

Digital Video Recorder

Quick Operation Guide

UD.6L0202B1052A02

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

This manual is applicable to the following models:

ADVR-0410H1M, ADVR-0820H2M, ADVR-1640H2M;

DVR Pre-Installation

This 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 (~0.75-inch) 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 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.

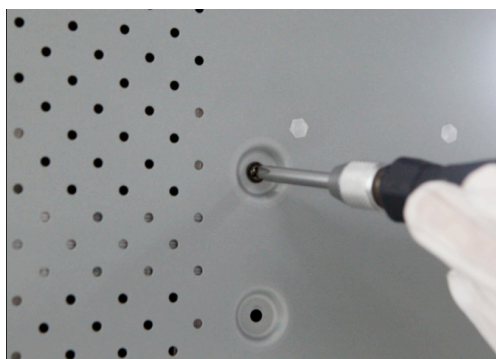
Tools Required: Screwdriver.

Steps:

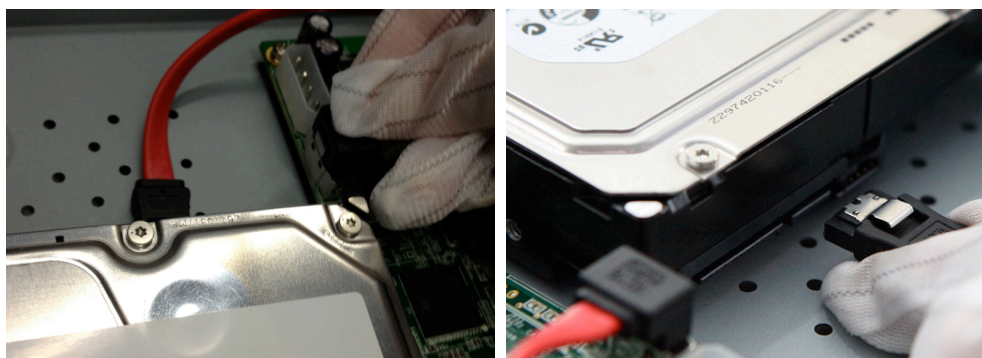
1. Remove the cover from the DVR by unfastening the screws on the back and side.



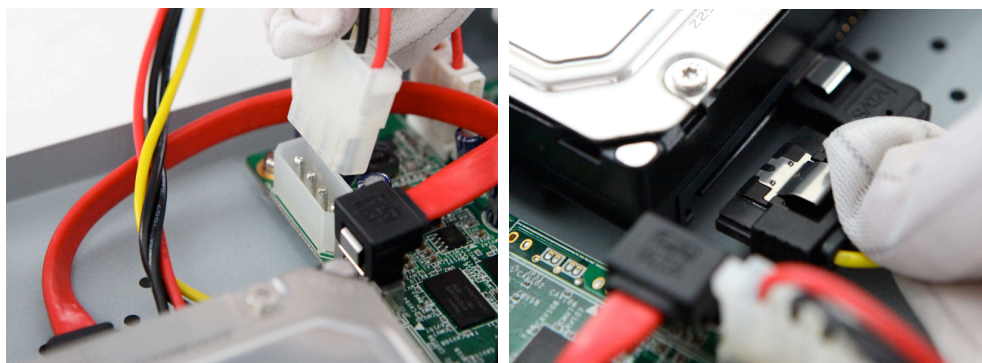
2. Install the HDD in the HDD rack using the provided screws. Fasten the screws on the bottom to fix the HDD.



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.

Front Panel

ADVR:

The front panel of ADVR is shown below:

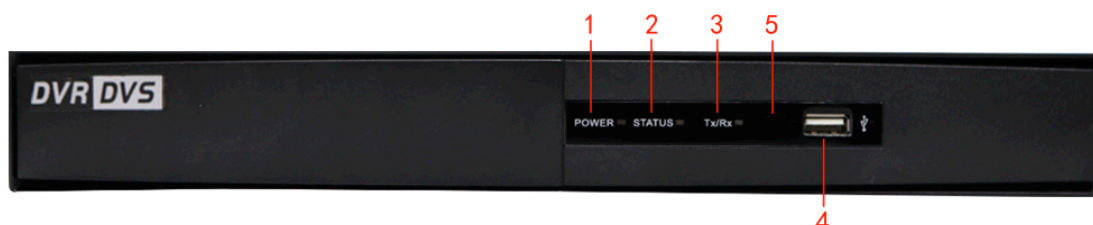


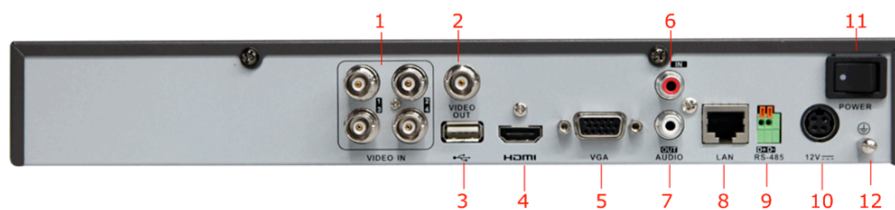
Table 1 Description of Control Panel Buttons

No.	Name	Function Description
1	POWER	POWER indicator turns green when DVR is powered up.
2	STATUS	STATUS indicator lights in red when data is being read from or written to HDD.

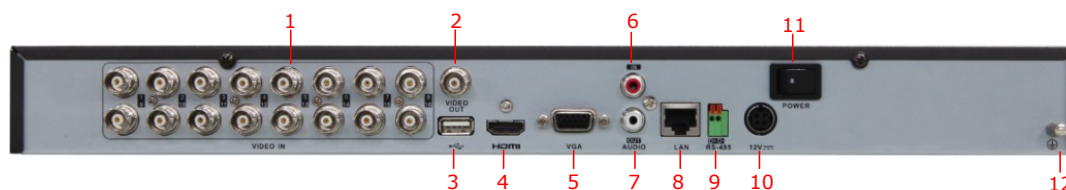
3	Tx/Rx	Tx/Rx indicator blinks green when network connection is functioning properly.
4	USB Interface	Connects USB mouse or USB flash memory devices.
5	IR Receiver	Receiver for IR remote.

Rear Panel

ADVR-0410H1M:



ADVR-1640H2M:



Note: ADVR-0820H2M provide 8 video input interfaces.

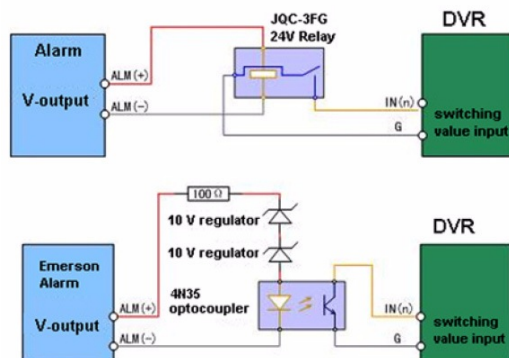
Table 2 Description of Rear Panel

No.	Item	Description
1	VIDEO IN	BNC connector for analog video input.
2	VIDEO OUT	BNC connector for video output.
3	USB Interface	Connects USB mouse or USB flash memory devices.
4	HDMI	HDMI video output.
5	VGA	DB15 connector for VGA output. Display local video output and menu.
6	AUDIO IN	RCA connector for audio input.
7	AUDIO OUT	RCA connector for audio output.
8	LAN Interface	RJ45 10M / 100M Ethernet interface.
9	RS-485 Interface	Connector for RS-485 devices. Connect the D+ and D- terminals to R+ and R- terminals of PTZ receiver respectively.
10	12V	12VDC power supply.
11	POWER	Switch for turning on/off the device.
12	GND	Ground(needs to be connected when DVR starts up)

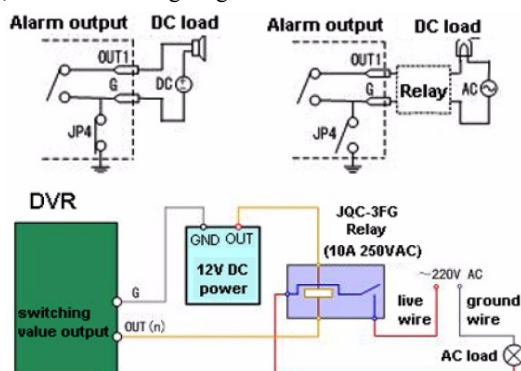
Peripheral Connections

Connecting to Alarm Input / Output Device

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 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 Connections

To connect RS-485 devices (e.g., pan/tilt unit) to the DVR:

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.

Note: Make sure the pan/tilt receiver unit is connected to the D+ and D- of the RS-485 terminal of ADVDR.

Specifications

Table 3 Specifications for ADVR

Model		ADVR-0410H1M	ADVR-0820H2M	ADVR-1640H2M
Video/Audio input	Video compression	H.264		
	Video input	4-ch	8-ch	16-ch
	Video input interface	BNC (1.0 Vp-p, 75 Ω), PAL /NTSC self-adaptive		
	Audio compression	G.711		
	Audio input	1-ch, RCA (2.0 Vp-p, 1 kΩ)		
	Two-way audio input	1-ch, RCA (2.0 Vp-p, 1 kΩ) (using the audio input)		
Video/Audio output	HDMI/VGA output	1-ch, resolution: 1080P: 1920×1080/60Hz; SXGA: 1280×1024/60Hz; 720P: 1280×720/60Hz; XGA: 1024×768/60Hz		
	CVBS output	1-ch, BNC (1.0 Vp-p, 75 Ω), resolution: PAL: 704 × 576, NTSC: 704 × 480		
	Encoding resolution	WD1 / 4CIF / 2CIF / CIF / QCIF		
	Frame rate	25 fps (P) / 30 fps (N)		
	Video bit rate	32 Kbps ~ 3072 Kbps, or user defined (Max. 3072 Kbps)		
	Audio output	1-ch, RCA (Linear, 1 kΩ)		
	Audio bit rate	64 Kbps		
	Dual-stream	Support; sub-stream @ CIF/ QCIF		
	Stream type	Video, Video & Audio		
	Synchronous playback	4-ch	8-ch	16-ch
Hard disk	SATA	1 SATA interface	2 SATA interfaces	
	Capacity	Up to 4TB capacity for each disk		
External interface	Network interface	1, RJ45 10M / 100M Ethernet interface		
	Serial interface	1 RS-485 interface, half-duplex		
	USB interface	2, USB 2.0		
General	Power supply	12 VDC		
	Consumption (without hard disk or DVD-R/W)	≤ 10 W	≤ 15 W	≤ 20 W
	Working temperature	-10 °C ~+55 °C		
	Working humidity	10% ~ 90%		
	Chassis	Standalone 1U chassis	19-inch rack-mounted 1U chassis	
	Dimensions (W × D × H)	315 × 230 × 45 mm	445 × 290 × 45mm	

	Weight (without hard disk or DVD-R/W)	≤ 2 kg	≤ 4 kg	≤ 4 kg
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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.

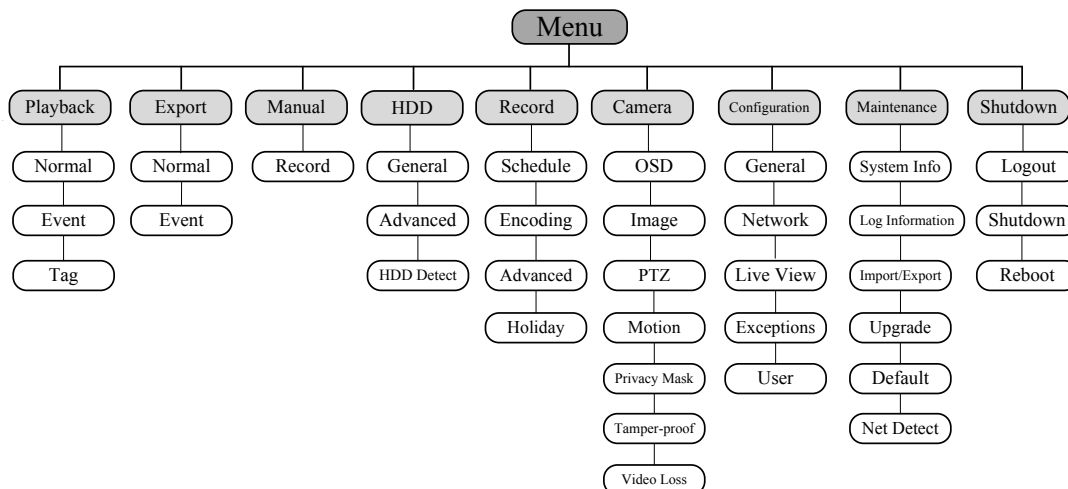
Bit Rate	Storage Used
96K	42M
128K	56M
160K	70M
192K	84M
224K	98M
256K	112M
320K	140M
384K	168M
448K	196M
512K	225M
640K	281M
768K	337M
896K	393M
1024K	450M
1280K	562M
1536K	675M
1792K	787M
2048K	900M
3072Kbps	1350M

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 Operation

Menu Structure

The menu structure of the ADVR is shown as below:



Startup and Shutdown

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

Before you start:

Check that the voltage of the extra power supply is the same with the device’s requirement, and the ground connection is working properly.

Starting up the device:

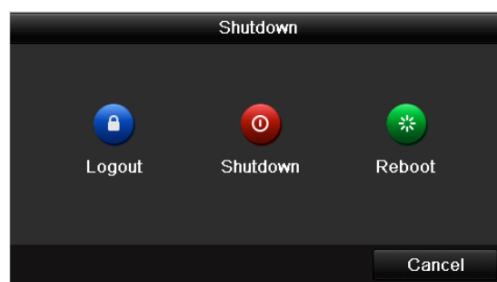
Steps:

1. 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.
2. Press the **POWER** button on the rear panel. The Power indicator LED should turn green indicating that the unit begins to start up.

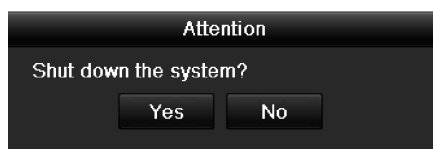
Shutting down the device:

Steps:

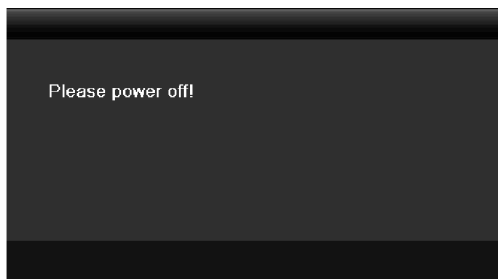
1. Enter the Shutdown menu.
Menu > Shutdown



2. Click the **Shutdown** button to enter the following dialog box:



3. Click the **Yes** button. The following message box pops up:



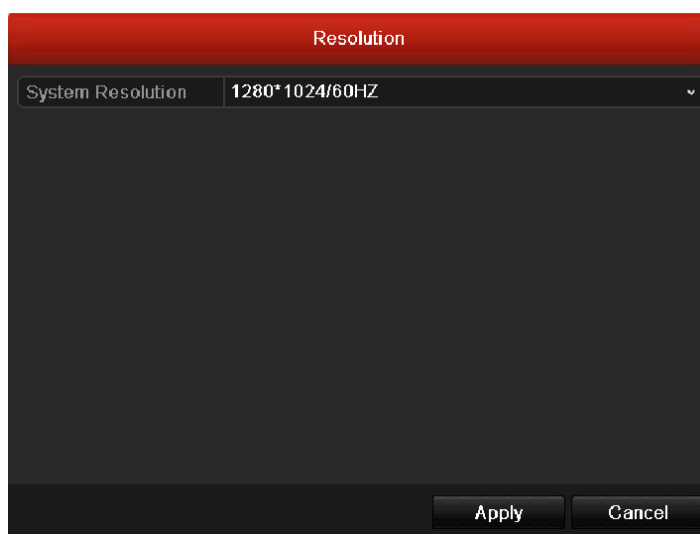
4. Turn off the power switch on the rear panel of DVR.

Using the Setup Wizard

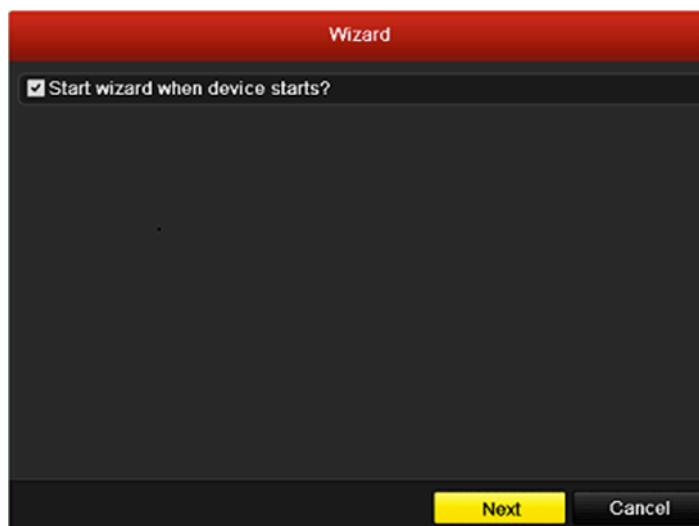
The Setup Wizard can walk you through some important settings of the device. By default, the Setup Wizard starts once the device has loaded.

Operating the Setup Wizard:

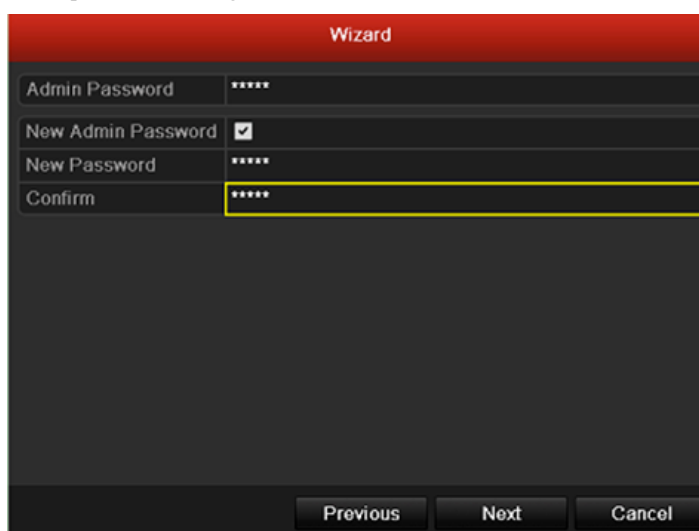
1. Select the system resolution from the dropdown menu. The default resolution is 1280×1024/60Hz.
Click **Apply** to save the resolution settings.



2. Check the checkbox to enable Setup Wizard when device starts. Click **Next** to continue the setup wizard.
You can also click **Cancel** to exit the Setup Wizard, or use the Setup Wizard next time by leaving the “Start wizard when device starts?” checkbox checked and exit.



3. Click **Next** button on the Wizard window to enter the Login window.
 - 1) Enter the admin password. By default, the password is 12345.
 - 2) 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 to enter the Date and Time settings window.

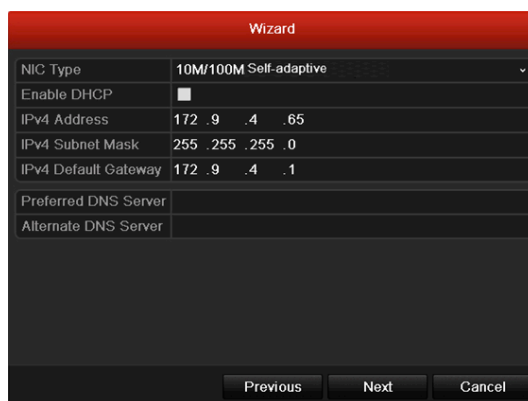
Set the time zone, date format, system date and system time.



5. Click **Next** button which takes you back to the Network Setup Wizard window.

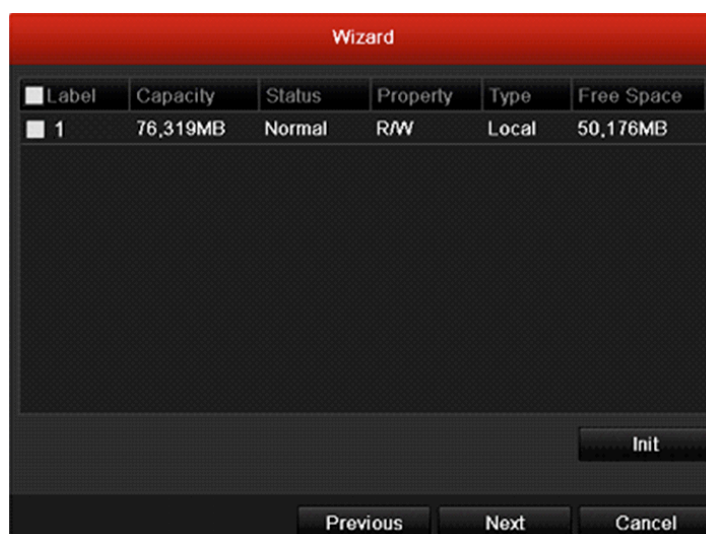
Set the network parameters, including the NIC type, IPv4 address, IPv4 subnet mask, default gateway, etc.

You can enable the DHCP to automatically obtain an IP address and other network settings from that server.



6. Click **Next** button to enter the **HDD Management** window.

To initialize the HDD, click the **Init** button. Initialization removes all the data saved in the HDD.



7. Click **Next** button to enter the **Record Settings** window.

- 1) Select the camera to configure.
- 2) Check the checkbox to enable **Start Recording**.

- 3) Select the recording mode to Normal or Motion Detection.



- 4) Click **Copy** to copy the record settings of the current camera to other camera (s) if needed.



- 5) Click **OK** to return to the **Record Settings** window.

8. Click **OK** to complete the startup Setup Wizard.

Live View

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

Live View Icons

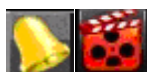
In the live view mode, there are icons at the right top of the screen for each channel, showing the status of the record and alarm in the channel, so that you can find problems as soon as possible.



Alarm (video loss, tampering, motion detection or sensor alarm).



Record (manual record, schedule record, motion detection record or alarm triggered record)



Alarm & Record

Using the Mouse in Live View

In the live view mode, use the mouse to right-click on the window to access the following menu:

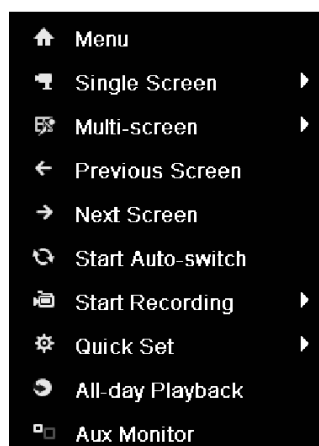


Table 4 Mouse Operation in Live View

Name	Description
Menu	Enter the main menu of the system by right-clicking the mouse.
Single Screen	Switch to the single full screen by choosing channel number from the dropdown list.
Multi-screen	Adjust the screen layout by choosing from the dropdown list.
Previous Screen	Switch to the previous screen.
Next Screen	Switch to the next screen.
Start/Stop Auto-switch	Enable/disable the auto-switch of the screens. Note: The <i>dwell time</i> of the live view configuration must be set before using Start Auto-switch .
Start Recording	Start all-day normal recording or motion detection recording for all channels.
Quick Set	Set the video output mode to Standard, Bright, Gentle or Vivid.
All-day Playback	Play back the video of the selected channel.
Aux Monitor	Switch to the auxiliary output mode and the operation for the main output is disabled. Note: If you enter Aux monitor mode and the Aux monitor is not connected, the mouse operation is disabled; you need to switch back to the Main output with the F1 button on front panel or VOIP/MON button on IR remote control and then press the Enter button.

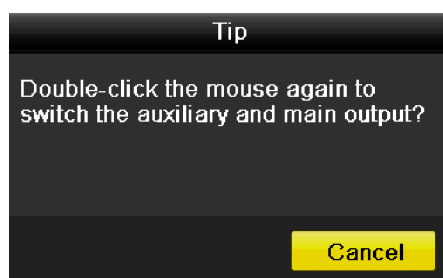
Note: If the corresponding camera supports intelligent function, the Reboot Intelligence option is included when right-clicking mouse on this camera.

Main/Aux Output Switching

When the HDMI/VGA output is configured as the main output, you can perform the following operation to switch to CVBS output as the main output.

Steps:

1. Use the mouse wheel to double-click on the HDMI/VGA output screen, and the following message box pops up:



2. Use the mouse wheel to double-click on the screen again to switch to the Aux output, or click Cancel to cancel the operation.
3. Select the **Menu Output Mode** to **Main CVBS** from the right-click menu on the CVBS output screen.
4. On the pop-up message box, click **Yes** to restart the device to enable the CVBS output as the main output.

Note: You can select the Menu Output Mode under Menu>Configuration>More Settings to Auto or HDMI/VGA and then restart the device to switch the main output back to HDMI/VGA output.

PTZ Control

Follow the procedure to set the parameters for PTZ. The configuring of the PTZ parameters should be done before you set the PTZ camera.

Before you start, please check that the PTZ and the DVR are connected properly through RS-485 interface.

In the Live View mode, you can press the PTZ Control button on the IR remote control, or choose the PTZ




















Control icon  to enter the PTZ toolbar.



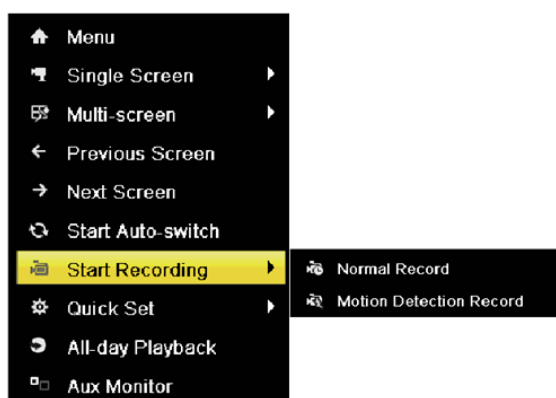
Table 5 Description of the PTZ toolbar icons

Icon	Description	Icon	Description	Icon	Description
	Direction button and the auto-cycle button		Zoom+, Focus+, Iris+		Zoom-, Focus-, Iris-
	The speed of the PTZ movement		Light on/off		Wiper on/off
	3D-Zoom		Image Centralization		Preset
	Patrol		Pattern		Menu
	Previous item		Next item		Start pattern/patrol
	Stop the patrol or pattern movement		Minimize windows		Exit

Record

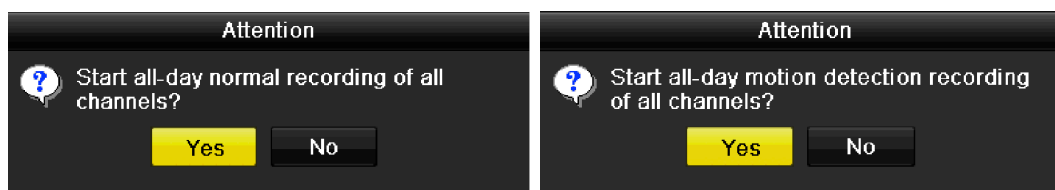
You can use the right-click menu in live view mode to configure recording for all channels.

1. In the live view mode, use the mouse to right-click on the window to access the following menu:



2. Click the **Start Recording** submenu and select the recording mode to **Normal Record** or **Motion Detection Record**.

3. In the pop-up message box, click **Yes** to finish the quick recording settings for all channels.




Note: The full-screen motion detection triggered recording is configured by default in this mode.

Playback

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

Instant playback by channel

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

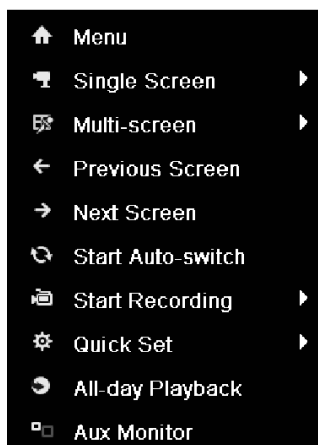
Note: Only record files recorded during the past five minutes on this channel will be played back.



All-day Playback by channel

1. Enter the All-day Playback menu.

Mouse: right-click a channel in live view mode and select All-day Playback from the menu.



Press **PLAY** button on the front panel or IR remote control to play back record files of the channel under single-screen live view.

Under multi-screen live view, record files of the top left channel (not masked) will be played back.

2. Playback management.

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



The channel and time selection menu will display by moving the mouse to the right of the playback interface.

Tick 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 a DVD writer.

To export recorded files:

1. Click Menu>Export to 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 **Export** button to start exporting.



3. Check backup result.

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

