23		Guest						
			24		User's Authority Level						
11		Backward Playback Speed: 1x, 2x, 4x, 8x, 16x, 32x									
						12		HDD Usage	25		HDD Cloning Status

26		Lock	29		RAID Disk Correct
27		Fan Error	30		RAID Disk Error
28		RAID Disk Clone Completed	31		No RIAD Disk



NOTE: For HDD Cloning Status icons, a number will be shown in the center of the icon to represent the group of HDD that is cloning. In the mean time, percentage will be displayed underneath the icon.



NOTE: The Disk Clone Completed icon will be displayed when HDD cloning is completed and will disappear when any key is pressed.

Connect the DVR via the Remote Software

Setup Requirements:

- Make sure the PC is connected to the Internet.
- Obtain IP address of the **Versatile H.264 DVR**. To check the DVR's IP address, press **MENU** on the front panel and select **<System Setup>** → **<Network Setup>** → **<LAN Setup>** → **<IP>** to check the IP.

Changing Internet Setting:

- Start the IE; select **<Tools>** from the main menu of the browser, then **<Internet Options>** and then click the **<Security>** tab.
- Select **<Trusted sites>** and click **<Sites>** to specify its security setting.
- Uncheck "Require server verification (https:) for all sites in this zone". Type the IP address of the unit in field and click **<Add>** to add this website to the zone.
- In the Security Level area, click **<Custom Level>**. Under **<ActiveX controls and plug-ins>**, set all items to **<Enable>** or **<Prompt>**.
- Click **<OK>** to accept the settings and close the **<Security Settings>** screen.

Using the Remote Software:

- Start the IE and enter the IP address of the **Versatile H.264 DVR** in the address bar.
- The ActiveX controls and plug-ins dialog will show twice for confirmation; click **<YES>** to accept ActiveX plug-ins. The **DVRRemote** plug-ins will be downloaded and installed on the PC automatically when the connection is successfully made.



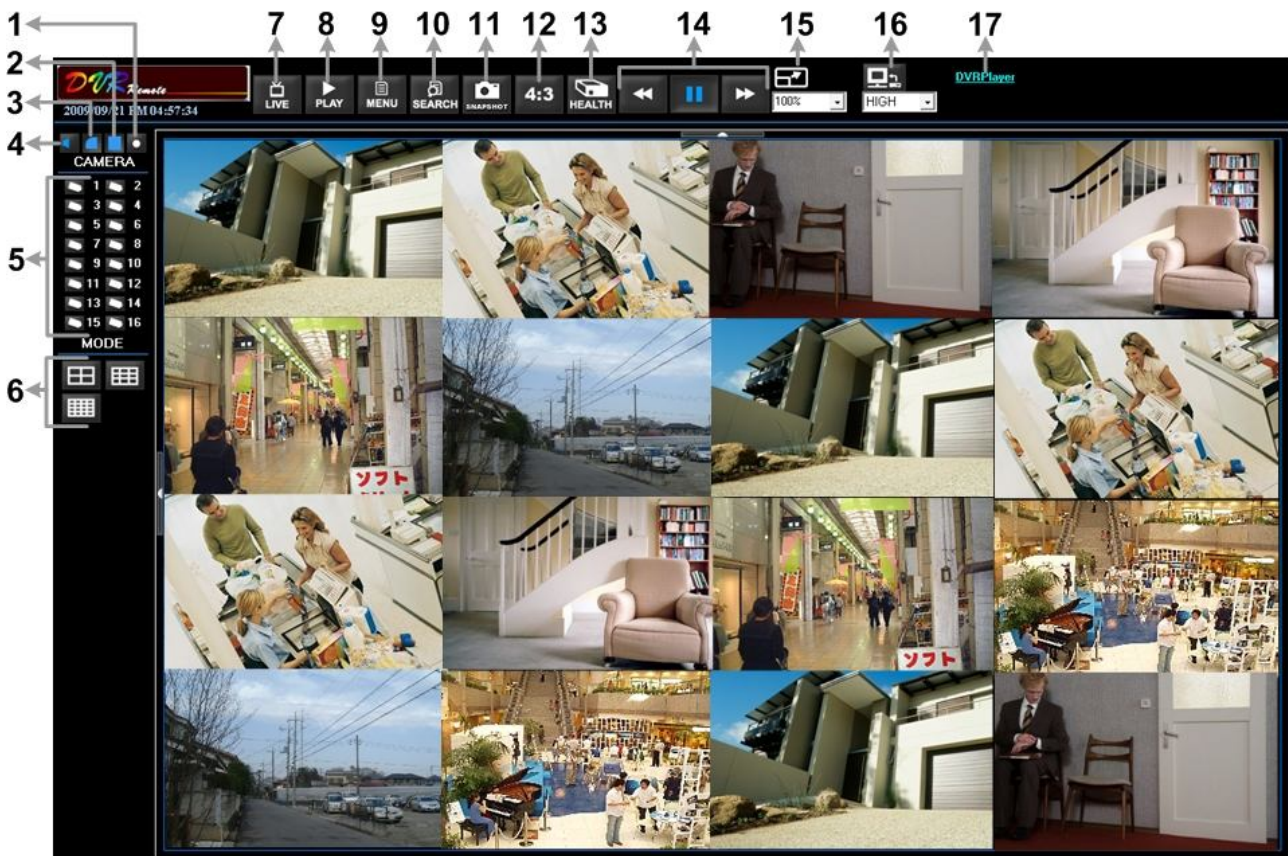
NOTE: Do not enter any leading "0" characters in the address, for example, "192.068.080.006" should be entered "192.68.80.6".



NOTE: If the default trigger port 80 is changed into another one, port 81 for example, then the IP address should be entered as “192.68.80.6:81”.

- Version verification starts automatically to verify whether **DVRRemote** was installed. This process may take up to 30 seconds.
- When the software is completely downloaded and installed, the Login Screen is displayed.
- Enter the username and password. The default usernames and passwords are **admin / 1234** and **user / 4321**.

The following picture shows the display window of the **DVRRemote**:



Refer to the table below for brief description of functional items:

Item	Description	Item	Description
1	Instant Recording	10	Search Event List
2	Deflicker On/Off at Playback	11	Capture Snapshot
3	Smoothen the Image	12	4:3 Viewing Aspect
4	Audio On/Off	13	HDD Status
5	Select Camera	14	Playback Control
6	Display Mode	15	Select Picture Size
7	View Live Camera	16	Bandwidth – Normal/Dual Stream
8	Playback Video	17	Download DVRPlayer
9	Setup Menu		

For more information on **DVRRemote**, see User's Manual.

DVRRemote Playback

Playback Remote Video:

- Click **<Play>** on the main window toolbar, and then **<Remote Playback>** tab.
- The **<From>** and **<To>** on top of the screen display the date and time from which recorded video is available for playback.
- Choose **<Playback>** in **<Select>** field for playback recorded video.
- Select the date and time of the segment to play back from the **<Start>** field. The date and time can be changed either by typing desired numbers directly or using the arrow buttons.
- Click **<OK>** to start the playback, or click **<Close>** to abort.

Playback Local *.drv File:

- Click **<Play>** on the main window toolbar, and then **<Local Playback>** tab.
- Click **<Open>** and the file selection screen is displayed. Select the *.drv video file to playback and click **<OK>**.
- Click **<OK>** to start the playback, or click **<Cancel>** to abort.
- View the video playback using the Playback controls.
- To end the playback, click **<Live>** to return to live video.

Playback Local *.avi Files:

- Start the windows media player or other media player from **<Start>** menu (or any other possible access).
- Select **<File>** and then **<Open>**.
- Select the wanted *.avi file, and click **<Open>**.



NOTE: The *.avi files for each channel are stored separately. Therefore the video can be played back in single channel, full screen mode only.

Playback Event Video:

- Click **SEARCH** on the main window toolbar. The Event List appears.
- Scroll through the Event List and highlight the interested events.
- Double-click on the desired event to view the event video.

Playback Controls:

