



DS-8100-ST Series DVR

Quick Operation Guide

This manual is applicable to **DS-8104/8108/8116HCI-ST (V1.1.0)**, **DS-8104/8108AH (L) I-ST (V1.1.0)** and **DS-8104/8108AHF (L) I-ST (V3.2.0)** series DVR.

Verify Contents

Verify that the package contents are correct by checking the items against the packing list.

Note: Please contact your dealer for damaged or missing items.

DVR Pre-Installation

The DS-8100-ST Series DVR is highly advanced surveillance equipment that should be installed with care. Please take into consideration the following precautionary steps before installation of 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 (~0.75in) of space between racks mounted devices.
6. Ensure the DVR is grounded.
7. Environmental temperature should be within the range of -10 °C ~ 55 °C, 14°F ~ 131°F.
8. Environmental humidity should be within the range of 10% ~ 90%.

Hard Disk Installation

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.

Tools Required: Screwdriver.

To install a HDD on DS-8100HCI-ST series DVR:

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



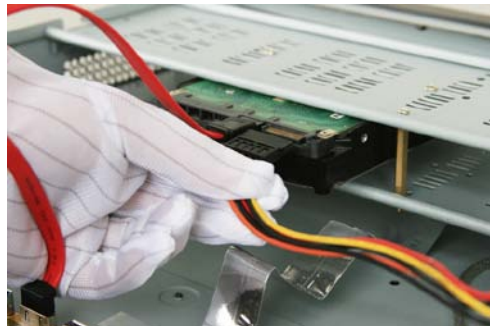
2. Install the HDD in the HDD rack using the provided screws. Fasten the screws on the button to fix the HDD.



3. Connect the HDD to the motherboard of the DVR with the included data cable.



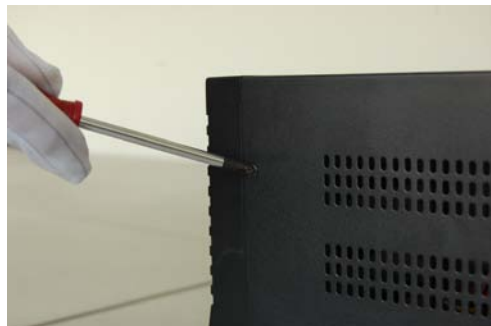
4. Connect the power cable to the HDD.



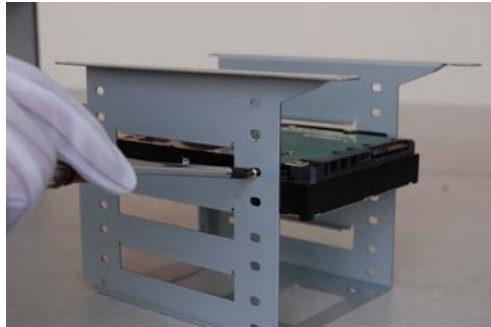
5. Re-install the cover of the DVR and fasten screws.

To install a HDD on DS-8100AH (F) (L) I-ST series DVR:

1. Remove the lid of the DVR by unfastening the screws on the back.



2. Take off the chassis and install the HDD on the chassis.



3. Connect the HDD to the motherboard of the DVR with the included data cable.



4. Connect the power cable to the HDD.



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

Front Panel

DS-8100HCI-ST Front Panel



The controls on the front panel include:

1. **Power Button:** Powers DVR on/off.
2. **IR Receiver:** Receiver for IR remote.
3. **USB Ports:** Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD).
4. **Status Indicators:** Status indicators for different features of the DVR.
 - **Alarm:** Alarm indicator turns red when a sensor alarm is detected.
 - **Ready:** Ready indicator turns blue when DVR is functioning properly.
 - **Status:** Status indicator turns blue when DVR is controlled by an IR remote. Indicator turns red when controlled by a keyboard and purple when IR remote and keyboard is used at the same time.
 - **HDD:** HDD indicator blinks red when data is being read from or written to HDD.
 - **Modem:** Reserved.
 - **TX/RX:** TX/RX indicator blinks blue when network connection is functioning properly.
 - **Guard:** Guard indicator turns blue when the device is armed, off when the device is unarmed. The arm/disarm state can be initiated by pressing and holding on the ESC button for more than 3 seconds in Preview mode.
5. **Alphanumeric Buttons:** Alphanumeric buttons used in various menus of the DVR. Some uses include:
 - Switching to the corresponding channel in Preview or PTZ Control mode.
 - Inputting numbers and characters in Edit mode.
 - Switching between different channels in Playback mode.
6. **Control Buttons:**
 - **ESC Button:** The ESC button is used to escape to the previous menu and to arm/disarm the DVR in Preview mode.
 - **REC/SHOT Button:** The REC/SHOT button is used to enter the Manual Record interface. If used when controlling a PTZ, pressing the REC/SHOT button and then a Numeric button will call a PTZ preset.
 - **PLAY/AUTO Button:** The PLAY/AUTO button is used to enter the Playback menu. It is also

used to turn audio on/off in the Playback menu and auto scan in the PTZ Control menu.

- **ZOOM+ Button:** The ZOOM+ button is used to zoom the PTZ camera in when in the PTZ Control menu.
- **A/FOCUS+ Button:** The A/FOCUS+ button is used to adjust focus in the PTZ Control menu. It is also used to switch between input methods (upper and lowercase alphabet, symbols and numeric input). It can also be used to clear entire masked areas, such as in the Motion Detection and Privacy Mask menus.
- **EDIT/IRIS+ Button:** The EDIT/IRIS+ button is used to 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 EDIT/IRIS+ button will *tick* the checkbox. In PTZ Control mode, the EDIT/IRIS+ button opens up the iris of the camera. In Playback mode, it can be used to generate video clips for backup.
- **MENU/WIPER Button:** Pressing the MENU/WIPER button will return the user to the Main menu (after successful login). Pressing and holding the button for 5 seconds will turn off audible key beep. The MENU/WIPER button will also bring up Sensitivity Interface settings. In PTZ Control mode, the MENU/WIPER button will start wiper (if applicable).
- **F1/LIGHT Button:** The F1/LIGHT button when used in a list field will select all items on the list. In PTZ Control mode, it will turn on/off PTZ light.
- **F2/AUX Button:** The F2/AUX button is used to cycle through tab pages. It will also bring up the Channel & OSD Position settings.
- **MAIN/SPOT/ZOOM- Button:** The MAIN/SPOT/ZOOM- button is used to switch to the control of spot output. In PTZ Control mode, it can be used to zoom the camera out.
- **PREV/FOCUS- Button:** The PREV/FOCUS- button is used to 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. It can also be used to select entire masked areas, such as in Motion Detection and Privacy Mask menus.
- **PTZ/IRIS- Button:** The PTZ/IRIS- button is used to enter the PTZ Control mode. When in the PTZ Control mode, it is used to close the iris of the PTZ camera.

7. DIRECTION/ENTER Buttons:

- **DIRECTION Buttons:** The DIRECTION buttons are used to navigate between different fields and items in menus. In 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 day of recordings. In Preview mode, these buttons can be used to cycle through channels.
- **ENTER Button:** 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 Play mode, pressing the ENTER button will advance the video by a single frame.

8. **JOG SHUTTLE Control:** The JOG SHUTTLE control can be used to move the active selection in a menu. The inner ring will move the selection up and down; the outer ring will move it left and right. In the Playback mode, the inner ring is used to jump 30s forward/backward in video files. The outer ring can be used to speed up/slow down the video. In Preview mode, it can be used to cycle through different channels.

DS-8100AH(F) (L) I-ST Front Panel



The controls on the front panel include:

1. **LCD:** Display local menu and preview.

Note: DS-8100AH (F) I-ST model is designed with no LCD.

2. **Status Indicators:** Status indicators for different features of the DVR.

- **Num Lock:** Press SHIFT button, the Num Lock indicator will turn on to blue, the control buttons will be used to input letters and numbers. Press SHIFT button again, the NumLock indicator will turn off, and the control buttons will resume.
- **Ready:** Ready indicator turns green when DVR is functioning properly.
- **Status:** Status indicator turns green when DVR is controlled by an IR remote.
- **Alarm:** Alarm indicator turns red when a sensor alarm is detected.
- **Modem:** Reserved.
- **HDD:** HDD indicator blinks red when data is being read from or written to HDD.
- **Link:** Link indicator is blue when network connection is functioning properly.
- **Tx/Rx:** TX/RX indicator blinks blue when network connection is functioning properly.
- **Ch1-Ch8:** The channel status indicator lights in green for recording of its corresponding channel, red for data transmission, and orange for both recording and data transmission.

Note: Only Ch1-Ch4 channel status indicators are valid for DS-8104AH (F) (L)I-ST model.

3. **Control Buttons:**

- **1/MENU Button:** The 1/MENU button works as numeric [1]. Pressing this button will return the user to the Main menu (after successful login). The 1/MENU button will also bring up Sensitivity Interface settings.
- **2ABC/VOIP:** The 2ABC button works as numeric [2] and letter [ABC]. When it is used in a list field will select all items on the list.
- **3DEF/INFO:** The 3DEF button works as numeric [3] and letter [DEF]. It is also used to cycle through tab pages.
- **4GHI/ESC:** The 4GHI/ESC button works as numeric [4] and letter [GHI], it is also used to escape to the previous menu.
- **5JKL/EDIT:** The 5JKL/EDIT button works as numeric [5] and letter [JKL]. The 5JKL/EDIT button is used to 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 EDIT/IRIS+ button will *tick* the checkbox. In Playback mode, it can be used to generate video clips for backup.

- **6MNO/PLAY:** The 6MNO/PLAY button works as numeric [6] and letter [MNO]. It is used to enter the Playback menu. It is also used to turn audio on/off in the Playback menu.
- **7PQRS/REC:** The 7PQRS/REC button works as numeric [7] and letter [PQRS]. It is also used to enter the Manual Record interface.
- **8TUV/PTZ:** The 8TUV/PTZ button works as numeric [8] and letter [TUV]. It is also used to enter the PTZ Control mode.
- **9WXYZ/PREV:** The 9WXYZ/PREVIEW button works as numeric [9] and letter [WXYZ]. It is also used to switch between single screen and multi-screen mode.
- **0/A:** The 0/A button works as numeric [0]. It is also used to switch between input methods (upper and lowercase alphabet, symbols and numeric input). It can also be used to clear entire masked areas, such as in the Motion Detection and Privacy Mask menus.
- **SHIFT:** The SHIFT button is used for switch button action between numeric button and control button.

4. **DIRECTION/ENTER Buttons:**

- **DIRECTION Buttons:** The DIRECTION buttons are used to navigate between different fields and items in menus. In Playback mode, the Up and Down button is used to speed up and slow down recorded video. The Left and Right button will jump 30s backward and forward in a video. In Preview mode, these buttons can be used to cycle through channels.
- **ENTER Button:** 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 Play mode, pressing the ENTER button will advance the video by a single frame.

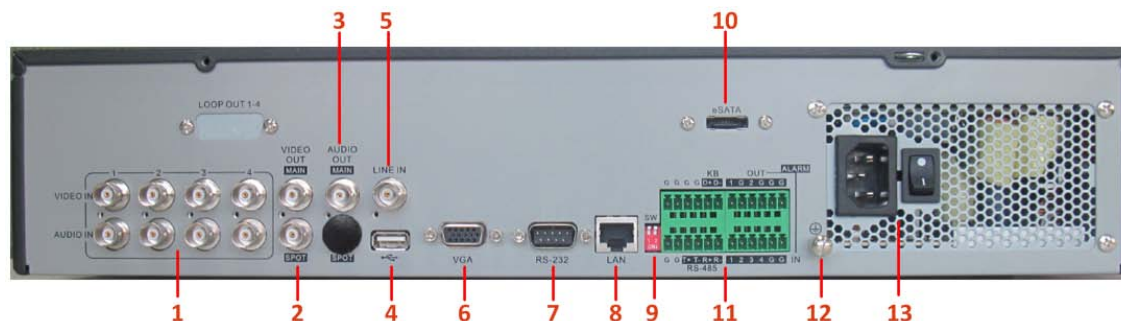
5. **POWER Button:** The POWER button is used for power on or power off the DVR.

6. **USB Ports:** Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD).

Note: It is important to note that you must click the EDIT button on either the remote or front panel on a text field before you're able to edit its content. After you're done entering text, you must hit the ENTER button to be able to move on to the next field.

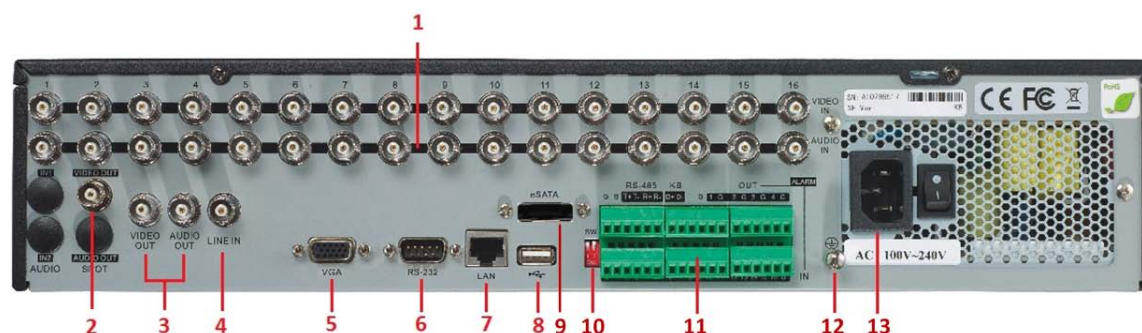
Rear Panel

DS-8104HCI-ST Rear Panel



No.	Item	Description
1	VIDEO IN	BNC connectors for analog video input.
	AUDIO IN	BNC connectors for analog audio input.
2	MAIN VIDEO OUT	BNC connectors for main video out. If VGA is connected when the device is started up, this interface will be used as the Aux video output with live view and pop-up alarm picture operations. If VGA is not connected, this interface will be used as the main video output with local video display and menu operations.
	SPOT VIDEO OUT	BNC connector for spot video out.
3	AUDIO OUT	BNC connector for main audio output.
4	USB Interface	Connector for USB devices.
5	LINE IN	BNC connector for audio input.
6	VGA	VGA output. Display local video output and menu. If VGA is connected when the device is started up, the VIDEO OUT interface will be used as the Aux video output with live view and pop-up alarm picture operations. If VGA is not connected, the VIDEO OUT interface will be used as the main video output with local video display and menu operations.
7	RS-232	DB9 connector for connection to RS-232 devices.
8	LAN Interface	Connector for LAN (Local Area Network).
9	Termination Switch	RS-485 termination switch. ON: not terminated; OFF: connect with 120Ω termination.
10	eSATA Interface	eSATA interface for storage and backup
11	RS-485 Interface	Connectors for RS-485 devices. T+, T- pin connects to PTZ.
	Controller port	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.
	ALARM IN	Connector for alarm input.
	ALARM OUT	Connector for alarm output.
12	GROUND	Ground(needs to be connected when DVR starts up)
13	POWER	100~240VAC power supply

DS-8108/8116HCI-ST Rear Panel



Note: DS-8108HCI-ST provides 8 video inputs and 8 audio inputs on rear panel.

No.	Item	Description
1	VIDEO IN	BNC connectors for analog video input.
	AUDIO IN	BNC connectors for analog audio input.
2	SPOT VIDEO OUT	BNC connector for monitor. Single-window view.
3	VIDEO OUT	BNC connector for video output. If VGA is connected when the device is started up, this interface will be used as the Aux video output with live view and pop-up alarm picture operations. If VGA is not connected, this interface will be used as the main video output with local video display and menu operations.
	AUDIO OUT	BNC connector for audio output. This connector is synchronized with VIDEO OUT.
4	LINE IN	BNC connector for audio input.
5	VGA	VGA output. Display local video output and menu. If VGA is connected when the device is started up, the VIDEO OUT interface will be used as the Aux video output with live view and pop-up alarm picture operations. If VGA is not connected, the VIDEO OUT interface will be used as the main video output with local video display and menu operations.
6	RS-232	DB9 connector for connection to RS-232 devices.
7	LAN Interface	Connector for LAN (Local Area Network).
8	USB Interface	Connector for USB devices.
9	eSATA Interface	eSATA interface for storage and backup
10	Termination Switch	RS-485 termination switch. ON: not terminated; OFF: connect with 120Ω termination.
11	RS-485 Interface	Connectors for RS-485 devices. T+, T- pin connects to PTZ.
	Controller port	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.
	ALARM IN	Connector for alarm input.
	ALARM OUT	Connector for alarm output.
12	GROUND	Ground(needs to be connected when DVR starts up)
13	POWER	100~240VAC power supply

DS-8100AH (F) (L) I-ST Rear Panel



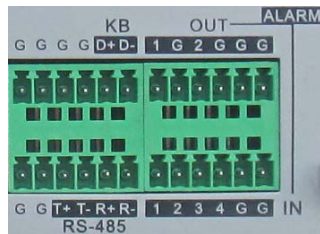
No.	Item	Description
1	VIDEO IN	BNC connectors for analog video input.
2	AUDIO IN	BNC connectors for analog audio input.
3	VIDEO OUT	BNC connector for video output. If VGA is connected, the interface will not function. If VGA is not connected, the interface is used as the main video output with local video display and menu operations.
	AUDIO OUT	BNC connector for audio output. This connector is synchronized with VIDEO OUT.
	LINE IN	BNC connector for audio input.
4	RS-232 Interface	RJ45 connector for RS232 devices.
5	VGA	VGA output. Display local video output and menu.
6	LAN	RJ-45 10M/100M/1000M adaptive Ethernet interface for DS-8100AHF (L) I-ST; RJ-45 10M/100M adaptive Ethernet interface for DS-8100AH (L) I-ST.
7	eSATA Interface	Reserved.
8	RS-485 Interface	Connector for RS-485 devices.
9	ALARM IN	Connectors for alarm input.
	ALARM OUT	Connectors for alarm output.
10	DC OUT	DC+12V/1A-1.5A power output for camera.
11	POWER	AC 100V~240V
12	GROUND	Ground(needs to be connected when DVR starts up)

Connections

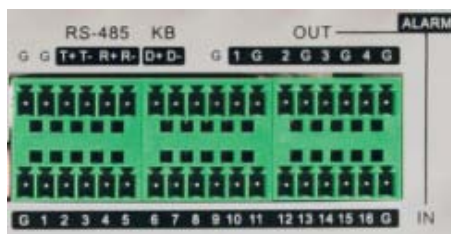
Connecting to Alarm Input / Output Device

Connections of DS-8100HCI-ST series DVR

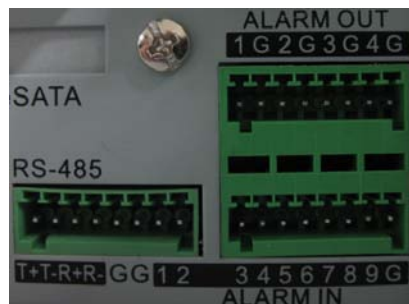
The alarm input/output interface of the DVR is shown below:



DS-8104HCI-ST series DVR

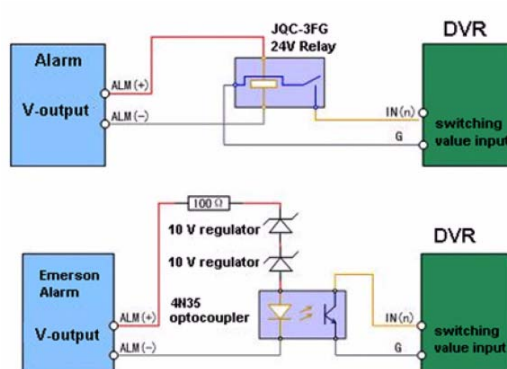


DS-8108/8116HCI-ST series DVR

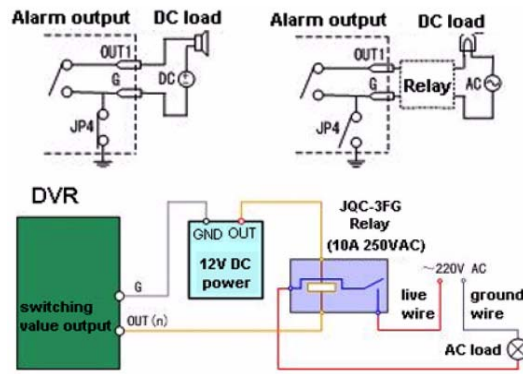


DS-8100AH (F) (L) I-ST series DVR

The alarm input is an open/closed relay. If the input is not an open/closed relay, follow the connection diagram below:



To connect to an AC/DC load, use the following diagram:



For DC load, JP4 can be used within the limit of 12V/1A safely. If the interface is connected to an AC load, JP4 should be left open. Use an external relay for safety (as shown in the figure above).

There are 4 jumpers (JP4, JP5, JP6, and JP7) on the motherboard, each corresponding with one alarm output. By default, jumpers are connected. To connect an AC load, jumpers should be removed.

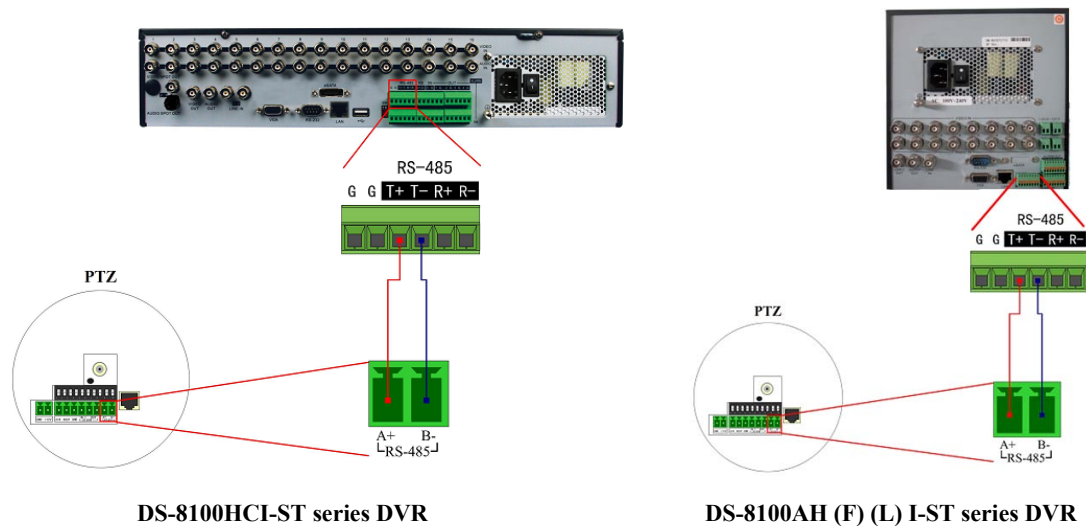
Note: An external relay is needed to prevent electric shock when connecting to an AC load.

Alarm Line Connection

To connect alarm devices to the DVR:

1. Disconnect *pluggable block* from the ALARM IN /ALARM OUT terminal block.
2. Unfasten stop screws from the *pluggable block*, insert signal cables into slots and fasten stop screws. Ensure signal cables are in tight.
3. Connect *pluggable block* back into terminal block.

RS-485 Connection



DS-8100HCI-ST series DVR

DS-8100AH (F) (L) I-ST series DVR

To connect RS-485 devices to the DVR:

1. Disconnect *pluggable block* from the RS-485 terminal block.
2. Unfasten stop screws from the *pluggable block*, insert signal cables into slots and fasten stop screws. Ensure signal cables are in tight.
3. Connect *pluggable block* back into terminal block.

Note: Make sure the pan/tilt receiver unit is connected to the T+ and T- of the DVR.

Specifications

Model		DS-8104HCI-ST	DS-8108HCI-ST	DS-8116HCI-ST
Video/Audio input	Analog video input	4-ch BNC connector (1.0Vp-p, 75Ω); PAL/NTSC adaptive	8-ch	16-ch
	Audio input	4-ch BNC connector (2.0Vp-p, 1kΩ)	8-ch	16-ch
	Voice talk input	1-ch, BNC connector (2.0Vp-p, 1kΩ)		
Video/Audio output	CVBS output	1-ch, BNC connector (1.0Vp-p, 75Ω); Resolution: PAL: 704×576, NTSC:704×480		
	VGA output	1-ch, resolution: 1024×768/60Hz		
	Audio output	1-ch, BNC connector (2.0Vp-p, 1kΩ)		
Video/Audio encoding	Video compression	H.264		
	Recording resolution	4CIF/2CIF/CIF/QCIF		
	Frame rate	4CIF/2CIF: 12fps; CIF/QCIF: 25fps(P)/30fps(N)	4CIF/2CIF: 8fps; CIF/QCIF: 25fps(P)/30fps(N)	4CIF/2CIF: 6fps; CIF/QCIF: 25fps(P)/30fps(N)
	Video bit rate	32Kbps~2048Kbps, or user-defined (Max. 3072Kbps)		
	Stream type	Video/ Video & Audio		
	Dual stream	Support		
	Audio compression	G.711		
	Audio bit rate	64kbps		
	Synchronous playback	4-ch	8-ch	16-ch
Hard disk	Type	4 SATA interfaces	8 SATA interfaces	8 SATA interfaces
	ESATA	1 ESATA interface		
	Capacity	Up to 2TB capacity for each interface		
External interface	Network interface	1, RJ45 10M/100M adaptive Ethernet interface		
	Serial interface	1 RS-485 serial interface, 1 RS-485 keyboard interface, 1 RS-232 serial interface		
	USB interface	3, USB2.0		
	Alarm in	4	16	16
	Alarm out	2	4	4
Others	Power supply	100~240 VAC, 6.3A, 50~60 Hz		
	Consumption	≤50W (without hard disk or DVD-R/W)		
	Working temperature	-10 °C ~+55 °C		
	Working humidity	10%~90%		
	Chassis	19-inch rack mounted 2U chassis		
	Size(mm)	95mm(H)×450mm(W)×450mm(D)		
Weight	≤8Kg (without hard disk or DVD-R/W)			

Model		DS-8104AH(L)I-ST	DS-8108AH(L)I-ST
Video/Audio input	Analog video input	4-ch	8-ch
		BNC connector (1.0Vp-p, 75Ω); PAL/NTSC adaptive	
	Audio input	4-ch	8-ch
		BNC connector (2.0Vp-p, 1kΩ)	
Voice talk input	1-ch, BNC connector (2.0 Vp-p, 1kΩ)		
Video/Audio output	CVBS output	1-ch, BNC connector (1.0 Vp-p, 75Ω); Resolution: PAL: 704×576, NTSC:704×480	
	VGA output	1-ch, resolution: 1024×768/60Hz	
	LCD Display	Available by DS-8104AHLI-ST and DS-8108AHLI-ST models	
	Audio output	1-ch, BNC connector (Linear, 600Ω)	
Video/Audio encoding	Video compression	H.264	
	Recording resolution	Channel 1: 4CIF/2CIF/CIF/QCIF Channel 2-4: CIF/QCIF	Channel 1: 4CIF/2CIF/CIF/QCIF Channel 2-8: CIF/QCIF
	Frame rate	25fps(P)/30fps(N)	
	Video bit rate	32Kbps~2048Kbps, or user-defined (Max. 3072Kbps)	
	Stream type	Video/ Video & Audio	
	Dual stream	Support	
	Audio compression	OggVorbis	
	Audio bit rate	64kbps	
Synchronous playback	4-ch		
Hard disk	Type	4 SATA interfaces	
	ESATA	1 ESATA interface (Reserved)	
	Capacity	Up to 2TB capacity for each interface	
External interface	Network interface	1, RJ45 10M/100M adaptive Ethernet interface	
	Serial interface	1 RS-485 interface, 1 RS-232 interface	
	USB interface	2, USB2.0	
	Alarm in	9	
Alarm out	4		
Others	Power supply	100~240 VAC, 6.3A, 50~60 Hz	
	Consumption	≤40W (without hard disk or DVD-R/W)	≤45W (without hard disk or DVD-R/W)
	Working temperature	-10°C~+55°C	
	Working humidity	10%~90%	
	Chassis	Chassis for ATM DVR	
	Size(mm)	180mm(H)×180mm(W)×280mm(D)	
Weight	≤5Kg (without hard disk or DVD-R/W)		

Model		DS-8104AHF(L)I-ST	DS-8108AHF(L)I-ST
Video/Audio input	Analog video input	4-ch	8-ch
		BNC connector (1.0Vp-p, 75Ω); PAL/NTSC adaptive	
	Audio input	4-ch	8-ch
		BNC connector (2.0Vp-p, 1kΩ)	
Voice talk input	1-ch, BNC connector (2.0Vp-p, 1kΩ)		
Video/Audio output	CVBS output	1-ch, BNC connector (1.0Vp-p, 75Ω); Resolution: PAL: 704×576, NTSC:704×480	
	VGA output	1-ch, resolution: 1024×768/60Hz	
	LCD Display	Available by DS-8104AHFLI-ST and DS-8108AHFLI-ST models	
	Audio output	1-ch, BNC connector (Linear, 600Ω)	
Video/Audio encoding	Video compression	H.264	
	Recording resolution	4CIF/DCIF/2CIF/CIF/QCIF	
	Frame rate	25fps(P)/30fps(N)	
	Video bit rate	32Kbps~2048Kbps, or user-defined (Max. 3072Kbps)	
	Stream type	Video/ Video & Audio	
	Dual stream	Support	
	Audio compression	OggVorbis	
	Audio bit rate	16kbps	
Hard disk	Synchronous playback	2-ch	4-ch
	Type	4 SATA interfaces	
	ESATA	1 ESATA interface (reserved)	
External interface	Capacity	Up to 2TB capacity for each interface	
	Network interface	1, RJ45 10M/100M/1000M adaptive Ethernet interface	
	Serial interface	1 RS-485 interface, 1 RS-232 interface	
	USB interface	2, USB2.0	
	Alarm in	9	
	Alarm out	4	
Others	Power supply	100~240 VAC, 6.3A, 50~60 Hz	
	Consumption	≤40W (without hard disk or DVD-R/W)	≤45W (without hard disk or DVD-R/W)
	Working temperature	-10°C~+55°C	
	Working humidity	10%~90%	
	Chassis	Chassis for ATM DVR	
	Size(mm)	180mm(H)×180mm(W)×280mm(D)	
	Weight	≤5Kg (without hard disk or DVD-R/W)	

HDD Storage Calculation Chart

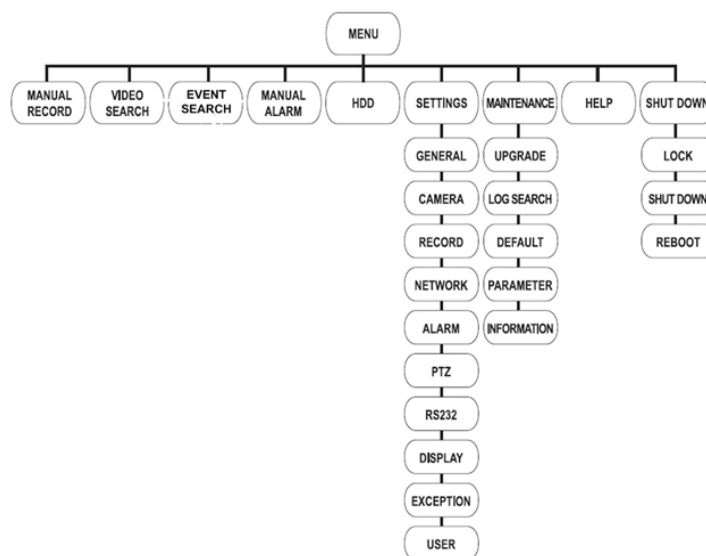
The following chart shows an estimation of storage space used based on recording at one channel for an hour at a fixed bit rate.

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

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

Menu Structure

The menu structure of the DS-8100-ST Series DVR is as followed:



Startup and Shutdown

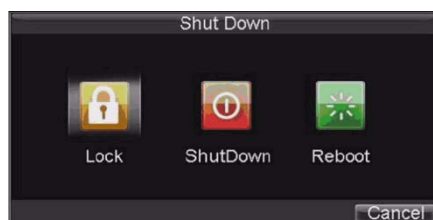
Proper startup and shutdown procedures are crucial to expanding the life of your DVR.

To start your DVR:

1. Ensure the power supply is plugged into an electrical outlet. It is **HIGHLY** recommended that an Uninterruptible Power Supply (UPS) is used in conjunction with the unit.
2. Press the POWER switch on the rear panel. After the power has been started up, the POWER indicator will light green.

To shut down the DVR:

1. Enter the Shutdown menu by clicking on Menu > ShutDown.



2. Select the *ShutDown* button.
3. Click the *Yes* button.

Using the Setup Wizard

By default, the Setup Wizard will start once the DVR has loaded. The Setup Wizard will walk you through some of the more important settings of your DVR. If you do not wish to use the Setup Wizard at this time, click the Cancel button. You may also choose to use the Setup Wizard at a later time by leaving the “**Start Wizard when DVR starts?**” checkbox checked.

To start using the Setup Wizard:

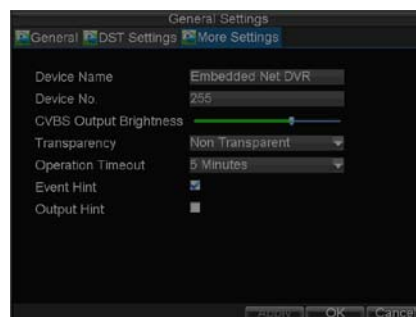
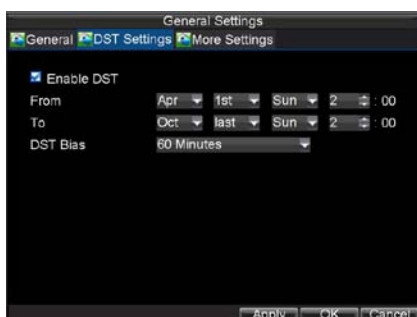
1. Click the *Next* button on the Wizard window. This will take you to the **User Permission** window.
2. Navigate to the **Admin Password** input field. Enter the admin password into the **Admin Password** input field. By default, the password is *12345*.
3. To change the admin password, check the **New Admin Password** checkbox. Enter the new password and confirm the password in the given fields.



4. Click the *Next* button. This will take you to the **General Settings** dialog box.



5. Click the Enter button to enter the General Settings interface.
6. Select the language, output standard, VGA resolution and time zone here. If you do not need to input password whenever you enter the menu, you can disable password.
7. Enter the correct date and time under **System Time**. Click the Apply button to save the setting.
8. Select the **DST Settings** tab to enable DST, and **More Settings** to change device name and number.



9. Click **OK** to return to the **Setup Wizard** window.
10. Click **Next** button to enter the HDD Management dialog box.



11. To access HDD management interface, click the **Enter** button.
12. If a new HDD has been recently installed, select the HDD from the list to initialize it. Initializing the HDD will format and remove all data from it.
13. After the HDD has been initialized, click the **OK** button which will take you back to the **Setup Wizard** window.
14. Click *Next* button to enter the **Record Settings** dialog box.

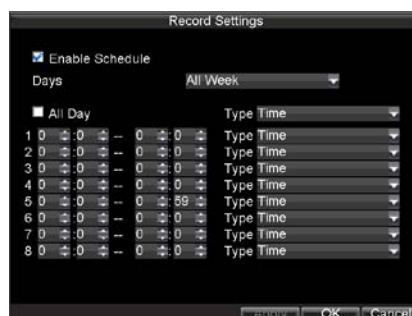
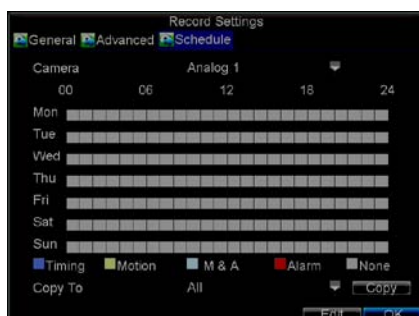
15.To access **Record Settings** interface, click the **Enter** button.



16.Select the **Schedule** tab.

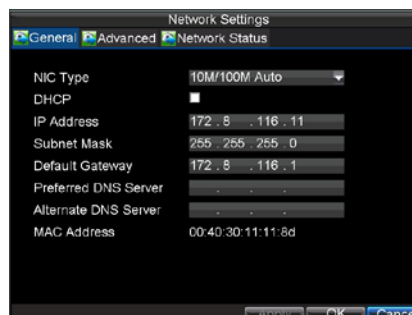
17.Click **Edit** button to enter a new recording schedule.

18.Check both the **Enable Schedule** and **All Day** checkbox. This will enable the recording schedule and make it record continuously all day.



19.Click the **OK** button. This will take you back to the **Schedule** tab. To copy the schedule to a different channel, select the channel or all under **Copy To** and click the **Copy** button.

20.Click **Next** button to access the **Network Settings** dialog box.



21.To configure network settings, click the **Enter** button.

22.Enter the **IP Address**, **Subnet Mask** and **Default Gateway** settings.

23.Click **OK** button to return to the **Setup Wizard**.

24.If all the settings have been entered, click **Done** to finish and exit the Setup Wizard.

Setting Date & Time

It is extremely important to setup the system date and time to accurately timestamp recordings and events.

To set date and time:

1. Enter **General Settings** menu by clicking Menu> Settings > General.
2. Enter the correct date and time under **System Time**.
3. Click the *Apply* button to save the setting.



Live View

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



Main Output



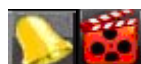
Aux Output



Event Alarm: Indicates video loss, video tampering, motion detection or relay alarm.



Record: Indicates the current channel is recording. The recording may have been started manually, from a schedule, and/or triggered from motion or alarm.



Event Alarm & Record: Indicates the current channel is in event alarm & recording status.



Alarm Icon: Indicates there is an alarm or exception.

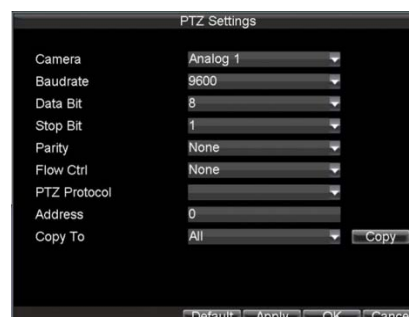
PTZ Control

Settings for a PTZ camera must be configured before it is used. Before proceeding, verify that the PTZ and RS-485 of the DVR are connected properly.

PTZ Settings

To configure PTZ settings:

1. Click Menu > Settings > PTZ to enter the **PTZ Settings** menu.
2. Select channel where PTZ camera is installed next to Camera label.
3. Configure the settings of baud rate, data bit, stop bit, parity, flow control, PTZ protocol and address.
4. Click **OK** to save settings and exit the PTZ Settings menu.



PTZ Control

The PTZ control panel in the live preview window provides a series of PTZ control buttons, as shown in the following figure:

1. **Directional Pad/Auto-scan Buttons:** Controls the movements and directions of the PTZ. The center button is also used to start auto-scan of PTZ.
2. **Zoom:** Used to zoom in and out with the PTZ.
3. **Focus:** Used to adjust the focus of the PTZ.
4. **Iris:** Used to open up or close the iris of the PTZ.
5. **Speed:** Adjusts the movement speed of the PTZ.
6. **Light:** Turns PTZ light (if applicable) on and off.
7. **Wiper:** Turns PTZ wiper (if applicable) on and off.
8. **Zoom In:** Instantly zooms PTZ in.
9. **Center:** Centers PTZ. Camera: Select a PTZ camera.



Preview Menu

Call Preset: Call a PTZ preset.

Call Patrol: Call a PTZ patrol.

Call Pattern: Call a PTZ pattern.

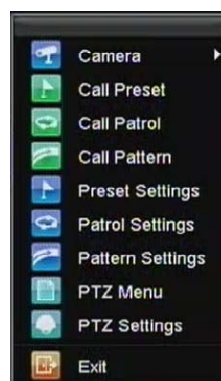
Preset Settings: Enter PTZ preset configuration menu.

Patrol Settings: Enter PTZ patrol configuration menu.

Pattern Settings: Enter PTZ pattern configuration menu.

PTZ Menu: Enter PTZ menu.

PTZ Settings: Enter PTZ settings menu.

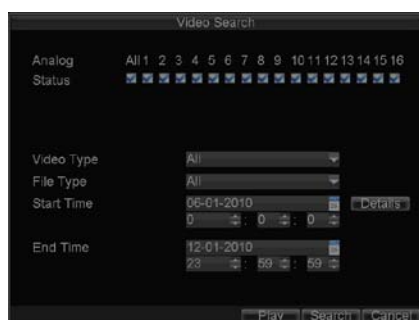


Playback

Playback by Video Search

To playback files from a general search:

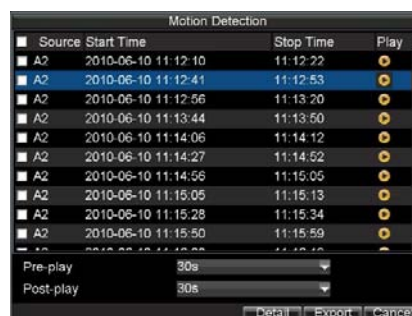
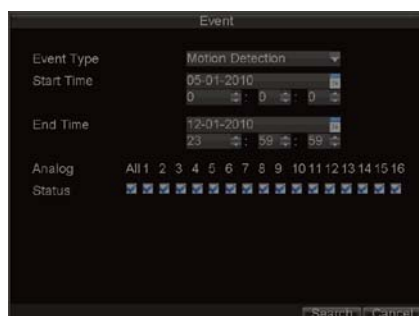
1. Enter into the **Video Search** menu by clicking Menu > Video Search.
2. Select General tab, and Set the search parameters by selecting cameras to search, video/file type and the start/end time.
3. Click the *Play* button to start playback of all the files found with the specified search criteria or click the *Search* button to bring up the list of search results. After search results are presented, select the file you would like to playback and press *Play* to enter synchronous playback cameras selection.
4. Recordings will automatically be played back in the **Playback** interface.



Playback by Event Search

To playback files from a video event search:

1. Enter into the Video Search menu by clicking Menu > Event Search.
2. Set the search parameters by selecting event type to search, alarm input/ channel and the start/end time.
3. Click the Search button to start bring up the list of search results. After search results are presented, you can press play icon to playback the selected event.



Playback by Card Number

Note: The playback by card No. is supported by DS-8100AH (F) (L) I-ST model only.

To play back files from a video search:

1. Enter into the Video Search menu by clicking Menu > Video Search.
2. Set the search parameters by selecting cameras, card no., video/file type and the start/end time to search.

Note: You can search and playback video files by their card numbers.

- Click the Play button to start playback of all the files found with the specified search criteria or click the Search button to bring up the list of search results. After search results are presented, select the file you would like to playback and press Play.
- Recordings will automatically be play backed in the Playback interface.



Playback by Live Preview

You may also instantly playback from a channel while watching a Live Preview. The playback will be of recordings from the past 5 minutes.

To playback from a channel instantly in Live Preview:

• **Using a Mouse:**

- Right-click the mouse on desired channel and select the *Playback* button.
- Recordings from the selected channel will start playing back in the Playback interface. An Attention message will appear if there are no recordings found from the previous 5 minutes. You may also press the Play button to view the day's recording for the selected channel.



- You may also select additional channels for playback from the channel list on the right hand side of the Playback interface.

• **Using the Front Panel/Remote:**

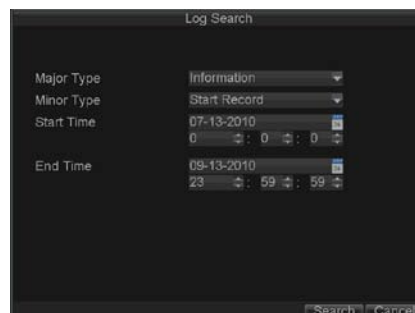
- Press the PLAY button. This will take you into the **Playback** interface.
- Enter the channel you would like to view recordings for on the front panel or remote (i.e. press 'SHIFT', the STATUS light will turn green, then press '1' for channel 1, press '2' for channel 2).
- Recordings will begin for the selected channel.

Playback by System Log

You may also playback recordings from the System Log.

To playback video from the System Log:

- Enter the Log Search menu by clicking Menu> Maintenance >Log Search.
- Set **Major Type** setting to *Information*.
- Set **Minor Type** setting to *Start Record* or *End Record*.
- Set **Start Time** and **End Time**.
- Click the Search button.
- A list of results with your search criteria will be displayed. Select the video log to playback and click Play.
- The recording will begin to play in the Playback interface.

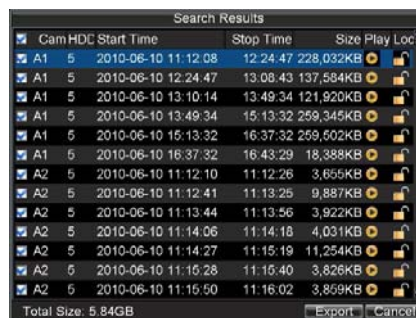
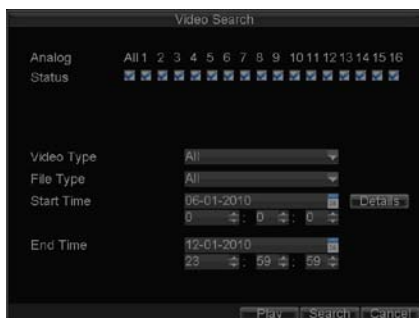


Backup

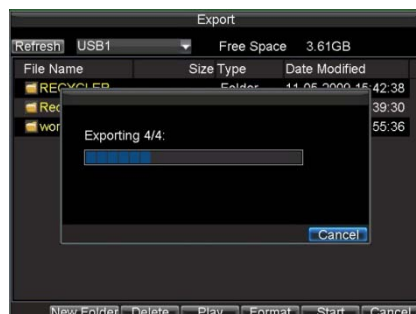
Recorded files can be backed up to various devices, such as USB flash drives, USB HDDs or a DVD writer.

To export recorded files:

1. Enter the **Export Video** menu by clicking Menu > Video Search.
2. Select desired parameters to search for files to export.
3. Press the *Export* button. This will take you to the **Video Search** menu.



4. Select the files to export. You may also click the **Play** button to verify that these files are indeed the ones you would like to export.
5. The size of the currently selected files is displayed in the lower-left corner of the window. Select the Next button to enter the **Export** menu.
6. Select device to export to from drop-down list (USB Flash Drive, USB HDD, and DVD Writer). If backup device is not recognized:
 - Click the *Refresh* button.
 - Reconnect device.
 - Check for compatibility from vendor.



7. Click *Start* to begin backup process.
8. After the backup process has completed, you may select the files from your device and click the *Play* button to verify that it has been exported successfully.

Note: Video Player software will automatically be copied on to the device that the recorded files were exported on.