



Network Video Recorder

Models and Installation Manual



Foreword

General

This manual (hereinafter referred to as "the Manual") introduces the installation and models of the Network Video Recorder (NVR) devices (hereinafter referred to as "the Device"). Read carefully before using the Device, and keep the manual safe for future reference.

Symbols

The following symbols might appear in the manual.

Symbol	Description
 DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, reductions in performance, or unpredictable results.
 TIPS	Provides methods to help you solve a problem or save you time.
 NOTE	Provides additional information as a supplement to the text.

Revision History

Version	Revision Content	Release Time
V1.0.2	Added new model.	July 2026
V1.0.1	Added new model.	May 2026
V1.0.0	First release.	February 2026

Privacy Protection Notice

As the device user, you might collect the personal data of individuals such as their names, email addresses, face images, audio and fingerprints. You shall be fully responsible for any activities associated with processing personal data. You commit to comply with your local privacy protection laws and regulations to protect the legitimate rights and interests of individuals, and shall implement measures which are required by applicable law, including but not limited to, providing clear and comprehensive information to individuals before processing their personal data, obtaining consent from individuals when necessary, informing individuals of the existence of the surveillance area, and providing required contact information.

Intelligent Product Usage Statement

Intelligent products utilize AI technology to effectively enhance security. The intelligent recognition and alarm functions of the product might be affected by factors such as environmental lighting,

camera angles, object obstructions, and network delays, potentially leading to false alarms, missed alerts, or response delays. This intelligent product is solely intended to be used as a security assistance tool. The results from performing identification are for reference only and do not constitute absolute guarantee of personal or property safety. Users need to combine these products with necessary physical security measures to enhance overall protection. Except as otherwise provided by laws or in the event of intentional or gross negligence on the part of the company, the company shall not be liable for any losses caused by the aforementioned factors not attributable to the company.

About the Manual

- This manual is provided for general reference only. Discrepancies might exist between the product and this manual, including but not limited to printed, electronic, or any other editions.
- The manual will be updated according to the latest laws and regulations of related jurisdictions. Specifications and documentation are subject to change without prior notice. For the latest versions, as well as legal notices, consult the printed manual, the product webpage, our official website, or scan the QR code to access the electronic edition.
- The manual will be updated as necessary to reflect product changes and applicable legal requirements. These updates will not diminish your statutory rights, nor will they remove or weaken the safety information or essential instructions provided at the time of purchase.
- Although we make every effort to ensure accuracy, errors or deviations in descriptions of functions, operations, or technical data might occur. If there is any uncertainty or controversy, we reserve the right of final explanation.
- All trademarks, registered trademarks and company names referenced in this manual are the property of their respective owners.

Important Safeguards and Warnings

This section introduces content covering the proper handling of the Device, hazard prevention, and prevention of property damage. Read carefully before using the Device, and comply with the guidelines when using it.

Transportation Requirements



Transport the Device under allowed humidity and temperature conditions.

Storage Requirements



Store the Device under allowed humidity and temperature conditions.

Installation Requirements



Stability Hazard

Possible result: The rack might fall down and cause serious personal injury.

Preventive measures (including but not limited to):

- Before extending the rack to the installation position, read the installation instructions.
- When the Device is installed on the slide rail, do not place any load on it.
- Do not retract the slide rail while the Device is installed on it.



-  Rotating Fan Blades Hazard

Avoid touching the fan blades, especially when they are moving.

-  Before installation, disconnect all the power cords.
- Do not connect the power adapter to the Device while the adapter is powered on.
- Strictly comply with the local electric safety code and standards. Make sure the ambient voltage is stable and meets the power supply requirements of the Device.
- Use the power adapter and cables provided with the Device. We assume no responsibility for injuries or damage caused by using the incorrect power adapter and cables.



-  Reliably ground the grounding terminal of the Device to improve safety. The grounding terminal differs depending on the device, and some devices do not have grounding terminals. Process the situation according to the device model.

- The Device must be installed in a location that only professionals can access. Non-professionals are not allowed to enter the installation area.
- The Device must be reliably grounded by professionals. They must install the grounding conductor in the building floor and verify the grounding connection of the output receptacle.
- Do not place the Device in a place exposed to sunlight or near heat sources.
- Keep the Device away from dampness, dust, and soot.
- Install the Device on a stable surface to prevent it from falling.
- Put the Device in a well-ventilated place, and do not block its ventilation.
- The Device is a class I electrical appliance. Make sure that the power supply of the Device is connected to a power socket with protective earthing.
- Use power cords that conform to your local requirements, and are rated specifications.
- Before connecting the power supply, make sure the input voltage matches the server power requirement.
- When installing the Device, make sure that the power plug can be easily reached to cut off the power.
- It is prohibited for non-professionals and unauthorized personnel to open the device casing.

Operation Requirements

**DANGER**

-   The Device or remote control contains button batteries. Do not swallow the batteries due to the risk of chemical burns.

Possible result: The swallowed button battery can cause serious internal burns and death within 2 hours.

Preventive measures (including but not limited to):

- ◇ Keep new and used batteries out of reach of children.
 - ◇ If the battery compartment is not securely closed, stop using the product immediately and keep out of reach of children.
 - ◇ Seek immediate medical attention if a battery is believed to be swallowed or inserted inside any part of the body.
- Battery Pack Precautions

Preventive measures (including but not limited to):

- ◇ Do not transport, store or use the batteries in high altitudes with low pressure and environments with extremely high and low temperatures.
- ◇ Do not dispose the batteries in fire or a hot oven, or mechanically crush or cut the batteries to avoid an explosion.
- ◇ Do not leave the batteries in environments with extremely high temperatures to avoid explosions and leakage of flammable liquid or gas.
- ◇ Do not subject the batteries to extremely low air pressure to avoid explosions and the leakage of flammable liquid or gas.

**WARNING**

Place the Device in a location that children cannot easily access.



- This is a class 1 laser device. You can only insert modules that meet the requirements of class 1 lasers.

- Do not drop or splash liquid onto the Device, and make sure that there is no object filled with liquid on the Device to prevent liquid from flowing into it.
- Put the Device in a well-ventilated place, and do not block its ventilation.
- Operate the Device within the rated range of power input and output.
- Do not disassemble the Device without professional instruction.
- Transport, use and store the Device under allowed humidity and temperature conditions.

Maintenance Requirements



Replacing unwanted batteries with the wrong type of new batteries might cause explosion.

Preventive measures (including but not limited to):

- Replace unwanted batteries with new batteries of the same type and model to avoid the risk of fire and explosion.
- Dispose of the old batteries as instructed.



The appliance coupler is a disconnection device. Keep it at a convenient angle when using it. Before repairing or performing maintenance on the device, first disconnect the appliance coupler.

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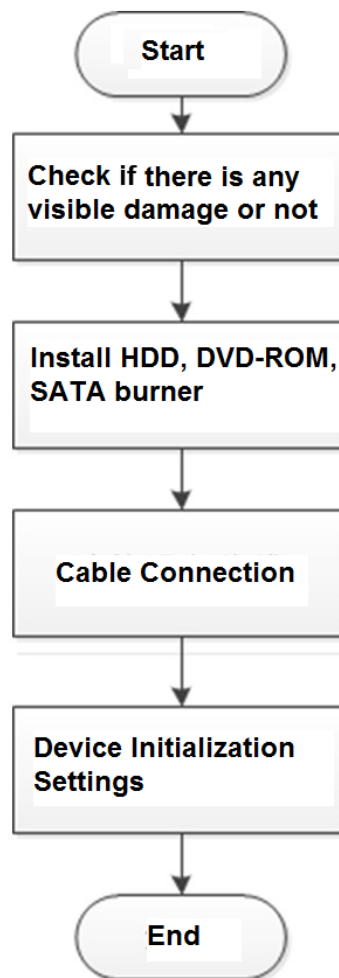
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1 Device Assembly

1.1 Device Installation Diagram

See the following diagram to install the NVR.

Figure 1-1 Installation flowchart



1.2 Checking Unpacked NVR

When you receive the NVR, check against the following checklist. If any of the items are missing or damaged, contact the local retailer or after-sales service immediately.

Table 1-1 Checklist

Sequence	Item		Description
1	Overall packaging	Appearance	No obvious damage.
		Package	Not distorted or broken.

Sequence	Item		Description
		Accessories	Nothing missing.
2	The Device	Appearance	No obvious damage.
		Model	The model description is consistent with the contract.
		Label	Not torn up.  Keep the label well. You need to provide the serial number on the label when calling the after-sales service.

1.3 HDD Installation

1.3.1 Before You Begin

For the first time installation, make sure whether the HDD has been installed or not. We recommend you use HDD of enterprise level or surveillance level. It is not recommended to use PC HDD.



- Shut off the power before you replace the HDD.
- Use the dedicated SATA HDD for monitoring recommended by the HDD manufacturer.
- You can see the corresponding user manual's Appendix for HDD space information and recommended HDD brand.

1.3.2 Smart 1U Series

Background Information

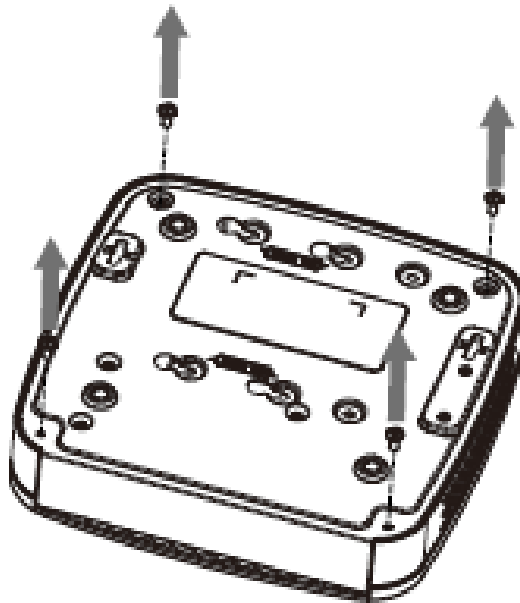


Connect cable, and then secure the HDD on the NVR if it is not convenient to connect the HDD data cable and power cable at first.

Procedure

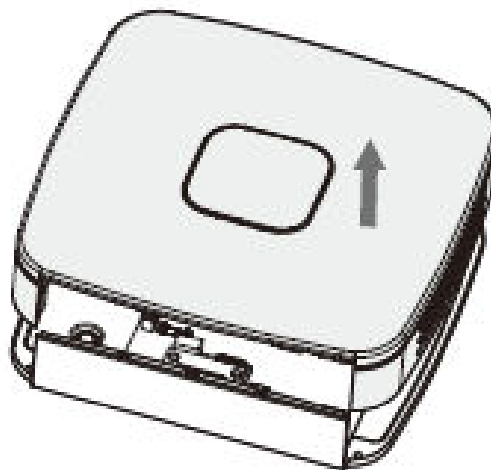
- Step 1 Loosen the screws of the bottom of the chassis.

Figure 1-2 Loosen screws



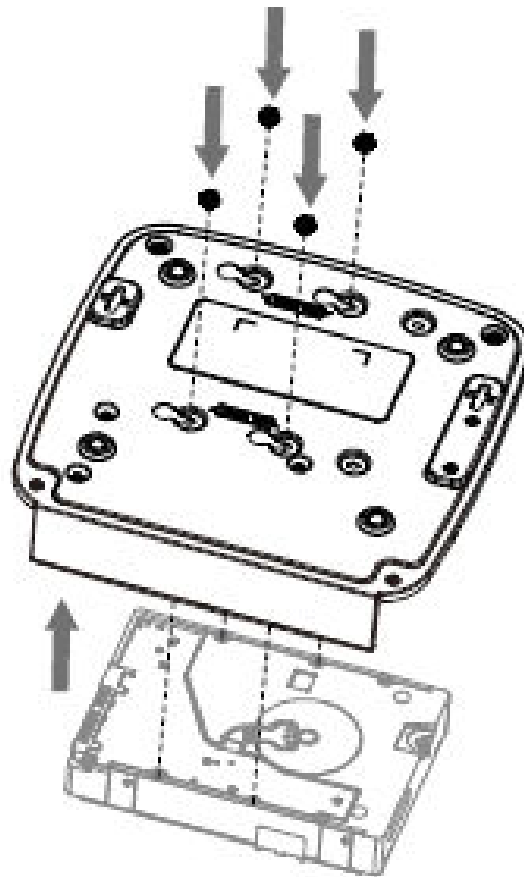
Step 2 Place the HDD in accordance with the 4 holes in the bottom.

Figure 1-3 Align HDD



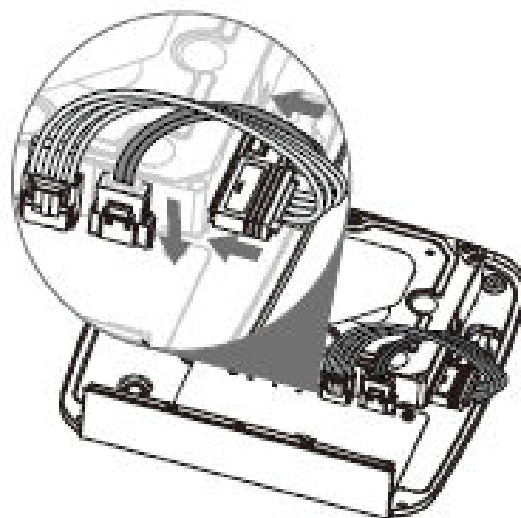
Step 3 Turn the device upside down, and then secure the screws firmly.

Figure 1-4 Secure screws



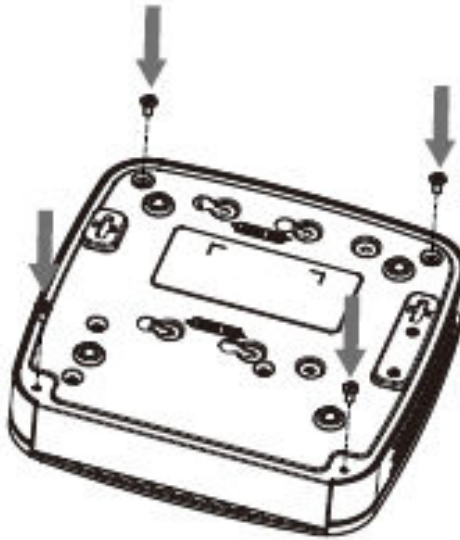
Step 4 Connect the HDD cable and power cable to the HDD and the mainboard respectively.

Figure 1-5 Connect cables



Step 5 Put the cover back, and then fix the screws of the rear panel. The installation is complete.

Figure 1-6 Put back the cover

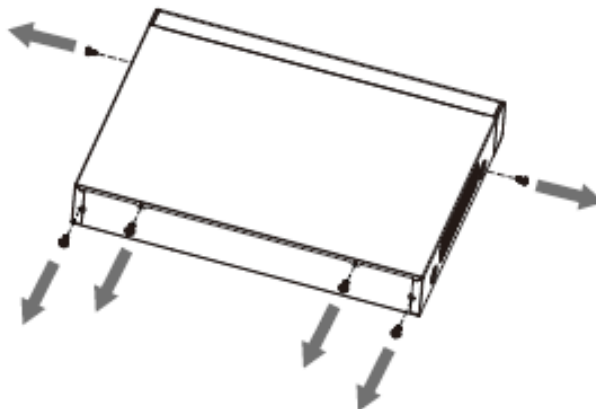


1.3.3 Mini 1U/Compact 1U

Procedure

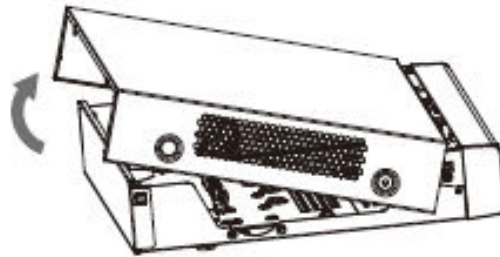
Step 1 Loosen the screws of the upper cover and side panel.

Figure 1-7 Loosen screws



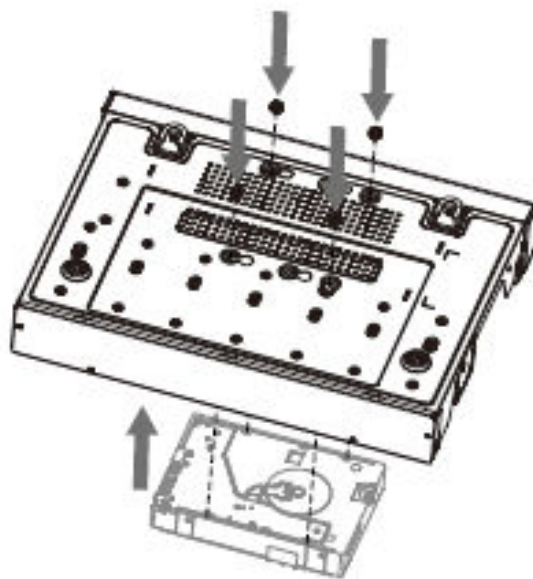
Step 2 Remove the cover in the direction of the arrow as shown in the following figure.

Figure 1-8 Remove cover



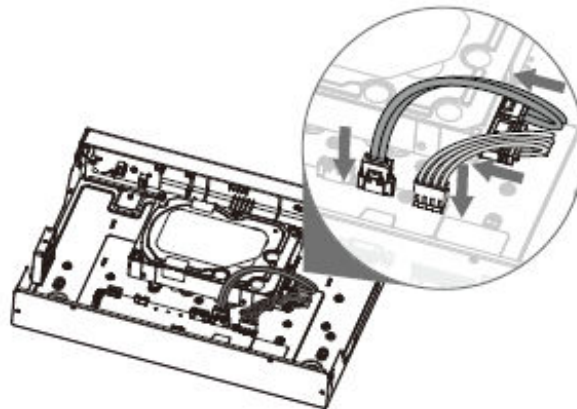
Step 3 Turn over the device, and align the HDD to the four holes of bottom panel, and then fix the HDD with screws.

Figure 1-9 Align HDD



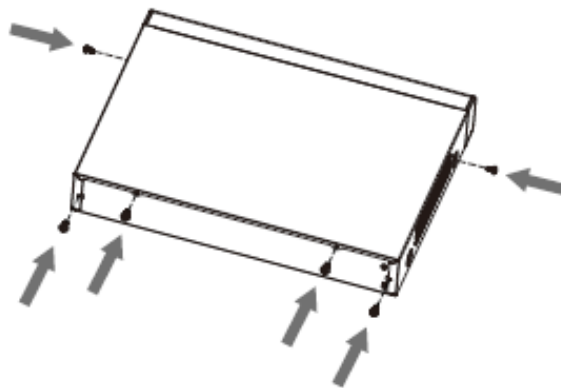
Step 4 Connect HDD to the device using data cable and power cable.

Figure 1-10 Connect cables



Step 5 Put the cover in accordance with the clip, and then fix the screws on the rear panel and side panel.

Figure 1-11 Put cover back



1.3.4 1U

Background Information

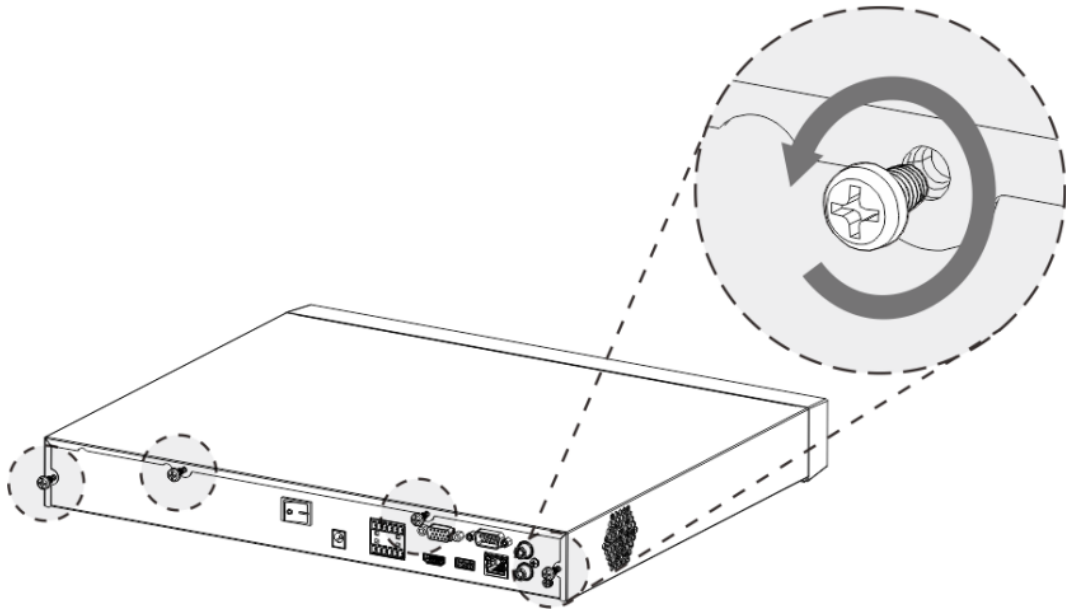


Different models have different numbers of HDDs.

Procedure

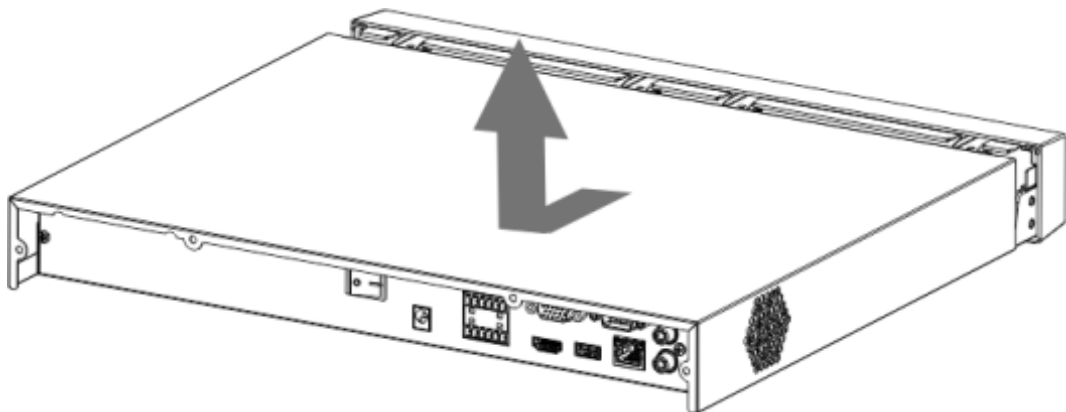
Step 1 Remove the four fixing screws on the rear panel.

Figure 1-12 Remove screws



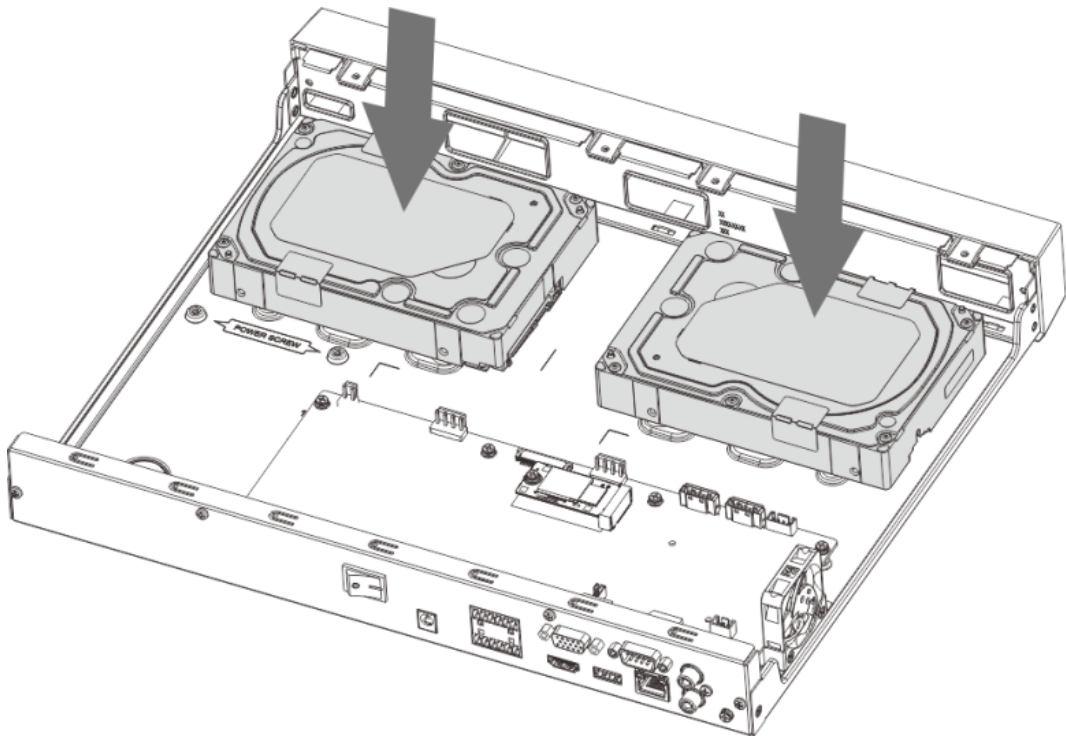
Step 2 Remove the case cover along the direction shown in the following arrow.

Figure 1-13 Remove cover



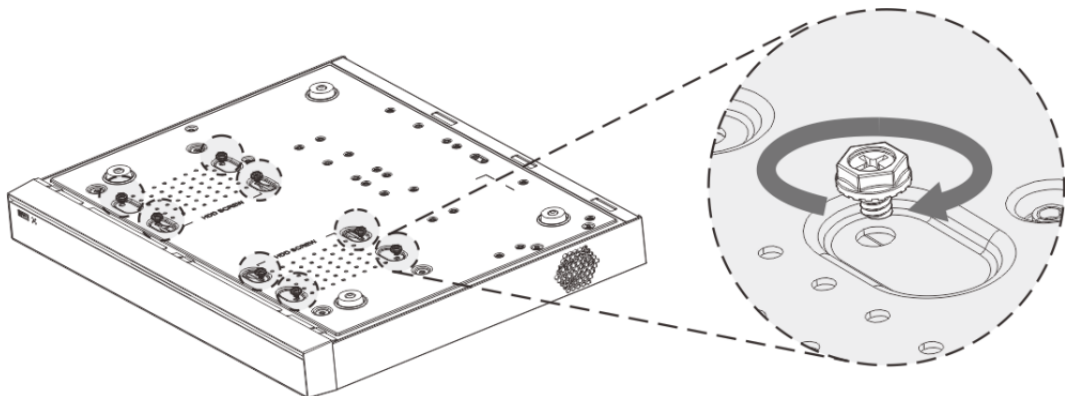
Step 3 Match the four holes on the baseboard to place the HDD.

Figure 1-14 Align HDD



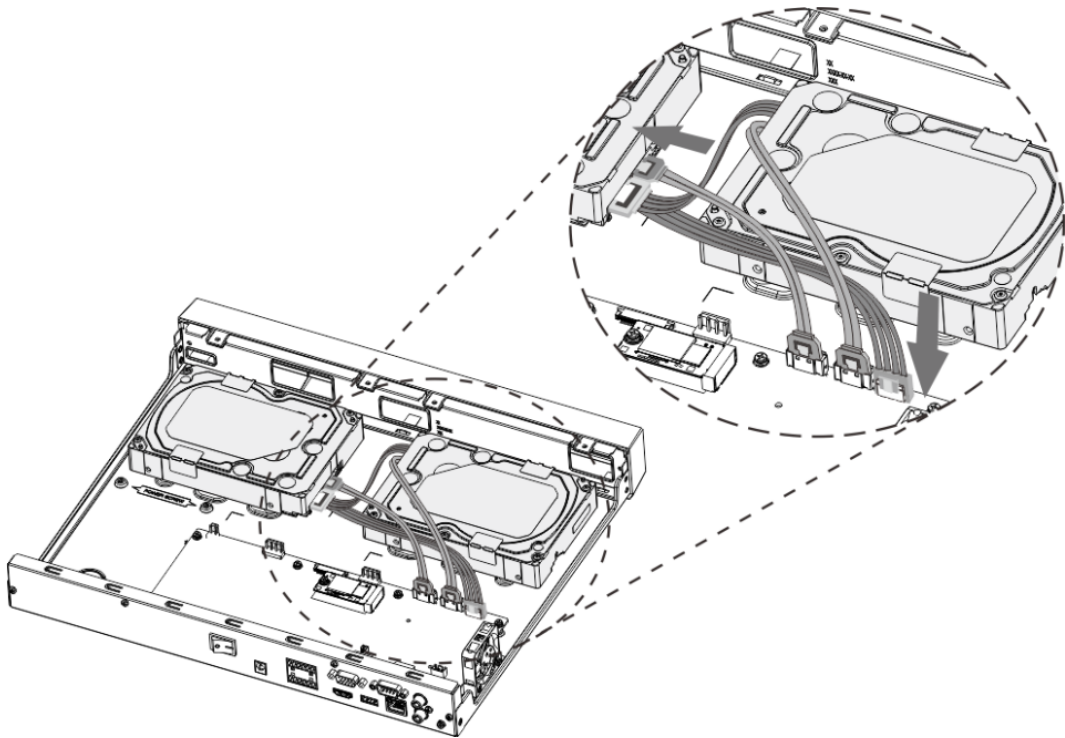
Step 4 Turn the device upside down, match the screws with the holes on the HDD, and then fasten them. The HDD is fixed to the baseboard.

Figure 1-15 Fasten screws



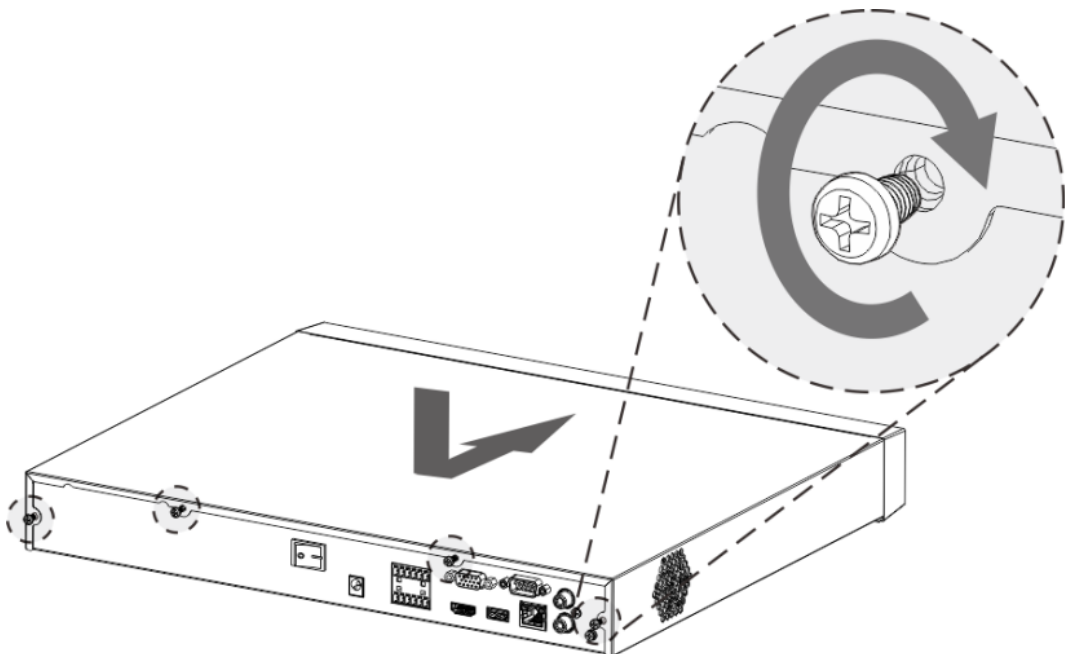
Step 5 Connect the HDD data cable and power cable to the device.

Figure 1-16 Connect cables



Step 6 Put back the cover and fasten the four screws on the rear panel to complete the installation.

Figure 1-17 Put back cover



1.3.5 1.5U/2U

Background Information

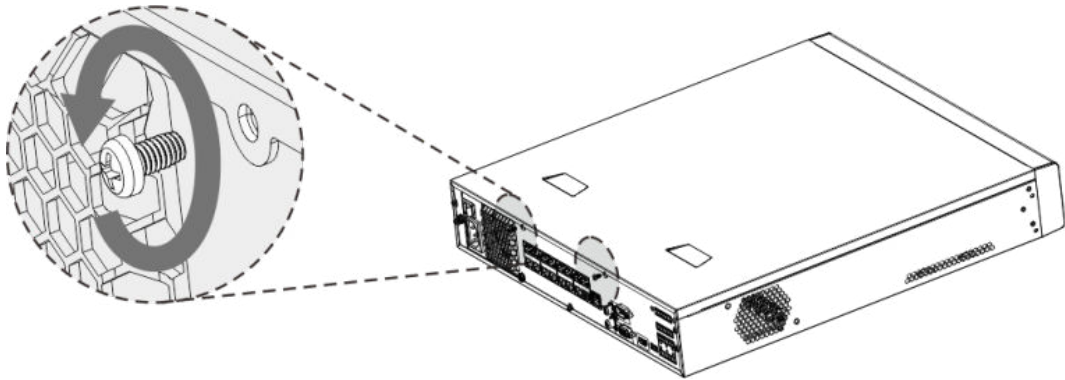


- Different models have different number of HDDs.
- The following figure is for reference only.

Procedure

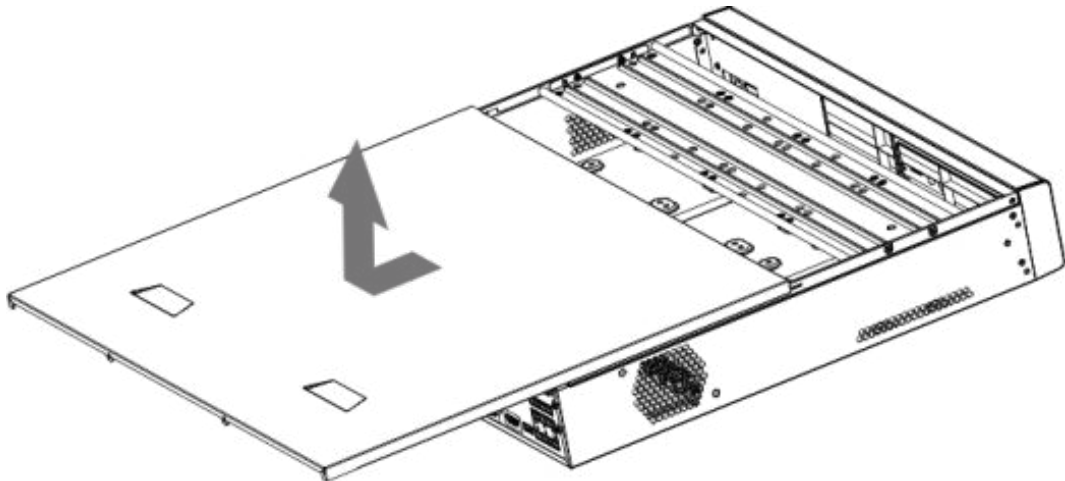
Step 1 Remove the fixing screws on the rear panel of the device.

Figure 1-18 Remove screws



Step 2 Remove the case cover along the direction shown in the following arrow.

Figure 1-19 Remove cover



Step 3 Remove the screws on the sides of HDD bracket to take out the bracket.

- 1.5U device has one HDD bracket. For the way to remove the bracket, see Figure 1-20 .
- 2U device has two HDD brackets. For the way to remove the brackets, see Figure 1-21 .

Figure 1-20 Remove screws (1.5U)

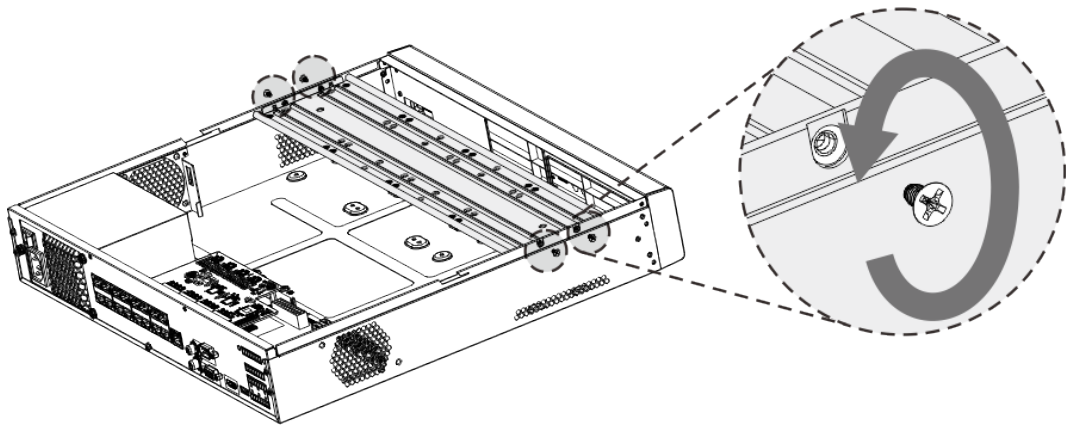
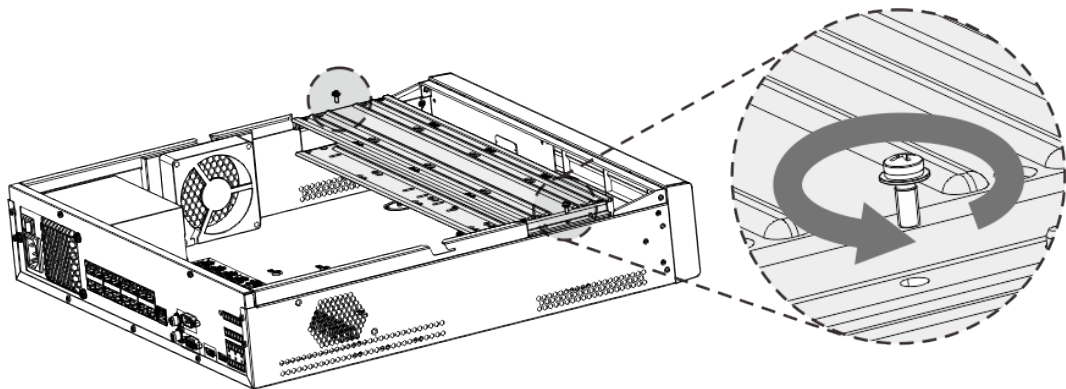


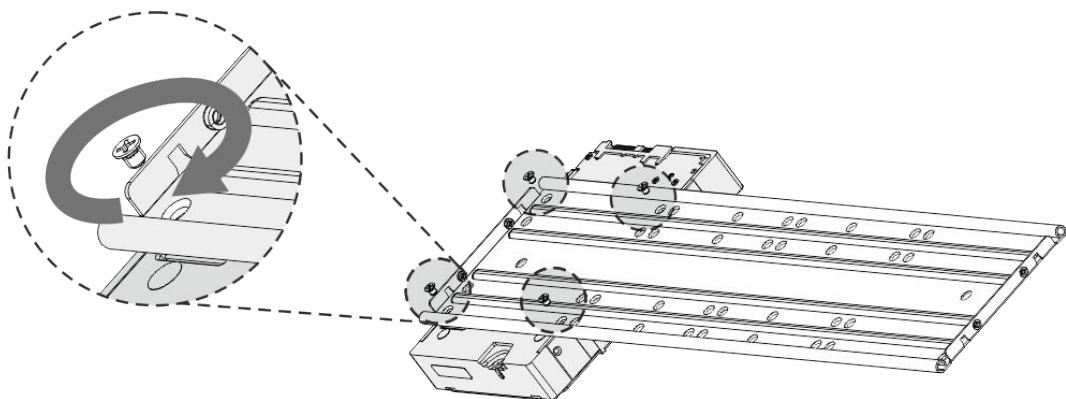
Figure 1-21 Remove screws (2U)



Step 4 Match the four screw holes on the HDD with the four holes on the bracket, and then fasten the screws.

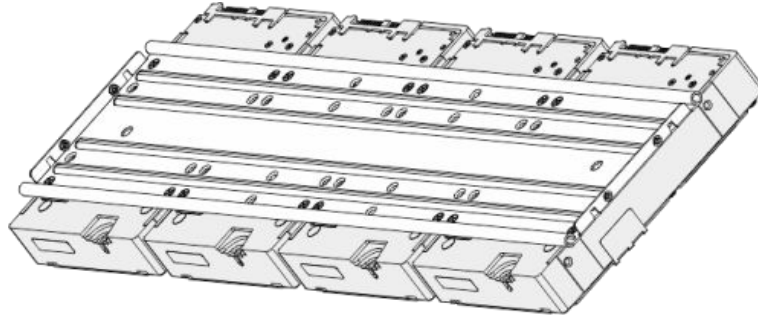
The HDD is fixed to the bracket.

Figure 1-22 Fasten screws



Step 5 See the following figure to install other HDDs.

Figure 1-23 Install more HDDs

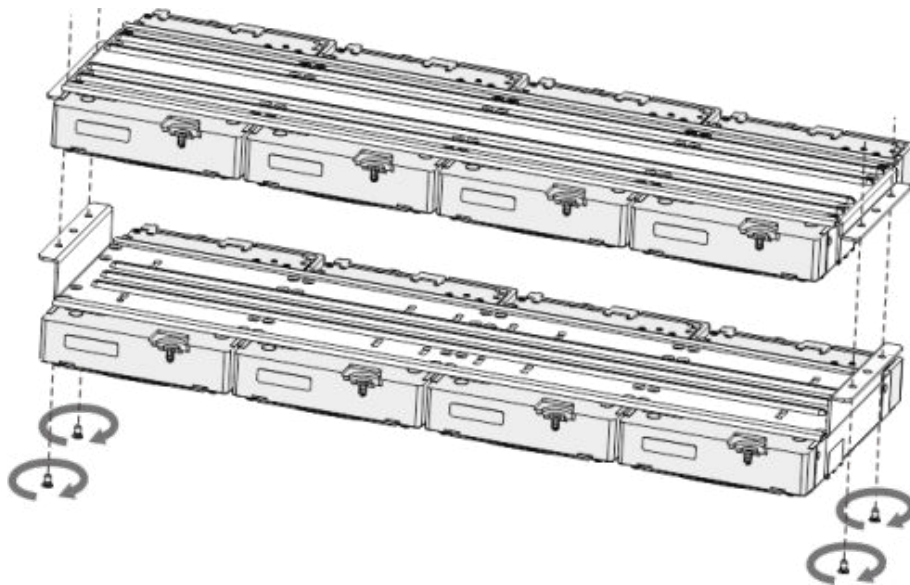


Step 6 Lock the two HDD brackets.



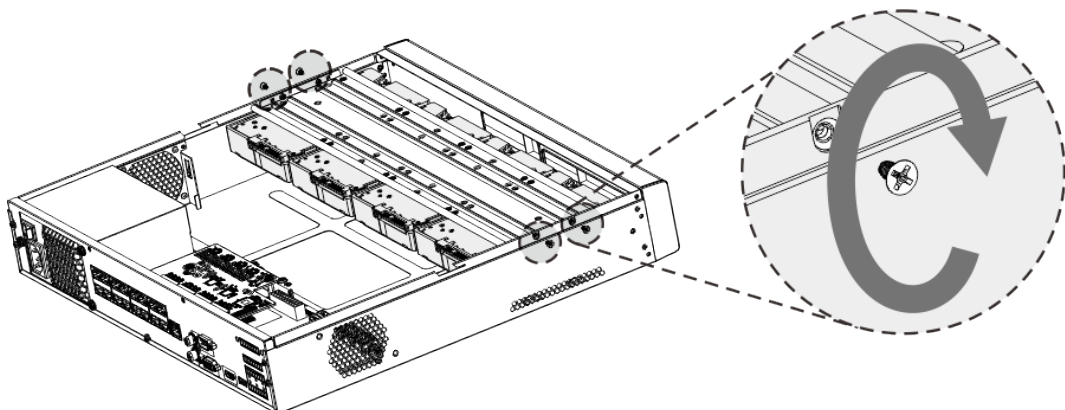
This step is required for 2U devices only.

Figure 1-24 Lock brackets



Step 7 Place the bracket to the device, and then fasten the screws on the sides of the bracket.

Figure 1-25 Fasten screws

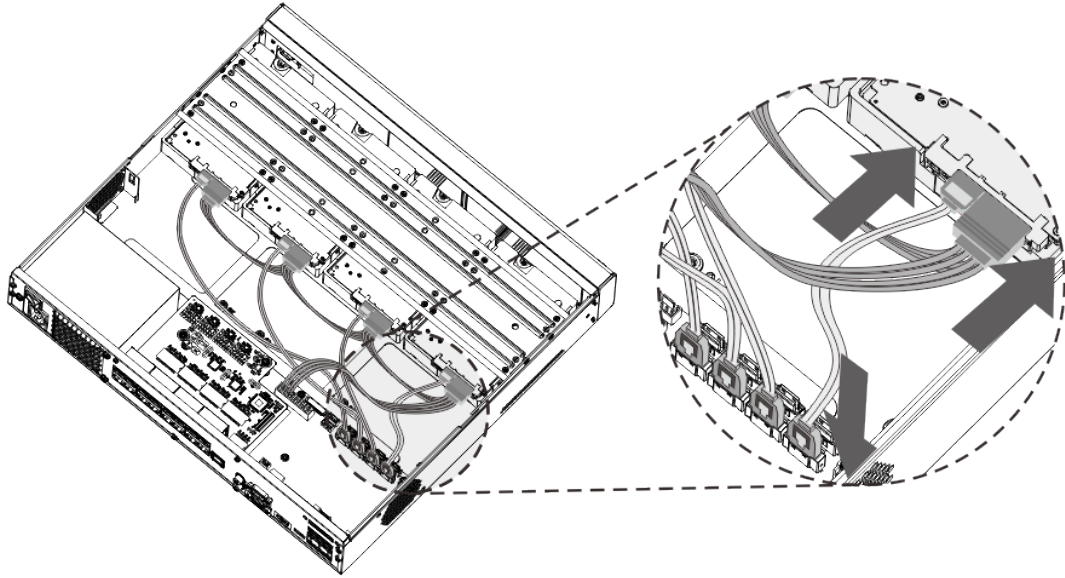


Step 8 Connect the HDD data cable and power cable to the device.



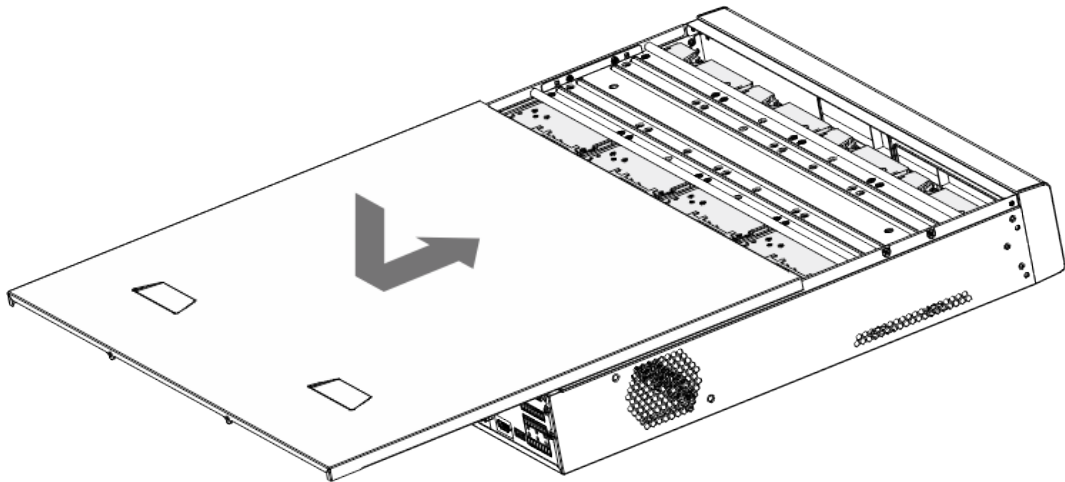
The following figure is for reference only.

Figure 1-26 Connect cables



Step 9 Put back the cover and fasten the screws on the rear panel to complete the installation.

Figure 1-27 Fasten screws

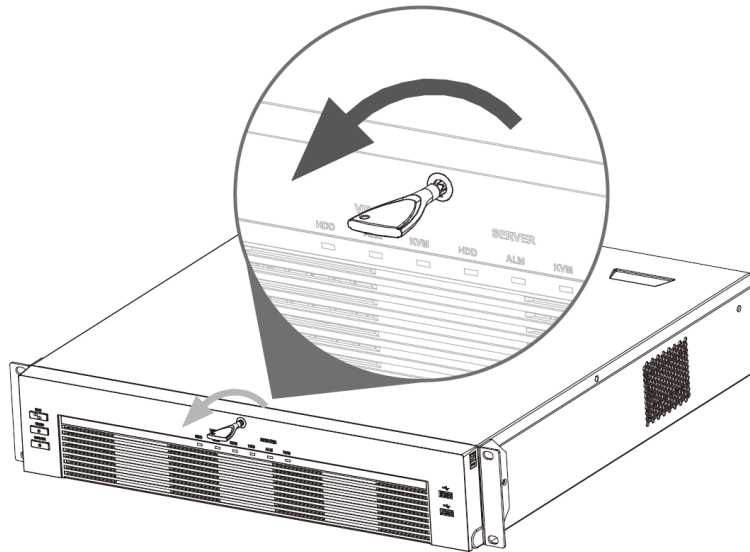


1.3.6 2U Drawer-Like Series

Procedure

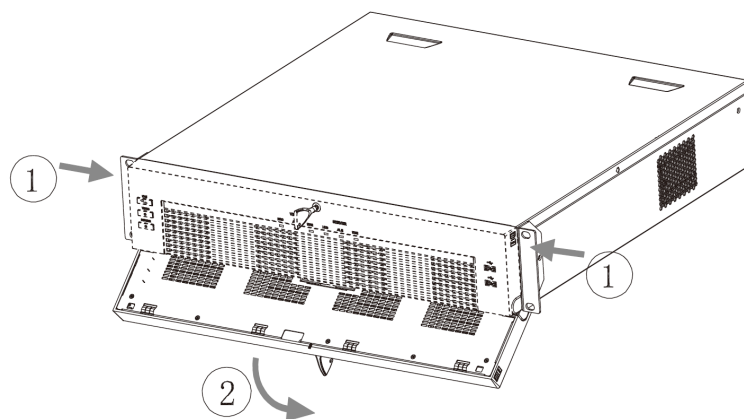
Step 1 Unlock the lock on the front panel.

Figure 1-28 Unlock front panel



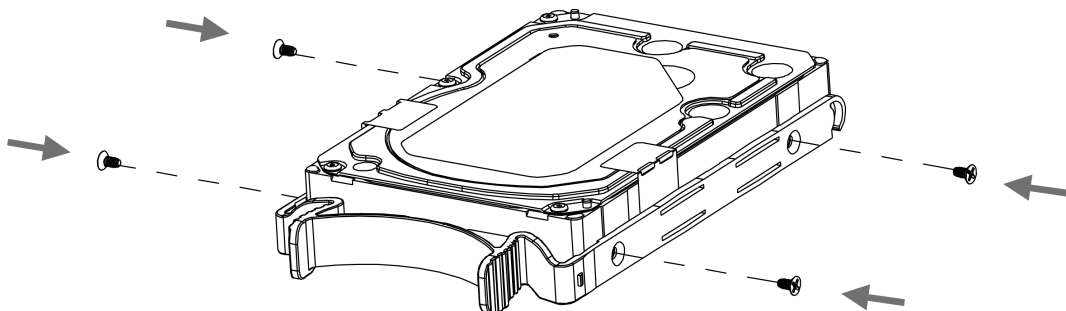
Step 2 Press the button on the 2 sides to open the front panel.

Figure 1-29 Open front panel



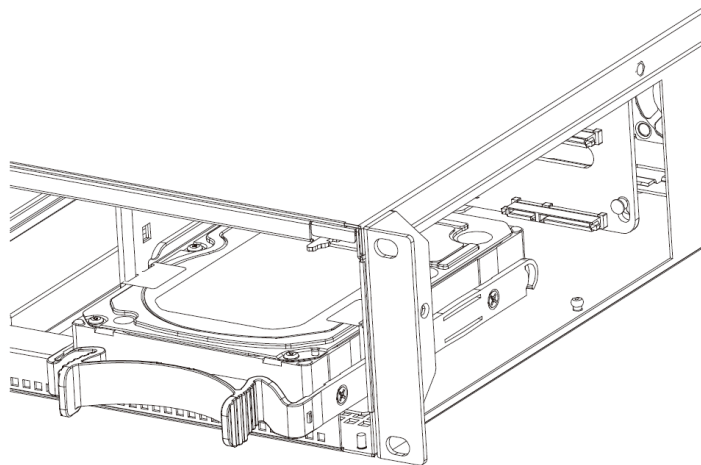
Step 3 Match the 4 screw holes on the HDD with the 4 holes on the bracket, and then fasten the screws.

Figure 1-30 Fasten HDD



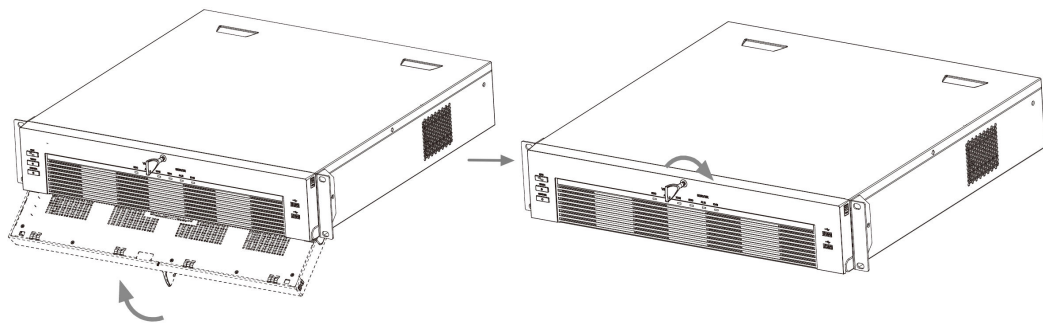
Step 4 Push the HDD box into the device.

Figure 1-31 Push the HDD box



Step 5 Close the front panel, and then tighten the lock on the front panel.

Figure 1-32 Lock front panel



1.3.7 NVR616-4KS2 Series

Background Information

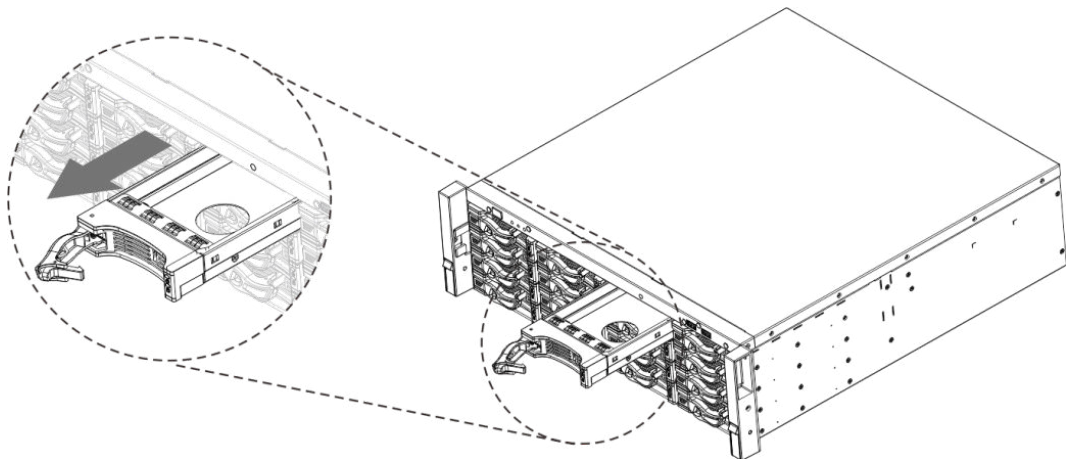


The following figures are for reference only.

Procedure

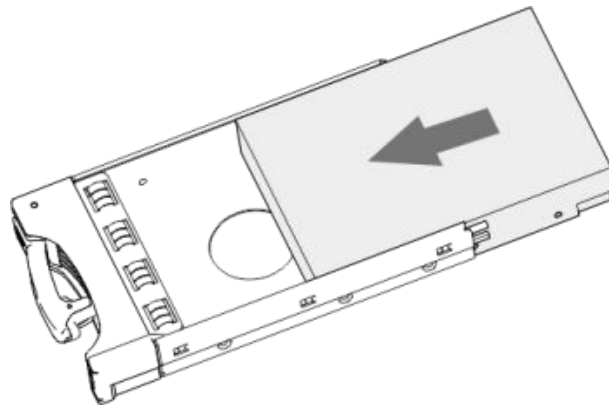
Step 1 Press the red button on the HDD box, open the handle, and then pull out the HDD box.

Figure 1-33 Take out HDD box



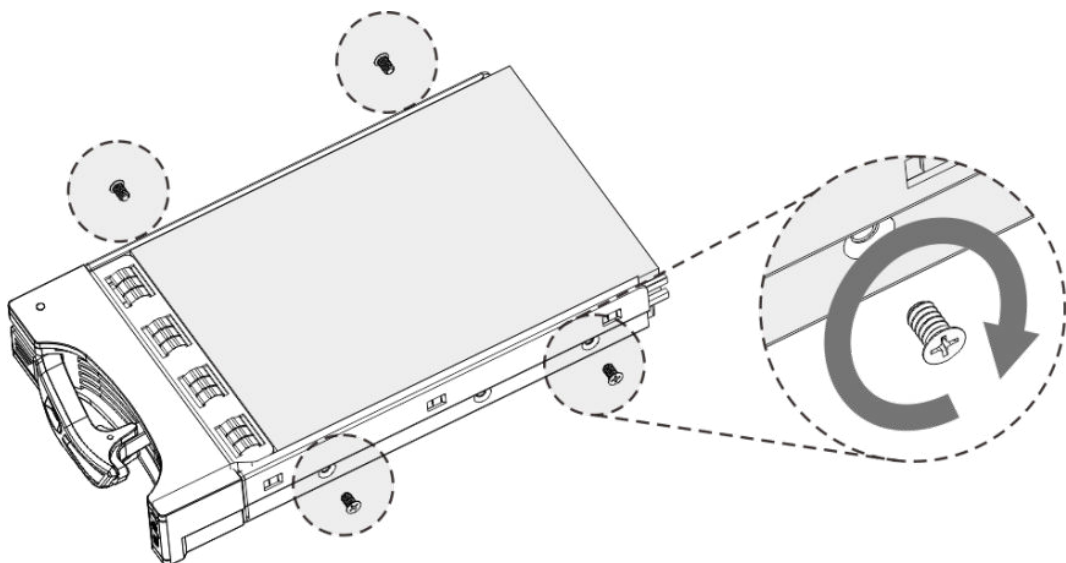
Step 2 Put the HDD into the HDD box along the direction shown in the following arrow.

Figure 1-34 Put HDD into box



Step 3 Fasten the screws on the sides of the HDD box.

Figure 1-35 Fasten screws

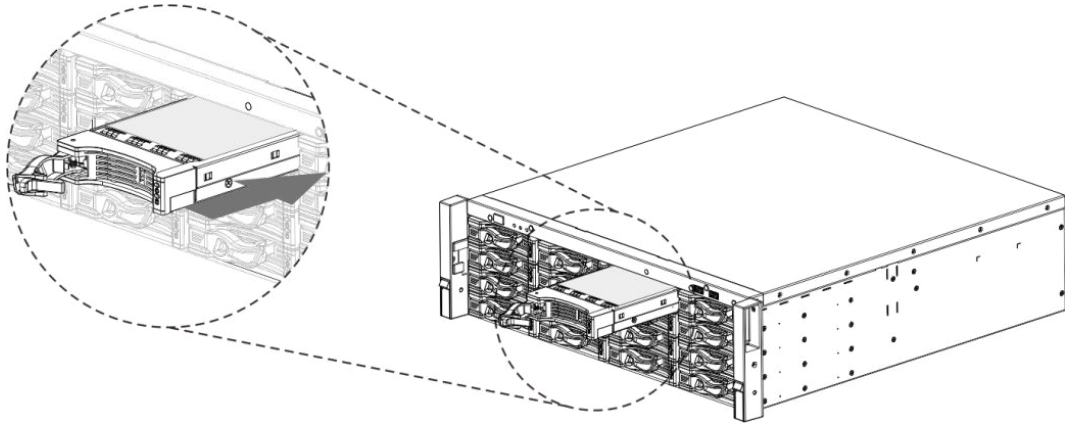


Step 4 Insert the HDD box into the HDD slot, press it to the bottom, and then close the box handle.



If you have not pushed the HDD box to the bottom, do not close the handle to avoid any damage to the HDD slot

Figure 1-36 Close the handle



1.4 CD-ROM Installation

Procedure

Step 1 Open the top cover, and then remove the HDD bracket.

Figure 1-37 Open the top cover



Step 2 Take off the bottom of the HDD bracket and CD-ROM bracket.

Figure 1-38 Take out HDD bracket



Figure 1-39 Take out CD-ROM bracket



Step 3 Fix the CD-ROM bracket at the HDD bracket.

Figure 1-40 Fix bracket



Step 4 Install the CD-ROM brackets on both sides. Make sure that the reverse side is secure too.

Figure 1-41 Install bracket

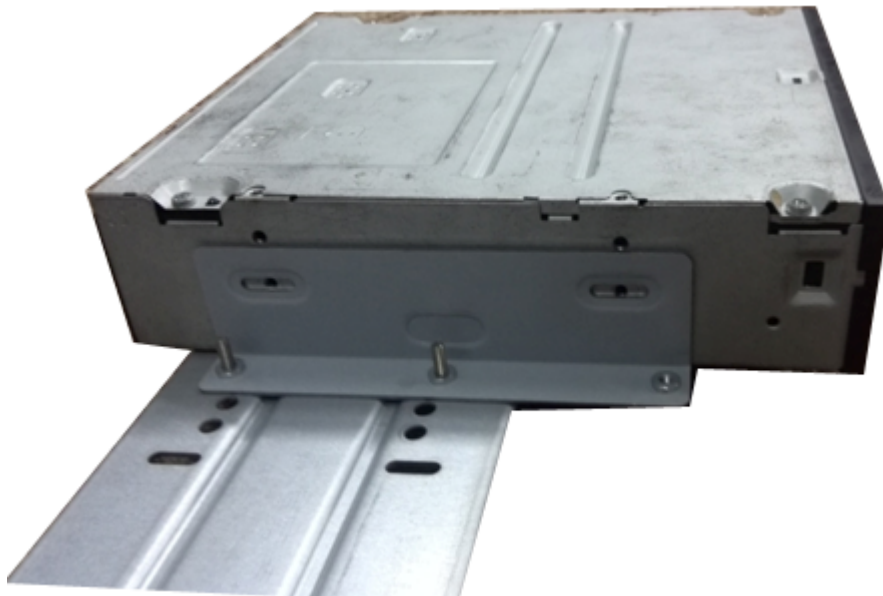


Figure 1-42 Install bracket (reverse side)



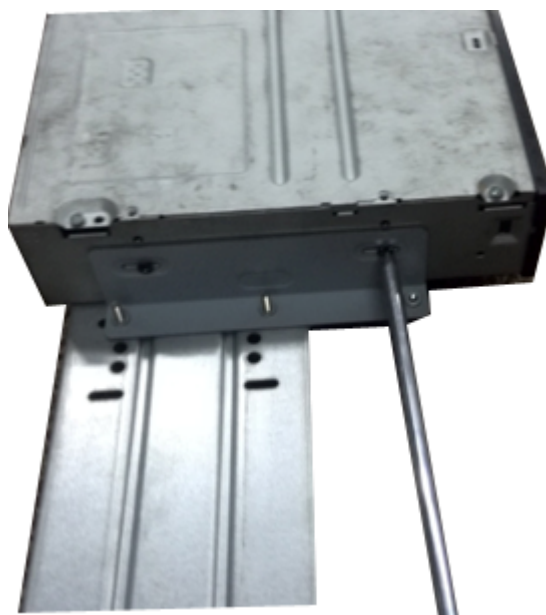
Step 5 Install SATA burner. Line up the SATA burner to the hole positions.

Figure 1-43 Install SATA burner



Step 6 Use a screwdriver to tighten the screws.

Figure 1-44 Fasten screws



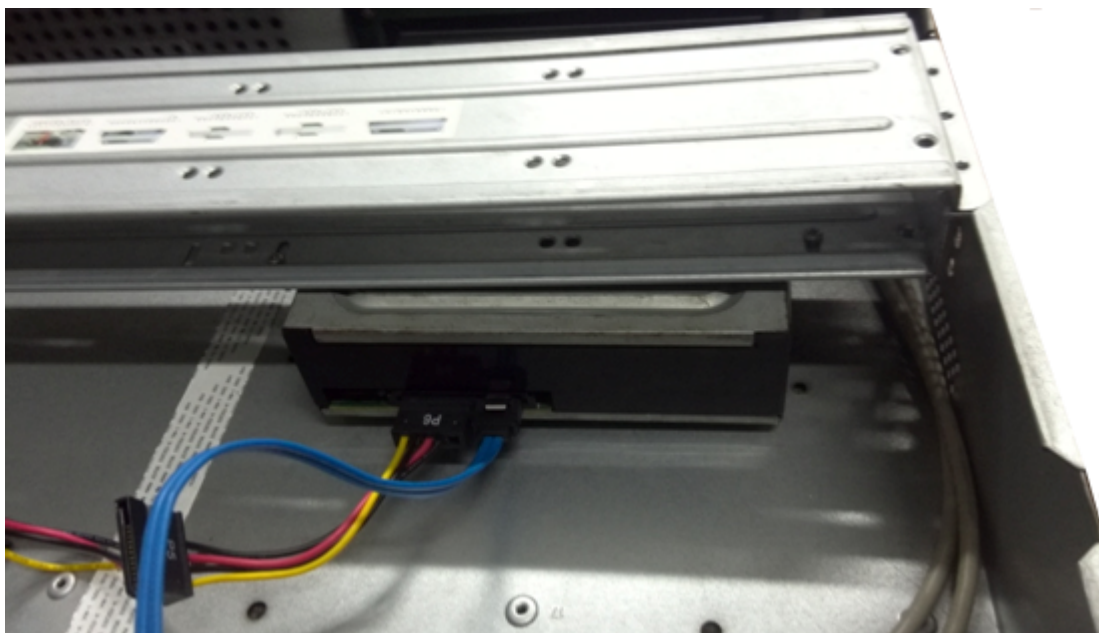
Step 7 Put the bracket back. Adjust the CD-ROM to the proper position so that the button of the front panel is directly facing the pop-up button of the CD-ROM.

Figure 1-45 Put bracket back



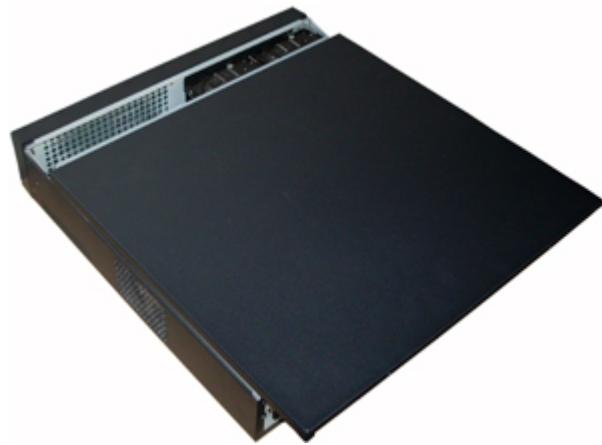
Step 8 Connect the SATA cable and power wire.

Figure 1-46 Connect cables



Step 9 Secure the HDD bracket and put the top cover back.

Figure 1-47 Put cover back

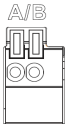
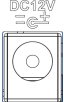
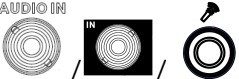
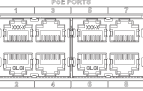
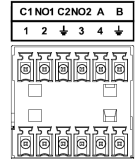
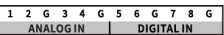


2 Ports Description



- The following port figures are for reference only. Refer to the actual device.
- If the power-input mark is DC12V , supply 12 VDC; if it is DC48V , supply 48 VDC.

Table 2-1 Interface descriptions of front and rear panels

Icon	Description	Icon	Description
	Power input (1)		RS-485 port
	Power input (2)		Network port
	AUDIO IN, RCA Connector		eSATA port
	AUDIO OUT, RCA Connector		USB port
	VIDEO IN		RS-232 port
	PoE port		HDMI port
	Alarm In/Out		VGA port
	Ground		DP port
	SAS port		V-DP port
	SIM card slot		• DIGITAL IN: Digital Input • ANALOG IN: Analog Input

Icon	Description	Icon	Description
ANT 	Antenna port		12 V power output. Actual output voltage is as indicated on the label.

3 Naming Conventions

We have analyzed the NVR naming conventions to clarify model numbers and their meanings, with practical examples provided.

- NVR1104HC-HDS3, indicating the NVR1 series and Cooper 1U model, a third-generation HD product that can accommodate one hard drive and support 4-channel access.
- NVR608-32-4KS2, indicating the NVR6 series, a second-generation 4K resolution product capable of housing 8 hard drives and supporting 32-channel access.

When presenting the model classification panel diagram, categorization will be based on hard drive slots, with the series name displayed only up to the extension identifier.



U (Unit) is the standard height measurement for server racks or chassis, where 1U equals 1.75 inches (approximately 44.45 mm). Currently available chassis sizes include 1/1.5/2/3U, with the chassis height being related to the number of hard drives.

Table 3-1 Naming convention for embedded products

Type	Details
Series	• 1 = 1 series • 2 = 2 series • 4 = 4 series • 8 = 8 series
Number of HDD bays	• 1 = 1 bay • 2 = 2 bays • 4 = 4 bays • 8 = 8 bays • 0/16 = 16 bays
Input channels	• 04 = 4-channel • 08 = 8-channel • 16 = 16-channel • 24 = 24-channel • 32 = 32-channel • 64 = 64-channel
Models	• H = mini 1U • HC= Cooper 1U • HS = Compact 1U • HU = Standard 1U • None = Smart
Number of PoE ports	• None = Default • P = 4 PoE ports • 8P = 8 PoE ports • 16P = 16 PoE ports • 24 = 24 PoE ports

Type	Details
Expansion identifiers	• None = Default • W = Wi-Fi • H = Slide-out chassis • 4G = 4G network • 5G = 5G network
Code name	• None = Default • HD = HD series (available in HD/C and HD/H variants) • 4K = 4K resolution • S2 = the 2-generation product • S3 = the 3-generation product • S3/H = 3-generation high-end product • E = the ePoE product • I = the intelligent product

Table 3-2 Naming convention for x86 products

Type	Details
Series	• 6 = 6 series • 7 = 7 series
Number of HDD bays	• 08 = 8 bays • 16 = 16 bays • 24 = 24 bays
Models	Can be freely combined. Example: DR = with LCD screen and redundant power supply. • H = Slide-out chassis • D = with LCD screen • R = with redundant power supply • None = Default
Input channels	• 04 = 4-channel • 08 = 8-channel • 16 = 16-channel • 32 = 32-channel • 64 = 64-channel • 00/128 = 128-channel • 256 = 256-channel • 384 = 384-channel • 512 = 512-channel • 768 = 768-channel

Type	Details
Number of PoE ports	• None = Default • P = 4 PoE ports • 8P = 8 PoE ports • 16P = 16 PoE ports • 24 = 24 PoE ports • 32 = 32 PoE ports
Code name	• None = Default • W = Wi-Fi • H = Slide-out chassis • S = Switch • R = Hardware RAID • M = Dual HDMI port • 4K = 4K resolution • S2 = the 2-generation product • S3 = 3-generation product

4 1-Bay Models



Only the rear panel figures of the latest models in each series are displayed.

4.1 NVR1000 Series

Table 4-1 Series and model reference

Series	Series (in detail)	Model
NVR1000 series	NVR1000-S3/H series	• DHI-NVR1104HS-P-S3/H • DHI-NVR1104HS-S3/H • DHI-NVR1108HS-S3/H • DHI-NVR1104HS-S3/H(V2.0) • DHI-NVR1108HS-S3/H(V2.0) • DHI-NVR1104HS-P-S3/H(V2.0) • DHI-NVR1108HS-8P-S3/H(V2.0)
	NVR1000-S4 series	• DHI-NVR1104HS-4KS4 • DHI-NVR1108HS-4KS4 • DHI-NVR1116HS-4KS4 • DHI-NVR1104HS-P-4KS4 • DHI-NVR1108HS-8P-4KS4
NVR1100 series	NVR1100-W-S2 series	• DHI-NVR1104HS-W-S2-CE • DHI-NVR1104HS-W-S2-FCC • DHI-NVR1108HS-W-S2-CE • DHI-NVR1108HS-W-S2-FCC

Figure 4-1 Rear panel of NVR1000-S3/H series

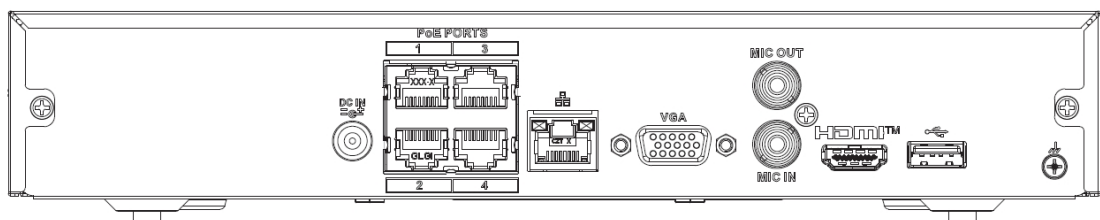
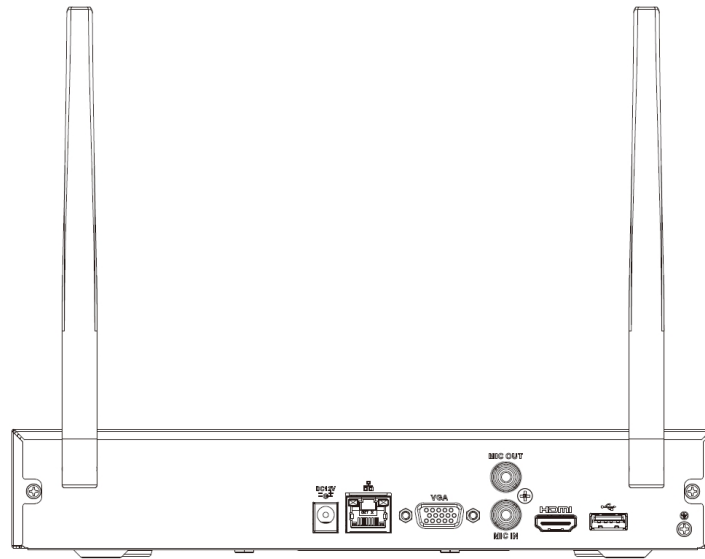


Figure 4-2 Rear panel of NVR1100-W-S2 series



4.2 NVR2000 Series

Table 4-2 Series and model reference

Series	Series (in detail)	Model
NVR2000 series	NVR2000-4KS2 series	● DHI-NVR2108HS-4KS2 ● DHI-NVR2104HS-P-4KS2 ● DHI-NVR2108HS-8P-4KS2
	NVR2000-I2 series	● DHI-NVR2104HS-I2 ● DHI-NVR2108HS-I2 ● DHI-NVR2116HS-I2 ● DHI-NVR2104-I2 ● DHI-NVR2108-I2 ● DHI-NVR2116-I2 ● DHI-NVR2104-P-I2 ● DHI-NVR2104HS-P-I2 ● DHI-NVR2108-8P-I2 ● DHI-NVR2108HS-8P-I2

Series	Series (in detail)	Model
	NVR2000-4KS3 series	● DHI-NVR2104-P-4KS3 ● DHI-NVR2104HS-P-4KS3 ● DHI-NVR2108-8P-4KS3 ● DHI-NVR2108HS-8P-4KS3 ● DHI-NVR2116-4KS3 ● DHI-NVR2104HS-4KS3 ● DHI-NVR2108HS-4KS3 ● DHI-NVR2104-4KS3 ● DHI-NVR2108-4KS3 ● DHI-NVR2116HS-4KS3 ● DHI-NVR2104HS-2N-4KS3 ● DHI-NVR2108HS-2N-4KS3 ● DHI-NVR2116HS-2N-4KS3 ● DHI-NVR2104HS-4KS3-V2 ● DHI-NVR2108HS-4KS3-V2 ● DHI-NVR2116HS-4KS3-V2 ● DHI-NVR2104HS-P-4KS3-V2 ● DHI-NVR2108HS-8P-4KS3-V2
	NVR2000-4KS4 series	● DHI-NVR2104-4KS4 ● DHI-NVR2108-4KS4 ● DHI-NVR2116-4KS4 ● DHI-NVR2104HS-4KS4 ● DHI-NVR2108HS-4KS4 ● DHI-NVR2116HS-4KS4 ● DHI-NVR2104HS-2N-4KS4 ● DHI-NVR2108HS-2N-4KS4 ● DHI-NVR2116HS-2N-4KS4 ● DHI-NVR2104HS-P-4KS4 ● DHI-NVR2108HS-8P-4KS4 ● DHI-NVR2104-P-4KS4 ● DHI-NVR2108-8P-4KS4
NVR2100 series	NVR2100-S3 series	● DHI-NVR2104-S3 ● DHI-NVR2108-S3 ● DHI-NVR2116-S3 ● DHI-NVR2104HS-S3 ● DHI-NVR2108HS-S3 ● DHI-NVR2116HS-S3 ● DHI-NVR2104-P-S3 ● DHI-NVR2108-8P-S3 ● DHI-NVR2104HS-P-S3 ● DHI-NVR2108HS-8P-S3

Figure 4-3 Rear panel of NVR2000-I2 series

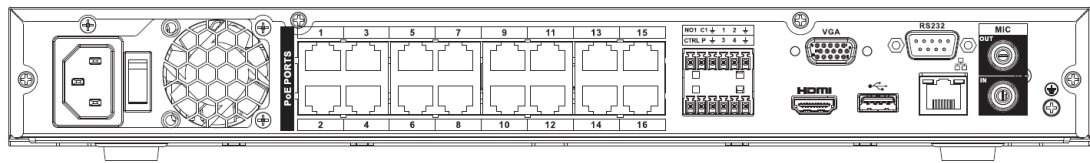


Figure 4-4 Rear panel of NVR2000-4KS3 series

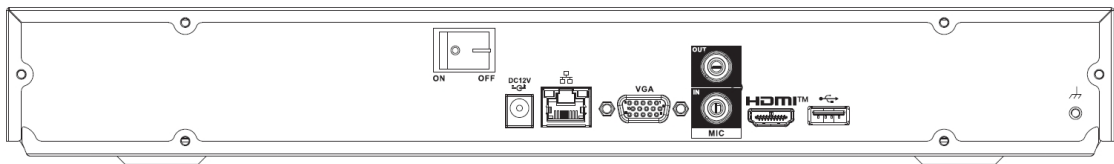
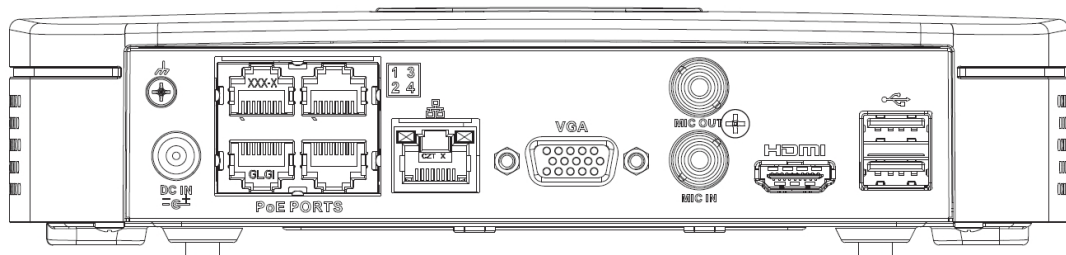


Figure 4-5 Rear panel of NVR2100-S3 series



4.3 NVR4000 Series

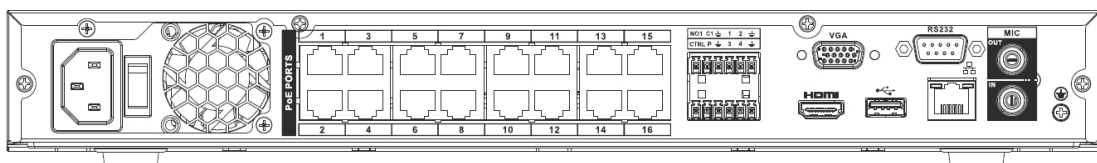
Table 4-3 Series and model reference

Series	Series (in detail)	Model
NVR4000 series	NVR4000-EI series	• DHI-NVR4108-P-EI • DHI-NVR4108HS-P-EI • DHI-NVR4116HS-8P-EI • DHI-NVR4116-8P-EI • DHI-NVR4104-EI • DHI-NVR4116-EI • DHI-NVR4104HS-EI • DHI-NVR4108HS-EI • DHI-NVR4116HS-EI • DHI-NVR4104HS-P-EI • DHI-NVR4108-EI • DHI-NVR4104-P-EI • DHI-NVR4108-8P-EI • DHI-NVR4108HS-8P-EI

Series	Series (in detail)	Model
	NVR4-XI series	● DHI-NVR4104HS-P-XI ● DHI-NVR4104HS-XI ● DHI-NVR4104-P-XI ● DHI-NVR4108-8P-XI ● DHI-NVR4108HS-8P-XI ● DHI-NVR4116HS-XI ● DHI-NVR4116-XI
	NVR4000-4KS3 series	● DHI-NVR4116-8P-4KS3 ● DHI-NVR4116HS-8P-4KS3 ● DHI-NVR4108-4KS3 ● DHI-NVR4116-4KS3 ● DHI-NVR4108HS-4KS3 ● DHI-NVR4116HS-4KS3 ● DHI-NVR4108-P-4KS3 ● DHI-NVR4108HS-P-4KS3 ● DHI-NVR4104-4KS3 ● DHI-NVR4104HS-4KS3 ● DHI-NVR4104-P-4KS3 ● DHI-NVR4104HS-P-4KS3 ● DHI-NVR4108-8P-4KS3 ● DHI-NVR4108HS-8P-4KS3 ● DHI-NVR4104HS-2N-4KS3 ● DHI-NVR4108HS-2N-4KS3 ● DHI-NVR4116HS-2N-4KS3
	NVR4000-4KS3-L series	● DHI-NVR4104-4KS3-L ● DHI-NVR4108-4KS3-L ● DHI-NVR4116-4KS3-L ● DHI-NVR4104-P-4KS3-L ● DHI-NVR4108-P-4KS3-L ● DHI-NVR4108-8P-4KS3-L ● DHI-NVR4116-8P-4KS3-L ● DHI-NVR4104HS-4KS3-L ● DHI-NVR4108HS-4KS3-L ● DHI-NVR4116HS-4KS3-L ● DHI-NVR4104HS-P-4KS3-L ● DHI-NVR4108HS-P-4KS3-L ● DHI-NVR4108HS-8P-4KS3-L ● DHI-NVR4116HS-8P-4KS3-L
	NVR4000-WT series	● DHI-NVR4104-WT ● DHI-NVR4108-WT ● DHI-NVR4116-WT ● DHI-NVR4104-P-WT ● DHI-NVR4104-P-WT/4G ● DHI-NVR4108-8P-WT ● DHI-NVR4108-8P-WT/4G

Series	Series (in detail)	Model
NVR4100 series	NVR4100-4KS2/H series	• DHI-NVR4108-P-4KS2/H • DHI-NVR4108-4KS2/H • DHI-NVR4116-8P-4KS2/H • DHI-NVR4116HS-8P-4KS2/H • DHI-NVR4104-4KS2/H • DHI-NVR4116-4KS2/H • DHI-NVR4104-P-4KS2/H • DHI-NVR4108-8P-4KS2/H • DHI-NVR4104HS-4KS2/H • DHI-NVR4108HS-4KS2/H • DHI-NVR4116HS-4KS2/H • DHI-NVR4104HS-P-4KS2/H • DHI-NVR4108HS-P-4KS2/H • DHI-NVR4108HS-8P-4KS2/H

Figure 4-6 Rear panel of NVR4000 series



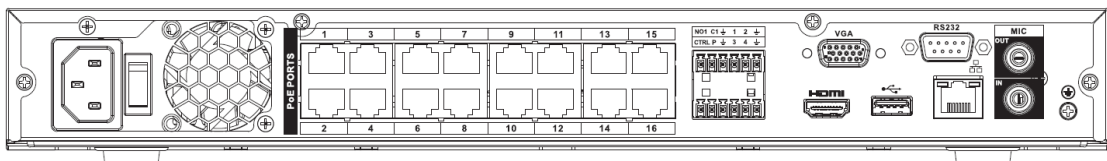
5 2-Bay Models

5.1 NVR2000 Series

Table 5-1 Series and model reference

Series	Series (in detail)	Model
NVR2000 series	NVR2000-I2 series	• DHI-NVR2204-I2 • DHI-NVR2208-I2 • DHI-NVR2216-I2 • DHI-NVR2204-P-I2 • DHI-NVR2208-8P-I2 • DHI-NVR2216-16P-I2
	NVR2000-4KS3 series	• DHI-NVR2208-4KS3 • DHI-NVR2204-P-4KS3 • DHI-NVR2208-8P-4KS3 • DHI-NVR2216-16P-4KS3 • DHI-NVR2216-4KS3 • DHI-NVR2204-4KS3
	NVR2000-4KS4 series	• DHI-NVR2204-4KS4 • DHI-NVR2208-4KS4 • DHI-NVR2216-4KS4 • DHI-NVR2204-P-4KS4 • DHI-NVR2208-8P-4KS4 • DHI-NVR2216-16P-4KS4

Figure 5-1 Rear panel of NVR2000 series



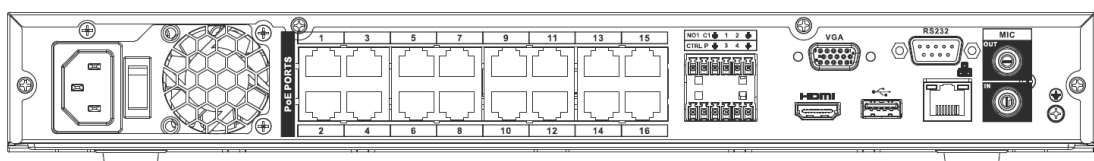
5.2 NVR4000 Series

Table 5-2 Series and model reference

Series	Series (in detail)	Model
NVR4000 series	NVR4000-4KS2/L series	• DHI-NVR4232-16P-4KS2/L • DHI-NVR4232-4KS2/L

Series	Series (in detail)	Model
	NVR4000-EI series	• DHI-NVR4204-P-EI • DHI-NVR4232-16P-EI • DHI-NVR4232-EI • DHI-NVR4204-EI • DHI-NVR4208-EI • DHI-NVR4216-EI • DHI-NVR4216-16P-EI • DHI-NVR4208-8P-EI
	NVR4-XI series	• DHI-NVR4204-P-XI • DHI-NVR4208-2N-XI • DHI-NVR4208-8P-XI • DHI-NVR4208-XI • DHI-NVR4216-16FP-XI • DHI-NVR4216-16P-XI • DHI-NVR4216-2N-XI • DHI-NVR4216-XI • DHI-NVR4232-XI
	NVR4000-4KS3 series	• DHI-NVR4232-16P-4KS3 • DHI-NVR4204-P-4KS3 • DHI-NVR4208-8P-4KS3 • DHI-NVR4232-4KS3 • DHI-NVR4216-16P-4KS3 • DHI-NVR4216-4KS3 • DHI-NVR4208-4KS3 • DHI-NVR4204-4KS3 • DHI-NVR4216-2N-4KS3 • DHI-NVR4232-2N-4KS3
	NVR4000-4KS3-L series	• DHI-NVR4204-4KS3-L • DHI-NVR4208-4KS3-L • DHI-NVR4216-4KS3-L • DHI-NVR4204-P-4KS3-L • DHI-NVR4208-8P-4KS3-L • DHI-NVR4216-16P-4KS3-L

Figure 5-2 Rear panel of NVR4000 series



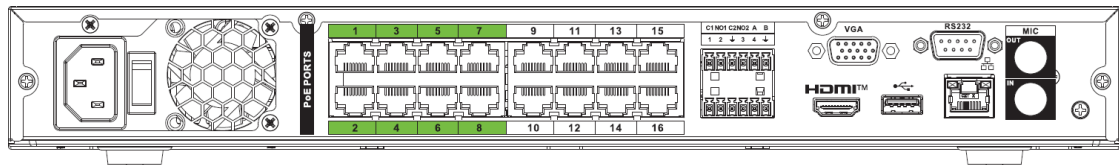
5.3 NVR5000 Series

Table 5-3 Series and model reference

Series	Series (in detail)	Model
NVR5000 series	NVR5000-4KS2 series	● DHI-NVR5224-24P-4KS2 ● DHI-NVR5232-8P-4KS2(V2.0) ● DHI-NVR5232-4KS2(V2.0) ● DHI-NVR5208-4KS2(V2.0) ● DHI-NVR5208-8P-4KS2(V2.0) ● DHI-NVR5216-4KS2(V2.0) ● DHI-NVR5216-8P-4KS2(V2.0) ● DHI-NVR5232-16P-4KS2E ● DHI-NVR5216-16P-4KS2E ● DHI-NVR5208-8P-4KS2E ● DHI-NVR5216-8P-4KS2E
	NVR5000-I/L series	● DHI-NVR5216-8P-I/L ● DHI-NVR5216-16P-I/L
	NVR5000-EI series	● DHI-NVR5232-EI ● DHI-NVR5232-8P-EI ● DHI-NVR5232-16P-EI ● DHI-NVR5208-EI ● DHI-NVR5216-EI ● DHI-NVR5208-8P-EI ● DHI-NVR5216-8P-EI ● DHI-NVR5216-16P-EI ● DHI-NVR5216-16HP-EI ● DHI-NVR5232-2N-EI
	NVR5000-EI2 series	● DHI-NVR5208-EI2 ● DHI-NVR5216-EI2 ● DHI-NVR5232-EI2 ● DHI-NVR5232-2N-EI2 ● DHI-NVR5208-8P-EI2 ● DHI-NVR5216-8P-EI2 ● DHI-NVR5232-8P-EI2 ● DHI-NVR5216-16HP-EI2 ● DHI-NVR5216-16P-EI2 ● DHI-NVR5232-16P-EI2
	NVR5000-XI series	● DHI-NVR5208-XI ● DHI-NVR5208-8P-XI ● DHI-NVR5216-16P-XI ● DHI-NVR5216-XI

Series	Series (in detail)	Model
	NVR5000-XI/Pro series	• DHI-NVR5232-XI/Pro • DHI-NVR5208-8P-XI/Pro • DHI-NVR5216-16HP-XI/Pro

Figure 5-3 Rear panel of NVR5000 series



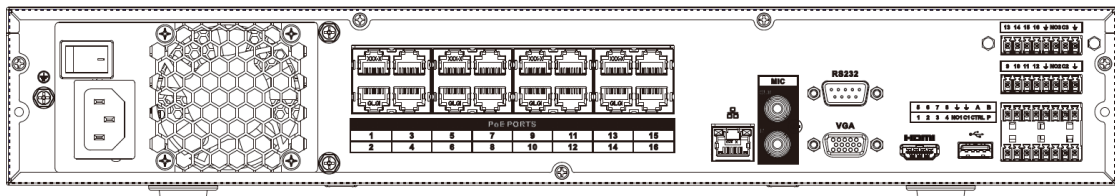
6 4-Bay Models

6.1 NVR4000 Series

Table 6-1 Series and model reference

Series	Series (in detail)	Model
NVR4000 series	NVR4000-4KS2/I series	• DHI-NVR4432-16P-4KS2/I • DHI-NVR4416-4KS2/I • DHI-NVR4416-16P-4KS2/I • DHI-NVR4432-4KS2/I
	NVR4000-EI series	• DHI-NVR4432-16P-EI • DHI-NVR4432-EI • DHI-NVR4416-EI • DHI-NVR4416-16P-EI
	NVR4-XI Series	• DHI-NVR4416-16HP-XI • DHI-NVR4416-XI • DHI-NVR4432-16HP-XI • DHI-NVR4432-XI
	NVR4000-4KS3 series	DHI-NVR4432-4KS3

Figure 6-1 Rear panel of NVR4000 series



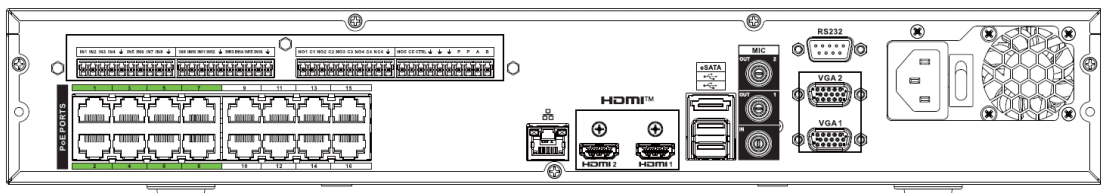
6.2 NVR5000 Series

Table 6-2 Series and model reference

Series	Series (in detail)	Model
NVR5000 series	NVR5000-4KS2 series	• DHI-NVR5424-24P-4KS2 • DHI-NVR5464-4KS2(V2.0) • DHI-NVR5464-16P-4KS2E • DHI-NVR5416-4KS2(V2.0) • DHI-NVR5416-16P-4KS2E • DHI-NVR5432-4KS2(V2.0) • DHI-NVR5432-16P-4KS2E
	NVR5000-I/L series	DHI-NVR5432-16P-I/L

Series	Series (in detail)	Model
	NVR5000-EI series	• DHI-NVR5464-EI • DHI-NVR5464-16P-EI • DHI-NVR5416-EI • DHI-NVR5432-EI • DHI-NVR5416-16P-EI • DHI-NVR5432-16P-EI • DHI-NVR5424-24P-EI • DHI-NVR5416-16HP-EI
	NVR5000-EI2 series	• DHI-NVR5416-16HP-EI2 • DHI-NVR5432-16HP-EI2 • DHI-NVR5464-16HP-EI2 • DHI-NVR5424-24P-EI2 • DHI-NVR5416-EI2 • DHI-NVR5432-EI2 • DHI-NVR5464-EI2
	NVR5000-XI series	• DHI-NVR5416-XI • DHI-NVR5432-XI • DHI-NVR5432-16P-XI • DHI-NVR5416-16P-XI
	NVR5000-XI/Pro	• DHI-NVR5432-XI/Pro • DHI-NVR5432-16HP-XI/Pro

Figure 6-2 Rear panel of NVR5000 series



7 8-Bay Models

7.1 NVR600 Series

Table 7-1 Series and model reference

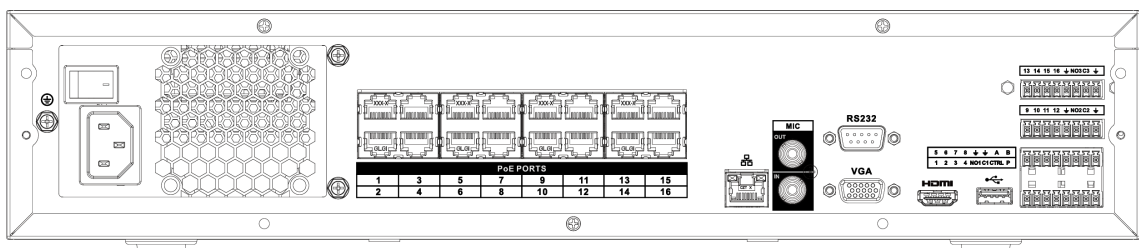
Series	Series (in detail)	Model
NVR600 series	NVR600-4KS2 series	• DHI-NVR608-32-4KS2 • DHI-NVR608-128-4KS2 • DHI-NVR608-64-4KS2 • DHI-NVR608R-128-4KS2 • DHI-NVR608R-64-4KS2

7.2 NVR4000 Series

Table 7-2 Series and model reference

Series	Series (in detail)	Model
NVR4000 series	NVR4000-4KS2/I series	• DHI-NVR4816-4KS2/I • DHI-NVR4816-16P-4KS2/I • DHI-NVR4832-4KS2/I • DHI-NVR4832-16P-4KS2/I
	NVR4000-EI series	• DHI-NVR4832-EI • DHI-NVR4832-16P-EI • DHI-NVR4816-EI • DHI-NVR4816-16P-EI
	NVR4-XI series	• DHI-NVR4816-16P-XI • DHI-NVR4832-XI
	NVR4000-4KS3 series	DHI-NVR4832-4KS3

Figure 7-1 Rear panel of NVR4000 series



7.3 NVR5000 Series

Table 7-3 Series and model reference

Series	Series (in detail)	Model
NVR5000 series	NVR5000-4KS2 series	● DHI-NVR5864-4KS2(V2.0) ● DHI-NVR5864-16P-4KS2E ● DHI-NVR5816-4KS2(V2.0) ● DHI-NVR5816-16P-4KS2E ● DHI-NVR5832-4KS2(V2.0) ● DHI-NVR5832-16P-4KS2E
	NVR5000-I/L series	● DHI-NVR5832-I/L ● DHI-NVR5864-I/L
	NVR5000-EI series	● DHI-NVR5832-16P-EI ● DHI-NVR5864-EI ● DHI-NVR5864-16P-EI ● DHI-NVR5816-EI ● DHI-NVR5832-EI ● DHI-NVR5816-16P-EI
	NVR5000-EI2 series	● DHI-NVR5816-16P-EI2 ● DHI-NVR5832-16P-EI2 ● DHI-NVR5864-16P-EI2 ● DHI-NVR5816-EI2 ● DHI-NVR5832-EI2 ● DHI-NVR5864-EI2
	NVR5000-XI series	● DHI-NVR5832-XI ● DHI-NVR5864-XI ● DHI-NVR58128RH-XI ● DHI-NVR58128H-XI ● DHI-NVR5816RH-XI ● DHI-NVR5832RH-XI ● DHI-NVR5864RH-XI ● DHI-NVR5864H-XI ● DHI-NVR5832H-XI ● DHI-NVR5816H-XI
	NVR5000-XI/Pro	● DHI-NVR5864-XI/Pro ● DHI-NVR5832-16P-XI/Pro

8 16-Bay Models

8.1 NVR600 Series

Table 8-1 Series and model reference

Series	Series (in detail)	Model
NVR600 series	NVR600-4KS2 series	• DHI-NVR616-64-4KS2 • DHI-NVR616-128-4KS2 • DHI-NVR616D-64-4KS2 • DHI-NVR616D-128-4KS2 • DHI-NVR616DR-64-4KS2 • DHI-NVR616R-64-4KS2 • DHI-NVR616R-128-4KS2

8.2 NVR5000 Series

Table 8-2 Series and model reference

Series	Series (in detail)	Model
NVR5000 series	NVR5000-4KS2 series	• DHI-NVR5032-4KS2 • DHI-NVR5064-4KS2
	NVR5000-EI series	• DHI-NVR5016-EI • DHI-NVR5064-EI • DHI-NVR5032-EI
	NVR5000-EI2 series	DHI-NVR5064-EI2

Appendix 1 Security Commitment and Recommendation

Zhejiang Dahua Vision Technology Co., Ltd. (hereinafter referred to as "Dahua") attaches great importance to cybersecurity and privacy protection, and continues to invest special funds to comprehensively improve the security awareness and capabilities of Dahua employees and provide adequate security for products. Dahua has established a professional security team to provide full life cycle security empowerment and control for product design, development, testing, production, delivery and maintenance. While adhering to the principle of minimizing data collection, minimizing services, prohibiting backdoor implantation, and removing unnecessary and insecure services (such as Telnet), Dahua products continue to introduce innovative security technologies, and strive to improve the product security assurance capabilities, providing global users with security alarm and 24/7 security incident response services to better protect users' security rights and interests. At the same time, Dahua encourages users, partners, suppliers, government agencies, industry organizations and independent researchers to report any potential risks or vulnerabilities discovered on Dahua devices to Dahua PSIRT, for specific reporting methods, please refer to the cyber security section of Dahua official website.

Product security requires not only the continuous attention and efforts of manufacturers in R&D, production, and delivery, but also the active participation of users that can help improve the environment and methods of product usage, so as to better ensure the security of products after they are put into use. For this reason, we recommend that users safely use the device, including but not limited to:

Account Management

1. Use complex passwords

Please refer to the following suggestions to set passwords:

- The length should not be less than 8 characters;
- Include at least two types of characters: upper and lower case letters, numbers and symbols;
- Do not contain the account name or the account name in reverse order;
- Do not use continuous characters, such as 123, abc, etc.;
- Do not use repeating characters, such as 111, aaa, etc.

2. Change passwords periodically

It is recommended to periodically change the device password to reduce the risk of being guessed or cracked.

3. Allocate accounts and permissions appropriately

Appropriately add users based on service and management requirements and assign minimum permission sets to users.

4. Enable account lockout function

The account lockout function is enabled by default. You are advised to keep it enabled to protect account security. After multiple failed password attempts, the corresponding account and source IP address will be locked.

5. Set and update password reset information in a timely manner

Dahua device supports password reset function. To reduce the risk of this function being used by threat actors, if there is any change in the information, please modify it in time. When setting security questions, it is recommended not to use easily guessed answers.

Service Configuration

1. Enable HTTPS

It is recommended that you enable HTTPS to access Web services through secure channels.

2. Encrypted transmission of audio and video

If your audio and video data contents are very important or sensitive, we recommend you to use encrypted transmission function in order to reduce the risk of your audio and video data being eavesdropped during transmission.

3. Turn off non-essential services and use safe mode

If not needed, it is recommended to turn off some services such as SSH, SNMP, SMTP, UPnP, AP hotspot etc., to reduce the attack surfaces.

If necessary, it is highly recommended to choose safe modes, including but not limited to the following services:

- SNMP: Choose SNMP v3, and set up strong encryption and authentication passwords.
- SMTP: Choose TLS to access mailbox server.
- FTP: Choose SFTP, and set up complex passwords.
- AP hotspot: Choose WPA2-PSK encryption mode, and set up complex passwords.

4. Change HTTP and other default service ports

It is recommended that you change the default port of HTTP and other services to any port between 1024 and 65535 to reduce the risk of being guessed by threat actors.

Network Configuration

1. Enable Allowlist

It is recommended that you turn on the allowlist function, and only allow IP in the allowlist to access the device. Therefore, please be sure to add your computer IP address and supporting device IP address to the allowlist.

2. MAC address binding

It is recommended that you bind the IP address of the gateway to the MAC address on the device to reduce the risk of ARP spoofing.

3. Build a secure network environment

In order to better ensure the security of devices and reduce potential cyber risks, the following are recommended:

- Disable the port mapping function of the router to avoid direct access to the intranet devices from external network;
- According to the actual network needs, partition the network: if there is no communication demand between the two subnets, it is recommended to use VLAN, gateway and other methods to partition the network to achieve network isolation;
- Establish 802.1x access authentication system to reduce the risk of illegal terminal access to the private network.

Security Auditing

1. Check online users

It is recommended to check online users regularly to identify illegal users.

2. Check device log

By viewing logs, you can learn about the IP addresses that attempt to log in to the device and key operations of the logged users.

3. **Configure network log**

Due to the limited storage capacity of devices, the stored log is limited. If you need to save the log for a long time, it is recommended to enable the network log function to ensure that the critical logs are synchronized to the network log server for tracing.

Software Security

1. **Update firmware in time**

According to the industry standard operating specifications, the firmware of devices needs to be updated to the latest version in time in order to ensure that the device has the latest functions and security. If the device is connected to the public network, it is recommended to enable the online upgrade automatic detection function, so as to obtain the firmware update information released by the manufacturer in a timely manner.

2. **Update client software in time**

We recommend you to download and use the latest client software.

Physical Protection

It is recommended that you carry out physical protection for devices (especially storage devices), such as placing the device in a dedicated machine room and cabinet, and having access control and key management in place to prevent unauthorized personnel from damaging hardware and other peripheral equipment (e.g. USB flash disk, serial port).

ENABLING A SMARTER SOCIETY AND BETTER LIVING

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