

4CH / 8CH / 16CH DIGITAL VIDEO RECORDER **960 H**

DIGIMASTER SERIES

DR-4FX1 / DR-8FX2 / DR-16FX2

INSTALLATION MANUAL

Before connecting, operating adjusting this product,
read this instruction boolet carefully completely



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Before installation

Comply with the following instructions to prevent a fire, explosion, system failure or electric shock.

- ✧ Remove the power supply module before proceeding.
- ✧ Check the input voltage (AC100V–AC240V) to the power supply module before connecting it.
- ✧ Keep the product away from humidity.
- ✧ Ensure that all devices connected to the product should be properly earth-grounded.

In operation mode

Comply with the following instructions to prevent a fire, explosion, system failure or electric shock.

- ✧ If you need to open the cover, consult with a service person who could help you do what you want to do.
- ✧ Do not connect multiple devices to a single power socket.
- ✧ Keep the product away from dust or too much combustible substances (ex: propane gas).
- ✧ Do not touch it with wet hand.
- ✧ Do not insert a conductor in the vent of the ventilation system.
- ✧ Do not apply excessive force to unplug the power cord.

Disassembly & Cleaning

- ✧ When cleaning on the surface, use a dry cloth.
- ✧ Do not wipe the product using water, paint thinner or organic solvents.
- ✧ Do never dismantle, repair or modify the product by your own.

During installation

To prevent an accident or physical injury and to operate DVR properly, please comply with the followings

- ✧ Secure at least 18 centimeter of distance between cooling fan and wall for a proper ventilation.
- ✧ Install the product on a flat surface.
- ✧ Keep it away from direct sunlight or excessive temperature.

While in use

- ✧ Do not apply force to or shake it while using it.
- ✧ Do not move, throw away or put excessive force to it.
- ✧ Using any unrecommended HDD may cause a system failure. Check the compatibility list and use only compatible HDDs.
- ✧ {A system failure or data loss caused by an incompatible HDD will void your warranty.}

Key Features

This product is capable of receiving inputs from up to 16 channels of 960H camera inputs of video and audio recording onto a hard disk drive in real-time, as well as providing monitoring, playback and backup footage in excellent quality of 960H resolution.

It also provides transferring video and audio data to the networked external devices, which allows remote monitoring environment for computers and mobile devices including cell phones.

- ✧ Up to 16 channels of 960H camera videos can be displayed at 480(NTSC)/400(PAL) fps in real-time.
- ✧ Up to 16 channels of 960H camera videos can be saved at maximum 480 /400 fps.
- ✧ Simultaneously recording and playback of maximum 16 channels.
- ✧ Supports H.264 HP CODEC.
- ✧ Auto alarm feature with self-diagnostics on the system (HDD S.M.A.R.T, network error, etc.)
- ✧ Supports dual streaming for remote access service.
- ✧ Various search methods (time, event, bookmark and thumbnail).
- ✧ Mass storage backup via USB port.
- ✧ Supports remote access and search using web server.
- ✧ Dedicated smart phone applications that can be used with iPhone and iPad or on Android OS.
- ✧ 1080p Full HD GUI

What's included?

Mouse



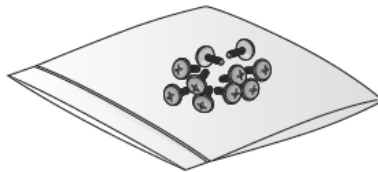
Remote Control x1
& Batteries (AAA x2)



Power Cable x1



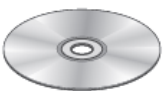
DC 12V Adaptor



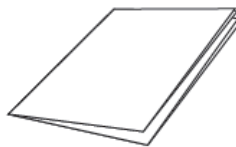
Screws



Adapter cable retainer clip x1
(For DR-8/16FX2)



User manual CD



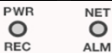


Quick Guide




OVERVIEW

Front Panel

DR-4FX1

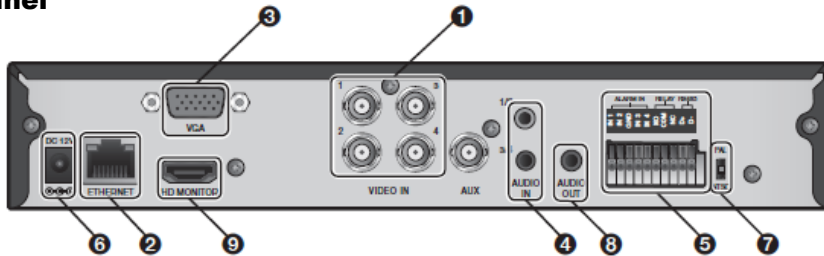
Name		Description
IR Remote Control Receiver		Receive the signal from the remote control
USB		Used for connecting USB storage or mouse.
Status LED		Show the status of power, recording or network connection together with the corresponding alarm.

DR-8/16FX2

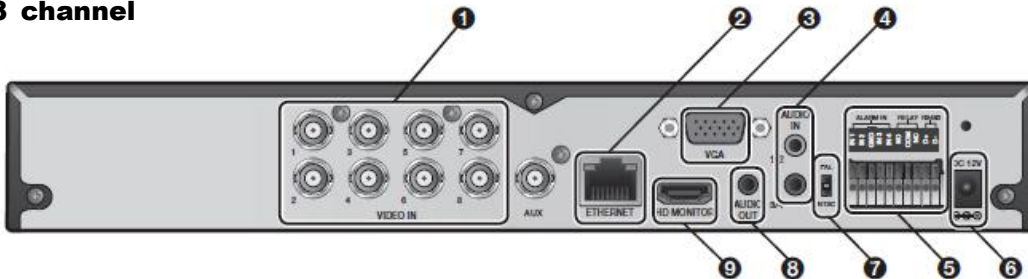
Name		Description
IR Remote Control Receiver		Receive the signal from the remote control
USB		Used for connecting USB storage or mouse.
Status LED		Show the status of power, recording or network connection together with the corresponding alarm.

Rear Panel

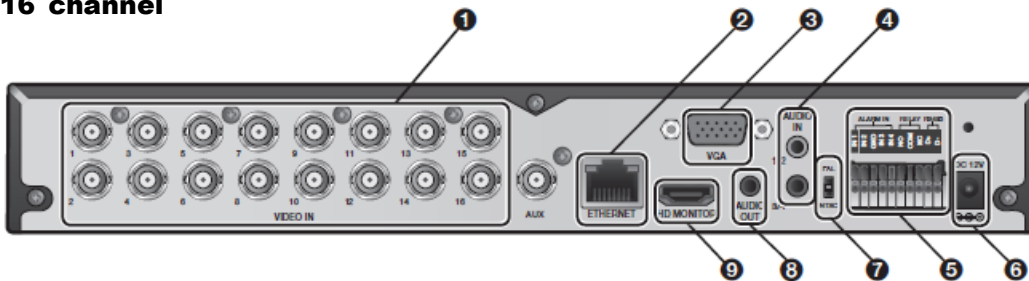
4 channel



8 channel

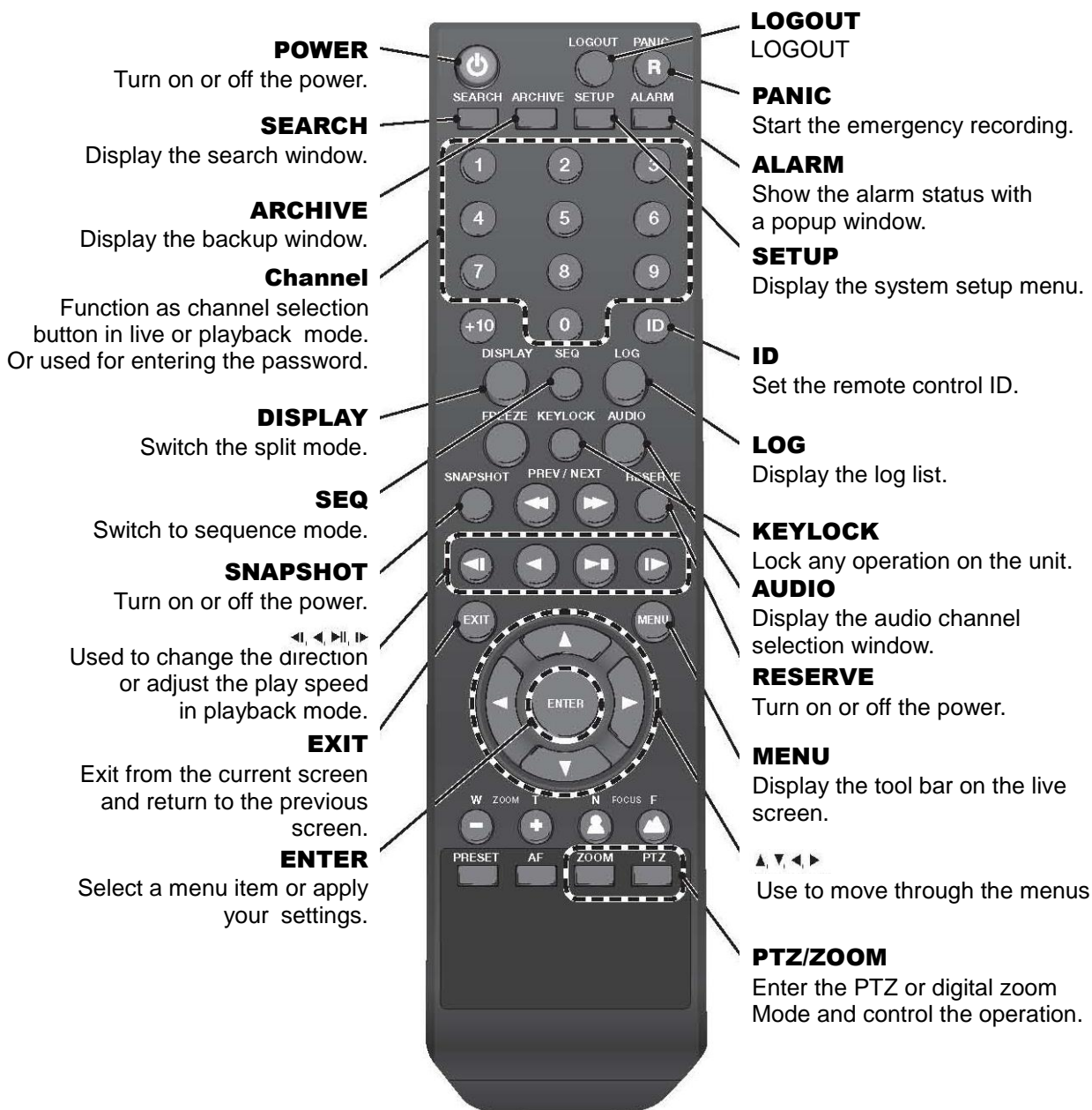


16 channel



NO	Name	Description
1	VIDEO IN	Video input terminal for cameras.
2	ETHERNET	Network port for connection to the Internet, router or hub
3	VGA	VGA monitor video output port.
4	AUDIO IN	1/2 : Audio input terminal that supports channel 1 and 2. 3/4 : Audio input terminal that supports channel 3 and 4.
5	ALARM IN RELAY RS-485	Alarm input signal port. Relay Terminal output port. Port for communication with external devices such as PTZ camera and system keyboard.
6	DC 12V	Power input port. Connect to a DV12V adaptor.
7	DIP Switch	Switch to select a video type or an output type.
8	AUDIO OUT	Port for speaker connection.
9	HD MONITOR	HD monitor video output port.

Remote Control At a Glance



Change the remote control ID

The remote control will be active only if the remote control ID matches with that specified on the DVR.

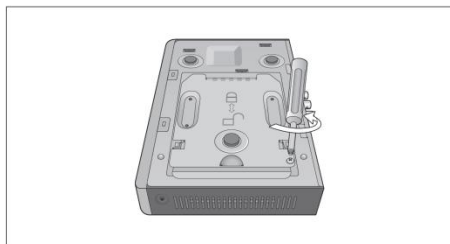
If multiple DVRs are installed on one place and you have just a single remote control, use the ID button to set the remote control ID. Only the ID-matching DVR can be controlled.

1. From **<SYSTEM> - <CONTROL DEVICE>** under the System Setup menu, set the **<REMOTE CONTROLLER ID>** and press **<Apply>**.
Select between 00 and 99. For more details, refer to **<SYSTEM SETUP>**.
The remote control will be active only if the remote control ID matches with that of the DVR's system ID.
2. Press the **[ID]** button on the remote control. The default remote control ID is 00.
3. Use the number buttons to provide a two-digit ID. If you want to enter 01, for instance, enter the number 0 and 1 in sequence.
Check if the remote control ID is set properly by manipulating the remote control.
4. To reset the ID to 00, press and hold the **[ID]** button.

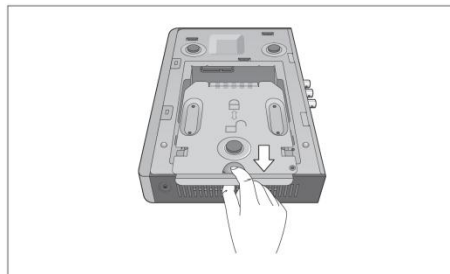
HDD Installation

For 4 channel model

1. Remove the screw from the bracket on the Bottom side of the DVR.

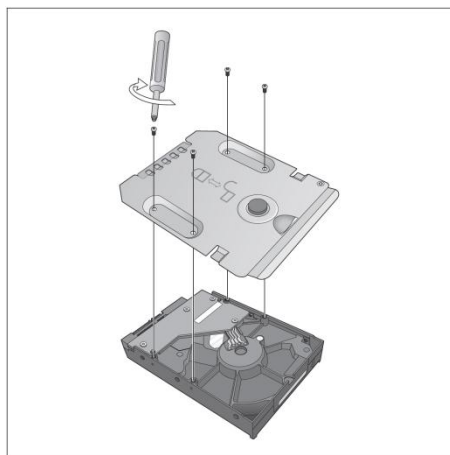


2. Hold the HDD bracket with your finger as shown in the figure and pull it to separate it from the DVR.

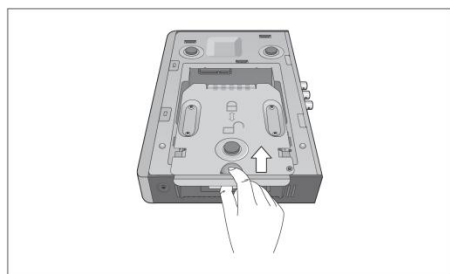


3. Install the HDD on the bracket and fix it by fastening 4 screws on its sides.

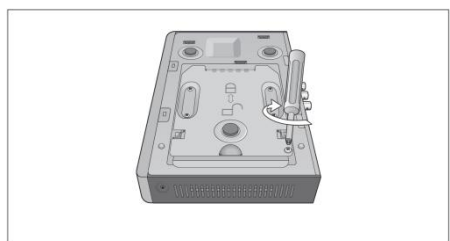
✓ When installing HDD, make sure to install in the correct direction.



4. Insert back the bracket installed with the HDD into the DVR.

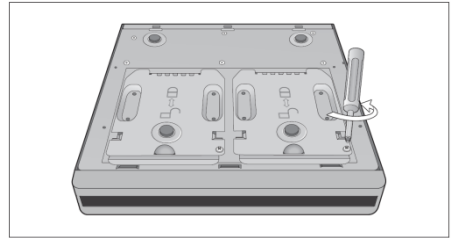


5. Fix the bracket by fastening the screw.

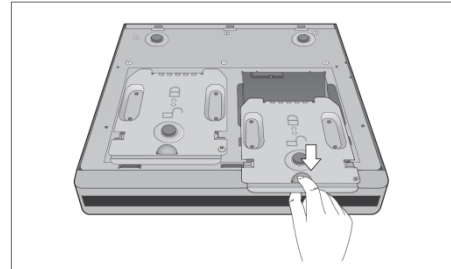


For 8/16 channel models

1. Remove the screw from each the bracket on the Bottom side of the DVR.

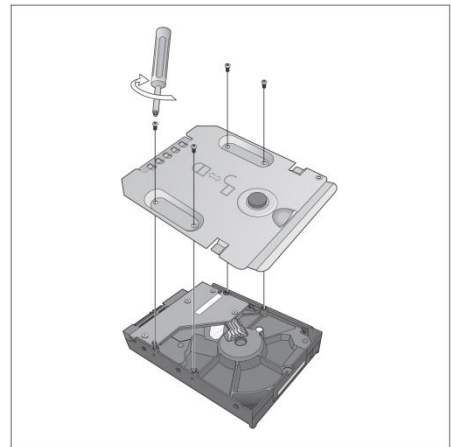


2. Hold the HDD bracket with your finger as shown in the figure and pull it to separate it from the DVR.

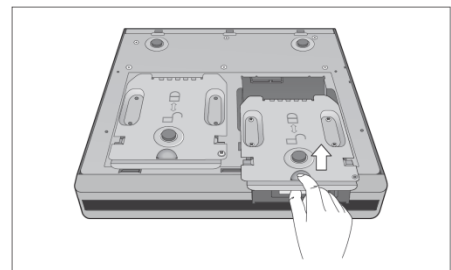


3. Install the HDD on the bracket and fix it by fastening 4 screws on its sides.

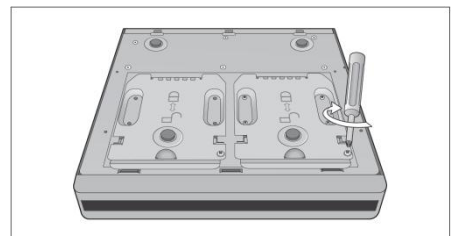
- ✓ When installing HDD, make sure to install in the correct direction.



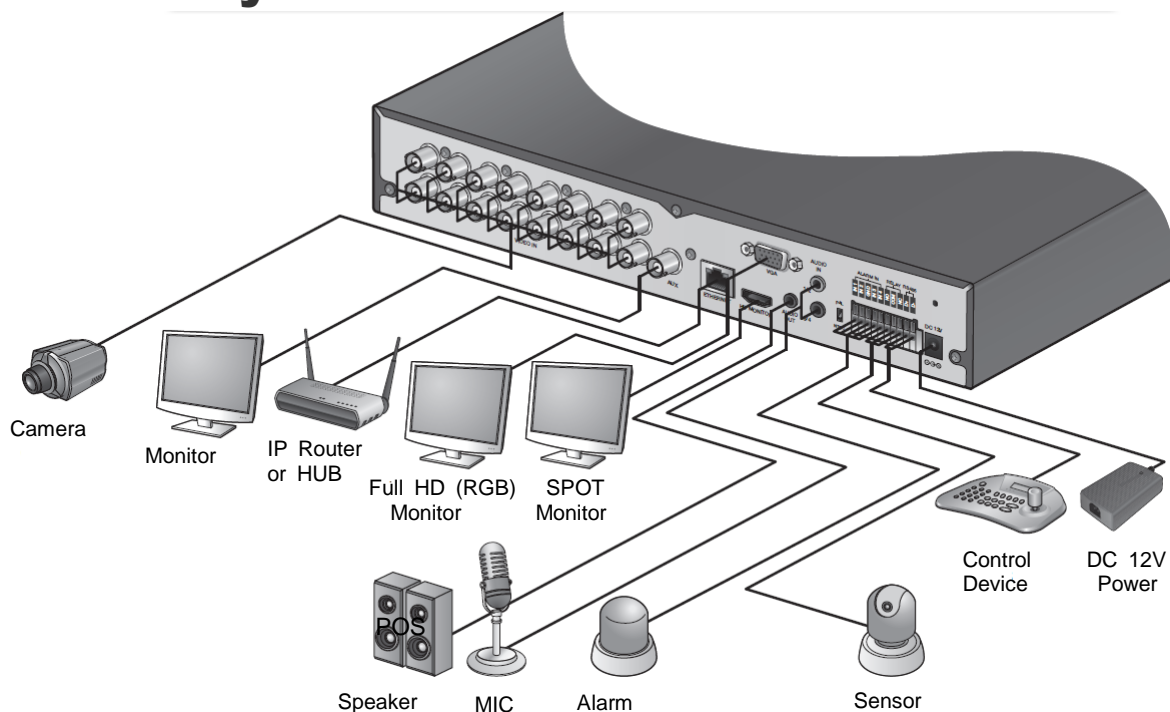
4. Insert back the bracket installed with the HDD into the DVR.



5. Fix the bracket by fastening the screw.



Basic Layout



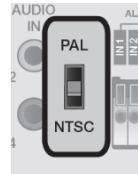
! Since the cable quality may affect directly to the video quality depending on the distance between the camera and DVR, it's recommended to consult an authorized installer when installing the DVR.

Connecting to an external device

Connecting to the monitor

This product supports 1080p 60 Hz HDMI monitors and regular monitors that support DVI and VGA inputs.

- ✧ Once the product is set for NTSC or PAL output, connect cameras of the corresponding video standard for proper operations. Setting the product to NTSC or PAL decides available display output modes too.

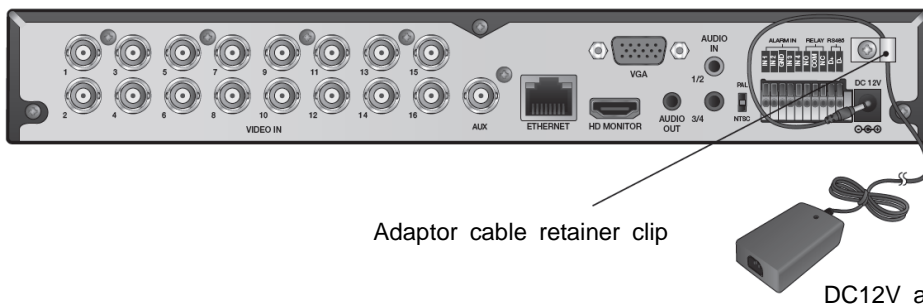


- ✓ The monitor's displaying operates at 50Hz if the product has been set to PAL output and the connected monitor supports both 50Hz and 60 Hz inputs. For NTSC setting, it works at 60Hz.

- ❗ Make sure to connect the product to a monitor that supports 1920x1080 at 60Hz. (HDMI, DVI, VGA)

Power Connection

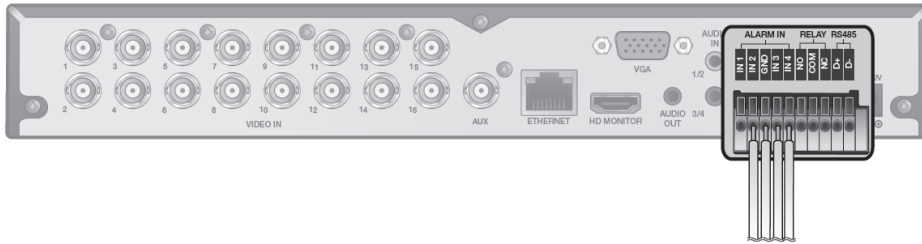
Plug the provided DC 12V adaptor in the rear power port of the DVR.



- ✧ For stable operation of the product, it is recommended to use the provided adaptor (12VDC 5A).
- ✧ Make connection when the power is not applied yet.
- ✧ Arrange up the cables and be careful not to peel off the cable coating.
- ✧ Do not place the power cord under the carpet or rug. The power cord is usually earth-grounded. However, even if it's not earth-grounded, do never modify it on your own for earth-grounding.
- ✧ Do not insert multiple devices in a single power socket. Otherwise, it may cause a power overload.

INSTALLATION

Alarm I/O Connection



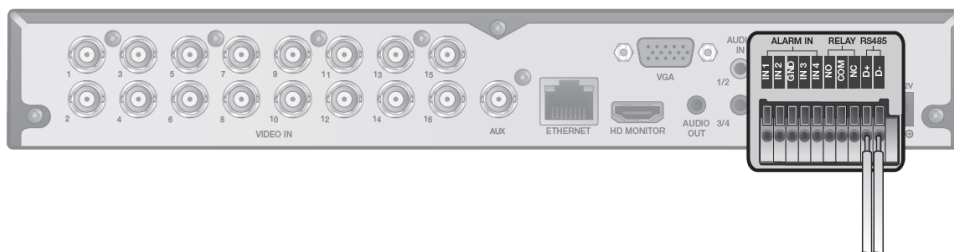
To connect the alarm input signal

1. Push the Alarm In and **[GND]** terminals' bottom side with a sharp tipped tool such as screw driver.
2. While pushing, insert alarm signal cable into the hole of the Alarm In terminal.
3. While pushing, insert ground signal cable into the the hole of the **[GND]** terminal.
4. To check proper insertion of the cable, stop pushing and gently pull the cable and Test whether it disconnects.
5. To disconnct the cable, push the button side the terminal and pull out the cable.

To connect the Relay output signal

1. Push the **[NO]/[NC]/ [COM]** terminals' bottom side with a sharp tipped tool such as screw driver.
2. While pushing, insert alarm signal cable into the desired terminal of **[NO]** or **[NC]**.
 - ✓ NO(Normal Open) : normally Open but switching to Close if an alarm out occurs.
 - ✓ COM : Insert the grounding wire.
 - ✓ NC(Normal Close) : Normally Close but switching to Open if an alarm out occurs.
3. Insert the ground signal wire into the hole of the **[COM]** port.
4. To check proper insertion of the cable, stop pushing and gently pull the cable and Test whether it disconnects.
5. To disconnct the cable, push the button side the terminal and pull out the cable.

Communication Port



RS-485 Connection

Connect a PTZ Camera of Keyboard Controller.

After connecting the control device, be sure to match the connection settings between DVR and device. Make communication settings in "Operation manual".

1. Connect the signal cable between [D+] of the rear DVR and [D+] of the control device.
2. Make connection between [D-] of the rear DVR and [D-] of the control device.

✓ For RS-485 connection, refer to the user's manual of the control devices.

Audio Device Connection

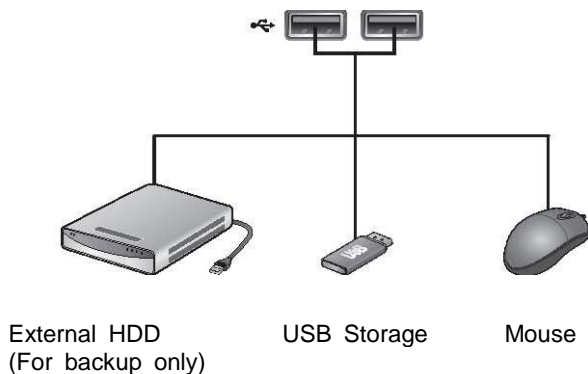
You can connect an audio output device such as speaker amplifier.

Connect the audio input device such as microphone to the rear Audio In port, connect the audio output device such as speaker amplifier to the Audio Out port.

Storage and Mouse Connection

You connect and use USB storage devices for backup of recorded video, saving snapshot, firmware updating, importing/exporting user configurations. Also, USB mouse can be connected for DVR manipulations.

I If you need to connect a USB HDD with a high power consumption, it is recommended to use a separate power source for that HDD.

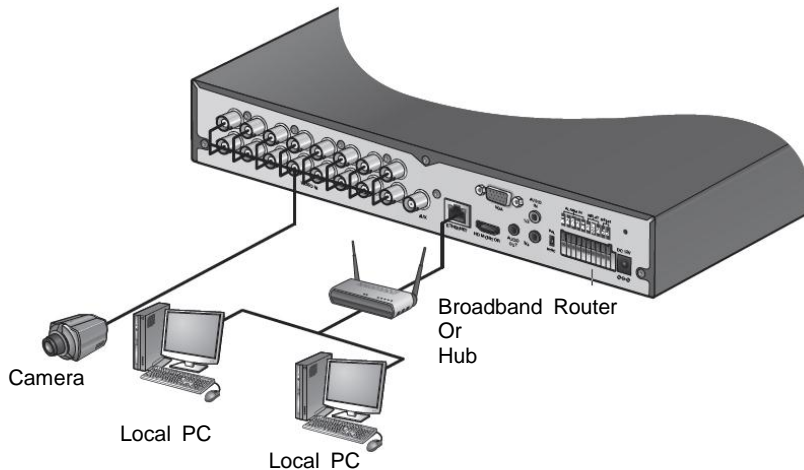


INSTALLATION

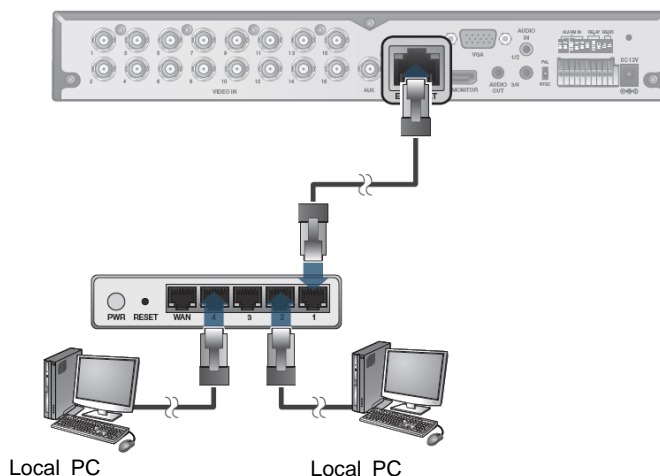
Network Connection

PC connection in the local network

You can connect DVR to a PC in the same network and control or manipulate it on the PC monitor.



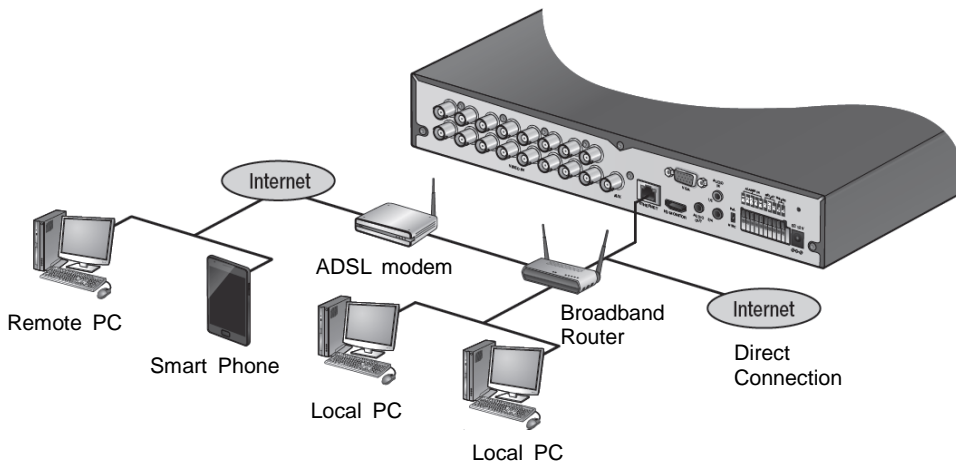
1. Connect the **[ETHERNET]** port in the rear panel to the router or hub.
2. Connect the local PC to the router or hub.



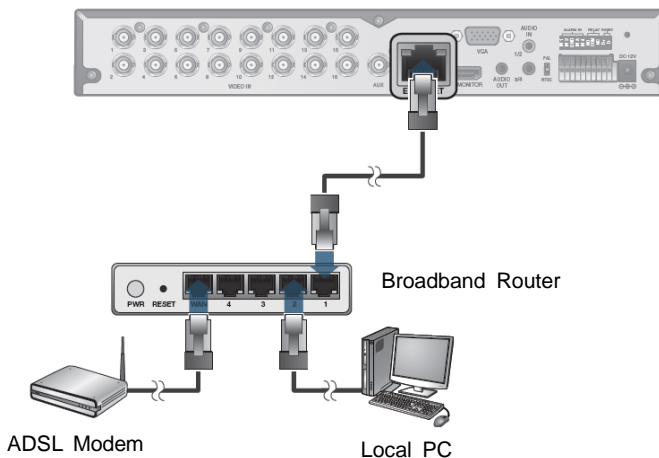
3. Enter the address in the Web browser of the local PC in the format of "http://IP address:web service port ".(Ex : http://192.168.1.23:8080) The web service port is set to 8080 by default. From the Network Setup screen, you can change the port number.
4. Provide the ID and password before logging in. Then, you can view the monitoring screen.
Access ID (factory default) : ADMIN, P/W : 1234.
✓ For the security purpose, change the password before you use the product for the first time after purchasing it.

PC connection from a remote network

You can connect DVR to a PC in the same network and control or manipulate it on the PC monitor



1. Connect the **[ETHERNET]** port in the rear panel to the router.



2. Connect the **[WAN(UPLINK)]** port of the router directly to the fixed IP LAN cable, or connect it to the ADSL modem.
3. If using the router, set the port forwarding and enter the DDNS address in the address bar (web browser) of the remote PC, or of the dedicated software program or mobile phone. For the IP and DDNS address settings, refer to "Operation Manual".
4. If the MAC address of the DVR is 00-1C-B8-12-34-56 and the web port number is 8080, enter "http://001CB8123456.dvrlink.net:8080" in the address bar of the web browser. If you have renamed DDNS as "mydvr", you can make network connection at <http://mydvr.dvrlink.net:8080>