

N56 Series DVR Quick Start Guide

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Welcome

Thank you for purchasing our DVR!

This quick start guide will help you become familiar with our DVR in a very short time.

Before installation and operation, please read the following safeguard and warning carefully!

Important Safeguard and Warning

1 . Electrical safety

All installation and operation here should conform to your local electrical safety codes.

We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.

2 . Transportation security

Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.

3 . Installation

Keep upwards. Handle with care.

Do not apply power to the DVR before completing installation.

Do not place objects on the DVR.

4 . Qualified engineers needed

All the examination and repair work should be done by the qualified service engineers.

We are not liable for any problems caused by unauthorized modifications or attempted repair.

5 . Environment

The DVR should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.

6. Accessories

Be sure to use all the accessories recommended by manufacturer.

Before installation, please open the package and check all the components are included:

Contact your local retailer ASAP if something is missing in your package.

7. Lithium battery

Improper battery use may result in fire, explosion, or personal injury!

When replace the battery, please make sure you are using the same model!

1 Hardware Installation and Connection

Note: All the installation and operations here should conform to your local electric safety rules.

1.1 Check Unpacked DVR

When you receive the DVR from the forwarding agent, please check whether there is any visible damage. The protective materials used for the package of the DVR can protect most accidental clashes during transportation. Then you can open the box to check the accessories.

Please check the items in accordance with the list. (Remote control is optional). Finally you can remove the protective film of the DVR.

Note

Remote control is not a standard accessory and it is not included in the accessory bag.

1.2 About Front Panel and Rear Panel

For detailed information of the function keys in the front panel and the ports in the rear panel, please refer to the *User's Manual* included in the resource CD.

The model label in the front panel is very important; please check according to your purchase order.

The label in the rear panel is very important too. Usually we need you to represent the serial number when we provide the service after sales.

1.3 After Remove the Chassis

Please check the data cable, power cable, COM cable and main board cable connection is secure or not.

1.4 HDD Installation

You can refer to the *User's Manual* for recommended HDD brand. Usually we do not recommend the PC HDD. Please use HDD of 7200rpm or higher.

Please follow the instructions below to install hard disk.

All figures listed here are for reference only.

1.4.1 Mini 1U and 1U

This series DVR has one SATA HDD.



1. Loosen the screws of the upper cover and side panel.

2. Fix four screws in the HDD (Turn just three rounds).

3. Place the HDD in accordance with the four holes in the bottom.



4. Turn the device upside down and then turn the screws in firmly.



5. Fix the HDD firmly.



6. Connect the HDD cable and power cable.



7. Put the cover in accordance with the clip and then place the upper cover back.



8. Secure the screws in the rear panel and the side panel.

1.4.2 1.5U

This series DVR has four SATA HDDs.



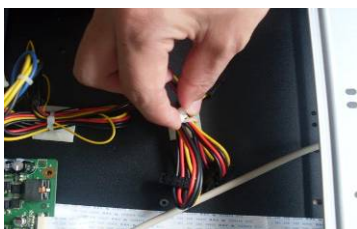
1. Loosen the screws of the upper cover.



2. Line up the HDD to the four holes of the HDD bracket.



3. Use four screws to fix HDD.



4. Unfasten the HDD power cable.



5. Use the special data cable to connect the HDD and the SATA port



6. Insert the HDD power cable. Close the chassis and fix the screws to secure firmly.

1.4.3 2U

This series DVR max supports 4 SATA HDDs.



1. Loosen the screws of the upper cover.



2. Remove the HDD upper bracket



3. Now you can see the bottom bracket



4. Line up the HDD to the four holes of the HDD bracket.



5. Use screws to fix HDD.



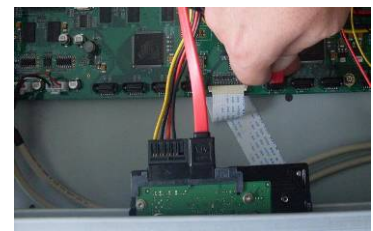
6. Install the upper bracket and then Use screws to fix HDD in the bracket.



7. Unfasten the HDD power cable.



8. Insert the HDD power cable.



9. Use the special data cable to connect the HDD and the SATA port. Close the chassis and fix the screws to secure firmly.

Note:

- You can connect the HDD data cable and the power cable first and then fix the HDD in the device.
- Please pay attention to the front cover. It adopts the vertical sliding design. You need to push the clip first and then put down.

1.5 Front Panel

1.5.1 Mini 1U Series & 1U Series

The front panel of mini 1U series product is shown as in Figure 1-1.

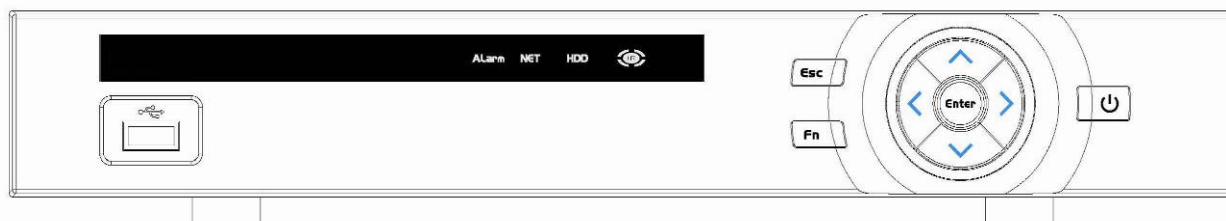


Figure 1-1

The front panel of 1U series product is shown as in Figure 1-2.

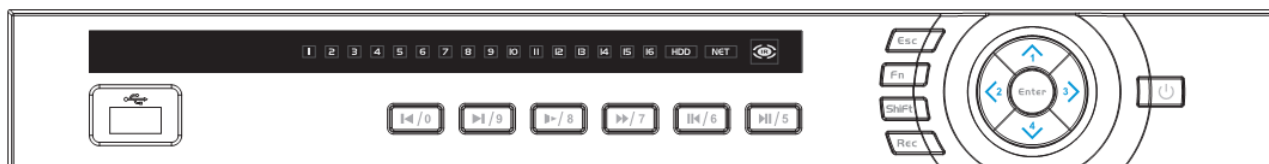









Figure 1-2

Please refer to the following sheet for front panel button information.

Name	Icon	Function
Power button		Power button, press this button for three seconds to boot up or shut down DVR.
Shift	Shift	In textbox, click this button to switch between numeral, English(Small/Capitalized),donation and etc.
Up/1 Down/4		Activate current control, modify setup, and then move up and down.
		Increase/decrease numeral.
		Assistant function such as PTZ menu.
		In text mode, input number 1/4 (English character G/H/I)
Left/2 Right/3		Shift current activated control,
		When playback, click these buttons to control playback bar. In text mode, input number 2(English character A/B/C) /3(English character D/E/F)
ESC	ESC	Go to previous menu, or cancel current operation.
		When playback, click it to restore real-time monitor mode.
Enter	ENTER	Confirm current operation
		Go to default button
		Go to menu
Record	REC	Manually stop/start recording, working with direction keys or numeral keys to select the recording channel.

Slow play/8		Multiple slow play speeds or normal playback. In text mode, input number 8 (English character T/U/V).
Assistant	Fn	One-window monitor mode, click this button to display assistant function: PTZ control and image color.
		Backspace function: in numeral control or text control, press it for 1.5seconds to delete the previous character before the cursor.
		In motion detection setup, working with Fn and direction keys to realize setup.
		In text mode, click it to switch between numeral, English character(small/capitalized) and etc.
		Realize other special functions.
Fast play/7		Various fast speeds and normal playback. In text mode, input number 7 (English character P/Q/R/S).
Play previous/0		In playback mode, playback the previous video In text mode, input number 0.
Reverse/Pause/6		In normal playback or pause mode, click this button to reverse playback In reverse playback, click this button to pause playback. In text mode, input number 6 (English character M/N/O)
Play Next/9		In playback mode, playback the next video In menu setup, go to down ward of the dropdown list. In text mode, input number 9 (English character W/X/Y/Z)
Play/Pause /5		In normal playback click this button to pause playback In pause mode, click this button to resume playback. In text mode, input number 5(English character J/K/L).
USB port		To connect USB storage device, USB mouse.
Network abnormal indication light	Net	Network error occurs or there is no network connection, the light becomes red to alert you.
HDD abnormal indication light	HDD	HDD error occurs or HDD capacity is below specified threshold value, the light becomes red to alert you.
Record light	1-16	System is recording or not. It becomes on when system is recording.
IR Receiver	IR	It is to receive the signal from the remote control.

The front panel of another mini 1U series product is shown as in Figure 1-3.

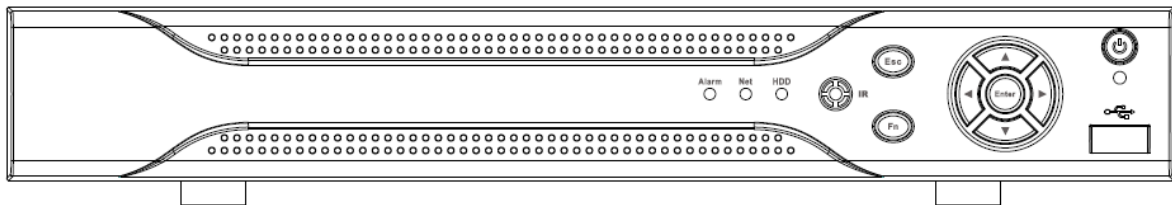






Figure 1-3

Please refer to the following sheet for detailed information.

Name	Icon	Function
Power button		Power button, press this button for three seconds to boot up or shut down DVR.
Up Down		Activate current control, modify setup, and then move up and down.
		Increase/decrease numeral.
		Assistant function such as PTZ menu.
Left Right		Shift current activated control,
		When playback, click these buttons to control playback bar.
ESC	ESC	Go to previous menu, or cancel current operation.
		When playback, click it to restore real-time monitor mode.
Enter	ENTER	Confirm current operation
		Go to default button
		Go to menu
Assistant	Fn	One-window monitor mode, click this button to display assistant function: PTZ control and image color.
		Backspace function: in numeral control or text control, press it for 1.5seconds to delete the previous character before the cursor.
		In motion detection setup, working with Fn and direction keys to realize setup.
		In text mode, click it to switch between numeral, English character(small/capitalized) and etc.
		Realize other special functions.
USB port		To connect USB storage device, USB mouse.
Network abnormal indication light	Net	Network error occurs or there is no network connection, the light becomes red to alert you.

HDD abnormal indication light	HDD	HDD error occurs or HDD capacity is below specified threshold value, the light becomes red to alert you.
IR Receiver	IR	It is to receive the signal from the remote control.
Alarm indication light	Alarm	Here you can view there is external alarm input or not. The light becomes on when there is an external alarm. The light become off when the external alarm stops.

The front panel of another 1U series product is shown as in Figure 1-4.

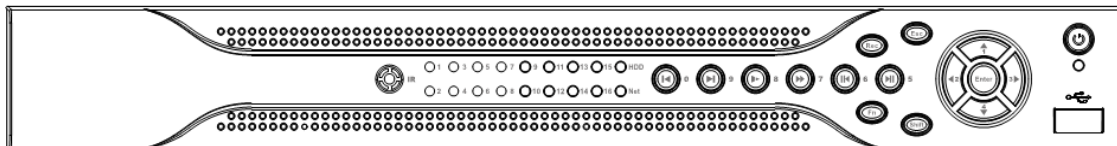









Figure 1-4

Please refer to the following sheet for front panel button information.

Name	Icon	Function
Power button		Power button, press this button for three seconds to boot up or shut down DVR.
Shift	Shift	In textbox, click this button to switch between numeral, English(Small/Capitalized),donation and etc.
Up/1 Down/4		Activate current control, modify setup, and then move up and down.
		Increase/decrease numeral.
		Assistant function such as PTZ menu.
		In text mode, input number 1/4 (English character G/H/I)
Left/2 Right/3		Shift current activated control,
		When playback, click these buttons to control playback bar. In text mode, input number 2(English character A/B/C) /3(English character D/E/F)
ESC	ESC	Go to previous menu, or cancel current operation.
		When playback, click it to restore real-time monitor mode.
Enter	ENTER	Confirm current operation
		Go to default button
		Go to menu
Record	REC	Manually stop/start recording, working with direction keys or numeral keys to select the recording channel.
		Click this button for at least 1.5 seconds, system can go to the Record interface.

Slow play/8		Multiple slow play speeds or normal playback. In text mode, input number 8 (English character T/U/V).
Assistant	Fn	One-window monitor mode, click this button to display assistant function: PTZ control and image color.
		Backspace function: in numeral control or text control, press it for 1.5seconds to delete the previous character before the cursor.
		In motion detection setup, working with Fn and direction keys to realize setup.
		In text mode, click it to switch between numeral, English character(small/capitalized) and etc.
		Realize other special functions.
Fast play/7		Various fast speeds and normal playback. In text mode, input number 7 (English character P/Q/R/S).
Play previous/0		In playback mode, playback the previous video In text mode, input number 0.
Reverse/Pause/6		In normal playback or pause mode, click this button to reverse playback In reverse playback, click this button to pause playback. In text mode, input number 6 (English character M/N/O)
Play Next/9		In playback mode, playback the next video In menu setup, go to down ward of the dropdown list. In text mode, input number 9 (English character W/X/Y/Z)
Play/Pause /5		In normal playback click this button to pause playback In pause mode, click this button to resume playback. In text mode, input number 5(English character J/K/L).
USB port		To connect USB storage device, USB mouse.
Network abnormal indication light	Net	Network error occurs or there is no network connection, the light becomes red to alert you.
HDD abnormal indication light	HDD	HDD error occurs or HDD capacity is below specified threshold value, the light becomes red to alert you.
Record light	1-16	System is recording or not. It becomes on when system is recording.
IR Receiver	IR	It is to receive the signal from the remote control.
Alarm indication light	Alarm	Here you can view there is external alarm input or not. The light becomes on when there is an external alarm. The light become off when the external alarm stops.

1.5.2 1.5U & 2U

The front pane of 1.5U series product is shown as in Figure 1-5.

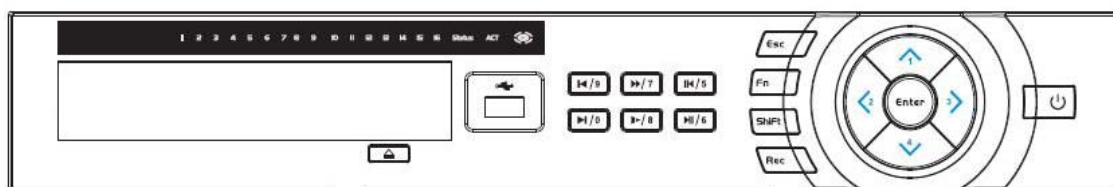



Figure 1-5

Please refer to the following sheet for front panel button information.

Name	Icon	Function
Power button		Power button, press this button for three seconds to boot up or shut down DVR.
Shift	Shift	In textbox, click this button to switch between numeral, English(Small/Capitalized),donation and etc.
Up/1 Down/4		Activate current control, modify setup, and then move up and down.
		Increase/decrease numeral.
		Assistant function such as PTZ menu.
		In text mode, input number 1/4 (English character G/H/I)
Left/2 Right/3		Shift current activated control,
		When playback, click these buttons to control playback bar. In text mode, input number 2(English character A/B/C) /3(English character D/E/F)
ESC	ESC	Go to previous menu, or cancel current operation.
		When playback, click it to restore real-time monitor mode.
Enter	ENTER	Confirm current operation
		Go to default button
		Go to menu
Record	REC	Manually stop/start recording, working with direction keys or numeral keys to select the recording channel.
Slow play/8		Multiple slow play speeds or normal playback. In text mode, input number 8 (English character T/U/V).
Assistant	Fn	One-window monitor mode, click this button to display assistant function: PTZ control and image color.
		Backspace function: in numeral control or text control, press it for 1.5seconds to delete the previous character before the cursor.
		In motion detection setup, working with Fn and direction keys to realize setup.
		In text mode, click it to switch between numeral, English character(small/capitalized) and etc.

		Realize other special functions.
Fast play/7	»	Various fast speeds and normal playback. In text mode, input number 7 (English character P/Q/R/S).
Play previous/0	I ◀	In playback mode, playback the previous video In text mode, input number 0.
Reverse/Pause/6	II ◀	In normal playback or pause mode, click this button to reverse playback In reverse playback, click this button to pause playback. In text mode, input number 6 (English character M/N/O)
Play Next/9	I ▶	In playback mode, playback the next video In menu setup, go to down ward of the dropdown list. In text mode, input number 9 (English character W/X/Y/Z)
Play/Pause /5	▶ II	In normal playback click this button to pause playback In pause mode, click this button to resume playback. In text mode, input number 5(English character J/K/L).
USB port		To connect USB storage device, USB mouse.
Network abnormal indication light	Net	Network error occurs or there is no network connection, the light becomes red to alert you.
HDD abnormal indication light	HDD	HDD error occurs or HDD capacity is below specified threshold value, the light becomes red to alert you.
Record light	1-16	System is recording or not. It becomes on when system is recording.
IR Receiver	IR	It is to receive the signal from the remote control.

The front pane of 2U series product is shown as in Figure 1-6.

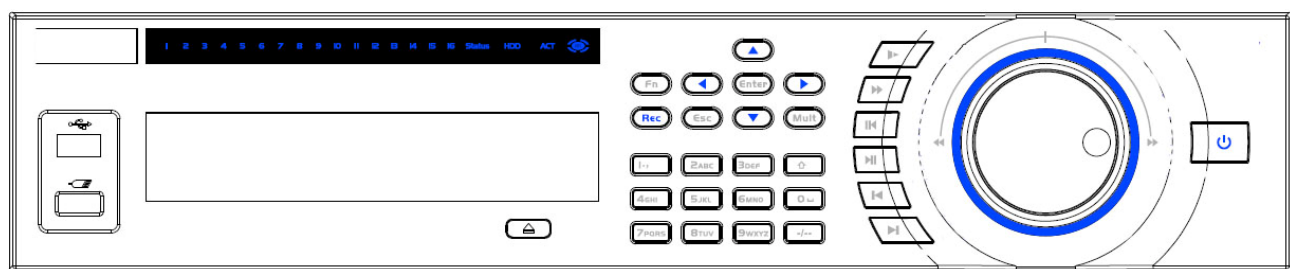




Figure 1-6

Please refer to the following sheet for front panel button information.

Name	Icon	Function
Power button		Power button, press this button for three seconds to boot up or
Number button	0-9	Input Arabic number Switch channel

Input number more than 10		If you want to input a number more than 10, please click this button and then input.
Shift		In textbox, click this button to switch between numeral, English(Small/Capitalized),donation and etc. Enable or disable tour.
Up/ Down		Activate current control, modify setup, and then move up and down. Increase/decrease numeral. Assistant function such as PTZ menu.
Left/ Right		Shift current activated control, and then move left and right. When playback, click these buttons to control playback bar.
ESC	ESC	Go to previous menu, or cancel current operation. When playback, click it to restore real-time monitor mode.
Enter	ENTER	Confirm current operation Go to default button Go to menu
Record	REC	Manually stop/start recording, working with direction keys or numeral keys to select the recording channel.
Slow play		Multiple slow play speeds or normal playback.
Assistant	Fn	One-window monitor mode, click this button to display assistant function: PTZ control and image color. Backspace function: in numeral control or text control, press it for 1.5seconds to delete the previous character before the cursor. In motion detection setup, working with Fn and direction keys to realize setup. In text mode, click it to switch between numeral, English character(small/capitalized) and etc. In HDD management interface, you can click it to switch HDD record information and other information (Menu prompt) Realize other special functions.
Fast play		Various fast speeds and normal playback.
Play previous		In playback mode, playback the previous video
Reverse/Pause		In normal playback or pause mode, click this button to reverse playback In reverse playback, click this button to pause playback.

Play Next	▶	In playback mode, playback the next video In menu setup, go to down ward of the dropdown list.
Play/Pause	▶	In normal playback click this button to pause playback In pause mode, click this button to resume playback.
Window switch	Mult	Click it to switch one-window/multiple-window.
Shuttle(outer ring)		In real-time monitor mode it works as left/right direction key. Playback mode, counter clockwise to forward and clock wise to backward.
Jog(inner dial)		Up/down direction key. Playback mode, turn the inner dial to realized frame by frame playback. (Only applies to some special versions.)
USB port		To connect USB storage device, USB mouse.
Remote control indication light	ACT	Remote control indication light
Status indication light	Status	If there is Fn indication light, current status indication light is null.
Power indication light	PWR	Power indication light
Record light	1-16	It becomes on when system is recording.
IR Receiver	IR	It is to receive the signal from the remote control.

1.6 Rear Panel

1.6.1 Mini 1U Series

1.6.1.1 Simple Lite Series

The rear panel is shown as below. See Figure 1-7.

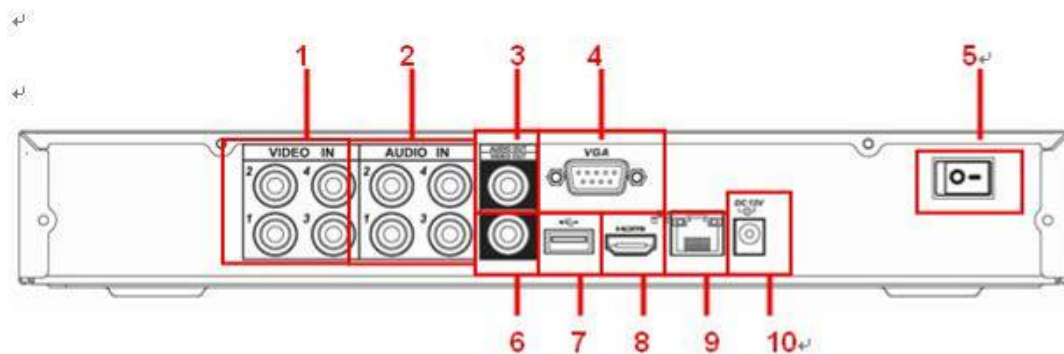


Figure 1-7

Please refer to the following sheet for detailed information.

1	Video input
---	-------------

2	Audio input
3	Audio output
4	Video VGA output
5	On/off button
6	Video output
7	Network port
8	HDMI port
9	USB port
10	Power socket

1.6.1.2 Simple Entry-level Series

The simple entry-level series rear panel is shown as below. See Figure 1-8.

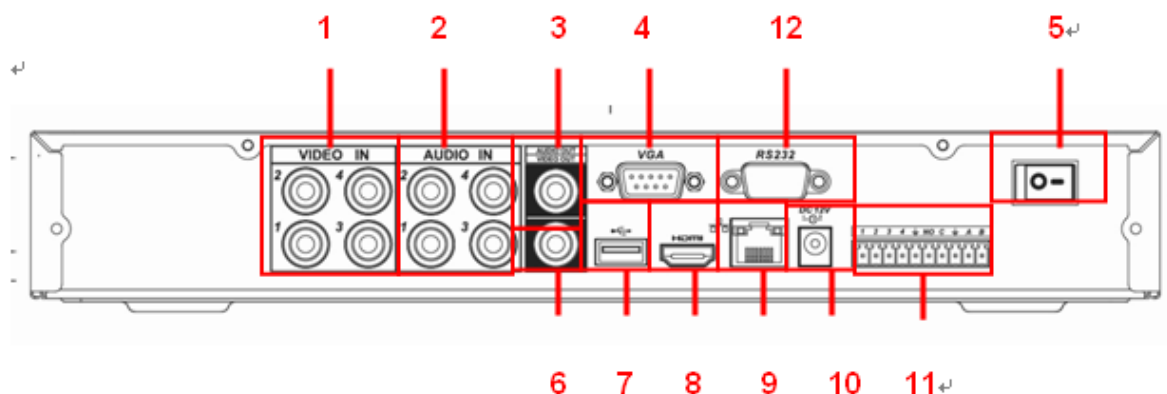


Figure 1-8

Please refer to the following sheet for detailed information.

1	Video input
2	Audio input
3	Audio output
4	Video VGA output
5	On/off button
6	Video output
7	Network port
8	HDMI port
9	USB port
10	Power socket
11	RS485 port
12	RS232 port

1.6.1.3 CIF Real-time Entry-level Series

The rear panel of the 4-channel series product is shown as in Figure 1-9.

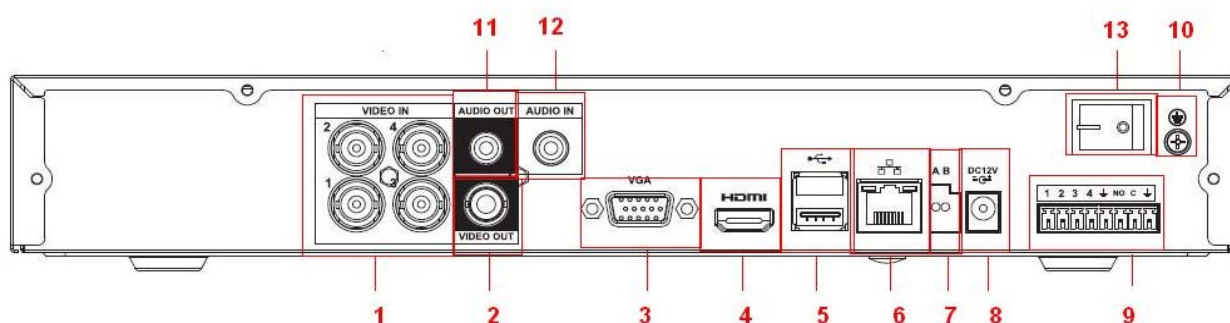


Figure 1-9

Please refer to the following sheet for detailed information.

1	Video input
2	Video output
3	Video VGA output
4	HDMI port
5	USB port
6	Network port
7	RS-485 port
8	Power socket
9	Alarm input/alarm output
10	GND port
11	Audio output
12	Audio input
13	On/off button

The rear panel of the 8-channel series product is shown as in Figure 1-10.

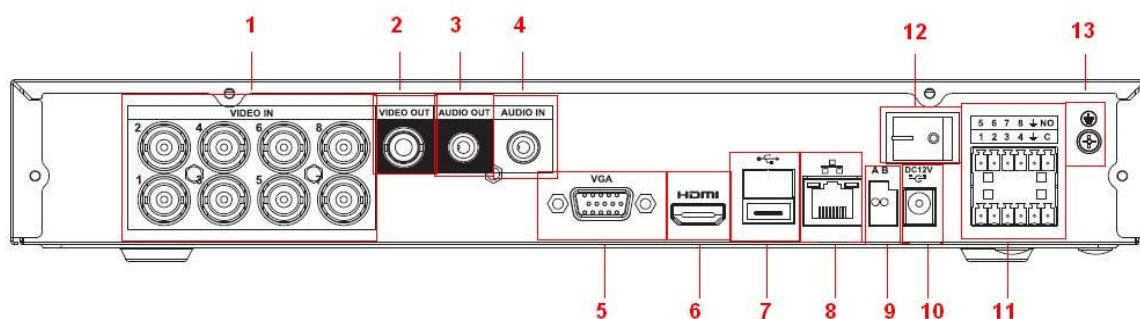


Figure 1-10

Please refer to the following sheet for detailed information.

1	Video input
2	Video output
3	Audio output
4	Audio input
5	Video VGA output
6	HDMI port
7	USB port
8	Network port
9	RS-485 port
10	Power socket
11	Alarm input/alarm output
12	On/off button
13	GND port

The rear panel of the 16-channel series product is shown as in Figure 1-11.

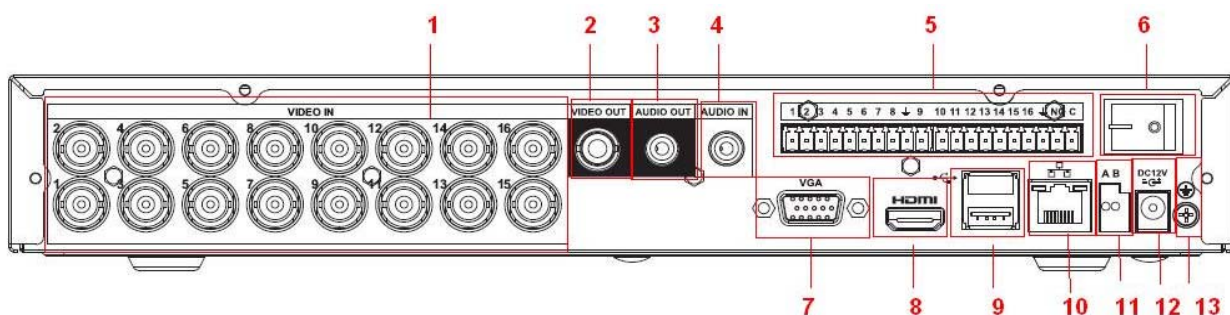


Figure 1-11

Please refer to the following sheet for detailed information.

1	Video input
2	Video output
3	Audio output
4	Audio input
5	Alarm input/alarm output
6	On/off button
7	Video VGA output
8	HDMI port
9	USB port
10	Network port
11	RS-485 port
12	Power socket
13	GND port

1.6.2 1U Series

1.6.2.1 Full-D1 Series

The rear panel is shown as in Figure 1-12.

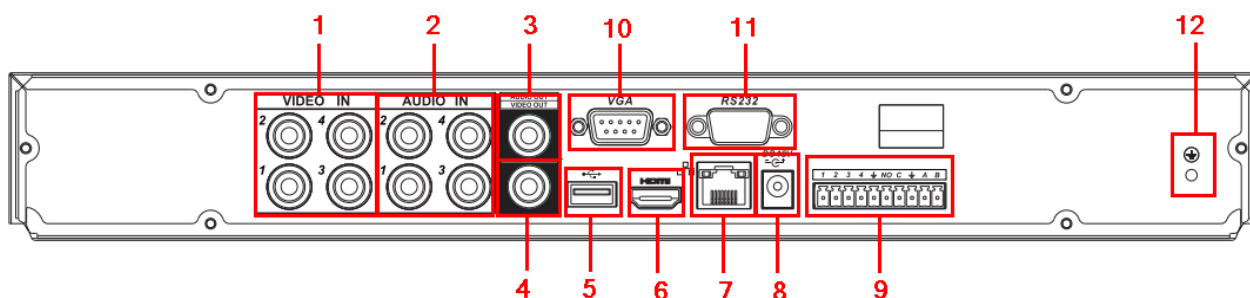


Figure 1-12

Please refer to the following sheet for detailed information.

1	Video input
2	Audio input
3	Audio output
4	Video output
5	USB port
6	HDMI port
7	Network port
8	Power socket
9	Alarm input/alarm output/RS485 port
10	Video VGA output
11	RS232 port

12	On/off button
13	GND port

1.6.2.2 4-ch 2CIF Real-time Series

This series DVR rear panel is shown as below. See Figure 1-13.

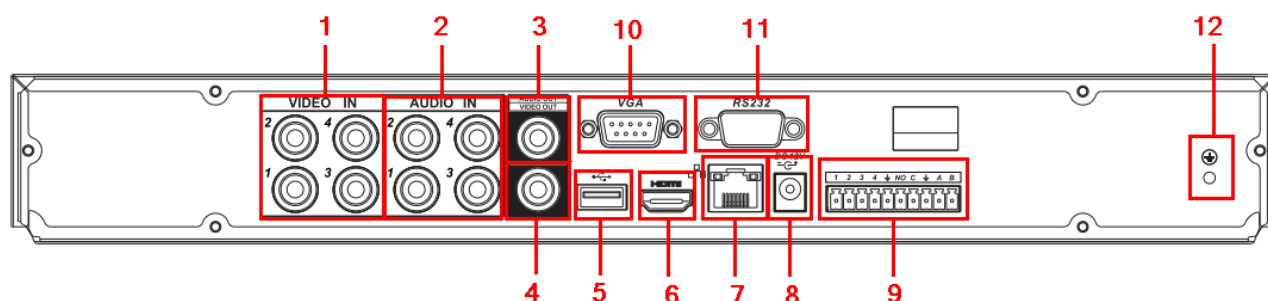


Figure 1-13

Please refer to the following sheet for detailed information.

1	Video input
2	Audio input
3	Audio output
4	Video output
5	USB port
6	HDMI port
7	Network port
8	Power socket
9	Alarm input/alarm output/RS485 port
10	Video VGA output
11	RS232 port
12	GND port

1.6.2.3 8-ch 2CIF Real-time Series

This series DVR rear panel is shown as below. See Figure 1-14.

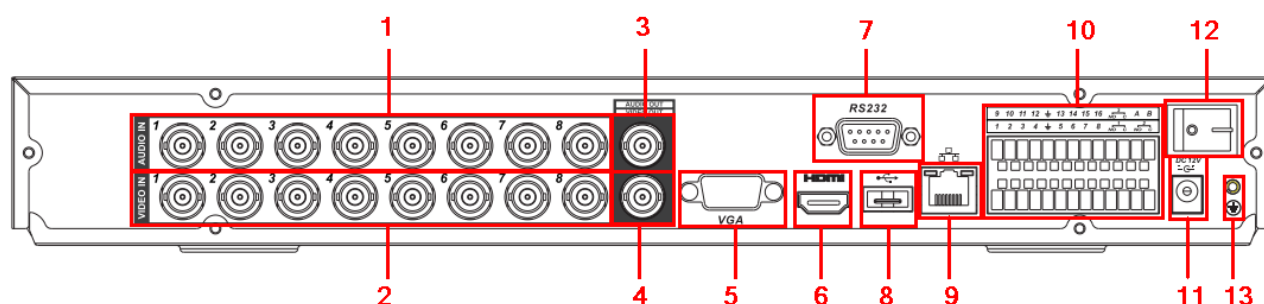


Figure 1-14

Please refer to the following sheet for detailed information.

1	Video input
2	Audio input
3	Audio output
4	Video output

5	Video VGA output
6	HDMI port
7	RS232 port
8	USB port
9	Network port
10	Alarm input/alarm output/RS485 port
11	Power socket
12	On/off button
13	GND port

1.6.2.4 4-ch Audio CIF Real-time Series

This series DVR rear panel is shown as below. See Figure 1-15.

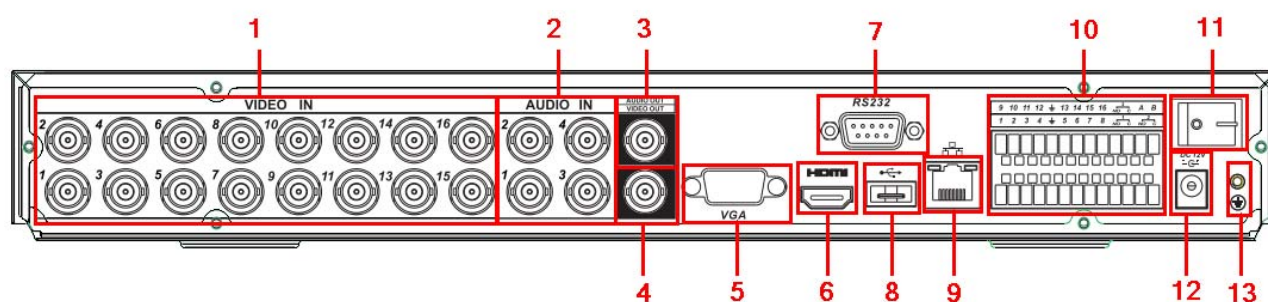


Figure 1-15

Please refer to the following sheet for detailed information.

1	Video input
2	1 st to 4 th -channel audio input
3	Audio output
4	Video output
5	Video VGA output
6	HDMI port
7	RS232 port
8	USB port
9	Network port
10	Alarm input/Alarm output/RS485 port
11	On/off button
12	Power socket
13	GND port

1.6.2.5 16-ch Audio CIF Real-time Series

This series DVR rear panel is shown as below. See Figure 1-16.

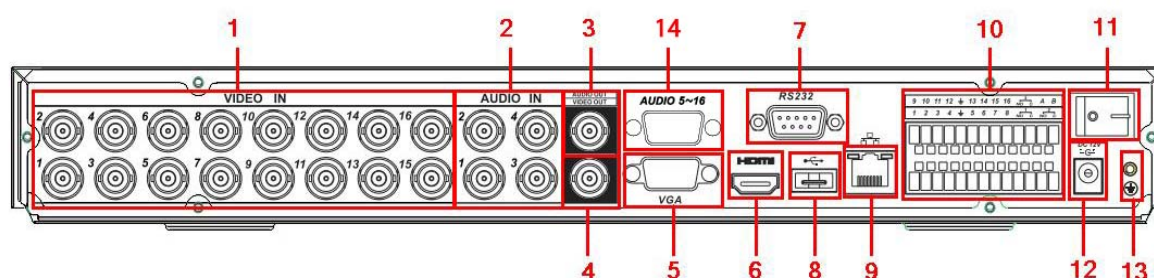


Figure 1-16

Please refer to the following sheet for detailed information.

1	Video input
2	1 st to 4 th -channel audio input
3	Audio output
4	Video output
5	Video VGA output
6	HDMI port
7	RS232 port
8	USB port
9	Network port
10	Alarm input/Alarm output/RS485 port
11	On/off button
12	Power socket
13	GND port
14	D-sub port (5 th to 16 th -channel audio input port)

1.6.2.6 CIF Real-time Series

The 4-channel series DVR rear panel is shown as below. See Figure 1-17.

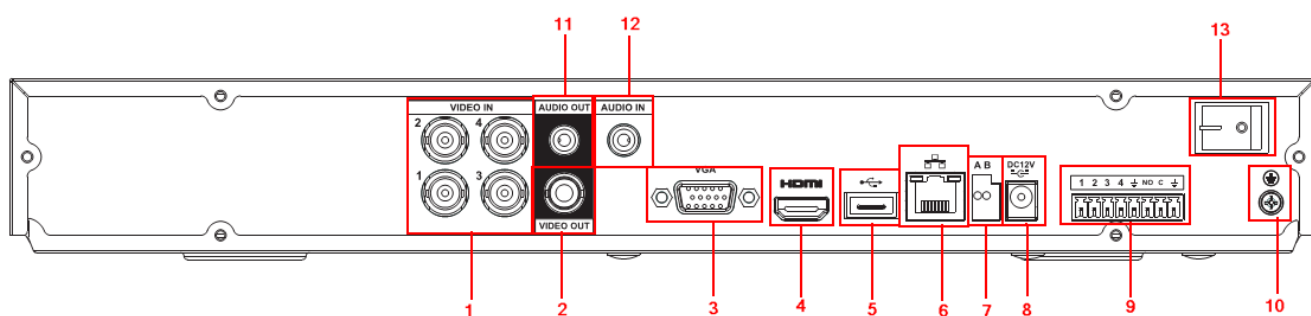


Figure 1-17

Please refer to the following sheet for detailed information.

1	Video input
2	Video output
3	Video VGA output
4	HDMI port
5	USB port
6	Network port
7	RS485 port
8	Power socket
9	Alarm input/Alarm output
10	GND port
11	Audio output
12	Audio input
13	On/off button

The 8-channel series DVR rear panel is shown as below. See Figure 1-18.

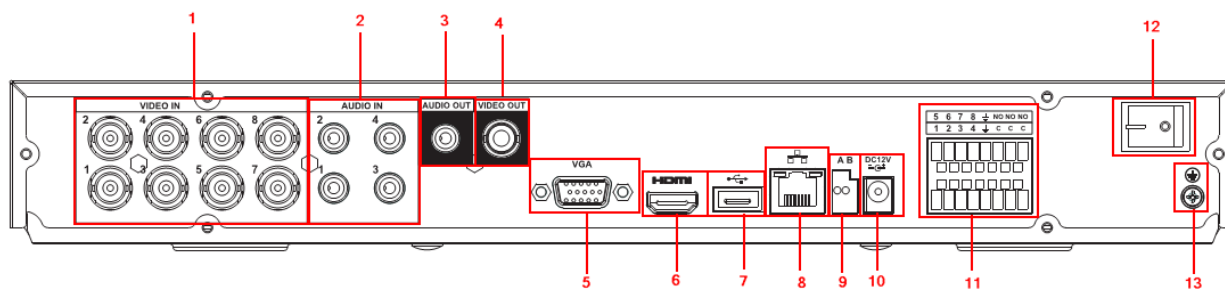


Figure 1-18

Please refer to the following sheet for detailed information.

1	Video input
2	Audio input
3	Audio output
4	Video output
5	Video VGA output
6	HDMI port
7	USB port
8	Network port
9	RS485 port
10	Power socket
11	Alarm input/Alarm output
12	On/off button
13	GND port

The 16-channel series DVR rear panel is shown as below. See Figure 1-19.

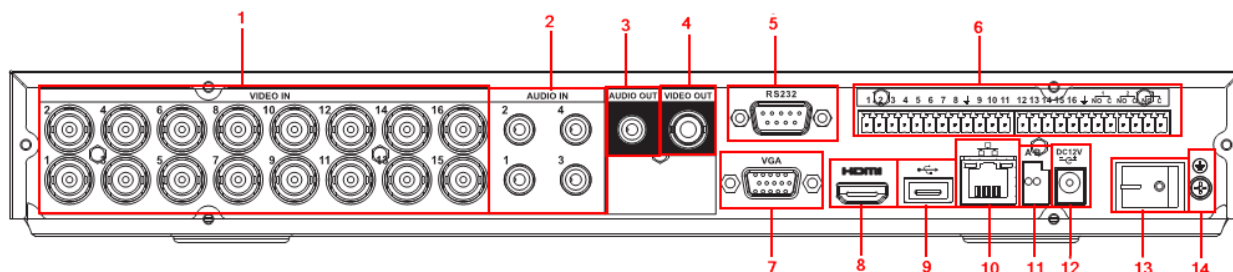


Figure 1-19

Please refer to the following sheet for detailed information.

1	Video input
2	Audio input
3	Audio output
4	Video output
5	RS232 port
6	Alarm input/Alarm output
7	Video VGA output
8	HDMI port
9	USB port
10	Network port
11	RS485 port
12	Power socket
13	On/off button
14	GND port

1.6.3 1.5U Series

The rear panel of the 1.5U series product is shown as below. See Figure 1-20.

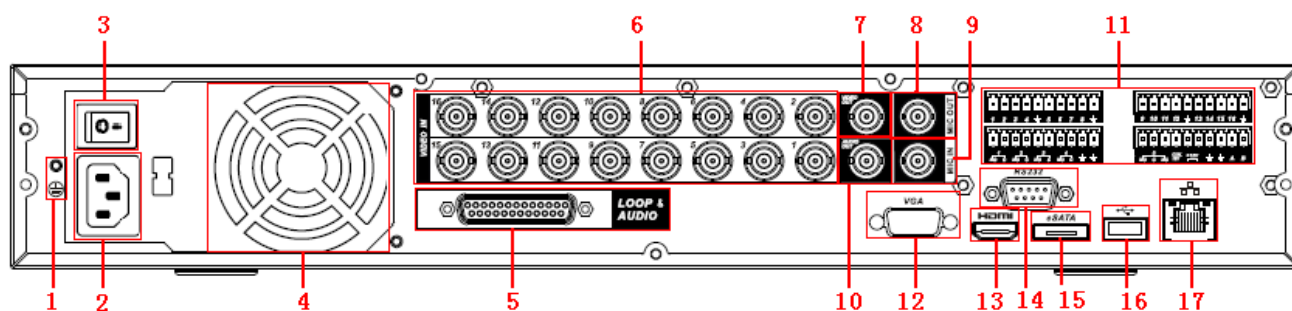


Figure 1-20

Please refer to the following sheet for detailed information.

1	GND port
2	Power socket
3	On/off button
4	Fan
5	Audio input/matrix video output/loop video output
6	Video input
7	Video CVBS output
8	Bidirectional talk output
9	Bidirectional talk input
10	Audio output
11	Alarm input/Alarm output/RS485 port
12	Video VGA output
13	HDMI port
14	RS232 port
15	eSATA port
16	USB port
17	Network port

1.6.4 2U Series

The rear panel of the 2U series product is shown as below. See Figure 1-21.

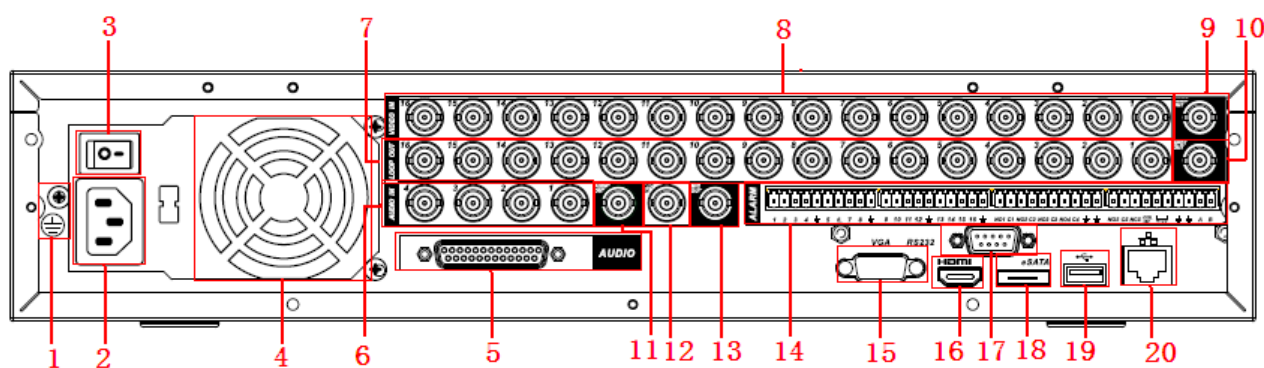


Figure 1-21

Please refer to the following sheet for detailed information.

1	GND port
2	Power socket
3	On/off button
4	Fan
5	DB25 port (5 th to 16 th -channel audio input port)
6	1 st to 4 th -channel audio input
7	Loop video output
8	Video input
9	Video CVBS output
10	Matrix video output
11	Audio output
12	Bidirectional talk input
13	Bidirectional talk output
14	Alarm input/Alarm output/RS485 port
15	Video VGA output
16	HDMI port
17	RS-232 port
18	eSATA port
19	USB port
20	Network port

When connect the Ethernet port, please use crossover cable to connect the PC and use the straight cable to connect to the switcher or router.

1.7 Connection Sample

1.7.1 Mini 1U Series

Please refer to Figure 1-22 for connection sample.

The following figure is based on the simple entry-level series product.

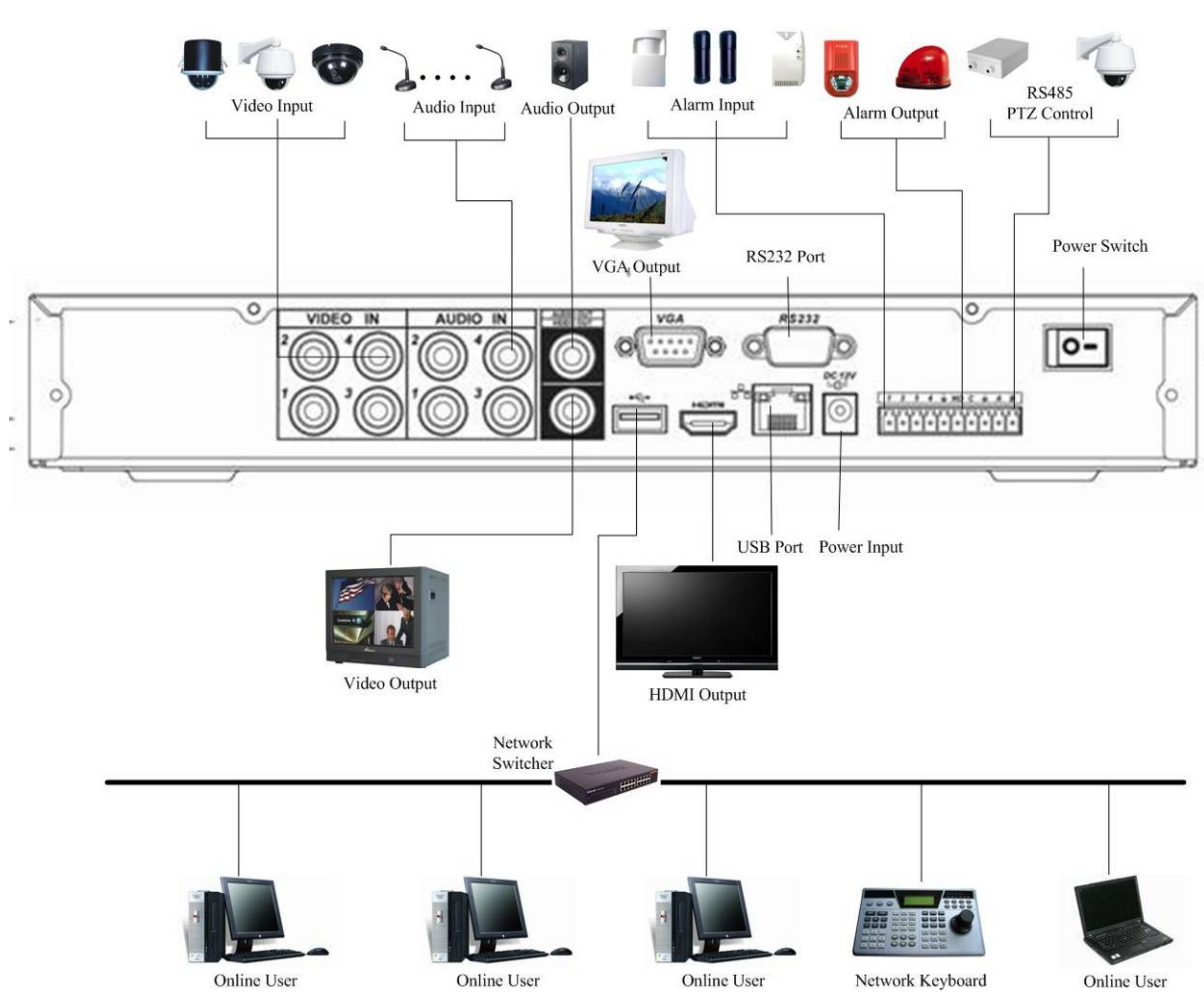


Figure 1-22

1.7.2 1U Series

Please refer to Figure 1-23 for connection sample.

Please note the following interface is based on the 2CIF real-time series product.

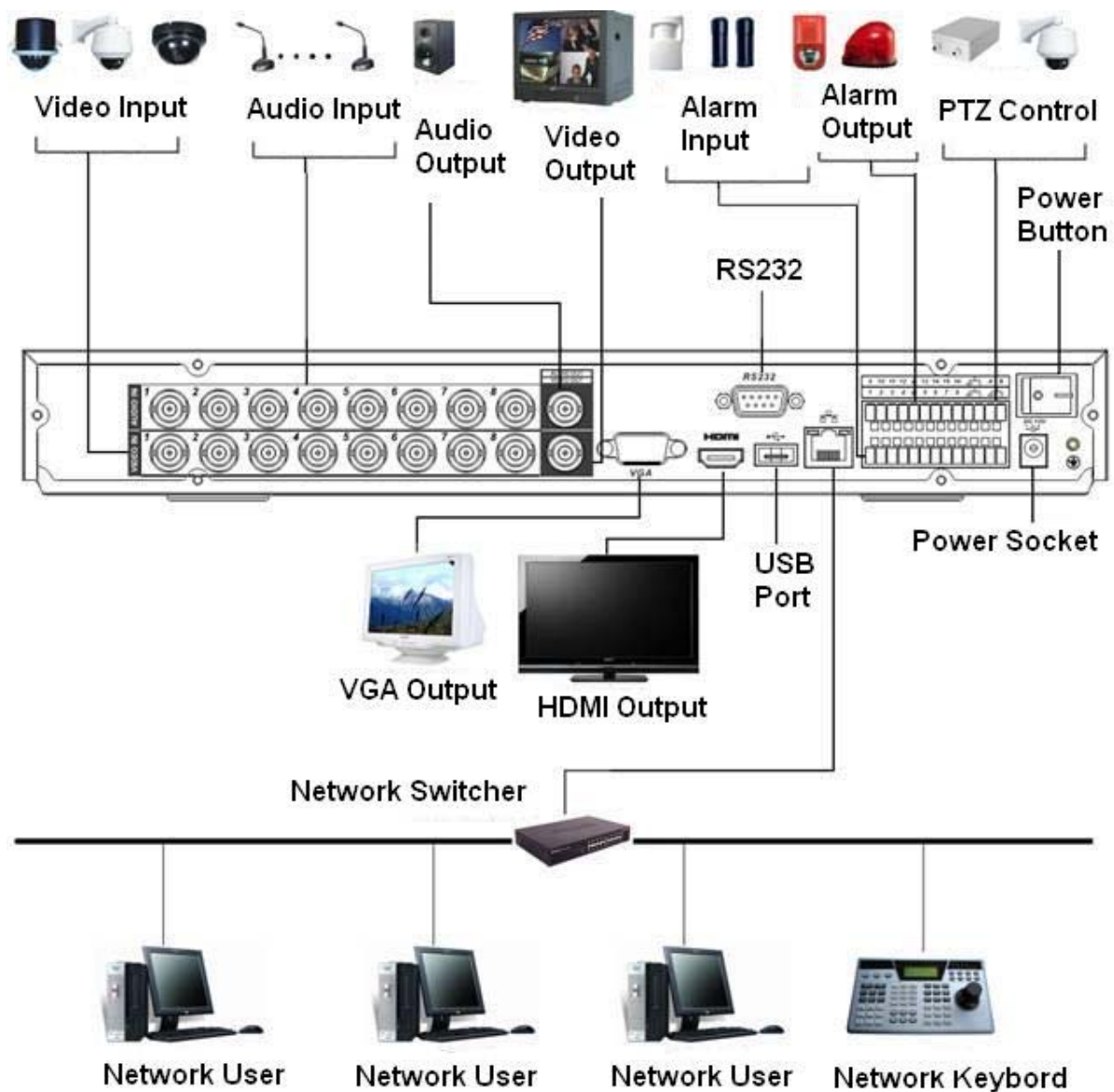


Figure 1-23

1.7.3 1.5U

The connection sample is shown as in Figure 1-24.

Please note the following figure is based on the 16-channel series product.

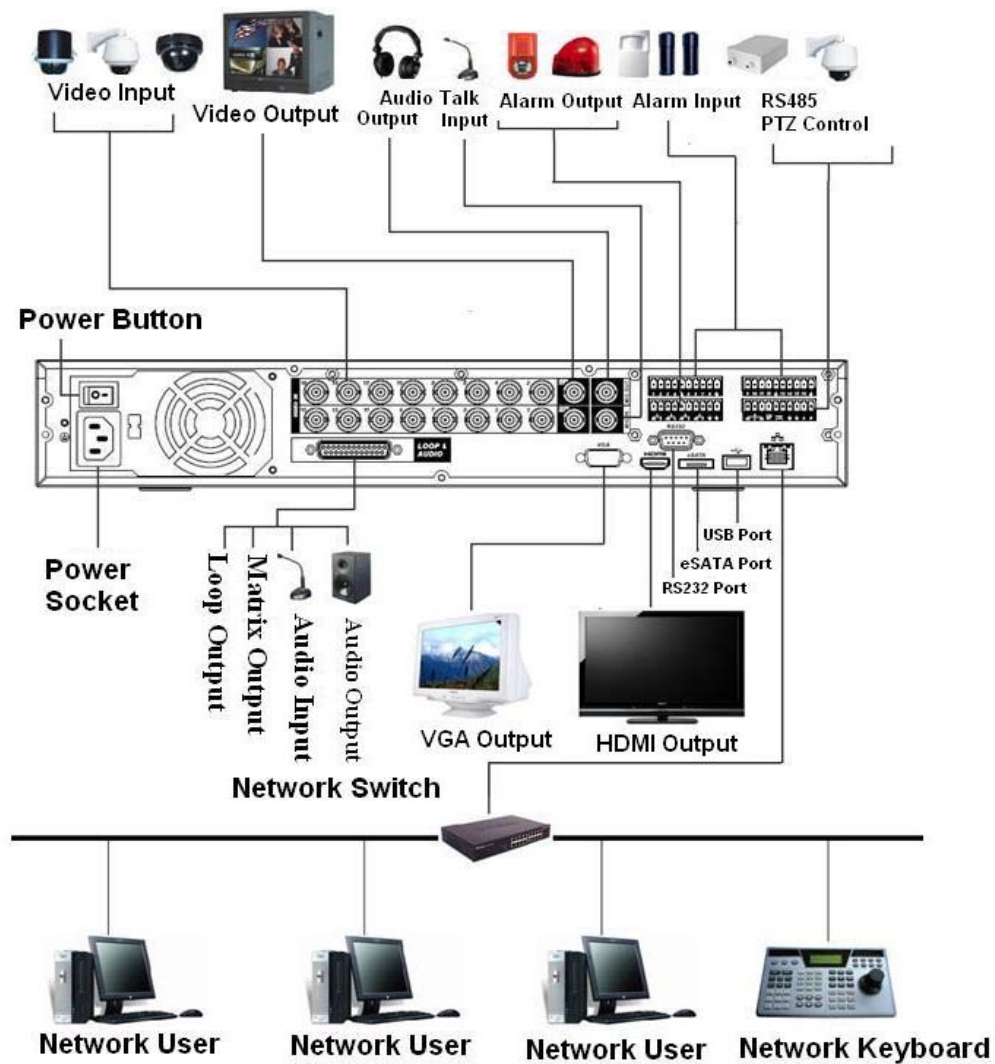


Figure 1-24

1.7.4 2U

The connection sample is shown as in Figure 1-25.

Please note the following figure is based on the 16-channel series product.

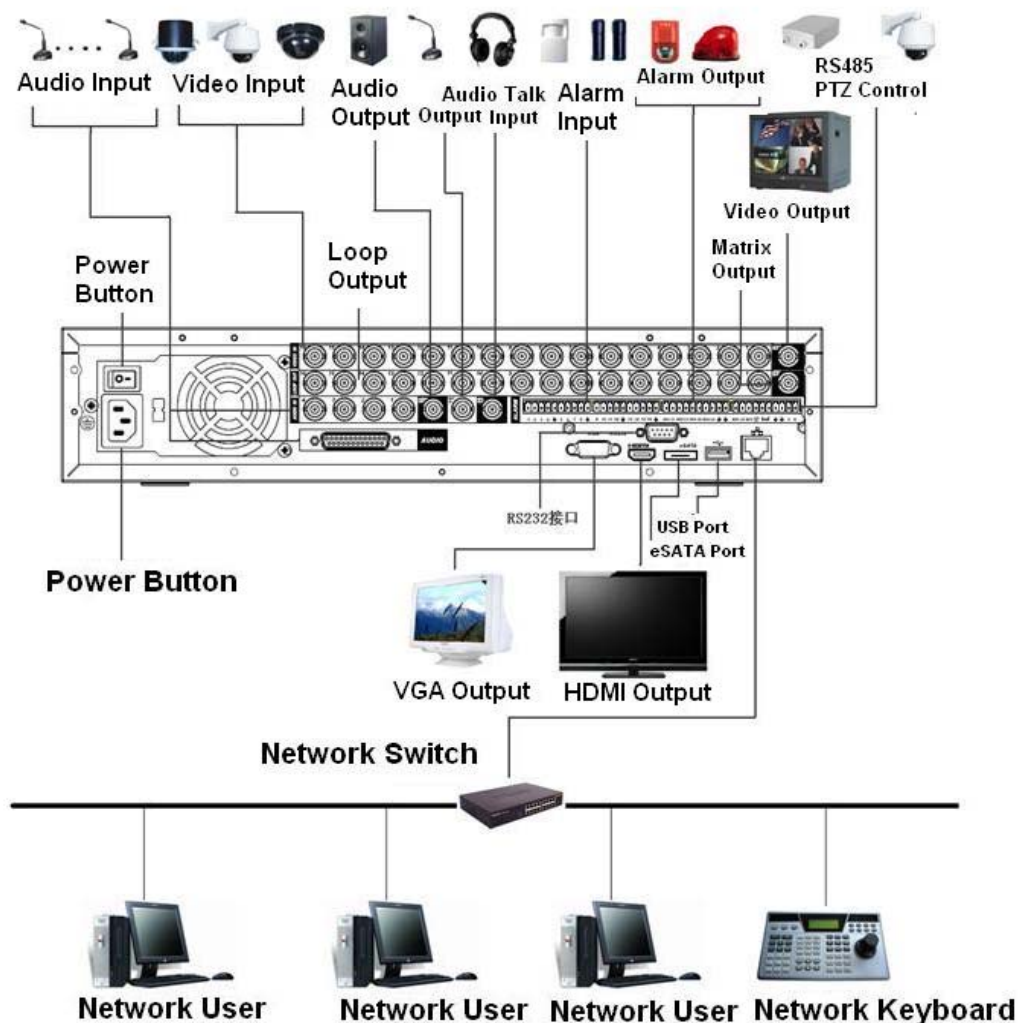


Figure 1-25

1.8 Alarm Input and Output Connection

Important

Please refer to the specifications for the alarm input and output channel amount. Do not merely count the alarm input and out channel amount according to the ports on the rear panel.

There are two alarm input types for you to select: normal open (NO) and normal close (NC).

1.8.1 Alarm Input and Output Details

1.8.1.1 Simple entry-level/simple lite / 4-channel 1U series

The one interface is shown as below. See Figure 1-26.

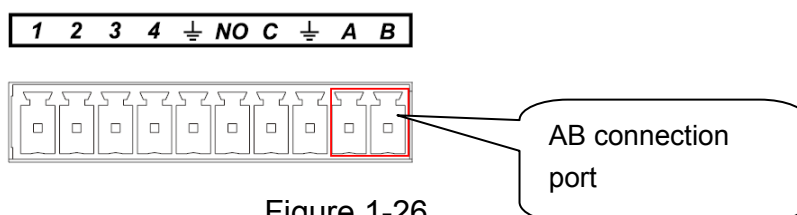



Figure 1-26

You can refer to the following sheet for alarm input and output information.

Parameter	Grounding Alarm
	GND
Alarm Input	1, 2, 3, 4. It becomes valid in low voltage.
NO C	One NO activation output.
485 A/B	485 communication port. They are used to control devices such as PTZ. Please parallel connect 120Ω between A/B cables if there are too many PTZ decoders.

1.8.1.2 8/16-channel 1U Series

The interface is shown as in Figure 1-27.

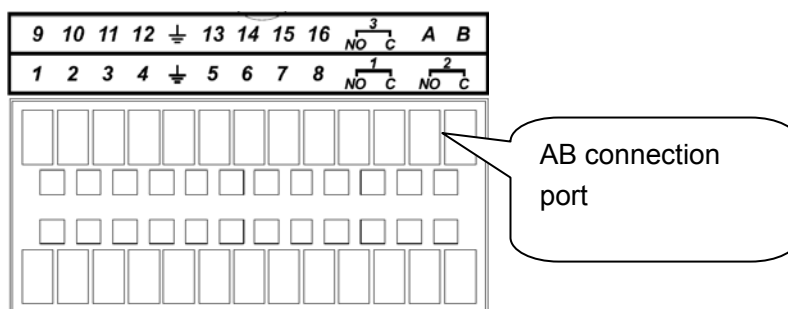



Figure 1-27

Please refer to the following sheet and Figure 1-27 for detailed information.

Parameter	Grounding Alarm
	GND
Alarm Input	1, 2, ..., 16.. It becomes valid in low voltage.
1-NO C, 2-NO C, 3-NO C	Three NO activation outputs.
485 A/B	485 communication port. They are used to control devices such as PTZ. Please parallel connect 120Ω between A/B cables if there are too many PTZ decoders.

1.8.1.3 CIF Real-time Entry-level

The 4-channel is shown as in Figure 1-28.

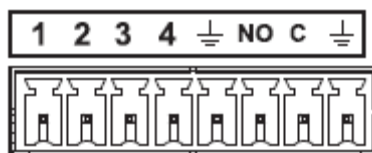


Figure 1-28

The 8-channel is shown as in Figure 1-29.

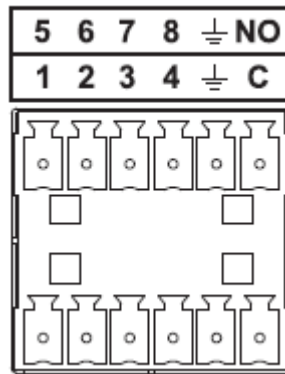


Figure 1-29

The 16-channel is shown as in Figure 1-30.

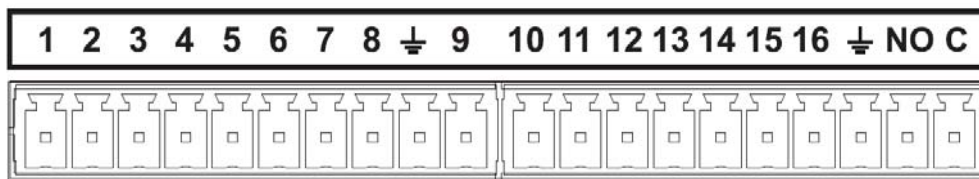



Figure 1-30

: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16	ALARM 1 to ALARM 16. The alarm becomes active in low voltage.
NO C,	There is one group of normal open activation output (on/off button).
	Earth cable.
485 A/B	485 communication port. They are used to control devices such as PTZ. Please parallel connect 120TΩ between A/B cables if there are too many PTZ decoders.

1.8.1.4 1.5U Series

You can refer to the following sheet and Figure 1-31 for alarm input and output information.

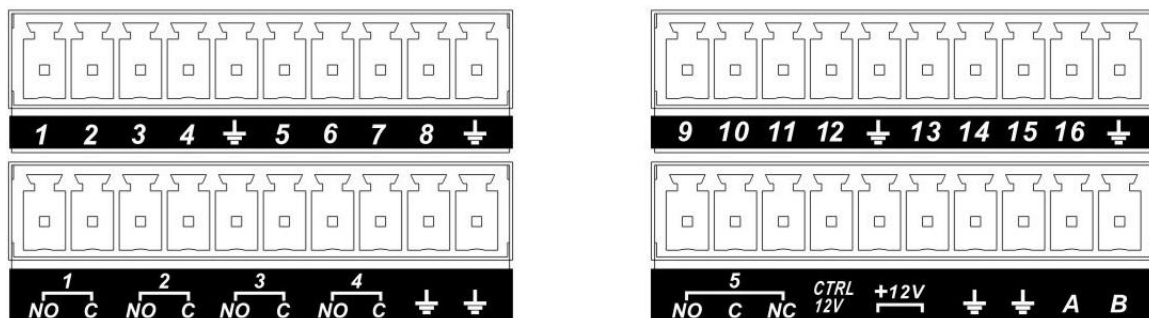



Figure 1-31

In the first line, from the left to the right,: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,	ALARM 1 to ALARM 16. The alarm becomes active in low voltage.
--	---

15, 16	
In the second line, from the left to the right: NO1 C1, NO2 C2, NO3 C3, NO4 C4, NO5 C5 NC5	The first four are four groups of normal open activation output (on/off button) NO5 C5 NC5 is a group of NO/NC activation output (on/off button)
CTRL 12V	Control power output. You need to close the device power to cancel the alarm.
+12V	It is external power input. Need the peripheral equipment to provide +12V power (below 1A).
	Earth cable.
485 A/B	485 communication port. They are used to control devices such as PTZ. Please parallel connect 120TΩ between A/B cables if there are too many PTZ decoders.

1.8.1.5 2U Series

You can refer to the following sheet and Figure 1-32 for alarm input and output information.

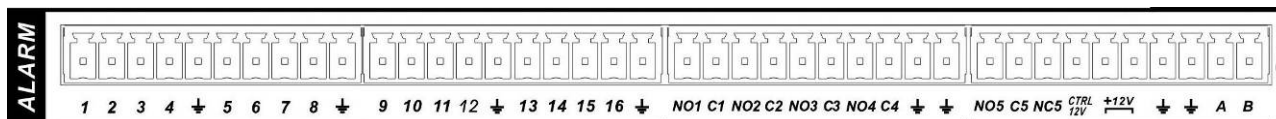



Figure 1-32

In the first line, from the left to the right,: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16	ALARM 1 to ALARM 16. The alarm becomes active in low voltage.
In the second line, from the left to the right: NO1 C1, NO2 C2, NO3 C3, NO4 C4, NO5 C5 NC5	The first four are four groups of normal open activation output (on/off button) NO5 C5 NC5 is a group of NO/NC activation output (on/off button)
CTRL 12V	Control power output. You need to close the device power to cancel the alarm.
+12V	It is external power input. Need the peripheral equipment to provide +12V power (below 1A).
	Earth cable.
485 A/B	485 communication port. They are used to control devices such as PTZ. Please parallel connect 120TΩ between A/B cables if there are too many PTZ decoders.

1.8.2 Alarm Input Port

Please refer to the following sheet for more information.

- Normal open or Normal close type.
- Please parallel connect COM end and GND end of the alarm detector (Provide external power to the alarm detector).
- Please parallel connect the Ground of the DVR and the ground of the alarm detector.
- Please connect the NC port of the alarm sensor to the DVR alarm input(ALARM)
- Use the same ground with that of DVR if you use external power to the alarm device.

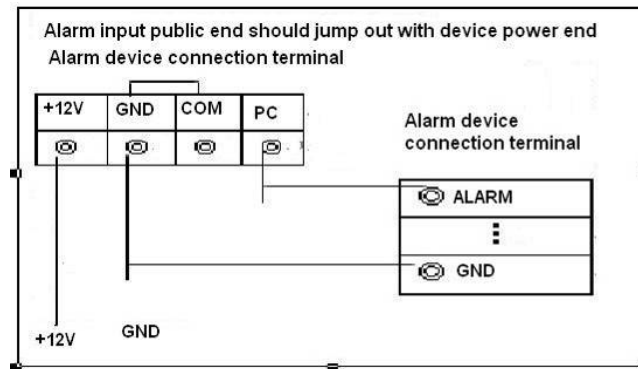


Figure 1-33

1.8.3 Alarm Output Port

- Provide external power to external alarm device.
- To avoid overloading, please read relay parameters sheet in the *User's Manual* carefully.
- RS485 A/B cable is for the A/B cable of the PTZ decoder.

2 Overview of Navigation and Controls

Before operation, please make sure:

- You have properly installed HDD and all the cable connections.
- The provided input power and the device power are matched.
- The external power shall be DC 12 V.
- Always use the stable current, if necessary UPS is a best alternative measure.

2.1 Login, Logout & Main Menu

2.1.1 Login

After system booted up, system pops up the startup wizard.

Click the Cancel button; you can go to the system login interface.

Click the Next Step button; you can go to the startup wizard interface. Here you can set the system basic information. See Figure 2-1.




Figure 2-1

The system login interface is shown as in Figure 2-2.

System consists of four accounts:

- **Username:** admin. **Password:** admin. (administrator, local and network)
- **Username:** 888888. **Password:** 888888. (administrator, local only)
- **Username:** 666666. **Passwords:** 666666 (Lower authority user who can only monitor, playback, backup and etc.)
- **Username:** default. **Password:** default (hidden user)

You can use USB mouse, front panel, remote control (not included in the accessory bag) or

keyboard to input. About input method: Click  to switch between numeral, English character (small/capitalized) and denotation.

Note:

For security reason, please modify password after you first login.

Within 30 minutes, three times login failure will result in system alarm and five times login failure will result in account lock!



Figure 2-2

2.1.2 Main Menu

After you logged in, the system main menu is shown as below. See Figure 2-3.

There are total six icons: search, information, setting, backup, advanced and shutdown.

You can move the cursor to highlight the icon, and then double click mouse to enter the sub-menu.

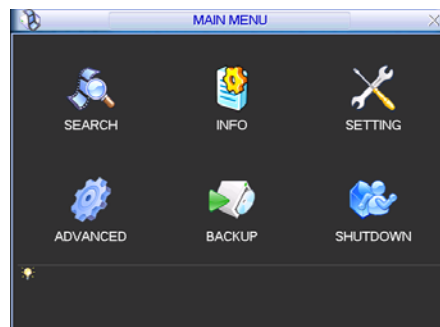


Figure 2-3

2.1.3 Logout

There are two ways for you to log out.

The first one is from menu option:

In the main menu, click shutdown button, you can see an interface is shown as below. See Figure 2-4.

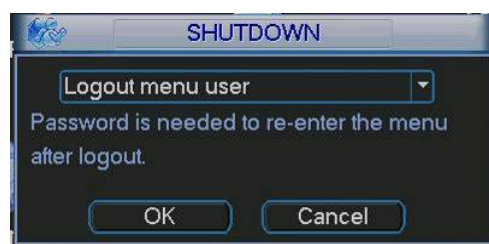


Figure 2-4

There are several options for you. See Figure 2-5.

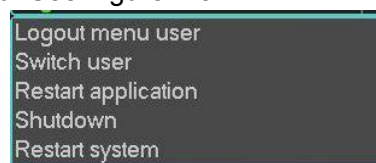


Figure 2-5

The other ways is to press power button on the front panel for at least 3 seconds, system will stop all operations. Then you can click the power button in the front panel to turn off the DVR.





Please note, before you replace the HDD, do remember shutting down the device and unplug the power cable.

2.1.4 Auto Resume after Power Failure

The system can automatically backup video and resume previous working status after power failure.

2.2 Live Viewing

After you logged in, the system is in live viewing mode by default. You can see system date, time and channel name. If you want to change system date and time, you can refer to general settings (Main Menu->Setting->General). If you want to modify the channel name, please refer to the display settings (Main Menu->Setting->Display)

1		Recording status	3		Video loss
2		Motion detection	4		Camera lock

Preview Zoom Function

Move your mouse to the left top corner of the preview interface; you can see the preview zoom button. See Figure 2-6. Left click the icon; you can see a hook icon. Now you have enabled the preview zoom function. You can drag the mouse to zoom in the image.

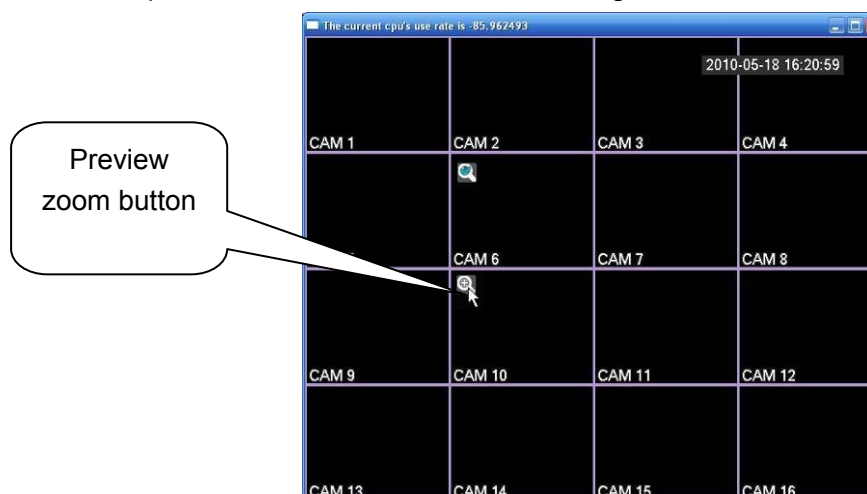


Figure 2-6

2.3 Search & Playback

Click search button in the main menu, search interface is shown as below. See Figure 2-7. Usually there are three file types:

- R: Regular recording file.
- A: External alarm recording file.
- M: Motion detection recording file

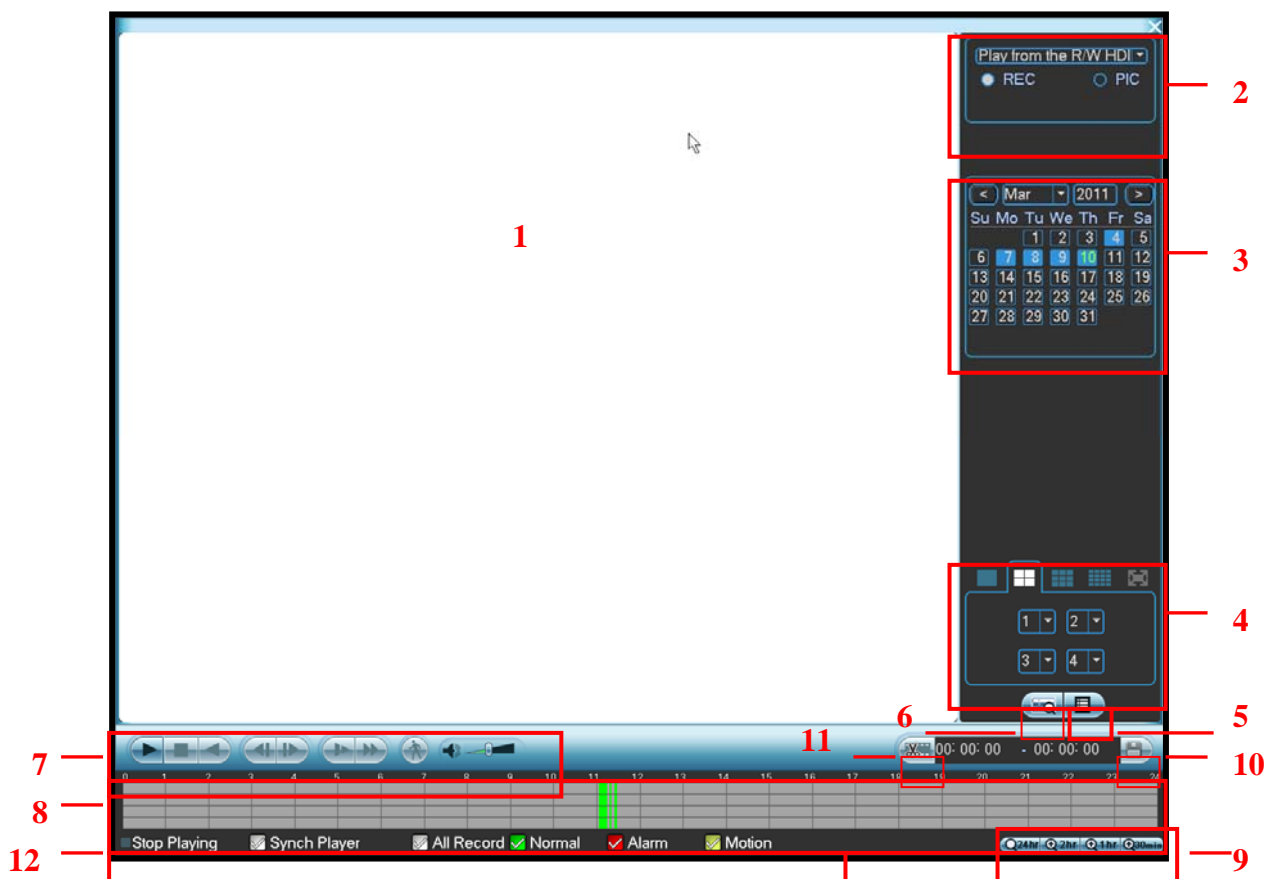
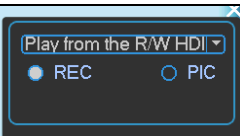

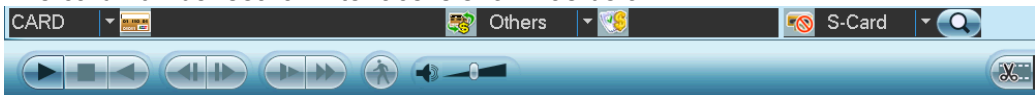











Figure 2-7

Please refer to the following sheet for more information.

SN	Name	Function
1	Display window	<ul style="list-style-type: none"> ●Here is to display the searched picture or file. ●Support 1/4/9/16-window playback.
2	Search type	<ul style="list-style-type: none"> ●Here you can select to search the picture or the recorded file. ●When there is displayed picture on the left pane, you can set the corresponding setup 
3	Calendar	<ul style="list-style-type: none"> ●The blue highlighted date means there is picture or file. Otherwise, there is no picture or file. ●In any play mode, click the date you want to see, you can see the corresponding record file trace in the time bar.
4	Playback mode and channel selection pane.	<ul style="list-style-type: none"> ●Playback mode: 1/4/9/16. (It may vary due to different series.) ✧ In 1-window playback mode: you can select 1-16 channels. ✧ In 4-window playback mode: you can select 4 channels according to your requirement. ✧ In 9-window playback mode, you can switch between 1-9 and 10-16 channels. ✧ In 16-window playback mode, you can switch between 1-16 channels. ●The time bar will change once you modify the playback mode or the channel option.

5	File list switch button	<ul style="list-style-type: none"> ●Double click it, you can view the picture/record file list of current day. ●The file list is to display the first channel of the record file. ●The system can display max 128 files in one time. Use the ▲/▼ or the mouse to view the file. Select one item, and then double click the mouse or click the ENTER button to playback. ●You can input the period in the following interface to begin accurate search. ●File type: R—regular record; A—external alarm record; M—Motion detect record. 	
6	Card number search	<p>The card number search interface is shown as below.</p> 	
7	Playback control pane.		<p>Play/Pause There are three ways for you to begin playback.</p> <ul style="list-style-type: none"> ● The play button ● Double click the valid period of the time bar. ● Double click the item in the file list. <p>In slow play mode, click it to switch between play/pause.</p>
			<p>Stop</p>
			<p>Backward play In normal play mode, left click the button, the file begins backward play. Click it again to pause current play. In backward play mode, click ► / to restore normal play.</p>
			<p>In playback mode, click it to play the next or the previous section. You can click continuously when you are watching the files from the same channel. In normal play mode, when you pause current play, you can click ◀ and ▶ to begin frame by frame playback. In frame by frame playback mode, click ► / to restore normal playback.</p>
			<p>Slow play In playback mode, click it to realize various slow play modes such as slow play 1, slow play 2, and etc.</p>
			<p>Fast forward In playback mode, click to realize various fast play modes such as fast play 1, fast play 2 and etc.</p>
		<p>Note: The actual play speed has relationship with the software version.</p>	
			<p>Smart search</p>
			<p>The volume of the playback</p>
			<p>Click the snapshot button in the full-screen mode, the system can snapshot 1 picture per second.</p>
8	Time bar	<ul style="list-style-type: none"> ●It is to display the record type and its period in current search criteria. ●In 4-window playback mode, there are corresponding four time bars. In other playback mode, there is only one time bar. ●Use the mouse to click one point of the color zone in the time bar, system begins playback. ●The time bar is beginning with 0 o'clock when you are setting the configuration. The time bar zooms in the period of the current playback time when you are playing the file. ●The green color stands for the regular record file. The red color stands for the external alarm record file. The yellow stands for the motion detect record file. 	
9	Time bar	<ul style="list-style-type: none"> ●The option includes: 24H, 12H, 1H and 30M. The smaller the unit, the larger the 	

	unit	zoom rate. You can accurately set the time in the time bar to playback the record. ●The time bar is beginning with 0 o'clock when you are setting the configuration. The time bar zooms in the period of the current playback time when you are playing the file.
10	Backup	Select the file(s) you want to backup from the file list. System max supports files from four channels. Then click the backup button, now you can see the backup menu. Click the start button to begin the backup operation. Check the file again you can cancel current selection. System max supports to display 32 files from one channel.
11	Clip	●It is to edit the file. ●Please play the file you want to edit and then click this button when you want to edit. You can see the corresponding slide bar in the time bar of the corresponding channel. You can adjust the slide bar or input the accurate time to set the file end time. Click this button again and then save current contents in a new file. .
12	Record type	In any play mode, the time bar will change once you modify the search type.
13	Smart search	<ul style="list-style-type: none"> ● When system is playing, you can select a zone in the window to begin motion detect. Click the motion detect button to begin play. ● Current button is null once the motion detect play has begun. ● The system will take the whole play zone as the motion detect region by default. ● The motion detect play stopped once you switch the play file. ● Operations such as set time bar, click the play button, or any file list operation will stop current motion detect play.
Other Functions		
14	Other channel synchronization switch to play when playback	When playing the file, click the number button, system can switch to the same period of the corresponding channel to play.
15	Digital zoom	When the system is in full-screen playback mode, left click the mouse in the screen. Drag your mouse in the screen to select a section and then left click mouse to realize digital zoom. You can right click mouse to exit.

Note:

All the operations here (such as playback speed, channel, time and progress) have relationship with hardware version. Some series DVRs do not support some functions or playback speeds.

2.4 Schedule

Note:


You need to have proper rights to implement the following operations. Please make sure the HDDs have been properly installed.

After the system booted up, it is in default 24-hour regular mode. You can set record type and time in schedule interface.

In the main menu, from Setting to Schedule, you can go to schedule menu. See Figure 2-8. There are total six periods.

- Channel: Please select the channel number first. You can select “all” if you want to set for the whole channels.
- Week day: There are eight options: ranges from Saturday to Sunday and all.
- Pre-record: System can pre-record the video before the event occurs into the file. The value ranges from 1 to 30 seconds depending on the bit stream.

- Redundancy: System supports redundancy backup function. You can highlight Redundancy button to activate this function. Please note, before enable this function, please set at least one HDD as redundant. (Main menu->Advanced->HDD Management). **Please note this function is null if there is one HDD.**
- Snapshot: You can enable this function to snapshot image when alarm occurs.
- Record types: There are four types: regular, motion detection (MD), Alarm, MD & alarm.

Please highlight icon  to select the corresponding function. After completing all the setups please click save button, system goes back to the previous menu.

At the bottom of the menu, there are color bars for your reference. Green color stands for regular recording, yellow color stands for motion detection and red color stands for alarm recording. The white means the MD and alarm record is valid. Once you have set to record when the MD and alarm occurs, system will not record neither motion detect occurs nor the alarm occurs.



Figure 2-8

2.5 Snapshot

2.5.1 Schedule Snapshot

In Encode interface, click snapshot button to input snapshot mode, size, quality and frequency.

In General interface please input upload interval.

In Schedule interface, please enable snapshot function.

Please refer to the following figure for detailed information. See Figure 2-9.

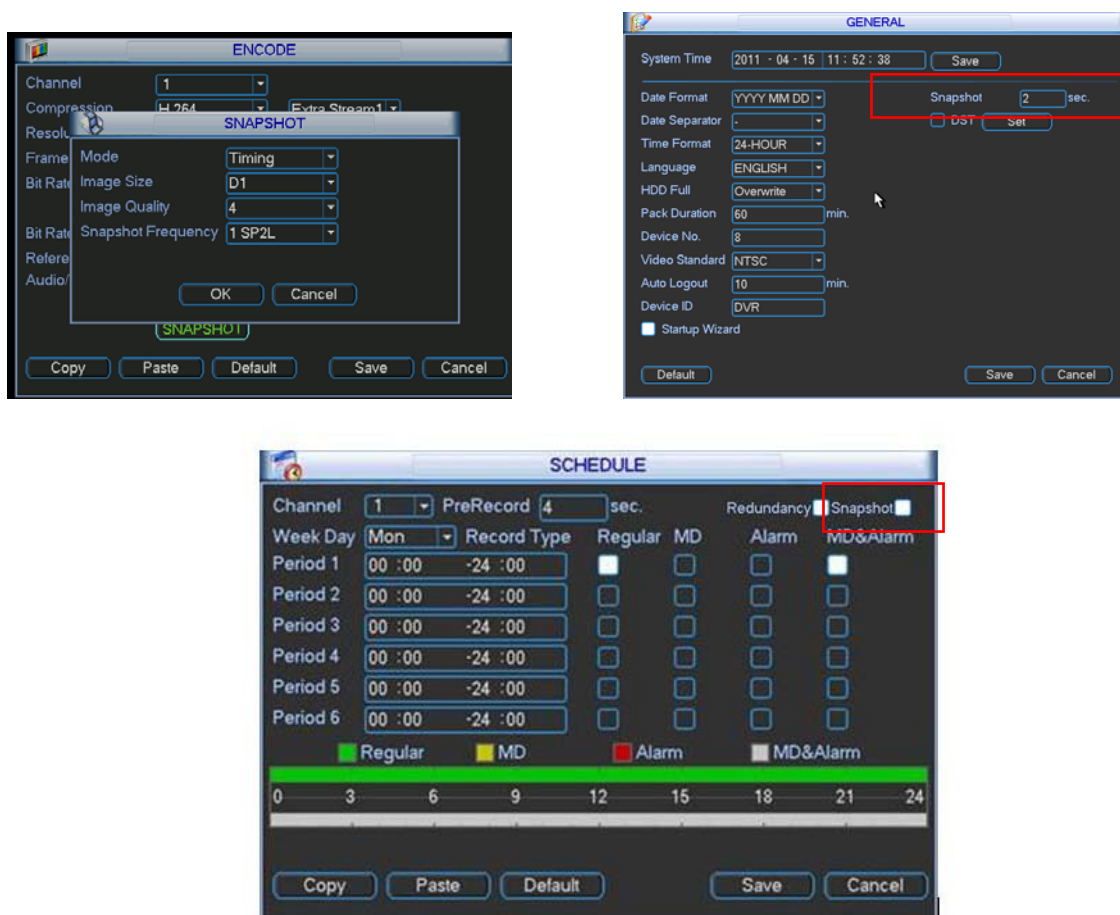


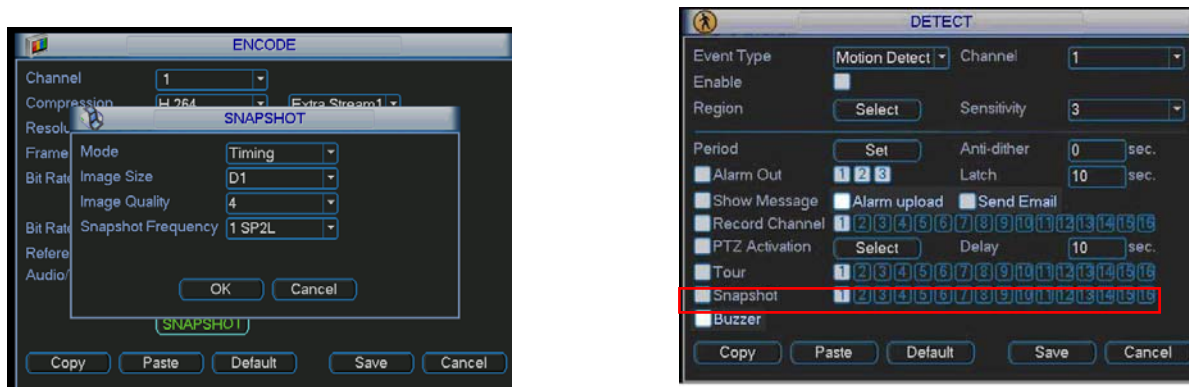
Figure 2-9

2.5.2 Activation Snapshot

Please follow the steps listed below to enable the activation snapshot function. After you enabled this function, system can snapshot when the corresponding alarm occurred.

- In Encode interface, click snapshot button to input snapshot mode, size, quality and frequency.
- In General interface please input upload interval.
- In Detect interface please enable snapshot function for specified channels. Or in Alarm interface please enable snapshot function for specified channels.

Please refer to the following figure for detailed information. See Figure 2-10.



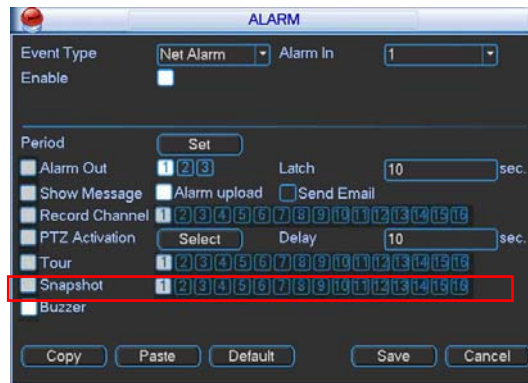


Figure 2-10

2.5.3 Priority

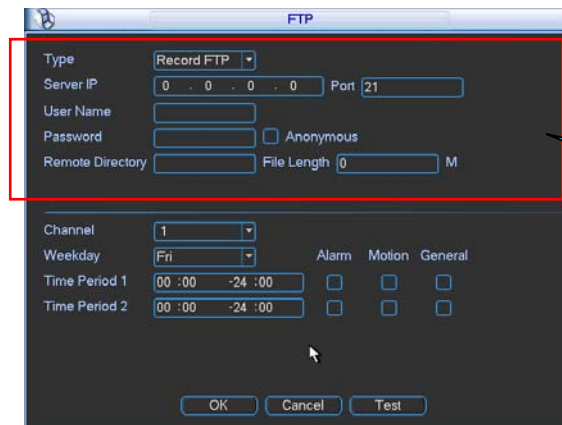
Please note the activation snapshot has the higher priority than schedule snapshot. If you have enabled these two types at the same time, system can activate the activation snapshot when alarm occurs, and otherwise system just operates the schedule snapshot.

2.5.4 Image FTP

In Network interface, you can set FTP server information. Please enable FTP function and then click save button. See Figure 2-11. Please refer to the *User's Manual* included in the resource CD for detailed information.

Please boot up corresponding FTP server.

Please enable schedule snapshot or activation snapshot (Chapter 2.5.1) and then system can upload the image file to the FTP server.



Please input the corresponding information here, if you just upload the image FTP.

Figure 2-11

2.5.5 Snapshot Disk (For special series only)

Set one disk as snapshot (Main menu->Advanced->HDD management) and then click execute button. See Figure 2-12. System needs to reboot to get current setup activated.

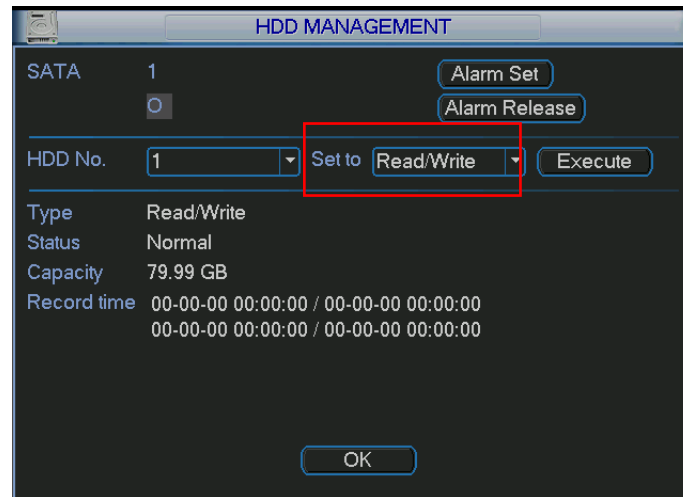


Figure 2-12

All scheduled snapshot files or activated snapshot files will be memorized in the snapshot disk.

You can search the corresponding images via Web. See Figure 2-13.

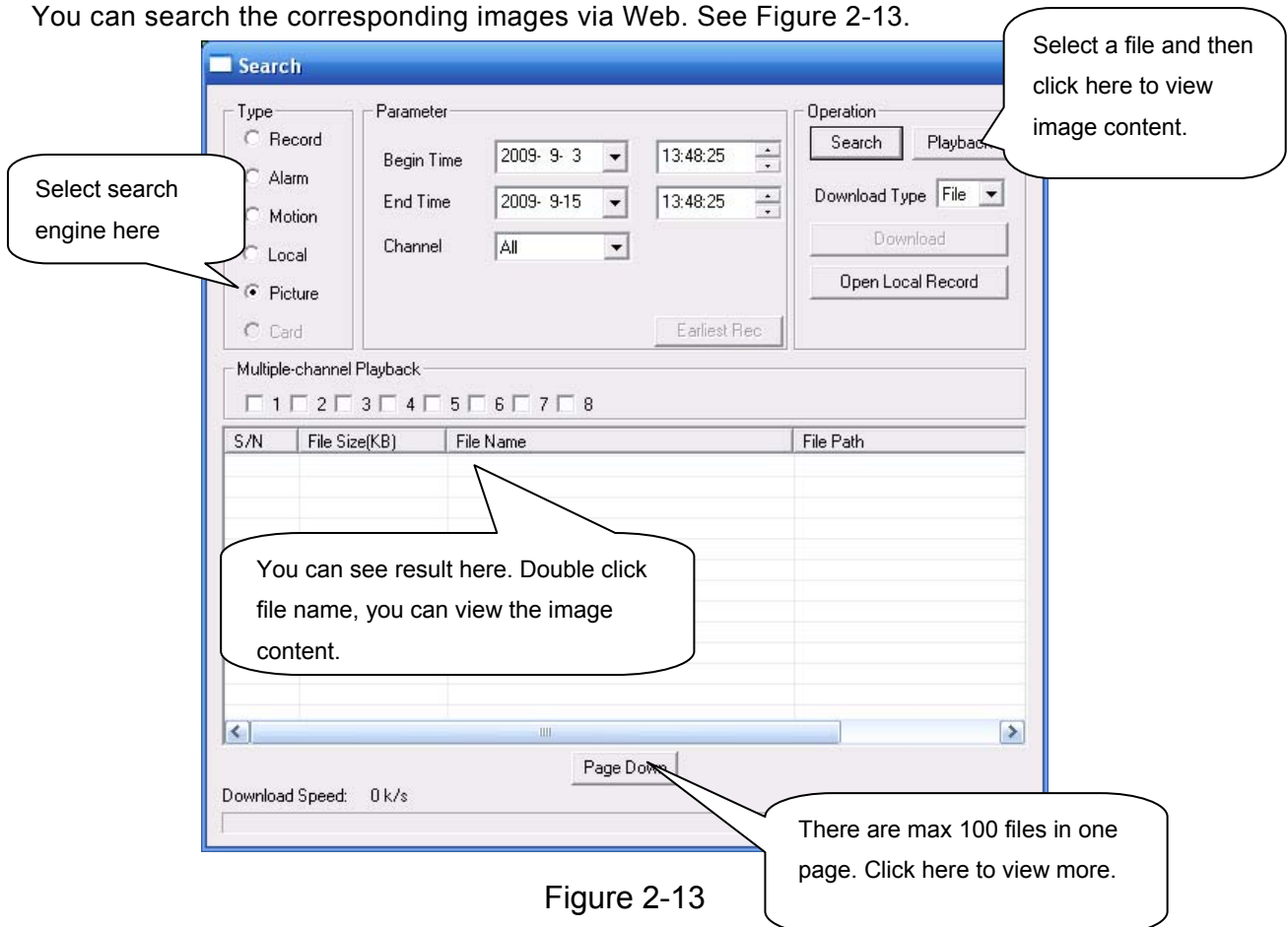


Figure 2-13

2.6 Network Setup

Here is for you to input network information. See Figure 2-14.

- IP address: Here you can input IP address.
- DHCP: It is auto search IP function. When enable DHCP function, you can not modify IP/Subnet mask /Gateway. These values are from DHCP function. If you have not enabled

DHCP function, IP/Subnet mask/Gateway display as 0. You need to disable DHCP function to view current IP information. Besides, when PPPoE is operating, you can not modify IP/Subnet mask /Gateway.

- TCP port: Default value is 37777. You can change if necessary.
- UDP port: Default value is 37778. You can change if necessary.
- HTTP port: Default value is 80.
- RTSP port: Default value is 554.
- Max connection: system support maximal 20 users. 0 means there is no connection limit.
- Preferred DNS server: DNS server IP address.
- Alternate DNS server: DNS server alternate address.
- Transfer mode: Here you can select the priority between fluency/video qualities.
- LAN download: System can process the downloaded data first if you enable this function.
The download speed is 1.5X or 2.0X of the normal speed.

After completing all the setups please click save button, system goes back to the previous menu.

Figure 2-14

2.7 Pan/Tilt/Zoom

Please note:

- Slight difference may be found in the user's interface, due to various protocols.
- Please make sure the speed domes A/B cables are properly connected to the A/B ports of DVR.
- You have properly set PTZ information.
- Please switch camera monitor channel to current window.

2.7.1 PTZ Setup

The pan/tilt/zoom setup includes the following items. Please select channel first. See Figure 2-15.

- Protocol: Select corresponding PTZ protocol such as PELCOD.
- Address: Input corresponding PTZ address.
- Baud rate: Select baud rate. Default value is 9600.
- Data bit: Select data bit. Default value is 8.
- Stop bit: Select stop bit. Default value is 1.

- Parity: There are three choices: none/odd/even. Default value is none.



Figure 2-15

After completing all the setups please click save button, system goes back to the previous menu.

2.7.2 PTZ Operation

In one window display mode, right click mouse (click “Fn” Button in the front panel or click “Fn” key in the remote control). The interface is shown as in Figure 2-16.

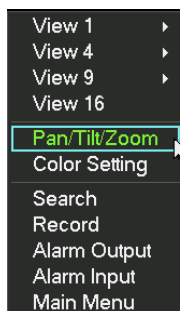


Figure 2-16

Click Pan/Tilt/Zoom, the interface is shown as below. See Figure 2-17.

Here you can set the following items:

- Step: value ranges from 1 to 8.
- Zoom
- Focus
- Iris

Click icon  and  to adjust zoom, focus and iris.



Figure 2-17

In Figure 2-17, please click direction arrows (See Figure 2-18) to adjust PTZ position. There are total 8 direction arrows. Please note if you use remote control, you can use just four directions (Up/down/left/right).

The speed value ranges from 1 to 8.



Figure 2-18

2.7.3 3D Intelligent Positioning Key

In the middle of the eight direction arrows, there is a 3D intelligent positioning key. See Figure 2-19. Please note, this function needs protocol supported and can only be operated by mouse. Click this key, system goes back to the single screen mode. Drag the mouse in the screen to adjust section size. It can realize PTZ automatically.



Figure 2-19

Here is a sheet for you reference.

Name	Function key	function	Shortcut key	Function key	function	Shortcut Key
Zoom		Near	▶		Far	▶▶
Focus		Near	◀		Far	▶▶
Iris		close	◀		Open	▶

You can click set button in Figure 2-17 (or click REC button in the front panel) to set preset, tour, and pattern.

You can click page switch button in Figure 2-17 (or click Fn button in the front panel) to call main function.

3 Web Client Operation

Slightly difference may be found in the interface due to different series.

3.1 Network Connection

Before web client operation, please check the following items:

- Network connection is right
- DVR and PC network setup is right. Please refer to network setup(main menu->setting->network)
- Use order ping `***.***.***.***(* DVR IP address)` to check connection is OK or not. Usually the return TTL value should be less than 255.
- System can automatically download latest web control and the new version can overwrite the previous one.
- If you want to un-install the web controls, please run `uninstall webrec2.0.bat` to auto delete the control or you can go to `C:\Program Files\webrec` to delete Single folder.
- Current series product supports various browsers such as Safari, firebox browser, Google browser. Device only support 1-channel monitor on the Apple PC.

3.2 Login

Open IE and input DVR address in the address column. For example, if your DVR IP is 10.10.3.16, then please input `http:// 10.10.3.16` in IE address column.

System pops up warning information to ask you whether install webrec.cab control or not. Please click yes button.

If you can't download the ActiveX file, please modify your IE security setup.

After installation, the interface is shown as below. See Figure 3-1.

Please input your user name and password.

Default factory name is admin and password is admin.

Note: For security reasons, please modify your password after you first login.

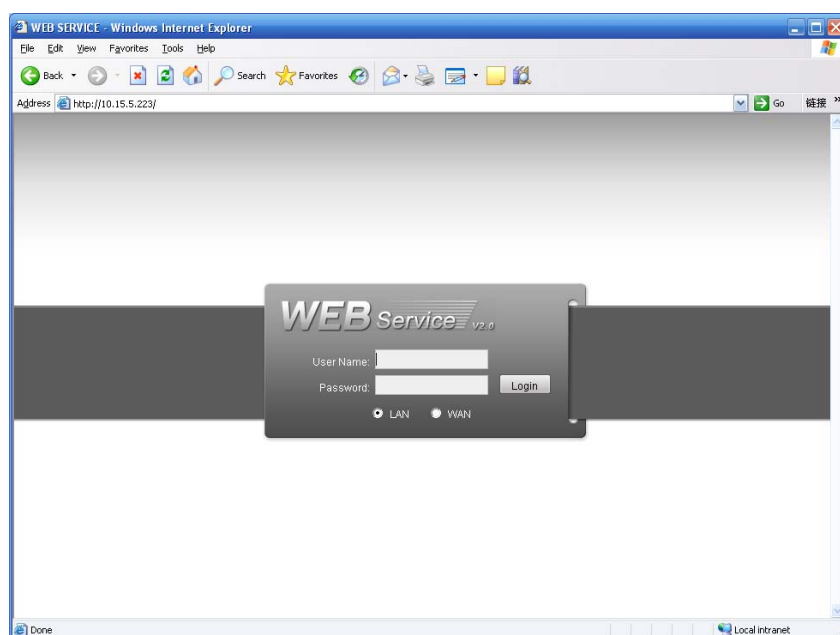


Figure 3-1

3.3 Main Window

3.3.1 LAN Login

For the LAN mode, after you logged in, you can see the main window. See Figure 3-2.

Click the channel name on the left side; you can view the real-time video.



Figure 3-2

3.3.2 WAN Login

In WAN mode, after you logged in, the interface is shown as below. See Figure 3-3.

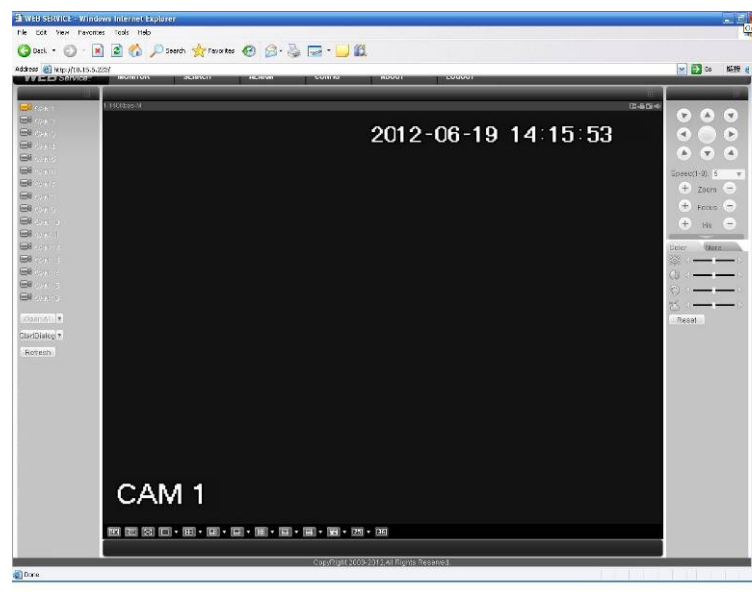


Figure 3-3

For detailed operation information, please refer to the *User's Manual* included in the resources CD.

Appendix Toxic or Hazardous Materials or Elements

Component Name	Toxic or Hazardous Materials or Elements					
	Pb	Hg	Cd	Cr VI	PBB	PBDE
Sheet Metal(Case)	○	○	○	○	○	○
Plastic Parts (Panel)	○	○	○	○	○	○
Circuit Board	○	○	○	○	○	○
Fastener	○	○	○	○	○	○
Wire and Cable/AC Adapter	○	○	○	○	○	○
Packing Material	○	○	○	○	○	○
Accessories	○	○	○	○	○	○

Note

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.

X: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard. During the environmental-friendly use period (EFUP) period, the toxic or hazardous substance or elements contained in products will not leak or mutate so that the use of these (substances or elements) will not result in any severe environmental pollution, any bodily injury or damage to any assets. The consumer is not authorized to process such kind of substances or elements, please return to the corresponding local authorities to process according to your local government statutes.

Note

- For detailed operation introduction, please refer to our resource CD included in your package for electronic version of the *User's Manual*.
- Slight difference may be found in user interface.
- All the designs and software here are subject to change without prior written notice.
- All trademarks and registered trademarks mentioned are the properties of their respective owners.
- If there is any uncertainty or controversy, please refer to the final explanation of us.
- Please visit our website for more information.