Network Video Recorder

Quick Start Guide

Legal Information

About this Manual

The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual at the company website Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

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Regulatory Information

FCC Information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
FCC compliance: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement

CE

This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU.

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: ***http://www.recyclethis.info***.

2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: ***http://www.recyclethis.info***.

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
Danger	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.
Caution	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
Note	Provides additional information to emphasize or supplement important points of the main text.

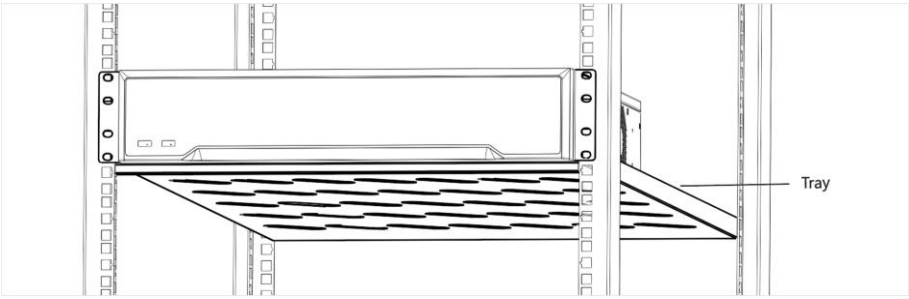
Safety Instruction

- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or user.
- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region. Please refer to technical specifications for detailed information.
- Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with 100 VAC to 240 VAC or 12 VDC according to the IEC60950-1 standard. Please refer to technical specifications for detailed information.
- Do not connect several devices to one power adapter as adapter overload may cause over-heating or a fire hazard.
- Please make sure that the plug is firmly connected to the power socket.
- If smoke, odor or noise rises from the device, turn off the power at once and unplug the power cable, and then please contact the service center.

Preventive and Cautionary Tips

Before connecting and operating your device, please be advised of the following tips:

- Ensure recorder is installed in a well-ventilated, dust-free environment.
- Recorder is designed for indoor use only.
- Keep all liquids away from the device.
- Ensure environmental conditions meet factory specifications.
- Ensure recorder is properly secured to a rack or shelf. Major shocks or jolts to the recorder as a result of dropping it may cause damage to the sensitive electronics within the recorder.
- Use the device in conjunction with an UPS if possible.
- Power down the recorder before connecting and disconnecting accessories and peripherals.
- A factory recommended HDD should be used for this device.
- Improper use or replacement of the battery may result in hazard of explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.
- When installing the device into a cabinet over 2U height, it is suggested to use rack shelf to bear the weight. If the cabinet height is over 4U, it is suggested to use slide rails or rack shelf to bear the weight.



Chapter 1 Rear Panel Interfaces Description

The rear panel interfaces vary with different models. Refer to the following table for common interfaces description.

Table 1-1 Common Interfaces Description of Rear Panel

Item	Description	Item	Description
VIDEO IN	BNC interface for Turbo HD and analog video input.	VIDEO OUT	BNC connector for video output.
AUDIO IN	RCA connector for audio input.	AUDIO OUT	RCA connector for audio output.
LINE IN	RCA connector for two-way audio input.	USB	Universal Serial Bus (USB) interface for additional device.
VGA	DB15 connector for local video output and menu display.	HDMI	HDMI interface for video output.
RS-485	RS-485 serial interface for pan/tilt unit, speed dome, etc.	RS-232	RS-232 interface for parameter configuration, or transparent channel.
LAN	RJ-45 self-adaptive Ethernet interface.	eSATA	Storage and expansion interface for record or backup.
ALARM IN/OUT	Alarm input/output interface.	GND	Ground.
Power Switch	Switch for turning on/off the device.	Power Supply	100 to 240 VAC, 48 VDC, or 12 VDC power supply, different models vary.
USIM Card	UIM/SIM card slot.		SMA antenna interface.

Chapter 2 Installation and Connections

2.1 Device Installation

During the device installation:

- Use brackets for rack mounting.
- Ensure ample room for audio and video cables.
- When routing cables, ensure the bend radius of the cables are no less than five times of its diameter.
- Allow at least 2 cm (≈0.75 inch) of space among racks mounted devices.
- Ensure the device is grounded.
- Environmental temperature should be within the range of -10 °C to 55 °C (14 °F to 131 °F).
- Environmental humidity should be within the range of 10% to 90%.

2.2 HDD Installation

Disconnect the power from the device before installing a hard disk drive (HDD). A factory recommended HDD should be used for this installation.
Tools Required: Screwdriver.

2.2.1 Bracket Installation

Bracket installation is applicable when it requires to remove the device cover, and install HDD on the internal bracket.

Steps

1. Unfasten screws on the back, and push the cover backwards to remove the cover.
2. Fix the HDD on the bracket with screws.

Note

Please uninstall the upper layer bracket first before installing HDD on the lower layer bracket.

3. Connect the data cable and power cable.

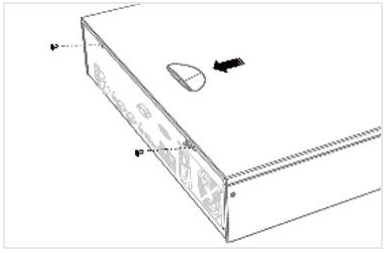


Figure 2-1 Remove Cover

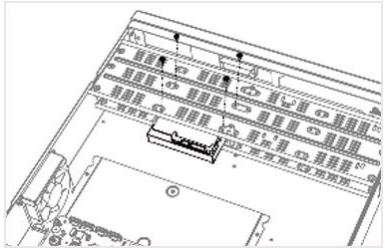


Figure 2-2 Fix HDD

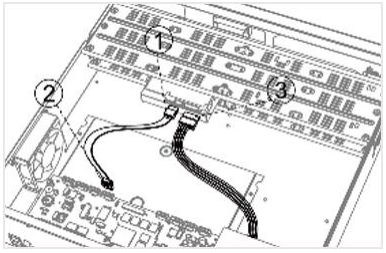


Figure 2-3 Connect Cable

Note

You can repeat the steps above to install other HDDs.

4. Reinstall the device cover and fasten screws.

2.2.2 Front Panel Plug-Pull Installation

Front panel plug-pull installation is applicable when you need to open the device front panel with key and install the HDD.

Steps

1. Fix mounting ears to HDD with screws.
2. Unlock the front panel with the attached key, and press the buttons on both sides of the front panel to open it.
3. Insert the HDD until it is fixed firmly.

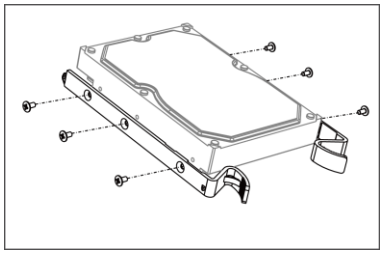


Figure 2-4 Fix Mounting Ears to HDD

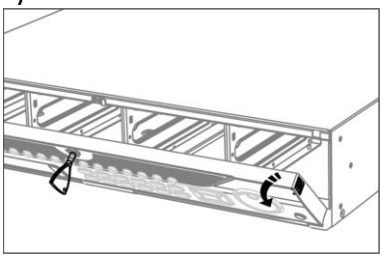


Figure 2-5 Open Front Panel

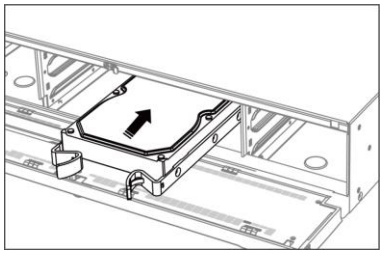


Figure 2-6 Insert HDD

4. Optional: Repeat the steps above to install other HDDs.
5. Close the front panel and lock it with key.

2.2.3 HDD Case Installation

HDD case installation refers to the method that you install the HDD in the case, and then plug the HDD case into the slot.

Steps

1. Unlock the front panel with panel key.
2. Pull the front panel out of the device and make it a little above the left handle.

Note

The angle between the front panel and the device must be within 10°.

3. Press the blue button to pop up the handle and hold the handle and pull the HDD case out of the slot.
4. Fix the hard disk in the HDD case.
   1) Place a HDD in the case. The SATA interface must face the case bottom.
   2) Adjust the HDD position. Ensure the hard disk rear aligns with HDD bottom.
   3) Use a screwdriver to fasten the four screws into the screw holes in both sides.

5. Push the HDD case back into the slot.

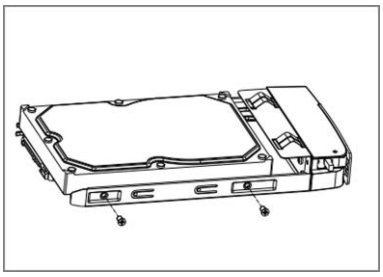


Figure 2-7 Fix HDD

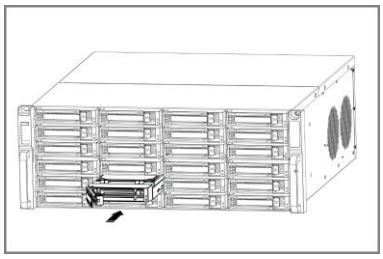


Figure 2-8 Push HDD Case into Slot

6. Press the handle until you hear a click. Thus to fix the HDD case. Repeat above steps to install the rest hard disk boxes.
7. Close the front panel, and lock it with the panel key.

2.2.4 Fix-on-Bottom Installation

Fix-on-bottom installation is applicable when you need to install and fix the HDD on the device bottom.

Steps

1. Remove the cover from device by unfastening the screws on panels.
2. Connect the data cable and power cable.
   1) Connect one end of data cable to the device motherboard.
   2) Connect the other end of data cable to HDD.
   3) Connect one end of power cable to HDD.
   4) Connect the other end of power cable to the device motherboard.
3. Set the device up, match HDD screw threads with the reserved holes on the device bottom, and fix HDD with screws.

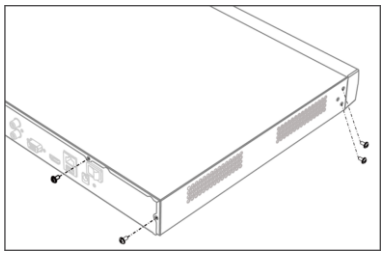


Figure 2-9 Remove Cover

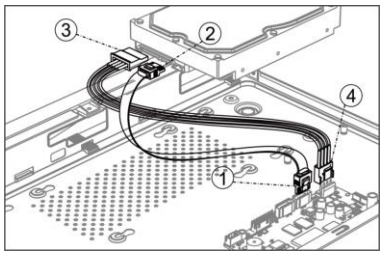


Figure 2-10 Connect Cables

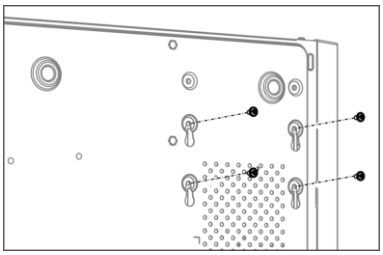


Figure 2-11 Fix HDD to Device Bottom

4. Optional: Repeat the steps above to install other HDDs.
5. Reinstall the device cover and fasten screws.

Chapter 3 Menu Operation

3.1 Startup

Proper startup is crucial to expand the device life. It is HIGHLY recommended to use an Uninterruptible Power Supply (UPS) with the device.

Steps

1. Plug power supply into an electrical outlet.
2. Press the power button (certain models may have power button on the front or rear panel). The device begins to start.

3.2 Activate via Local Menu

For the first-time access, you need to activate the device by setting an admin password. No operation is allowed before activation. You can also activate the device via Web Browser, SADP or Client Software.

Steps

1. Enter the admin password twice.

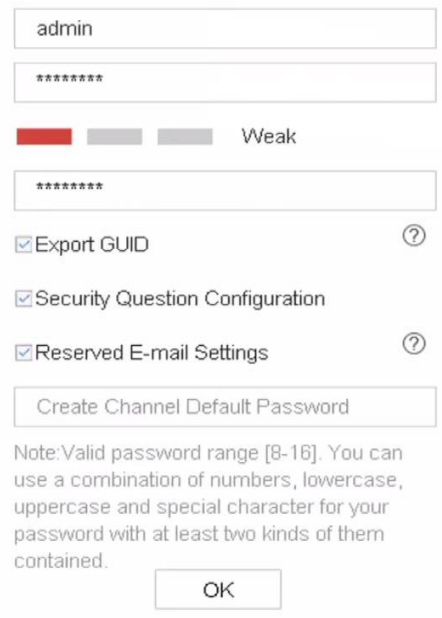


Figure 3-1 Activate via Local Menu

Warning

We highly recommend you to create a strong password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

2. Enter the password to activate the IP cameras.
3. Optional: Check **Export GUID**, **Security Question Configuration**, or **Reserved E-mail Settings**.
4. Click **OK**.

Note

- After the device is activated, you should properly keep the password.
- You can duplicate the password to the IP cameras that are connected with default protocol.
- The available password resetting functions may vary according to different models.

What to do next

- When you have enabled **Export GUID**, continue to export the GUID file to the USB flash driver for the future password resetting.
- When you have enabled **Security Question Configuration**, continue to set the security questions for the future password resetting.
- When you have enabled **Reserved E-mail Settings**, continue to set the reserved email for the future password resetting.

3.3 Set Unlock Pattern

Admin user can use the unlock pattern to login. You can configure the unlock pattern after the device is activated.

Steps

1. Use the mouse to draw a pattern among the 9 dots on the screen. Release the mouse when the pattern is done.

Note

- The pattern shall have 4 dots at least.
- Each dot can be connected for once only.

2. Draw the same pattern again to confirm it. When the two patterns match, the pattern is configured successfully.

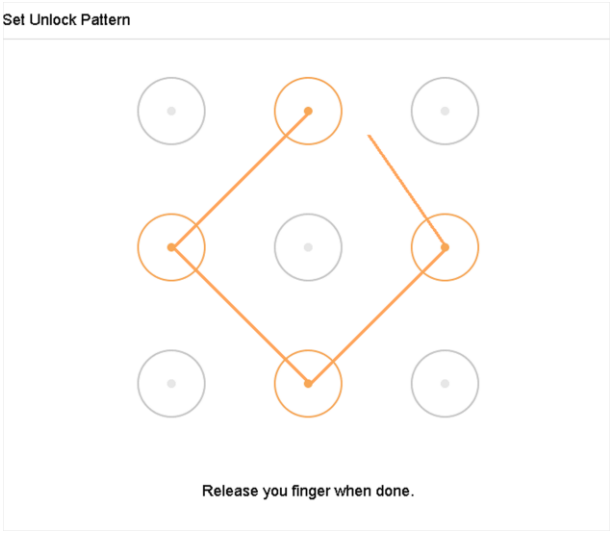


Figure 3-2 Set Unlock Pattern

3.4 Login to the Device

You have to log in to the device before operating the menu and other functions.

Steps

1. Select a user name.
2. Enter password for the selected user.
3. Click **OK**.

   For the admin, if you have entered the wrong password for 7 times, the account will be locked for 60 seconds. For the operator, if you have entered the wrong password for 5 times, the account will be locked for 60 seconds.

3.5 Logout, Shutdown and Reboot

You can log out of the system, shut down, or reboot the device.

Steps

1. Click ⏻ at the upper-right corner.
2. Click **Logout**, **Shutdown**, or **Reboot** as your desire.

3.6 Network Settings

3.6.1 Configure TCP/IP Settings

TCP/IP settings must be properly configured before you can operate the device over a network.

Steps

1. Go to **System** → **Network** → **TCP/IP**.

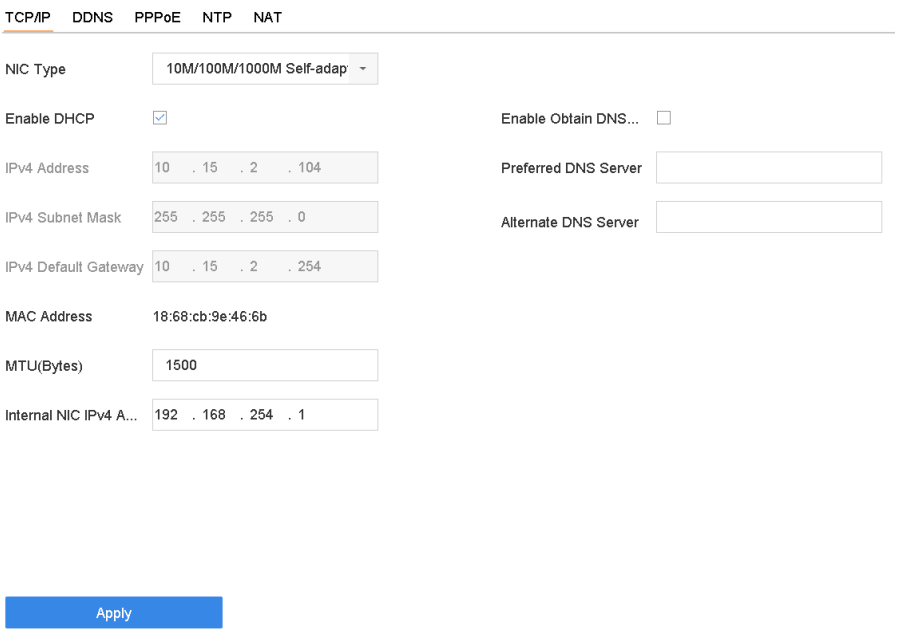


Figure 3-3 TCP/IP Settings

2. Configure network parameters as needed.

Note

- Check **Enable DHCP** to obtain IP settings automatically if a DHCP server is available on the network.
- Valid MTU value range is 500 to 9676.

3. Click **Apply**.

3.6.2 Configure Guarding Vision

Guarding Vision enables the mobile phone application and the service platform page (dev.guardingvision.com) to access and manage your connected NVR, providing a convenient remote access to the surveillance system.

Steps

1. Go to **System** → **Network** → **Advanced** → **Platform Access**.
2. Check **Enable** to activate the function. Then the service terms will pop up.
   1) Enter **Verification Code**.
   2) Scan the QR code to read the service terms and privacy statement.
   3) Check **The Guarding Vision service will require internet access. Please read Service Terms and Privacy Statement before enabling the service** if you agree the service terms and privacy statement.
   4) Click **OK**.

Note

- Guarding Vision is disabled by default.

- The verification code is empty by default. It must contain 6 to 12 letters or numbers, and it is case sensitive.

3. Optional: Configure following parameters.
   - Check **Custom** and enter **Server Address** as your desire.
   - Check **Enable Stream Encryption**, verification code is required for remote access and live view.
   - Click **Unbind** if your video recorder requires to unbind with the current Guarding Vision account.
4. Click **Apply**.

What to do next

You can access and manage your video recorder through Guarding Vision app or ***dev.guardingvision.com***.

3.7 Add IP Cameras

Before you can get live video or record the video files, you should add network cameras to the device.

Before You Start

Ensure the network connection is valid and correct, and the IP camera to add has already been activated. Please refer to *User Manual* for activating the inactive IP camera.

Steps

1. Go to **Camera** → **IP Camera**.
2. Click **Custom Add**.
3. Enter IP address, protocol, management port, and other information of the IP camera.
4. Click **Add**.

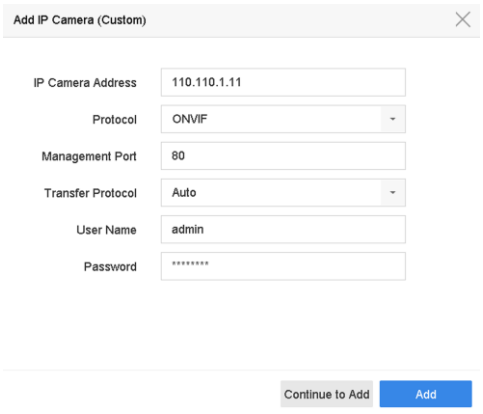


Figure 3-4 Add IP Camera

3.7 Live View

Enter the live view mode (click).

- You can select a window and double click a camera from the list to play the video from the camera in the selected window.
- Use the toolbar at the playing window bottom to achieve functions of capture, instant playback, audio on/off, digital zoom, live view strategy, show information and start/stop recording.

3.8 Recording Settings

Before You Start

Ensure the device has installed or added a disk at least.

Steps

1. Go to **Storage** → **Schedule** → **Record**.
2. Select a camera.
3. Check **Enable Schedule**.
4. Select **Record Type**. The record type can be Continuous, Motion Detection, Alarm, Motion | Alarm, Motion & Alarm, Event, etc.
5. Select a day and drag the cursor on the time bar to set the record schedule.
6. Click **Apply**.

3.9 Playback

The recorded video files and pictures on HDD can be played back. Refer to the user manual for details of each playback mode.

Steps

1. Go to **Playback**.

Figure 3-4 Playback

2. Select camera(s) in the list.
3. Double click a date on the calendar.
4. Use the toolbar at the bottom to control the playing progress.

Chapter 4 Access via Web Browser

You can get access to the device via web browser. The following web browsers are supported: Internet Explorer 6.0, Internet Explorer 7.0, Internet Explorer 8.0, Internet Explorer 9.0, Internet Explorer 10.0, Apple Safari, Mozilla Firefox, and Google Chrome. The supported resolutions include 1024*768 and above. The use of the product with Internet access might be under network security risks. For avoidance of any network attacks and information leakage, please strengthen your own protection. If the product does not work properly, please contact with your dealer or the nearest service center.

Steps

1. Open web browser, enter the IP address of the device, and press **Enter**.
2. Log in to the device.
   – If the device has not been activated, activate the device first by setting the password for the admin user account.
   – If the device is already activated, enter the user name and password to log in.
3. Follow the installation prompts to install the plug-in before viewing the live video and managing the device.

Note

- You may have to close the web browser to finish the installation of the plug-in.
- After login, you can perform the operation and configuration of the device, including the live view, playback, log search, configuration, etc.

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