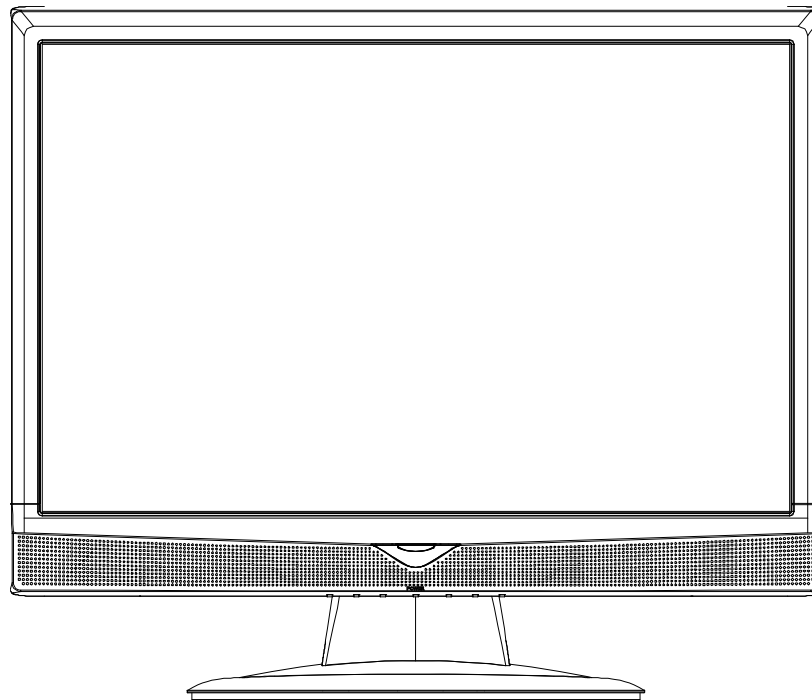


LCD Digital Video Recorder

QUICK START



Please read instructions thoroughly before operation and retain it for future reference.

1. KNOWING YOUR LCD DVR

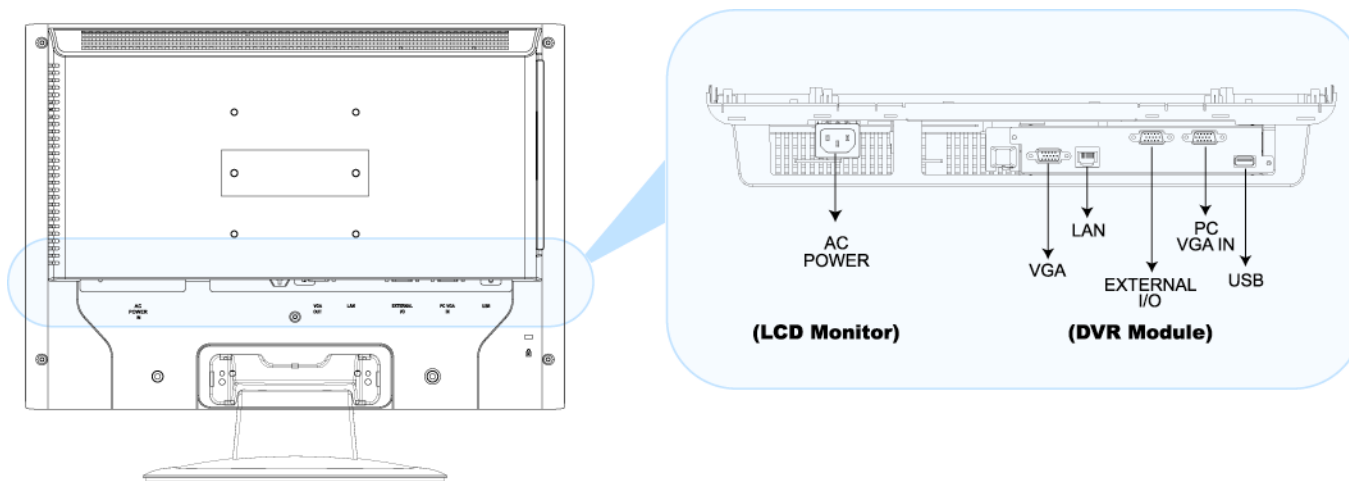
1.1 Rear Panel

Below shows the illustration when the DVR module is installed in the LCD monitor (view from bottom to top).

Note: For how to install the DVR module to the LCD monitor, please refer to “2.2 Install DVR Module to LCD Monitor” at page 4.

For how to remove the DVR module from the LCD monitor, please refer to “APPENDIX 4” in the user manual.

• Model 1



1) AC POWER

Connect to power with the supplied LCD monitor power cable.

2) VGA OUT

Connect the monitor directly to this jack on the DVR module.

3) LAN

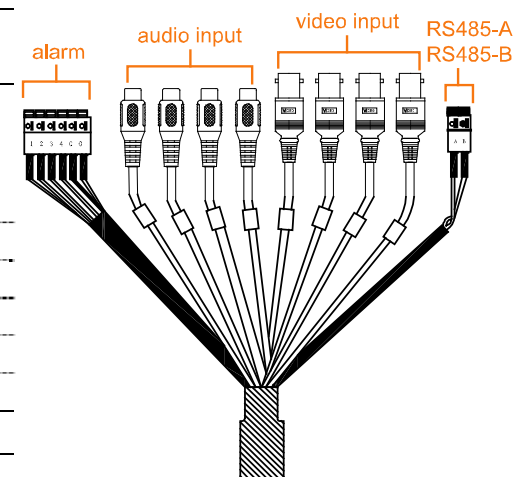
Connect to network with a network cable.

4) EXTERNAL I/O

Connect the supplied cable for video, audio, alarm, and external device (such as PTZ camera) connection.

Each connector is labeled as follows:

Label	Meaning	Description										
V1 ~ V4	Video Input 1 ~ 4	Connect to video sources, such as cameras.										
A1 ~ A4	Audio Input 1 ~ 4	Connect to audio sources, such as cameras equipped with the audio function.										
1 ~ 4	Alarm: Alarm Input 1 ~ 4	Connect alarm input (1~4) and GND connector with wires. Once an alarm is triggered, the DVR will start recording the corresponding channel, and the buzzer will be on.										
		<table border="1"> <thead> <tr> <th>Label</th> <th>Corresponding Channel...</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Channel 1</td> </tr> <tr> <td>2</td> <td>Channel 2</td> </tr> <tr> <td>3</td> <td>Channel 3</td> </tr> <tr> <td>4</td> <td>Channel 4</td> </tr> </tbody> </table>	Label	Corresponding Channel...	1	Channel 1	2	Channel 2	3	Channel 3	4	Channel 4
Label	Corresponding Channel...											
1	Channel 1											
2	Channel 2											
3	Channel 3											
4	Channel 4											
G	Alarm: GND	Ground										
O	Alarm: Output											
A & B	RS485-A RS485-B	Used to connect to a PTZ camera, keyboard controller, or other compatible external device.										



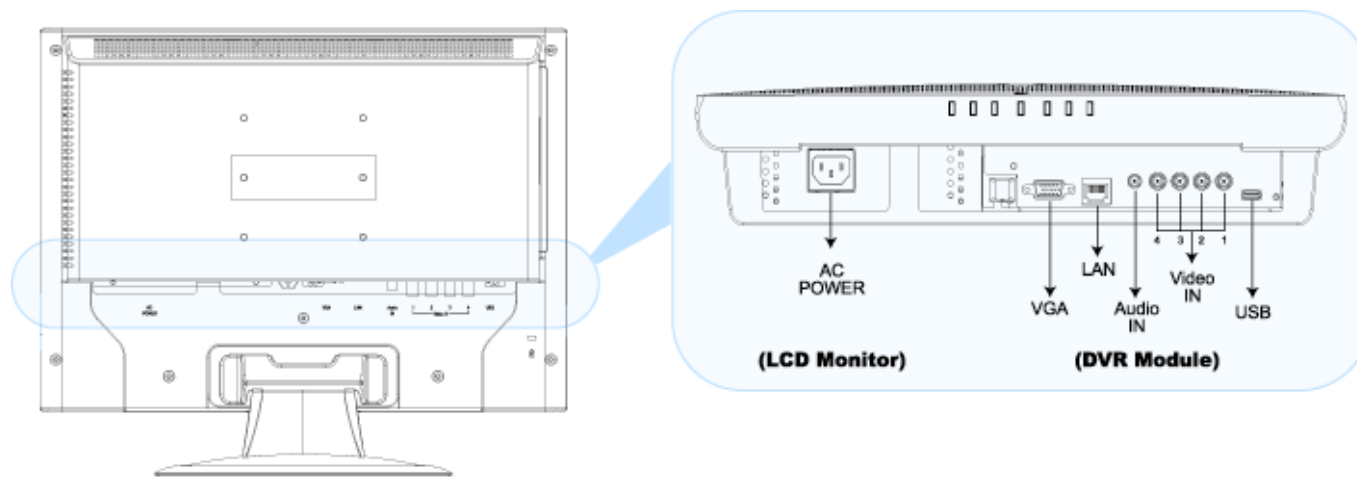
5) PC VGA IN

Connect the DVR module and your PC with an additional monitor video cable to switch the display between the DVR and PC.

6) USB

To quickly backup or upgrade firmware/OSD, you can insert a compatible USB flash drive into this USB port. Before using the USB flash drive, please use your PC to format the USB flash drive as “FAT32” first.

• **Model 2**



7) **AC POWER**

Connect to power with the supplied LCD monitor power cable.

8) **VGA OUT**

Connect the monitor directly to this jack on the DVR module.

9) **LAN**

Connect to network with a network cable.

10) **Audio IN**

Connect to an audio source, such as a camera with the audio function.

11) **Video IN (1 ~ 4)**

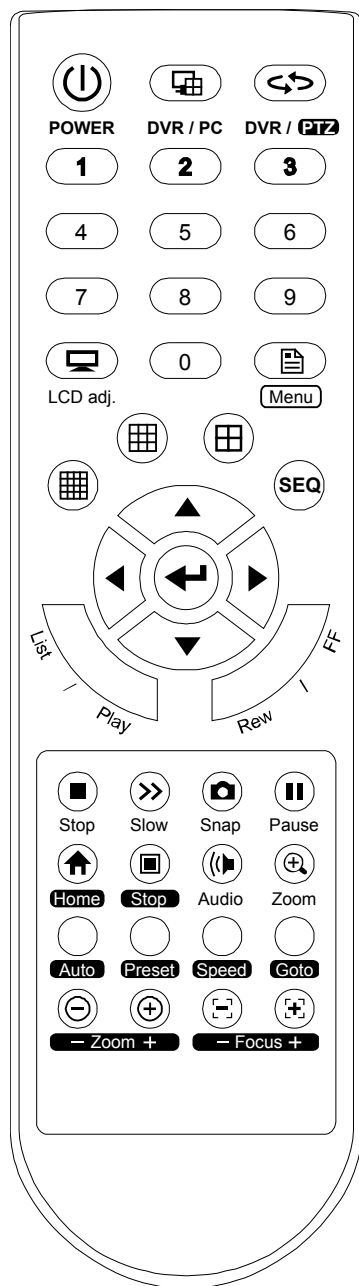
Connect to video sources, such as cameras.

Note: If you want to make a video backup with audio, please make sure whether your DVR supports the audio function, and connect audio cameras to the channels which support the audio function.

12) **USB**

To quickly backup or upgrade firmware/OSD, you can insert a compatible USB flash drive into this USB port. Before using the USB flash drive, please use your PC to format the USB flash drive as "FAT32" first.

1.2 IR Remote Controller



POWER	<ol style="list-style-type: none"> 1. Press shortly to enter the monitor power saving mode. 2. Press long enough to power off the DVR. The system will prompt you to stop recording and confirm the power-off when the DVR is in the record mode. To power on the DVR, press it again.
DVR / PC	Press to switch the display between your DVR and PC. (Applicable only for selected model)
DVR / PTZ	Press to switch the control between your DVR and PTZ camera (if your DVR supports PTZ camera connection). You will see the icon "📹" on the display when you're in the PTZ mode.
NUMBER PAD	0 ~ 9: <ol style="list-style-type: none"> 1. Press to switch to the channel you want. 2. In the keylock mode, used to key in the DVR password. 3. In the PTZ mode, used with the key "Goto" to have different functions. (Applicable only for selected model)
LCD adj.	Press to enter the LCD monitor's menu to adjust some setting parameters. You will see the icon "📺" on the display when you're in the monitor adjustment mode.
Menu	<ol style="list-style-type: none"> 1. Press to enter the DVR menu (in the DVR mode) or PTZ camera menu (in the PTZ mode). 2. In the DVR or PTZ menu, press to exit the menu setting.
📺 / 📺 / 📺	Press to switch the channel display in the 4-cut / 9-cut / 16 cut mode.
SEQ.	Press to switch the channel display one by one in the full screen, and press again to quit. The channel(s) with video loss or covert recording will be skipped when you're in the SEQ. mode.
Arrow Keys	<p>▲ / ▼ / ◀ / ▶: In the menu, press to move the selection up / down / left / right.</p> <p>▲ / ▼: In the setting mode, press to change the function setting.</p>
⬅	Press to enter the sub-menu, or confirm your selection.
List	Press to quickly search the recorded files by four event lists: RECORD LIST / MOTION LIST / ALARM LIST / TIMER LIST, or select FULL LIST to show all the event logs. Select the log you want, and press "⬅" to play the selected file.
Playback Keys	<p>Play: Press to play the recorded video.</p> <p>Rew: Press to fast rewind the playback video.</p> <p>FF: Press to fast forward the playback video.</p> <p>Stop: Press to stop the playback video.</p> <p>Slow: Under the playback mode, press to slowly playback the recorded file.</p> <p>Pause: Press to pause the playback video.</p>
Snap	Press to take a snapshot for the current live video image, and save the image in the USB flash drive. Before using this function, please insert the compatible USB flash drive into the USB port on the DVR module.
Audio	Press to select the audio channel(s) you want in the live or playback mode. In the live mode, you can only hear the live audio; in the playback mode, you can only hear the recorded audio. To make a video backup with audio, make sure the camera supporting audio function is connected to audio input.
Zoom	In the live or playback mode, press to enlarge the image of the selected channel. This function is not applicable when the display mode is set to "DEFAULT".
PTZ Control Keys (Applicable only for selected model)	<p>Home: Press to return to the home position.</p> <p>Stop: Press to stop the auto mode.</p> <p>Auto: Press to enter the auto mode of the PTZ camera.</p> <p>Preset: Enter the menu to set the preset points.</p> <p>Speed: This key is reserved for future use.</p> <p>Goto: To operate the PTZ camera to a specific preset point, press "GOTO" and the number of the point you want.</p> <p>Zoom: Press one of them to adjust the optical zoom in/out ratio of the PTZ camera.</p> <p>Focus: Press one of them to adjust the focus of the PTZ camera.</p>

2. CONNECTION AND SETUP

Note: The DVR is designed to automatically detect the video system of the connected cameras (NTSC or PAL). To make sure the system detection is correct, please check if the cameras are connected to the DVR and power-supplied before the DVR is powered on.

2.1 Install HDD

One SATA HDD should be installed in the DVR module, and it must be purchased separately.

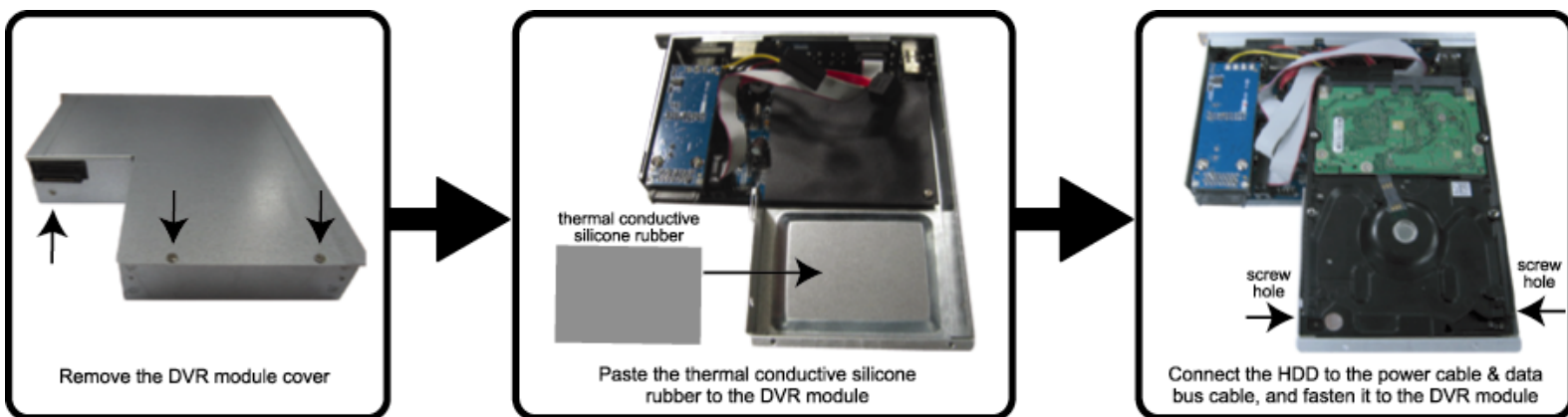
Step 1: Loosen the screws on the upper cover and remove it.

Step 2: Find the thermal conductive silicone rubber in the accessory pack, and paste it to the protrusive surface on the module.

Step 3: With the PCB side facing up, connect the compatible SATA HDD to the data bus and power, and place it in the module.

Step 4: Find the two screw holes on the module, and fasten the HDD to the module with the supplied screws, one for each side.

Step 5: Close the upper cover of the module, and fasten all the screws you loosened in Step 1.

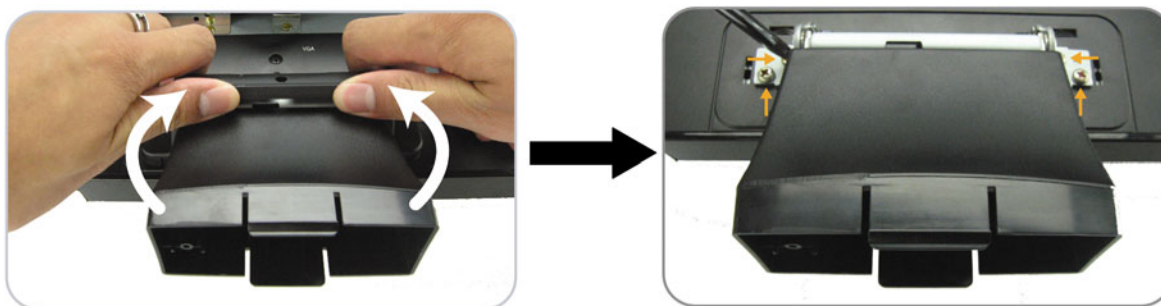


2.2 Install DVR Module to LCD Monitor

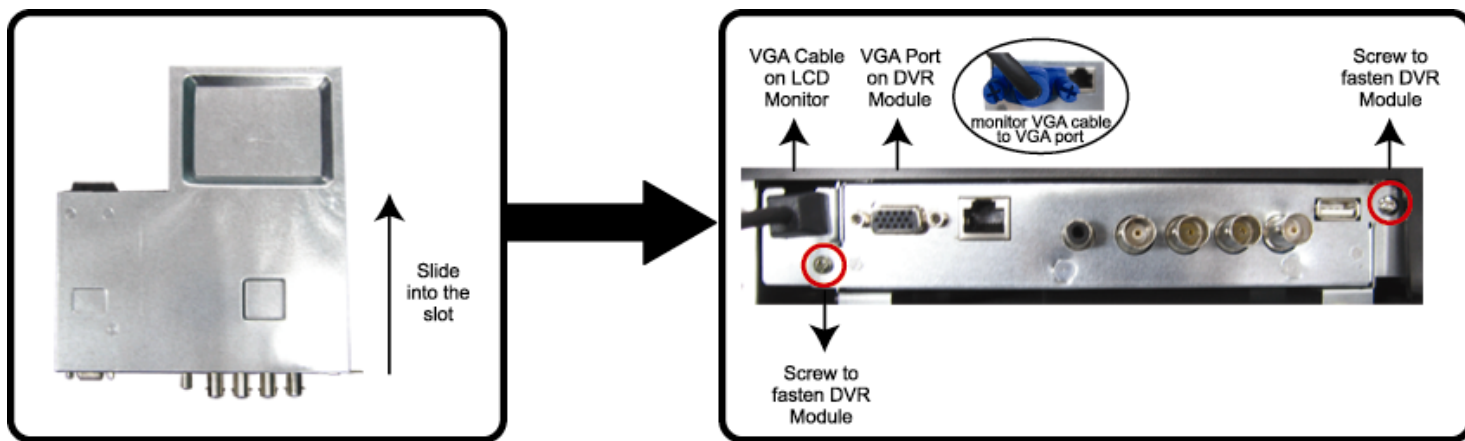
After the HDD is installed in the DVR module, place the module to the LCD monitor.

Note: The illustration below is taking Model 2 as an example.

1. Place the monitor face-down on a soft, protected surface.
2. Remove the LCD monitor base as indicated below:
 - a) First, snap off the screw cover from the monitor base.
 - b) Remove the four stand screws.

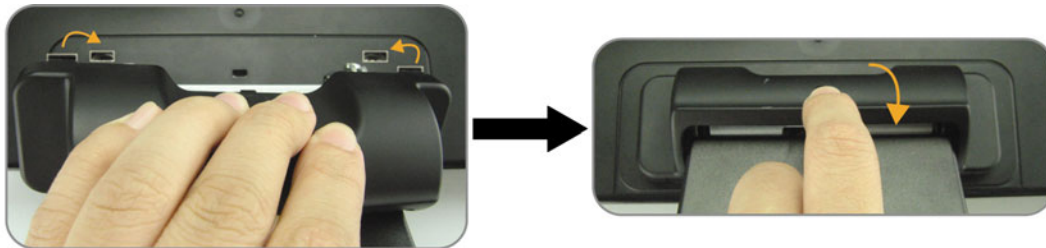


3. A slot on the rear panel of the LCD monitor is reserved for the DVR module. Find the slot and remove the slot cover.
4. Slide the DVR module to the slot as indicated below.
5. Push the module to the end, and fix it with the supplied screws.
6. Connect the VGA cable on the LCD monitor to the VGA port on the DVR module.



7. Replace the monitor base as indicated below:

- a) Replace the screws loosened in the first step.
- b) Hook the screw cover removed in the first step to the monitor, and push it downward to lock it.



2.3 Connect Camera

The cameras must be connected and power-supplied before the DVR is powered on. The DVR will automatically detect the video system of the connected camera(s) (NTSC / PAL), and switch itself to the correct system.

1) Video cable connection

Connect the camera video output to the DVR video input port with a coaxial cable or RCA cable with BNC connector.

2) Audio cable connection (if your camera supports the audio function)

Connect the camera audio output to the DVR audio input port with a coaxial cable or RCA cable with BNC connector.

3) Power connection

Connect the camera with indicated power supply.

2.4 Power On

Find the power cable supplied with the LCD monitor, and connect it to the power jack "AC POWER" on the LCD monitor, and to the power outlet. The DVR will be on and initialized.

Note: Before the DVR is powered on, make sure the cameras are connected and power-supplied for the detection of the camera video system to be correct.

Note: To ensure that your LCD DVR works constantly and properly, it's recommended to connect the power to an UPS, Uninterruptible Power Supply, for continuously operation. (Optional)

2.5 Set Date and Time

After the DVR initialization is completed, set the date and time first.

Press "Menu" and enter the password to go to the menu list. The default password is 0000. Move to "DATE", and you can set the date / time / daylight saving in the "DATE" menu list.

Note: Please DO NOT change the date or time of your DVR after the recording function is activated. Otherwise, the recorded data will be disordered and you will not be able to find the recorded file to backup by time search. If users change the date or time accidentally when the recording function is activated, it's recommended to clear all HDD data, and start recording again.

2.6 Set Password

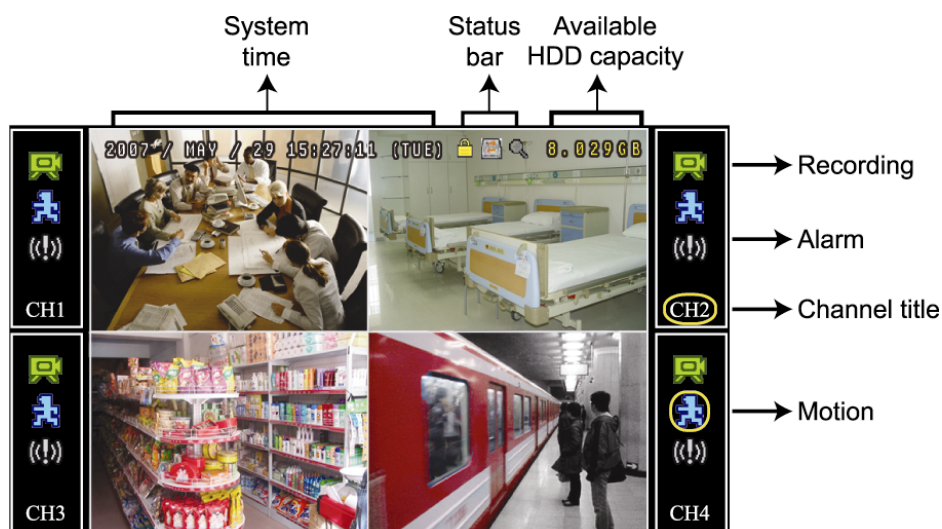
Press “Menu” and enter the password to go to the menu list. Then, move to “ADVANCE” to enter the advanced setting menu.

In the “ADVANCE” menu, move to “SYSTEM INFO”. Select “PASSWORD” and press “←” to enter the submenu to set the password (four digits). The default password is 0000.

3. BASIC OPERATION

3.1 Live Page

There are three modes available for the layout of the image display. Below shows the default layout which presents the best ratio for surveillance without image distortion, and the frequently-used status icons for each channel are placed at the left or right side of the screen.



Icon	Function	Icon	Function	Icon	Function	Icon	Function
	Key lock		Key unlock		1st live audio channel		2nd live audio channel
	3rd live audio channel		4th live audio channel		1st playback audio channel		2nd playback audio channel
	3rd playback audio channel		4th playback audio channel		Audio channel unselected		Digital zoom mode
	Digital zoom unselected		HDD overwrite		Timer recording		LCD adjustment
	Recording		Alarm		Motion		

3.2 Recording

By defaults, when the HDD capacity is nearly full, this device will overwrite 8GB data from the oldest for continuous recording without notice.

1) Manual Recording

By defaults, the record icon (or) shows on the screen when the DVR is powered on and a HDD is installed.

2) Event Recording

When the motion detection or alarm is activated, the motion icon (or) or alarm icon (or) shows on the screen for any motion or alarm event.

3) Timer Recording

When the timer record is activated, the timer icon “” shows on the screen.

3.3 Playback

Press “Play” to immediately play the latest recorded video.

Note: There must be at least 8192 images of recorded data for playback to work properly. If not, the device will stop playback. For example, if the IPS is set to 30, the recording time should be at least 273 seconds (8192 images / 30 IPS) for the playback to work properly.

Note: The video playback at the local site might get affected and may not be so fluent if there's any remote surveillance simultaneously going on.

1) Fast Forward / Fast Rewind

You can increase the speed for fast forward and rewind on this device. In the playback mode:

Press "FF" once to get 4X speed forward and press twice to get 8X speed, etc. And the maximum speed is 32X.

Press "REW" once to get 4X speed rewind and press twice to get 8X speed, etc. And the maximum speed is 32X.

Note: During playback, the image size of the recorded data (FRAME, FIELD or CIF) will be shown on the screen.

2) Pause / Image Jog

Press "Pause" to pause the playback.

In the pause mode:

Press "FF" once to get one frame forward.

Press "Rew" once to get one frame rewind.

3) Stop

Press "Stop" to stop the playback and return to the live view.

4) Slow Playback

Press "Slow" to get 1/4X speed playback and press twice to get 1/8X speed playback.

5) Audio Playback

Press "Audio" to select the audio channel you want for audio playback.

The available audio inputs depend on the model you have. For details, please check the specifications of your model.



Playback audio of the 1st audio channel



Playback audio of the 2nd audio channel



Playback audio of the 3rd audio channel



Playback audio of the 4th audio channel

Note: If you want to make a video backup with audio, please make sure whether your DVR supports the audio function, and connect audio cameras to the channels which support the audio function.

3.4 Search

1) Full Event Search

Press "LIST" to show the list for all types of the recorded files. Choose the item you want to see and press "←" to start playback.

2) Search by Time

Press "Menu" to enter the menu list, and go to "ADVANCE" → "EVENT LOG". Move to "QUICK SEARCH", and press "←" to enter the quick time search menu. You can search any specific events by time (Year / Month / Day / Hour / Min) and directly play the file you find.

3.5 Firmware / OSD Upgrade

Step 1. Format the USB flash drive as FAT32 format first.

Step 2. Get the upgrade files from your distributor, and save the upgrade files in your USB flash drive (do not change the file name).

Step 3. Insert the USB flash drive into the DVR USB port.

Step 4. Press "Menu", and move to "ADVANCE" → "SYSTEM INFO". Move to "UPGRADE", and press "←".

Step 5. Select "YES", and press "←" again to confirm upgrade.

Step 6. Remove the USB flash drive after the system is rebooted.