



16-Channel 4K Network Video Recorder

NVR52A16-16P-4KS2

Quick Start Guide

Version 1.0.1

Dahua Technology USA Inc.

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1 Welcome

This manual offers reference material and general information about the basic operation, maintenance, and troubleshooting of the Dahua HCDVI Digital Video Recorder. Read, follow, and retain the following safety instructions. Heed all warnings on the unit and in the operating instructions before operating the unit. Keep this guide for future reference.

1.1 Important Safeguards and Warnings

Electrical safety

- Install the unit in accordance with the manufacturer's instructions and in accordance with applicable local codes.
- All installation and operation must conform to your local electrical safety codes.
- Do not overload outlets and extension cords, which may cause fire or electrical shock.
- Do not place the camera near or in a place where the camera may contact overhead power lines, power circuits, or electrical lights.
- All input/output ports are SELV circuits. Ensure that SELV circuits are connected only to other SELV circuits.
- Ground the unit using the ground connection of the power supply to protect the unit from damage, especially in damp environments.
- Protect the plug and power cord from foot traffic, being pinched, and its exit from the unit.
- Units with or without an ON/OFF switch have power supplied to the unit whenever the power cord is inserted into the power source; however, the unit is operational only when the ON/OFF switch is in the ON position. The power cord is the main power disconnect device for switching off the voltage for all units.
- Operate the unit only from the type of power source indicated on the label. Before proceeding, disconnect the power from the cable to be installed into the unit.
 - For external power supplied units, use only the recommended or approved power supplies.
 - Limited power sources must comply with EN 60950. Substitutions may damage the unit or cause fire or shock.
 - For 24 VAC units, voltage applied to the unit's input power should not exceed $\pm 25\%$. User-supplied wiring must comply with local codes (Class 2 power levels). Do not ground the supply at the terminals or at the unit's power supply terminal.
 - Contact the local dealer or the power company to verify the correct power supply.
- Do not attempt to service the unit. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified personnel.
- If the unit is damaged and requires service, unplug the unit from the main power supply and refer to qualified service personnel. Damage may include, but is not limited to:
 - The power supply cord or plug is damaged.
 - Liquid has spilled in or on the unit.
 - An object has fallen on the unit.
 - The unit has been dropped and the housing is damaged.
 - The unit displays a marked change in performance.
 - The unit does not operate in the expected manner when the user correctly follows the proper operating procedures.
- Ensure a service technician uses replacement parts specified by the manufacturer, or that have the same characteristics as the original parts. Unauthorized parts may cause fire, electrical shock, or other hazards. Dahua is not liable for any damage or harm caused by unauthorized modifications or repairs.
- Perform safety checks after completion of service or repairs to the unit.
- Use attachments and accessories only specified by the manufacturer. Any change or modification of the equipment, not expressly approved by Dahua, could void the warranty.
- Incorporate a readily accessible disconnect device in the building installation wiring for quick power disconnect to the unit.
- Dahua assumes no liability or responsibility for any fire or electrical shock caused by improper handling or installation.

Environmental Precautions

- Transport, use, and store the unit within the specified temperature and humidity range.
- Do not place the unit in a wet, dusty, extremely hot or an extremely cold environment; and avoid environments with strong electromagnetic radiation or unstable lighting.
- Never push objects of any kind into this unit through openings as they may touch dangerous voltage points or cause a short circuit that may result in fire or electrical shock. Take care to not spill any liquid on the unit.
- Do not use units intended for indoor applications near water, in damp or wet environments, or in any area classified as a wet location. Do not expose an indoor unit to rain or moisture to reduce the risk of fire or electric shock.
- Do not block or cover any openings in the unit enclosure. These openings are provided for ventilation to prevent overheating and to ensure reliable operation. Ensure the unit is placed in an area with adequate ventilation.
- Do not place the unit near a heat source such as heaters, stoves, radiators or other equipment that produces heat.
- Use the following guidelines if placing the unit in a rack-mount:
 - The ambient temperature of a rack-mount environment may exceed the recommended operating temperature of the unit. Take care to read the ambient temperature before installation.
 - A rack-mount environment may restrict the movement of air. Ensure the unit receives the proper amount of air flow required for safe operation or install the unit elsewhere.
 - A rack mount is capable of supporting a maximum weight. Ensure the rack mount can support the additional weight of this unit.
 - A rack mount environment requires proper and adequate circuitry. Ensure the circuits to the rack are capable of handling the electrical requirements of all units in the rack to protect against circuit overloads.
- Pack the unit with standard factory packaging or material of the same quality when transporting the unit.
- Take care to avoid heavy stress, violent vibration, or water spills to the unit during transportation, storage, and installation.

Operation and Daily Maintenance

- Do not touch the heat dissipation component of the unit. This part of the unit is hot and may cause a burn.
- Do not open or dismantle the device; there are no components that a user can fix or replace. Opening the unit may cause water leakage or expose components to direct light. Contact the manufacturer or a qualified service representative to service the camera or to replace a component, including the desiccant.
- Dahua recommends the use of a thunder-proof device in concert with the unit.
- Use a dry soft cloth to clean the unit's housing. If the unit is particularly dusty, use water to dilute a mild detergent, apply the diluted detergent to a soft cloth, then gently clean the device. Finally, use a dry cloth to wipe the unit dry. Do not use a volatile solvent like alcohol, benzene, or thinner; or use a strong detergent with abrasives, which may damage the surface coating or reduce the working performance of the unit.

Lithium Battery Disclaimer

- Improper use of the lithium battery shipped in this unit may result in fire, explosion, damage to the unit, and personal injury.
- If the need to replace the battery arises, ensure that the replacement battery is the same model as the original battery.

WARNING:

- **Risk of explosion if a different battery type is used as a replacement.**
- **Dispose of used batteries according to the instructions of the battery manufacturer and local codes.**

Warnings

- Change the default password after the initial login to protect the integrity of the network.
- Use the standard accessories provided by the manufacturer and ensure the unit is installed and commissioned by qualified professionals.
-

1.2 FCC Information

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

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

FCC compliance:

This equipment has been tested and found to comply with the limits for a digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference. 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 communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

1.3 Legal Notices

Copyright

This user guide is ©2017, Dahua Technology Company, LTD.

This user guide is the intellectual property of Dahua Technology Company, LTD and is protected by copyright. All rights reserved.

Trademarks

All hardware and software product names used in this document are likely to be registered trademarks and must be treated accordingly.

1.4 Disclaimer

- This user guide has been compiled with great care and the information it contains has been thoroughly reviewed and verified. The text was complete and correct at the time of printing. This guide may be periodically updated to reflect changes to the product or to correct previous information and the content of this guide can change without notice. If you encounter an error or have any questions regarding the contents of this guide, contact customer service for the latest documentation and supplementary information. Dahua accepts no liability for damage resulting directly or indirectly from faults, incompleteness, or discrepancies between this guide and the product described. Dahua is not liable for any loss caused by installation, operation, or maintenance inconsistent with the information in this guide.
- Video loss is inherent to all digital surveillance and recording devices; therefore Dahua cannot be held liable for any damage that results from missing video information. To minimize the occurrence of lost digital information, Dahua recommends multiple, redundant recording systems, and adoption of backup procedure for all data.
- Contact the supplier or customer service if you encounter any issue while using this unit.

2 Unpacking

This equipment should be unpacked and handled with care. If an item appears to have sustained damage during shipping, notify the shipper immediately.

Verify that all the parts are included. If an item is missing, contact customer support or your local representative.

The original packing carton is the safest container to transport the unit, in the event the unit must be returned for service. Retain the carton and all shipping material for future use.

Please refer to the enclosed CD for more details, to view the detailed User's Manual, and for configuration software.

3 NVR Components

Check the label on the bottom of the NVR and note the model number and the power requirements for this NVR. The label on the rear panel lists the serial number for the NVR. Please provide this serial number when requesting information or service for this device.

3.1 Front Panel

The figure below depicts the NVR front panel.

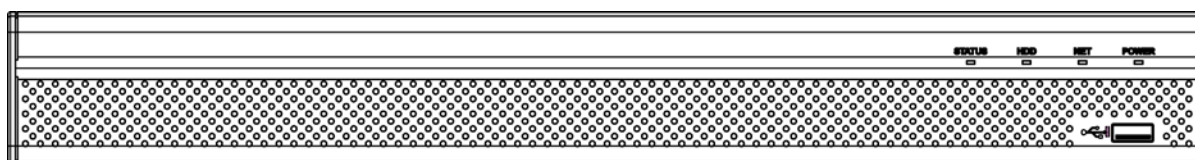


Figure 3-1

| Light | Name | Function |
|--------|--------------------------|--|
| STATUS | | A blue light indicates the device is operating normally. |
| HDD | HDD status indicator | A blue light indicates that the HDD is malfunctioning. |
| NET | Network status indicator | A blue light indicates that the network connection is abnormal. |
| POWER | Power status indicator | A blue light indicates that the power connection is OK. |
| | USB 2.0 port | Connect to a peripheral USB 3.0 device (storage mouse, CD/DVD burner). |

3.2 Rear Panel

The image below is for reference only, it may not be an exact representation of your NVR. Please refer to the Documentation CD that comes with the product.

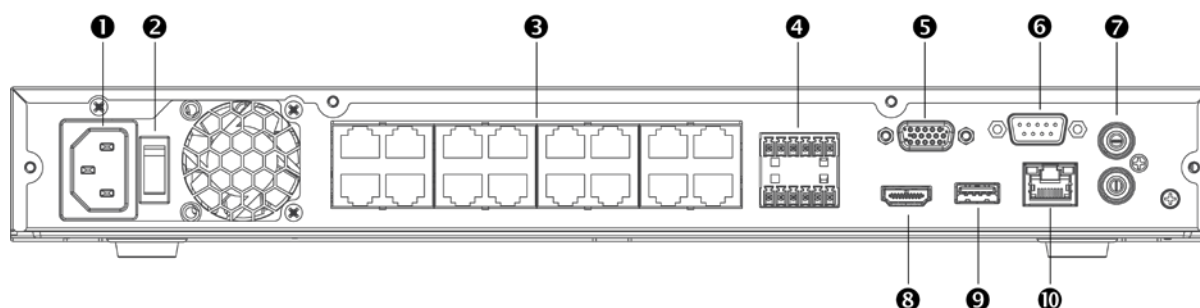


Figure 3-2

| Ref | Name | Ref | Name | Ref | Name |
|-----|--|-----|--------------------|-----|--------------------|
| 1 | Power Input | 5 | VGA Output | 9 | USB 3.0 Port |
| 2 | On/Off Button | 6 | RS232 Port | 10 | RJ45 Port (1000 M) |
| 3 | PoE Ports (x16) | 7 | Audio Input/Output | | |
| 4 | Alarm Input/Output and RS485 Connections (A/B) | 8 | HDMI Output | | |

4 Installing the Hard Drive

The NVR provides two (2) SATA III Ports that can each accommodate a 6 TB HDD rated at 7200 RPM or higher. The installation requires a Phillips-head screwdriver.

1. **Shut down the device and then unplug the power cable before you open the case to replace the HDD**
2. Loosen the screws on the rear panel and side panels and remove the upper housing.



3. Place the HDD under the HDD bracket in the chassis and align the four screw holes. Affix the HDD to the chassis using a Philips screwdriver.



4. Connect the HDD data cable to the main board on the NVR and to the respective port on the HDD. Connect the HDD power cable from the main board to the HDD.



5. Replace the upper housing and affix to the main body of the NVR. Connect the incoming power cable to the NVR then plug the other end into a mains outlet.



5 NVR Setup

5.1 Making Connections

1. Determine where you will install your system.
2. Ensure the input voltage matches the rated power requirements for the device. Ensure the power supply delivers a stable current. It is recommended to use a UPS to ensure a stable current.
3. Connect a VGA or HDMI cable to the rear panel and to the display.
4. Connect the mouse to the USB port on the rear panel.
5. Connect a network cable to the NVR and to a router or a modem.
6. Connect the power cable to your system and surge protector. The NVR enters the boot mode after power is applied and the NVR defaults to the multiple-window video mode.

5.2 Logging In

After the initial startup, the NVR opens the Admin Security page where you must supply the default username and password and then set your own credentials.

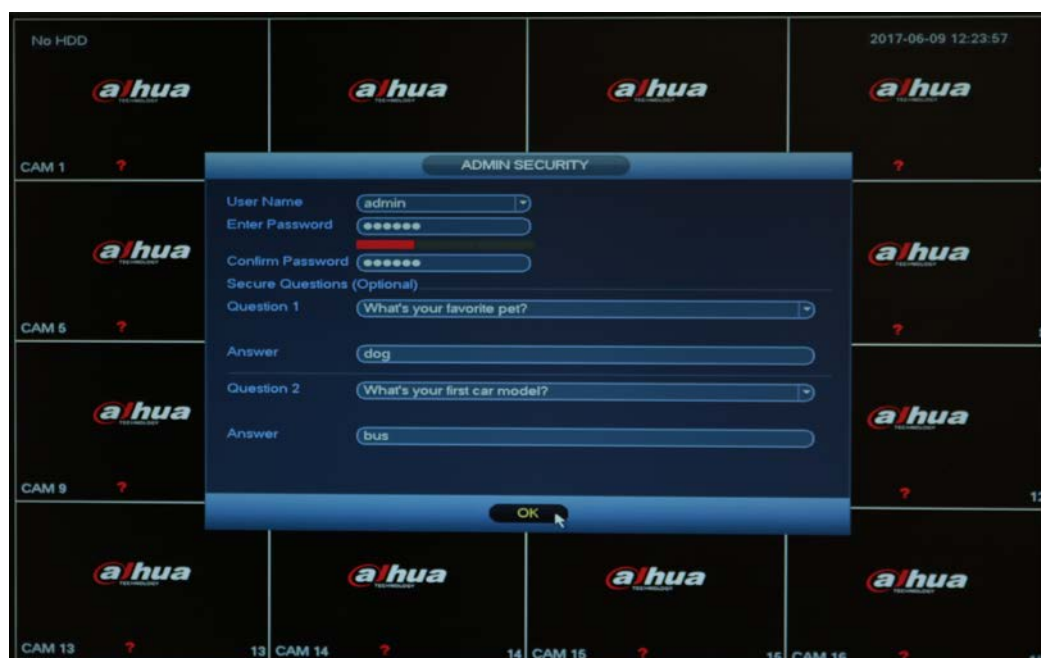


Figure 5-1

1. Select “admin” from the User Name pull-down menu.
2. Type a unique password for the admin account.
3. Type the same password in the Confirm Password field.
4. Supply answers for the security questions. This step is optional but aids in password recovery.
5. Click OK. The NVR opens the Setup Wizard to configure the following areas:
 - General: Device ID and operation, date/time, holiday schedule.
 - Encode: Video and audio settings for each channel.
 - Schedule: Recording schedule configuration.
 - Record: Main stream and sub-stream settings.
6. Click OK at the last wizard screen to set the parameters. Right-click anywhere in the NVR screen to access the settings menu again.

Note:

- Three login failures within 30 minutes causes the system to issue an alarm.
- Five login failures within 30 minutes causes the system to lock the account.

6 Smart Add

When the network camera(s) and the NVR are connected to same router or switch, you can use the Smart Add function to add all network cameras to the NVR at the same time.

There are two methods to access the Smart Add interface:

1. Click the Smart Add button from the Startup Wizard screen.



Figure 6-1

2. Right-click the Preview Interface and select Smart Add.

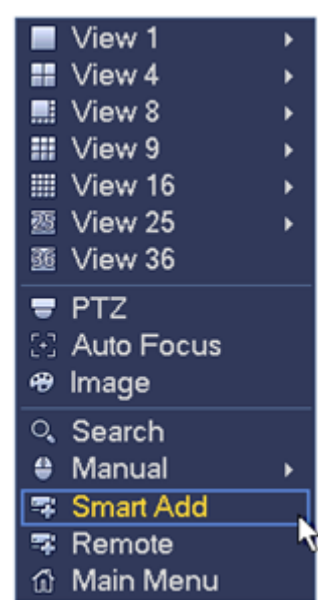


Figure 6-2

7 Adding a Remote Device

1. Access the Main Menu for the NVR.
2. Select the Settings page, then select the Camera tab and click the Remote link in the left pane.



Figure 7-1

3. Click the Device Search button, located in the upper frame, to search for remote devices on the network.
4. Double-click an IP address or check multiple devices and click the Add button to add the device to the Added Device list.

8 Accessing the NVR via the Web

The NVR can be accessed directly from the Internet Explorer Web browser. The Web Interface allows you to set parameters, configure inputs and outputs, set recording options, view live camera images, and review recorded video.

Note: Different devices may have different Web interfaces, the figures below are for reference only, and may not represent the Web Interface for your device.

1. Launch Internet Explorer and type the NVR's IP address in the address bar. Internet Explorer opens the Login page.
2. Click Yes to install webrec.cab when the system displays the installation prompt. (Note: If you receive an error that the computer cannot download the ActiveX file, please modify the security settings in Internet Explorer to accept ActiveX downloads.)
3. Type the Username and Password for the device. Then, click Login. The default Username and Password "admin".

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



Figure 8-1

4. Refer to the CD included in the packaging for detailed operating instructions.



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