

# Quick Installation Guide

## 4/8/16-Channel HD-SDI Recorder

LTV-HVR-0440-HV

LTV-HVR-1640-HV

LTV-HVR-0460-HV

LTV-HVR-1660-HV

LTV-HVR-0860-HV

LTV-HVR-1670-HV



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Thank you for purchasing our product. If there is any question or request, please do not hesitate to contact your dealer.

This manual is applicable to the following models: LTV-HVR-0440-HV, LTV-HVR-0460-HV, LTV-HVR-0860-HV, LTV-HVR-1640-HV, LTV-HVR-1660-HV, LTV-HVR-1670-HV

## **DVR Pre-Installation**

The recorders presented in this guide are highly advanced surveillance equipment that should be installed carefully. Please take into consideration the following precautionary steps before installing the DVR.

1. Keep all liquids away from the DVR.
2. Install the DVR in a well-ventilated and dust-free area.
3. Ensure environmental conditions meet factory specifications.
4. Install a manufacturer recommended HDD.

## **DVR Installation**

During the installation of the DVR:

1. Use brackets for rack mounting.
2. Ensure there is ample room for audio and video cables.
3. When installing cables, ensure that the bend radius of the cables are no less than five times than its diameter.
4. Connect both the alarm and RS-485 cable.
5. Allow at least 2cm ( $\approx 0.75$ -inch) of space between racks mounted devices.
6. Ensure the DVR is grounded.
7. Environmental temperature should be within the range of  $-10^{\circ}\text{C} \sim 55^{\circ}\text{C}$ ,  $14^{\circ}\text{F} \sim 131^{\circ}\text{F}$ .
8. Environmental humidity should be within the range of 10%  $\sim$  90%.

## **Hard Disk Installation**

Before you start:

Before installing a hard disk drive (HDD), please make sure the power is disconnected from the DVR. A factory recommended HDD should be used for this installation. Up to 8 SATA hard disks can be installed on your DVR.

**Tools Required:** Screwdriver.

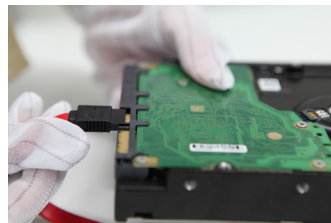
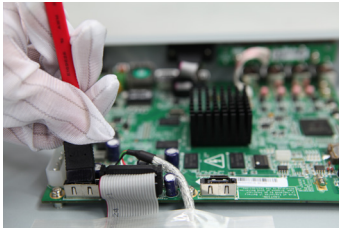
Note: As the installation steps of HDD are similar among different models, this explanation serves as an example.

## Steps:

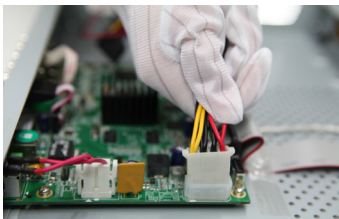
1. Remove the cover from the DVR by unfastening the screws on the back and side.



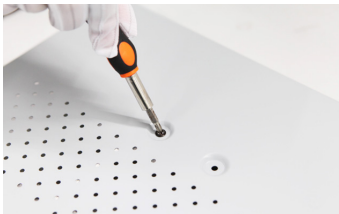
2. Connect one end of the data cable to the motherboard of DVR and the other end to the HDD.



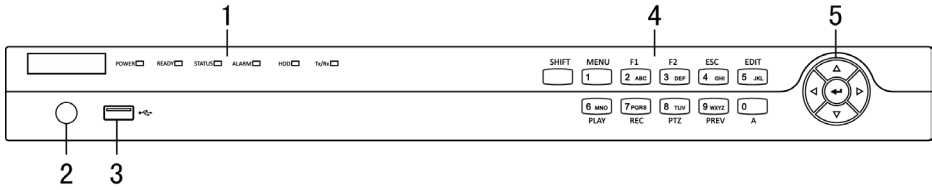
3. Connect the power cable to the HDD.



4. Place the HDD on the bottom of the device and then fasten the screws on the bottom to fix the HDD.



5. Re-install the cover of the DVR and fasten screws.

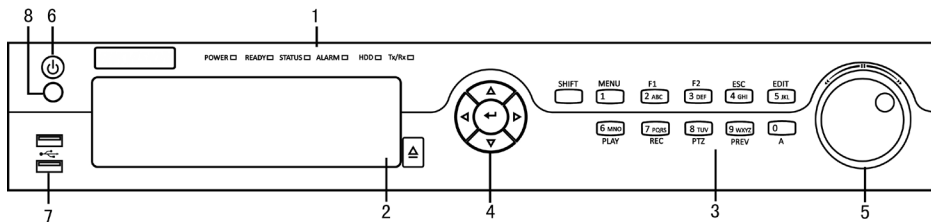


Front Panel of LTV-HVR-0460-HV / LTV-HVR-0860-HV

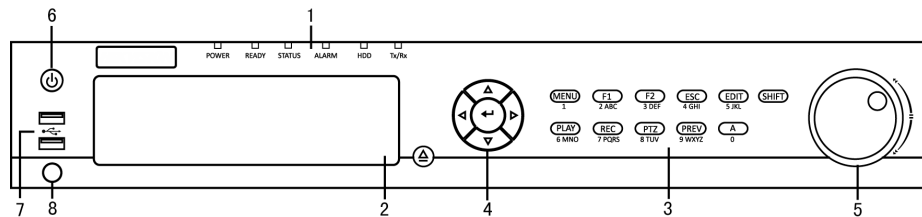
### Description of Control Panel Buttons

No.	Name	Function Description	
1	POWER	Power indicator turns yellow once the power switch turns on.	
	READY	Ready indicator turns yellow when system is running.	
	STATUS	Status indicator turns red when SHIFT mode is on.	
	ALARM	Alarm indicator turns red when a sensor alarm is detected.	
	HDD	HDD indicator blinks red when data is being read from or written to HDD.	
	TX/RX	TX/RX indicator blinks yellow when network connection is functioning properly.	
2	IR Receiver	Receiver for IR remote.	
3	USB Interface	Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD).	
4	Composite Keys	SHIFT	Switch between the numeric or letter input and functions of the composite keys. (Input letter or numbers when the light is out; Realize functions when the light is red.)
		1/MENU	Enter numeral "1"; Access the main menu interface.
		2/ABC/F1	Enter numeral "2";
			Enter letters "ABC";
			The F1 button when used in a list field will select all items in the list.
		3/DEF/F2	In PTZ Control mode, it will turn on/off PTZ light and when the image is zoomed in, the key is used to zoom out.
			Enter numeral "3";
			Enter letters "DEF";
			The F2 button is used to change the tab pages.
		4/GHI/ESC	In PTZ control mode, it zooms in the image.
			Enter numeral "4";
			Enter letters "GHI";
		Exit and back to the previous menu.	

		5/JKL/EDIT	Enter numeral "5";
			Enter letters "JKL";
			Delete characters before cursor;
			Check the checkbox and select the ON/OFF switch;
			Start/stop record clipping in playback.
		6/MNO/PLAY	Enter numeral "6";
			Enter letters "MNO";
			Playback, for direct access to all-day playback interface.
		7/PQRS/REC	Enter numeral "7";
			Enter letters "PQRS";
			Open the manual record interface.
		8/TUV/PTZ	Enter numeral "8";
	Enter letters "TUV";		
	Access PTZ control interface.		
	9/WXYZ/PREV	Enter numeral "9";	
		Enter letters "WXYZ";	
		Multi-channel display in live view.	
	0/A	Enter numeral "0";	
		Shift the input methods in the editing text field.(Upper and lowercase, alphabet, symbols or numeric input).	
	5	DIRECTION	The DIRECTION buttons are used to navigate between different fields and items in menus.
In the Playback mode, the Up and Down button is used to speed up and slow down recorded video. The Left and Right button will select the next and previous record files.			
In Live View mode, these buttons can be used to cycle through channels.			
In PTZ control mode, it can control the movement of the PTZ camera.			
ENTER		The ENTER button is used to confirm selection in any of the menu modes.	
		It can also be used to tick checkbox fields.	
		In Playback mode, it can be used to play or pause the video.	
		In single-frame Playback mode, pressing the button will advance the video by a single frame.	
		In Auto-switch mode, it can be used to stop /start auto switch.	



Front Panel of LTV-HVR-1640-HV



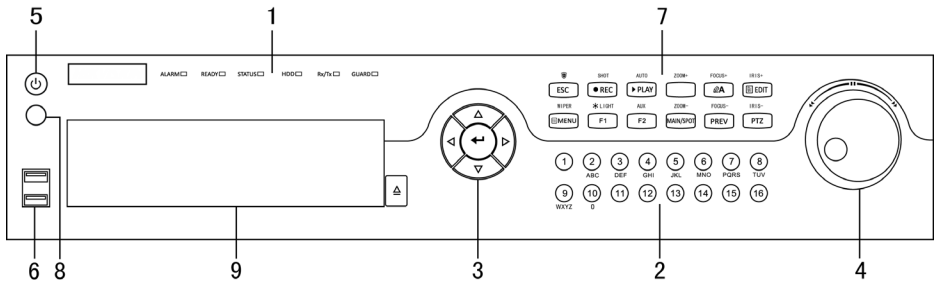
Front Panel of LTV-HVR-1660-HV

No.	Name	Function Description	
1	POWER	Power indicator lights in green when DVR is powered up.	
	READY	Ready indicator is normally green, indicating that the DVR is functioning properly.	
	STATUS	Indicator turns green when DVR is controlled by an IR remote control with the address from 1~254; Indicator turns red when the SHIFT button is used; Indicator does not light when the DVR is controlled by a keyboard or by the IR remote control with the address of 255; Indicator turns green when the DVR is controlled by IR remote control (with the address from 1~254) and keyboard at the same time, and the SHIFT button is not used;	
	ALARM	Alarm indicator turns red when a sensor alarm is detected.	
	HDD	HDD indicator blinks in red when data is being read from or written to HDD.	
	TX/RX	TX/RX indicator blinks in green when network connection is functioning properly.	
2	DVD-R/W	Slot for DVD-R/W.	
3	Composite Keys	SHIFT	Switch between the numeric or letter input and functions of the composite keys. (Input letter or numbers when the light is out; Realize functions when the light is red.)
		1/MENU	Enter numeral "1"; Access the main menu interface.
			Enter numeral "2";
			Enter letters "ABC";
			The F1 button when used in a list field will select all items in the list.
2/ABC/F1	In PTZ Control mode, it will turn on/off PTZ light and when the image is zoomed in, the key is used to zoom out.		

		3/DEF/F2	Enter numeral "3";
			Enter letters "DEF";
			The F2 button is used to change the tab pages.
			In PTZ control mode, it zooms in the image.
		4/GHI/ESC	Enter numeral "4";
			Enter letters "GHI";
			Exit and back to the previous menu.
		5/JKL/EDIT	Enter numeral "5";
			Enter letters "JKL";
			Delete characters before cursor;
			Check the checkbox and select the ON/OFF switch;
			Start/stop record clipping in playback.
		6/MNO/PLAY	Enter numeral "6";
			Enter letters "MNO";
			In Playback mode, it is used for direct access to playback interface.
		7/PQRS/REC	Enter numeral "7";
			Enter letters "PQRS";
			Manual record, for direct access to manual record interface; manually enable/disable record.
		8/TUV/PTZ	Enter numeral "8";
			Enter letters "TUV";
Access PTZ control interface.			
9/WXYZ/PREV	Enter numeral "9";		
	Enter letters "WXYZ";		
	Multi-channel display in live view.		
0/A	Enter numeral "0";		
	Shift the input methods in the editing text field. (Upper and lowercase, alphabet, symbols or numeric input).		
4	DIRECTION	<p>The DIRECTION buttons are used to navigate between different fields and items in menus.</p> <p>In the Playback mode, the Up and Down button is used to speed up and slow down recorded video. The Left and Right button will select the next and previous record files.</p> <p>In Live View mode, these buttons can be used to cycle through channels.</p> <p>In PTZ control mode, it can control the movement of the PTZ camera.</p>	

	ENTER	The ENTER button is used to confirm selection in any of the menu modes.
		It can also be used to tick checkbox fields.
		In Playback mode, it can be used to play or pause the video.
		In single-frame Playback mode, pressing the button will advance the video by a single frame.
		In Auto-switch mode, it can be used to stop /start auto switch.
5	POWER	Power on/off switch.
6	JOG SHUTTLE Control	Move the active selection in a menu. It will move the selection up and down.
		In Live View mode, it can be used to cycle through different channels.
		In the Playback mode, it can be used to jump 30s forward/backward in video files.
		In PTZ control mode, it can control the movement of the PTZ camera.
7	USB Interface	Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD).
8	IR Receiver	Receiver for IR remote control.





Front Panel of LTV-HVR-1670-HV

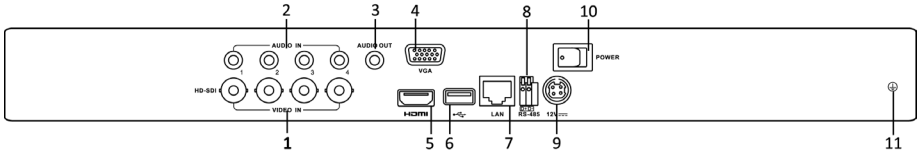
### Description of Front Panel

No.	Name	Function Description	
1	Status Indicators	ALARM	Alarm indicator turns red when a sensor alarm is detected.
		READY	Ready indicator is normally blue, indicating that the DVR is functioning properly.
		STATUS	Indicator turns blue when DVR is controlled by an IR remote. Indicator turns red when controlled by a keyboard and orange when IR remote and keyboard is used at the same time. Indicator does not light when the DVR is controlled by the IR remote control with the address of 255.
		HDD	HDD indicator blinks in red when data is being read from or written to HDD.
		TX/RX	TX/RX indicator blinks in blue when network connection is functioning properly.
		GUARD	Indicator turns blue when the device is armed; Indicator does not light when the device is disarmed; The arm/disarm state can be initiated by pressing and holding on the ESC button for more than 3 seconds in live view mode.
2	Alphanumeric Buttons	Switch to the corresponding channel in Live view or PTZ Control mode.	
		Input numbers and characters in Edit mode.	
		Switch between different channels in Playback mode.	
		The light of the button is blue when the corresponding channel is recording; it is red when the channel is in network transmission status; it is pink when the channel is recording and transmitting.	
3	Control Buttons	DIRECTION	The DIRECTION buttons are used to navigate between different fields and items in menus.
			In the Playback mode, the Up and Down button is used to speed up and slow down recorded video. The Left and Right button will select the next and previous record files.
			In Live View mode, these buttons can be used to cycle through channels.
			In PTZ control mode, it can control the movement of the PTZ camera.

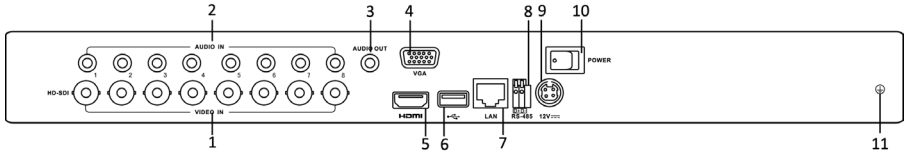
		ENTER	<p>The ENTER button is used to confirm selection in any of the menu modes.</p> <p>It can also be used to tick checkbox fields.</p> <p>In Playback mode, it can be used to play or pause the video.</p> <p>In single-frame Playback mode, pressing the button will advance the video by a single frame.</p> <p>In Auto-switch mode, it can be used to stop /start auto switch.</p>																					
4	JOG SHUTTLE Control		<p>Move the active selection in a menu. It will move the selection up and down.</p> <p>In Live View mode, it can be used to cycle through different channels.</p> <p>In the Playback mode: the outer ring is used to speed up or slow down the record files and the inner ring is used to jump 30s forward/backward in records files.</p> <p>In PTZ control mode, it can control the movement of the PTZ camera.</p>																					
5	POWER		Power on/off switch.																					
6	USB Interfaces		Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD).																					
7	Composite Keys		<table border="1"> <tr> <td rowspan="2">ESC</td> <td>Exit and back to the previous menu.</td> </tr> <tr> <td>Arm/disarm the DVR in live view mode.</td> </tr> <tr> <td rowspan="3">REC/SHOT</td> <td>Enter the Manual Record setting menu.</td> </tr> <tr> <td>In PTZ control settings, press the button and then you can call a PTZ preset by pressing Numeric button.</td> </tr> <tr> <td>It is also used to turn audio on/off in the Playback mode.</td> </tr> <tr> <td rowspan="2">PLAY/AUTO</td> <td>Enter the Playback menu;</td> </tr> <tr> <td>Auto scan in the PTZ Control mode.</td> </tr> <tr> <td>ZOOM+</td> <td>Zoom in the PTZ camera in the PTZ Control setting.</td> </tr> <tr> <td rowspan="2">A/FOCUS+</td> <td>Adjust focus in the PTZ Control menu.</td> </tr> <tr> <td>It is also used to switch between input methods (upper and lowercase alphabet, symbols and numeric input).</td> </tr> <tr> <td rowspan="5">EDIT/IRIS+</td> <td>Edit text fields. When editing text fields, it will also function as a Backspace button to delete the character in front of the cursor.</td> </tr> <tr> <td>On checkbox fields, pressing the button will tick the checkbox.</td> </tr> <tr> <td>In PTZ Control mode, the button adjusts the iris of the camera.</td> </tr> <tr> <td>In Playback mode, it can be used to generate video clips for backup.</td> </tr> <tr> <td>Enter/exit the folder of USB device and eSATA HDD.</td> </tr> </table>	ESC	Exit and back to the previous menu.	Arm/disarm the DVR in live view mode.	REC/SHOT	Enter the Manual Record setting menu.	In PTZ control settings, press the button and then you can call a PTZ preset by pressing Numeric button.	It is also used to turn audio on/off in the Playback mode.	PLAY/AUTO	Enter the Playback menu;	Auto scan in the PTZ Control mode.	ZOOM+	Zoom in the PTZ camera in the PTZ Control setting.	A/FOCUS+	Adjust focus in the PTZ Control menu.	It is also used to switch between input methods (upper and lowercase alphabet, symbols and numeric input).	EDIT/IRIS+	Edit text fields. When editing text fields, it will also function as a Backspace button to delete the character in front of the cursor.	On checkbox fields, pressing the button will tick the checkbox.	In PTZ Control mode, the button adjusts the iris of the camera.	In Playback mode, it can be used to generate video clips for backup.	Enter/exit the folder of USB device and eSATA HDD.
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		MAIN/SPOT/ ZOOM-	Switch between main and spot output.
			In PTZ Control mode, it can be used to zoom out the image.
		F1/ LIGHT	Select all items on the list when used in a list field.
			In PTZ Control mode, it will turn on/off PTZ light (if applicable).
			In Playback mode, it is used to switch between play and reverse play.
		F2/ AUX	Cycle through tab pages.
			In synchronous playback mode, it is used to switch between channels.
		MENU/WIPER	Press the button will help you return to the Main menu (after successful login).
			Press and hold the button for 5 seconds will turn off audible key beep.
			In PTZ Control mode, the MENU/WIPER button will start wiper (if applicable).
			In Playback mode, it is used to show/hide the control interface.
		PREV/FOCUS-	Switch between single screen and multi-screen mode.
			In PTZ Control mode, it is used to adjust the focus in conjunction with the A/FOCUS+ button.
		PTZ/IRIS-	Enter the PTZ Control mode.
In the PTZ Control mode, it is used to adjust the iris of the PTZ camera.			
8	IR Receiver	Receiver for IR remote control.	
9	DVD-R/W	Slot for DVD-R/W.	

## Rear Panels

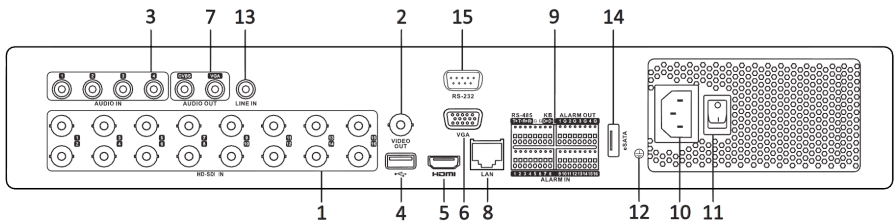


LTV-HVR-0460-HV

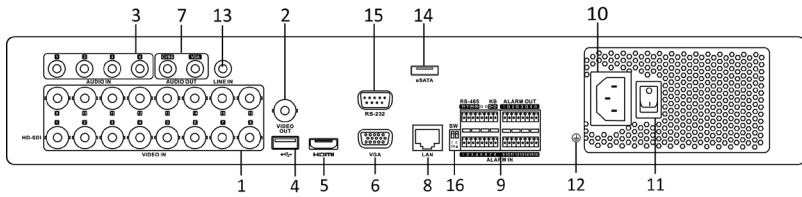


LTV-HVR-0860-HV

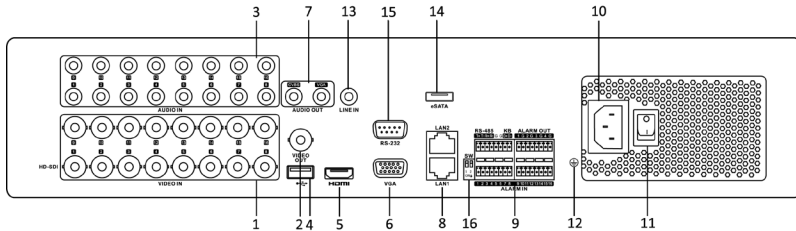
No.	Item	Description
1	VIDEO IN	HD-SDI interface for video input.
2	AUDIO IN	RCA connector
3	AUDIO OUT	RCA connector
4	VGA	DB15 connector for VGA output. Display local video output and menu.
5	HDMI	HDMI video output connector.
6	USB Port	Universal Serial Bus (USB) port for additional devices.
7	Network Interface	Connector for network
8	RS-485 Interface	Connector for RS-485 devices.
9	Power Supply	DC 12V power supply.
10	Power Switch	Switch for turning on/off the device.
11	GND	Ground



LTV-HVR-1640-HV



LTV-HVR-1660-HV



LTV-HVR-1670-HV

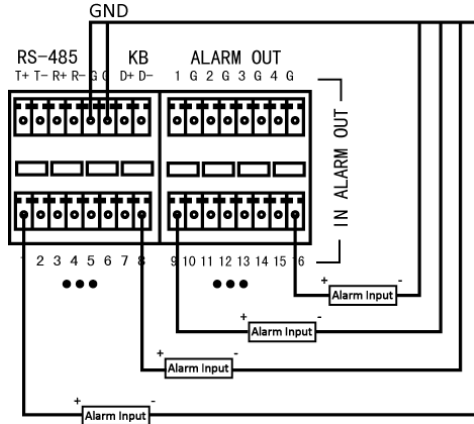
No.	Item	Description
1	VIDEO IN	HD-SDI interface for video input.
2	VIDEO OUT	BNC connector for video output.
3	AUDIO IN	RCA connector
4	USB Port	Universal Serial Bus (USB) port for additional devices.
5	HDMI	HDMI video output connector.
6	VGA	DB15 connector for VGA output. Display local video output and menu.
7	AUDIO OUT	RCA connector
8	Network Interface	Connector for network
9	RS-485 Interface	Connector for RS-485 devices. T+ and T- pins connect to R+ and R- pins of PTZ receiver respectively.
		D+, D- pin connects to Ta, Tb pin of controller. For cascading devices, the first DVR's D+, D- pin should be connected with the D+, D- pin of the next DVR.
		Connector for alarm input.
		Connector for alarm output.
10	Power Supply	AC 100 ~ 240V power supply.
11	Power Switch	Switch for turning on/off the device.
12	GND	Ground
13	LINE IN	BNC connector for audio input.
14	eSATA	Connects external SATA HDD, CD/DVD-RW.
15	RS-232 Interface	Connector for RS-232 devices.
16	Termination Switch (for LTV-HVR-1660-HV/ LTV-HVR-1670-HV)	RS-485 termination switch. Up position is not terminated. Down position is terminated with 120Ω resistance.

## Peripheral Connections

### Wiring of Alarm Input

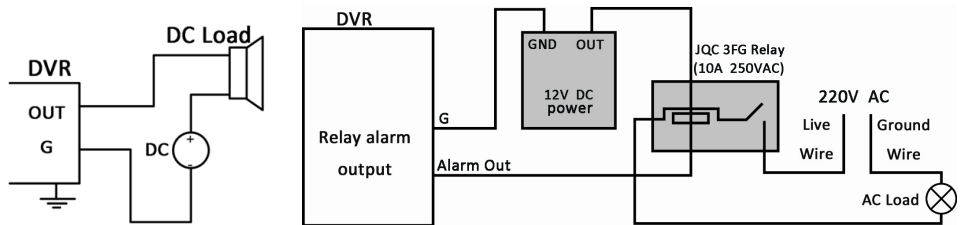
The alarm input is an open/closed relay. To connect the alarm input to the device, use the following diagram.

Note: If the alarm input is not an open/close relay, please connect an external relay between the alarm input and the device.



### Wiring of Alarm Output

To connect to an alarm output (AC or DC load), use the following diagram:



DC Load Connection Diagram

AC Load Connection Diagram

For DC load, the jumpers can be used within the limit of 12V/1A safely.

To connect an AC load, jumpers should be left open (you must remove the jumper on the motherboard in the DVR). Use an external relay for safety (as shown in the figure above).

There are 4 jumpers (JP1, JP2, JP3, and JP4) on the motherboard, each corresponding with one alarm output. By default, jumpers are connected. To connect an AC load, jumpers should be removed.

Example:

If you connect an AC load to the alarm output 3 of the DVR, then you must remove the JP 3.

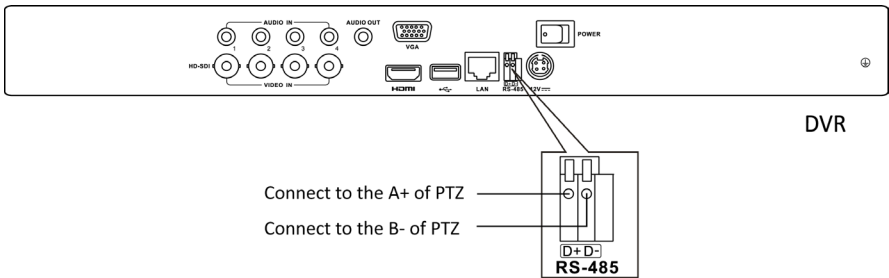
## Alarm Connection

To connect alarm devices to the DVR:

1. Disconnect pluggable block from the ALARM IN /ALARM OUT terminal block.
2. Press and hold the orange part of the pluggable block; insert signal cables into slots and release the orange part. Ensure signal cables are in tight.
3. Connect pluggable block back into terminal block.

## RS-485 and Controller Connection

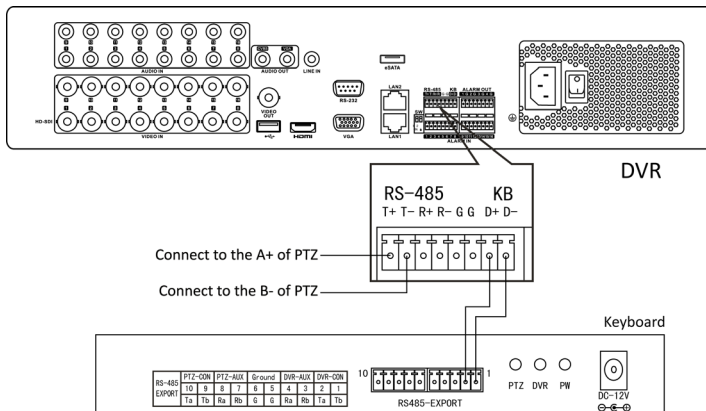
### For LTV-HVR-0460-HV/LTV-HVR-0860-HV



### To connect PTZ to the DVR:

1. Disconnect pluggable block from the RS-485 terminal block.
2. Press and hold the orange part of the pluggable block; insert signal cables into slots and release the orange part. Ensure signal cables are in tight.
3. Connect A+ on PTZ to D+ on terminal block and B- on controller to D- on terminal block. Fasten stop screws.
4. Connect pluggable block back into terminal block.

### For LTV-HVR-1640-HV/LTV-HVR-1660-HV



### **To connect PTZ to the DVR:**

1. Disconnect the pluggable block from the RS-485 terminal block.
2. Press and hold the orange part of the pluggable block; insert signal cables into slots and release the orange part. Ensure signal cables are in tight.
3. Connect A+ on PTZ to T+ on terminal block and B- on controller to T- on terminal block. Fasten stop screws.
4. Connect pluggable block back into terminal block.

### **To connect a controller to the DVR:**

1. Disconnect pluggable block from the KB terminal block.
2. Press and hold the orange part of the pluggable block; insert signal cables into slots and release the orange part. Ensure signal cables are in tight.
3. Connect A+ on controller to D+ on terminal block and Tb on controller to D- on terminal block. Fasten stop screws.
4. Connect pluggable block back into terminal block.

Note: Make sure both the controller and DVR are grounded. Here we take the controller connection of the LTV-HVR-1670-HV as an example.

### **Termination Switch Operation**

Note: This function is applicable to LTV-HVR-1640-HV/LTV-HVR-1660-HV/LTV-HVR-1670-HV

#### **Purpose:**

To connect the DVR with several speed domes, the bus topology can be adopted, which means the speed domes are connected with each other via the R+ and R- of RS-485 serial interface. But due to the impedance of 485 wire, the longer the wire is, the greater the impedance gets.

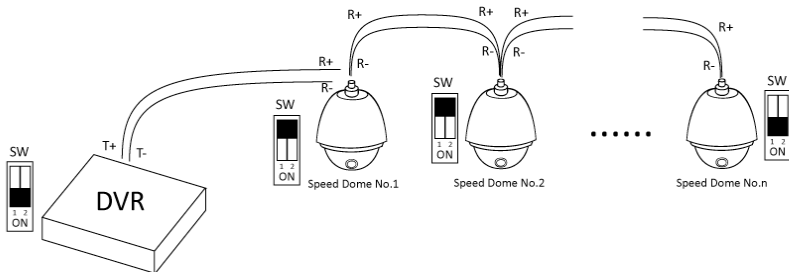
To avoid the signal reduction caused by the great impedance of long distance transmission, please connect two 120Ω resistors in the circuit: one resistor between the DVR and the nearest speed dome, and the other one after the furthest speed dome.

#### **Steps:**

1. Turn on the SW switches on the DVR and the furthest speed dome.
2. Keep other SW switches off.



The connection diagram and status of each SW switch are shown in the following figure.



For the LTV-HVR-1640-HV the termination switch is placed on the mainboard instead of the rear panel. Open the upper cover and turn on/off the SW switch if needed.

### HDD Storage Calculation Chart

The following chart shows an estimation of storage space used based on recording at one channel for an hour at a fixed bit rate.

Bit Rate	Storage Used
96K	42M
128K	56M
160K	70M
192K	84M
224K	98M
256K	112M
320K	140M
384K	168M
448K	196M
512K	225M

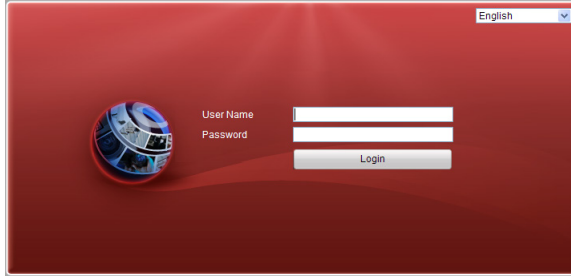
640K	281M
768K	337M
896K	393M
1024K	450M
1280K	562M
1536K	675M
1792K	787M
2048K	900M
4096K	1800M
8192K	3600M
16384K	7200M

Please note that supplied values for storage space used are just for reference. Storage space used is estimated by formulas and may have some deviation from actual value.

## Accessing by Web Browser

### Logging In

You can get access to the device via web browser. Open web browser, input the IP address of the device and then press Enter. The login interface appears.



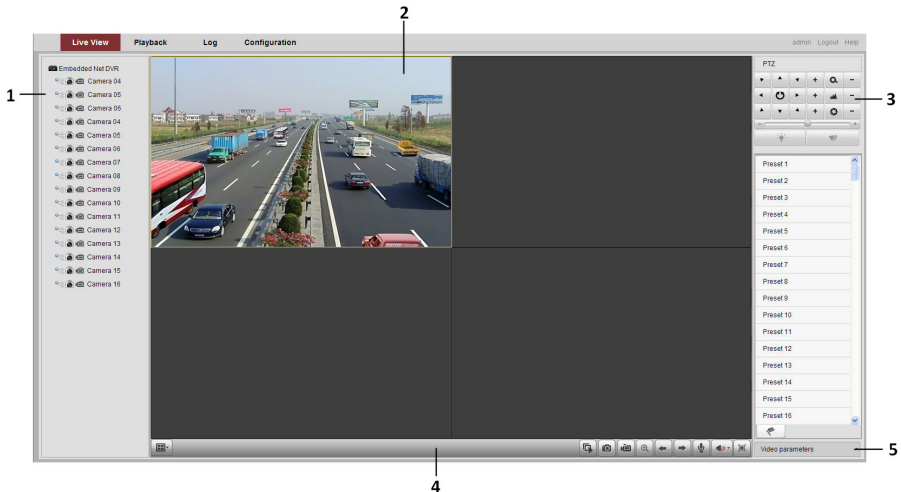
Input the user name and password, and click the Login button.

- You may use one of the following listed web browsers: Internet Explorer 6.0, Internet Explorer 7.0, Internet Explorer 8.0, Internet Explorer 9.0, Internet Explorer 10.0, Apple Safari, Mozilla Firefox, and Google Chrome.
- The supported resolutions include 1024\*768 and above.
- The default IP address is 192.0.0.64.
- The default user name is admin, and password is 12345.

When you log in for the first time, the system will remind you to install the Plug-in control. After the installation, you can configure and manage the device remotely.

### Live View

The live view interface appears by default when you log in the device.




## Interface Introduction











No.	Name	Description
1	Channel List	Displays the list of channels and the playing and recording status of each channel.
2	Live View Window	Displays the image of channel, and multi-window division is supported.
3	Play Control Bar	Play control operations are supported.
4	PTZ Control	Pan, tilt, zoom operations are supported, as well as preset editing and calling. Note: PTZ function can only be realized if the connected camera supports PTZ control.
5	Video Parameters Configuration	Brightness, contrast, saturation and hue of the image can be edited.

## Start Live View

### Steps:

1. In the live view window, select a playing window by clicking the mouse.
2. Double click a camera from the device list to start the live view.
3. You can click the  button on the toolbar to start the live view of all cameras on the device list.

Refer to the following table for the description of buttons on the live view window:

Icon	Description	Icon	Description
	Select the window-division mode		Previous page
	Start/Stop all live view		Next page
	Capture pictures in the live view mode		Open/Close audio
	Start/Stop all recording		Start/Stop two-way Audio
	Enable/Disable digital zoom		Adjust volume

## Recording

### Before you start

Make sure the device is connected with HDD or network disk, and the HDD or network disk has been initialized for the first time to use.

Two recording types can be configured: Manual and Scheduled. The following section introduces the configuration of scheduled recording.

### Steps:

1. Click Remote Configuration> Camera Settings> Record Schedule to enter Record Schedule settings interface.
2. Select the camera to configure the record schedule.
3. Check the checkbox of Enable Record Schedule to enable recording schedule.
4. Click Edit to edit record schedule.
5. Choose the day in a week to configure scheduled recording.

#### 1) Configure All Day or Customize Record:

- If you want to configure the all-day recording, please check the All Day check box.
- If you want to record in different time sections, check the Customize checkbox. Set the Start Time and End Time.

Note: The time of each segment cannot be overlapped. Up to 8 segments can be configured.

- 2) Select a Record Type. The record type can be Continuous, Motion, Alarm, Motion & Alarm, and Motion | Alarm.
  - 3) Check the checkbox of Select All and click Copy to copy settings of this day to the whole week. You can also check any of the checkboxes before the date and click Copy.
  - 4) Click OK to save the settings and exit the Edit Schedule interface.
6. Click Advanced to configure advanced record parameters.
  7. Click Save to validate the above settings.

### Playback














## Interface Introduction


No.	Name	Description
1	Channel List	Displays the list of channels and the playing status of each channel.
2	Playback Window	Displays the image of channel.
3	Play Control Bar:	Play control operations are supported.
4	Time Line	Displays the time bar and the records marked with different colors.
5	Playback Status	Displays the playback status, including channel number and playback speed.
6	Calendar	You can select the date to play.

## Start Playback

### Steps:

1. Click Playback on the menu bar to enter playback interface.  
Click the camera from the device list for playback.
2. Select the date from the calendar and click Search.
3. Click the Play button to play the video file searched on the current date.
4. Use the buttons on the toolbar to operate in playback mode.

Button	Description	Button	Description
	Play/Pause		Stop
	Slow down		Speed up
	Play by single frame		Capture
	Stop all playback		Download
	Video clip		Open/Close audio
	Full Screen		

5. You can drag the progress bar with the mouse to locate the exact playback point.  
You can also input the time in the textbox  :  :  and click  button to locate the playback point.

The color of the video on the progress bar stands for the different video types.

 Command  Schedule Recording  Alarm Recording  Manual Recording

## Log

You can view and export the log files at any time, including operation, alarm, exception and information of device.


### Before you start

The Log function can be realized only when the device is connected with HDD or network disk. Make sure the HDD or network disk has been initialized for the first time to use.

### Steps:

1. Click Log on the menu bar to enter the Log interface.
2. Set the log search conditions to refine your search, including the Major Type, Minor Type, Start Time and End Time.
3. Click the Search button to start searching log files.
4. The matched log files will be displayed on the list shown below.

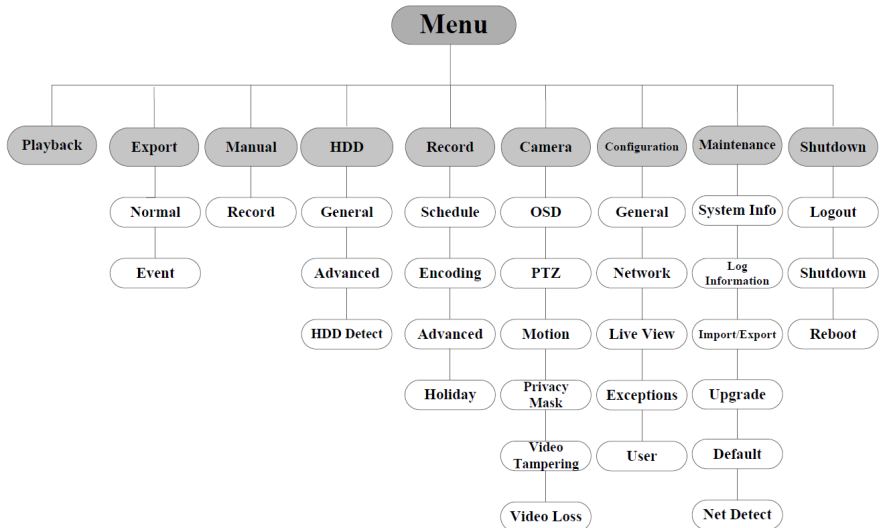
Note: Up to 100 log files can be displayed on each page.

You can click the  button to save the searched log files to local directory.

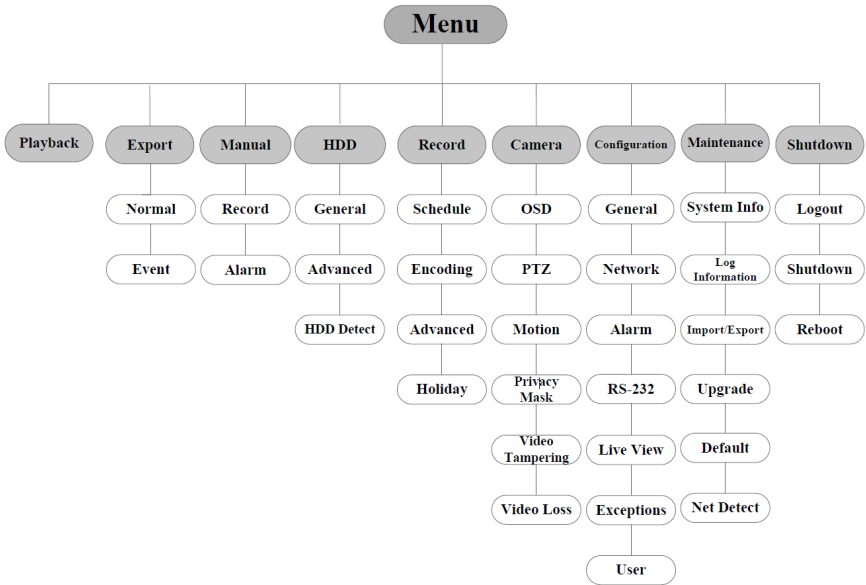
## Menu Operation

### Menu Structure

The menu structure of LTV-HVR-0440-HV/LTV-HVR-0460-HV/LTV-HVR-0860-HV is shown below:



The menu structure of LTV-HVR-1640-HV/LTV-HVR-1660-HV/LTV-HVR-1670-HV is shown below:



## Startup and Shutdown

Proper startup and shutdown procedures are crucial to expand the service time of the DVR.

### To start the DVR:

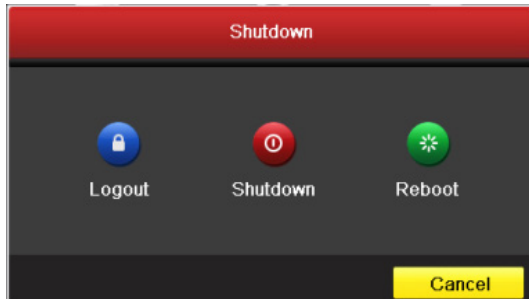
Check the power supply is plugged into an electrical outlet. It is HIGHLY recommended that an Uninterruptible Power Supply (UPS) be used in conjunction with the device. Turn on the power switch on the rear panel; the Power indicator LED on the front panel should be yellow.

### To shut down the DVR:

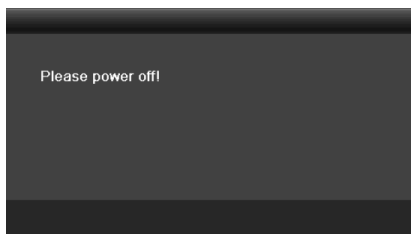
#### Steps:

1. Enter the Shutdown menu.

Menu > Shutdown



2. Select the Shutdown button.
3. Click the Yes button.
4. Turn off the power switch on the rear panel.



After the device starting up, the wizard will guide you through the basic settings, including editing password, date and time settings, network settings, HDD initializing, and recording.

## Live View

Some icons are provided on screen in Live View mode to indicate different camera status. These icons include:

### Live View Icons

In the live view mode, there are icons at the right top of the screen for each channel, showing the status of the record and alarm in the channel, so that you can find problems as soon as possible



Indicating that there is an alarm or are alarms. Alarm includes (video loss, tampering, motion detection or sensor alarm, etc.).



Recording (manual record, continuous record, motion detection or alarm triggered record)



Alarm & Recording

## Record Settings

### Before you start:

Make sure that the HDD has already been installed. If not, please install a HDD and initialize it. You may refer to the user manual for detailed information.

### Purpose:

Two kinds of record types are introduced in the following section, including Instant Record and All-day Record. And for other record types, you may refer to the user manual for detailed information.





Note: After rebooting all the manual records enabled are canceled.



## Instant Recording

On the live view window of each channel, there is a quick setting toolbar which shows on the bottom of the window when you click on it.

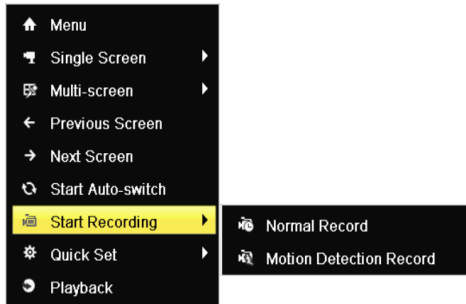


Click the  icon to enable the record, and the icon turns to . And click  icon to disable the record, then the icon turns to .

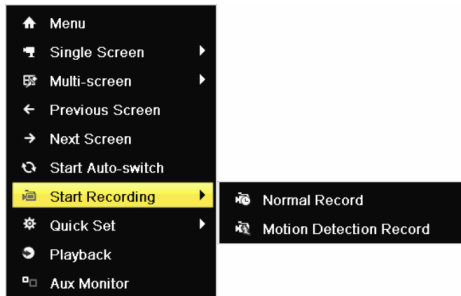
## All-day Recording

Perform the following steps to set the all-day recording.

On the live view window, right click the window and move the cursor to the Start Recording option, and select Normal Record or Motion Detection Record on your demand.



Right-click Menu of LTV-HVR-0460-HV/LTV-HVR-0860-HV




Right-click Menu of LTV-HVR-1640-HV/LTV-HVR-1660-HV/LTV-HVR-1670-HV

And click the Yes button in the popup Attention message box to confirm the settings. Then all the channels will start to record in the selected mode.

## Playback

Play back the record files of a specific channel in the live view menu.

### OPTION 1:

Choose a channel under live view using the mouse and click the  button in the shortcut operation menu.

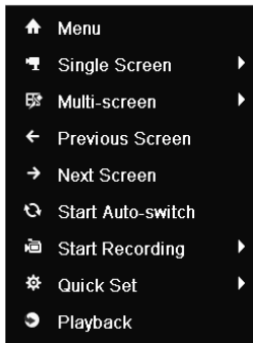
Note: Only record files recorded during the last five minutes on this channel will be played back.



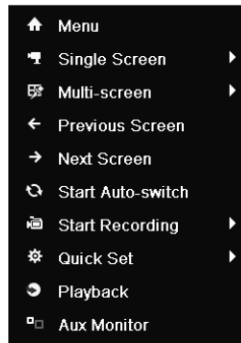
### OPTION 2:

1. Enter the Playback menu.

Right click a channel in live view mode and select Playback from the menu.



LTV-HVR-0440-HV/LTV-HVR-0460-HV  
LTV-HVR-0860-HV



LTV-HVR-1640-HV/LTV-HVR-1660-HV  
LTV-HVR-1670-HV

Note: For LTV-HVR-1660-HV/LTV-HVR-1660-HV/LTV- HVR-1670-HV pressing numerical buttons on the front panel will switch playback to related channels during playback process.

2. Playback management.

The toolbar in the bottom part of Playback interface can be used to control playing process.



Just check the channel or channels if you want to switch playback to another channel or execute simultaneous playback of multiple channels.

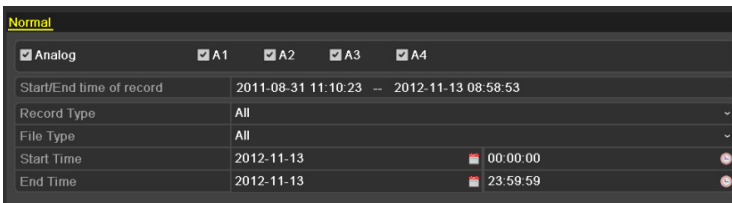
## Backup

Recorded files can be backed up to various devices, such as USB flash drives, USB HDDs or USB DVD writers.

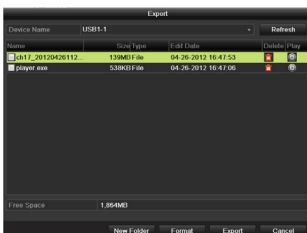
To export recorded files:

1. Enter Video Export interface.


Choose the channel(s) you want to back up and click the Quick Export button.



2. Enter Export interface, choose backup device and click the Export button to start exporting.



3. Check backup result.

Choose the record file in Export interface and click  button to check it.

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