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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 on the company Website (<http://www.hikvision.com/us>). Use this Manual under the guidance of professionals.

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Regulatory Information

FCC Information

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 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



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 2004/108/EC, 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: 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: www.recyclethis.info.

Industry Canada ICES-003 Compliance: This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

Safety Instruction: These instructions are intended to ensure that the user uses the product correctly to avoid danger or property loss. The precautions are divided into "Warnings" and "Cautions."



WARNINGS: Follow these safeguards to prevent serious injury or death; serious injury or death may occur if any of the warnings are neglected.

- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.
- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region. Refer to technical specifications for detailed information.
- Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with 24 VAC or 12 VDC according to the IEC60950-1 standard. 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.
- Make sure that the plug is firmly connected to the power socket. When the product is mounted on wall or ceiling, the device shall be firmly fixed.
- If smoke, odor, or noise rise from the device, turn off the power at once and unplug the power cable, and then contact the service center.

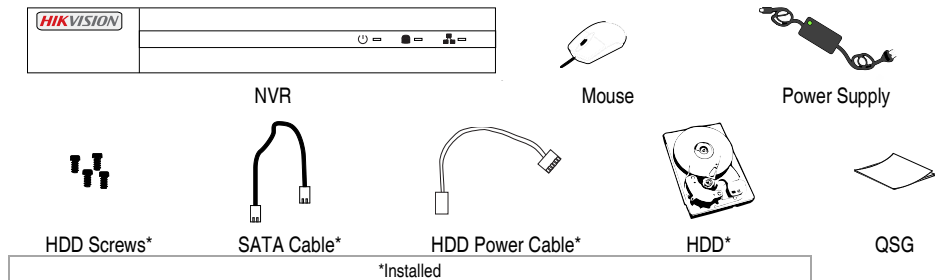


CAUTIONS: Follow these precautions to prevent potential injury or material damage; injury or equipment damage may occur if any of the cautions are neglected.

- Make sure the power supply voltage is correct before using the device.
- Do not drop the device or subject it to physical shock.
- If cleaning is necessary, use clean cloth with a bit of ethanol and wipe it gently. If the device will not be used for an extended period, protect it from dirt.
- Do not place the device in extremely hot, cold, dusty, or damp locations, and do not expose it to high electromagnetic radiation. Do not operate product in outside of its stated environmental specs.
- To avoid heat accumulation, good ventilation is required for the operating environment.
- Keep the device away from liquids while in use.
- While in delivery, the device shall be packed in its original packing, or packing of the same durability.
- Regular part replacement: some equipment parts (e.g., electrolytic capacitor) shall be replaced regularly according to their average endurance time. The average time varies because of differences between operating environments and usage history, so regular checking is recommended for all users. Contact your dealer for more details.
- 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.
- If the product does not work properly, contact your dealer or the nearest service center. Never attempt to disassemble the device yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)

WHAT'S IN THE BOX

Make sure the following items are in your box:



MENU TREE

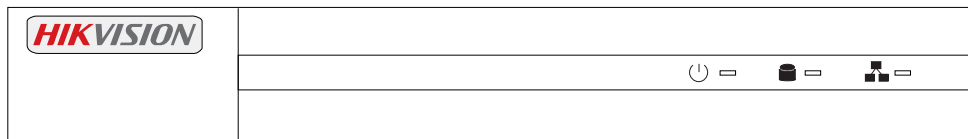
Menu

Playback	Export	Manual	HDD	Record	Camera	Configuration	Maintenance	Shutdown
	Normal Event	Record Alarm	General Advanced	Schedule Parameters Advanced Holiday	Camera OSD Image PTZ Motion Privacy Mask Video Tampering Video Loss VCA	General Network Alarm RS-232 Love View Exceptions User	System Info Log Information Import/Export Upgrade Default Net Detect HDD Detect System Service	Logout Shutdown Reboot

INSTALLATION TIPS

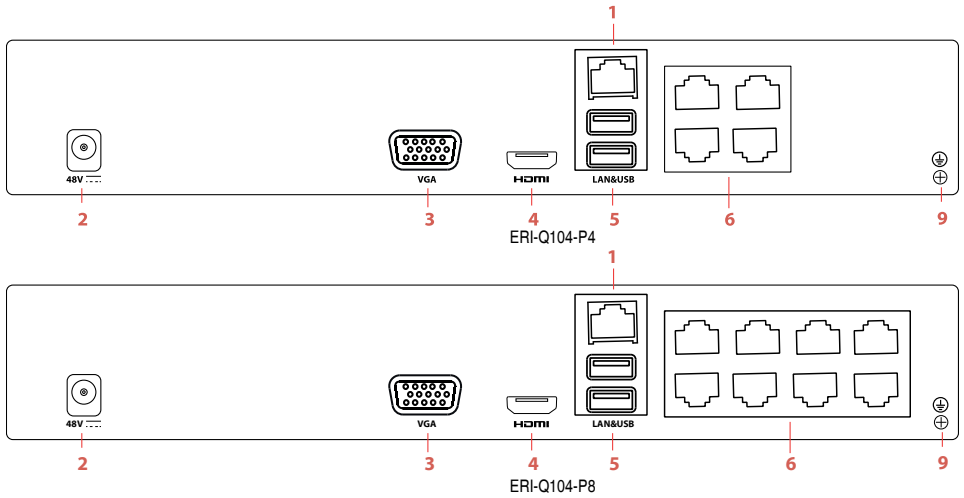
- Ensure ample room for audio and video cables.
- When routing cables, ensure that the bend radius of the cables are no less than five times than its diameter.
- Ensure the NVR is grounded.
- Environmental temperature should be within the range of -10° to $+55^{\circ}$ C, $+14^{\circ}$ to $+131^{\circ}$ F.
- Environmental humidity should be within the range of 10% to 90%.

FRONT PANEL



No.	Icon	Description
1		Indicator turns green when DVR is powered up.
2		Indicator lights when data is being read from or written to HDD.
3		Indicator blinks when network connection is functioning properly.

REAR PANELS



No.	Item	Description
1	LAN	Connector for network
2	Power Supply	Input: 100 to 240 VAC Output to NVR: 48 VDC
3	VGA	DB-15 connector for VGA output. Displays local video output and menu.
4	HDMI	HDMI video output connector
5	USB Interface	Universal Serial Bus (USB) port for additional devices
6	PoE/IP Camera Inputs	PoE out and IP camera inputs
7	---	---
8	AUDIO IN/OUT	RCA connectors
9	Ground	Grounding screw

1 CONNECTING DEVICES


- Connect power supply to NVR and plug into 110 to 240 VAC outlet (surge suppressor recommended).
- Connect NVR to LAN using Cat 5e cable.
- Connect video monitor(s) to NVR using HDMI and/or VGA cables, as appropriate.
- Connect mouse to USB port (wireless mouse can be used in lieu of included mouse).
- Connect to audio I/O using RCA connectors.
- Turn power switch on. Power indicator LED will remain on to indicate unit is starting/on.

2 STARTUP

- Proper startup is crucial to expanding the life of the NVR.
- Check the power supply is plugged into an electrical outlet.
- It is HIGHLY recommended that an Uninterruptible Power Supply (UPS) be used in conjunction with the device.
- The Power LED should turn green. The unit will start.

3 ACTIVATING YOUR DEVICE

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.

1. Enter the same password in the **Create New Password** and **Confirm New Password** text fields.
2. Enter a different password for **IP Camera Activation** (click  to show password to ensure you enter it correctly).
3. Click **OK** to save the password and activate the device.



WARNING

STRONG PASSWORD RECOMMENDED

We highly recommend that you create a strong password of your own choosing (using a minimum of eight characters, including at least three of the following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. We recommend that you reset your password regularly. Especially in high security systems, resetting the password monthly or weekly can better protect your product.

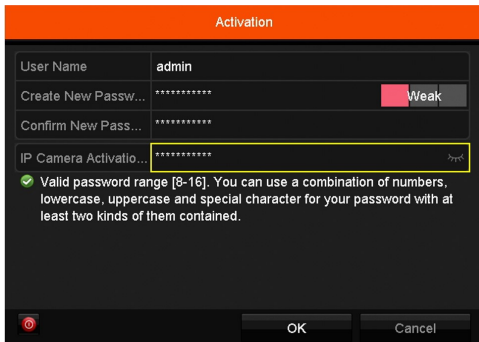



Figure 1-1 Set Admin Password



NOTE

Clear-text password is supported. Click  to show the password. Click again to hide.

• Using the Unlock Pattern for Login

You can configure a device unlock pattern for Admin login once the device is activated.

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



NOTE

Connect at least four dots to draw the pattern.

Each dot can be connected only once.

2. Draw the pattern again to confirm it. When the two patterns match, the pattern is configured successfully.
3. You can use the unlock pattern for future logins.

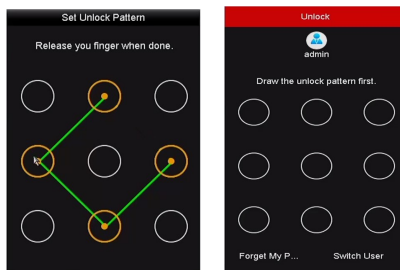


Figure 1-2 Draw the Pattern

4 USER LOGIN

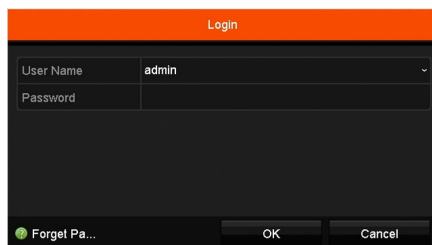
If the NVR logs out, you must log in to the device before operating the menu and other functions.

1. Select the **User Name** in the drop-down list.
2. Enter the Password.
3. Click **OK** to log in.



NOTE

If the admin enters the wrong password seven times, the account will lock for 60 seconds. If an operator enters the wrong password five times, the account will lock for 60 seconds.



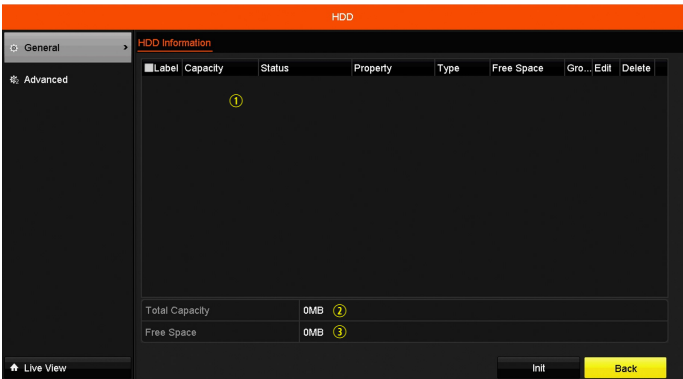
5 STARTUP WIZARD

The NVR presents users with a Setup Wizard upon startup, which will prompt users step-by-step through most basic settings. This Wizard will run every time unit boots up until the user unchecks the “Start Wizard Box.” The Startup Wizard will assist in the setup of most of the items covered in this Quick Start Guide. Please use this QSG as a reference to assist in the setup of the unit.

6 INITIALIZE THE HARD DRIVE (IF NEEDED)

System will beep/display “Do you want to initialize drive” if HDD(s) are not initialized. Click **Yes** to initialize.

1. Go to **Menu > HDD > General**.
2. Use the checkboxes to select the HDDs that need to be initialized.
3. Press **INIT** (factory installed HDDs come initialized; initializing again will erase any record video).



The screenshot shows the 'HDD Information' menu. At the top, there is a table with columns: Label, Capacity, Status, Property, Type, Free Space, Gro...Edit, and Delete. A circled '1' is placed above the table. Below the table, there are two rows of summary information: 'Total Capacity' with a value of '0MB' and a circled '2', and 'Free Space' with a value of '0MB' and a circled '3'. At the bottom right, there are 'Init' and 'Back' buttons.

Label	Capacity	Status	Property	Type	Free Space	Gr...Edit	Delete
①							

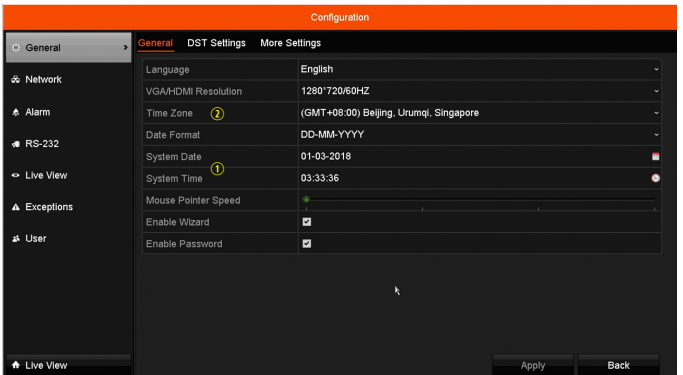
Total Capacity 0MB ②
Free Space 0MB ③

Init Back

- ① HDD LIST
- ② TOTAL HDD SPACE
- ③ FREE SPACE

7 SET DATE AND TIME

1. Go to **Menu > System Configuration > General**.



The screenshot shows the 'Configuration' menu with the 'General' tab selected. The settings listed are: Language (English), VGA/HDMI Resolution (1280*720@50HZ), Time Zone (GMT+08:00) Beijing, Urumqi, Singapore (with a circled '2'), Date Format (DD-MM-YYYY), System Date (01-03-2018 (with a circled '1')), System Time (03:33:36), Mouse Pointer Speed, Enable Wizard (checked), and Enable Password (checked). At the bottom, there are 'Apply' and 'Back' buttons.

Language English
VGA/HDMI Resolution 1280*720@50HZ
Time Zone ② (GMT+08:00) Beijing, Urumqi, Singapore
Date Format DD-MM-YYYY
System Date ① 01-03-2018
System Time 03:33:36
Mouse Pointer Speed
Enable Wizard
Enable Password

Apply Back

- ① DATE/TIME
Date and time settings
 - ② TIME ZONE
Time zone and daylight savings time settings
- NOTE:** You can enable NTP (Network Time Protocol) settings in **Menu > Configuration > Network > NTP**.

8 USER LOGOUT, SHUTDOWN, AND REBOOT

Log out, shut down, or reboot the device upon demand.

1. Go to **Menu > Shutdown**.
2. Click **Logout**, **Shutdown**, or **Reboot**.



NOTE

After logging out, operations are invalid. Enter user name and password to unlock the system.

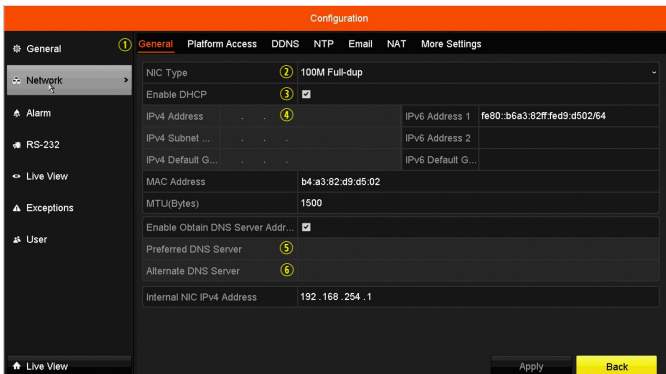
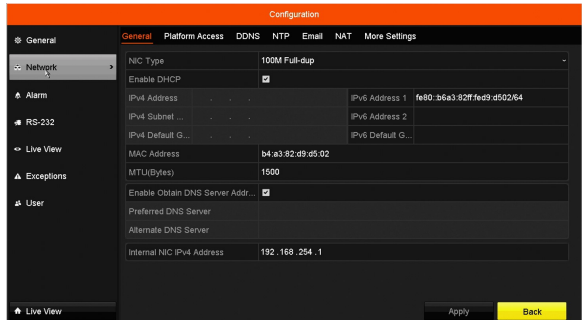


9 NETWORK SETTINGS

Properly configure the network settings before operating the NVR over a network.

• General Network Settings

1. Go to **Menu > Configuration > Network > General**.
2. Configure the general network parameters.
3. Click **Apply** to save the settings.
4. Check the **Enable DHCP** checkbox.
5. Press **Refresh** to update the IPv4 address, subnet mask, and IPv4 default gateway.
6. **Disable DHCP** (uncheck the checkbox).
7. **Change** "Preferred DNS Server" value to 8.8.8.8 (leave Alternate DNS Server blank).



- 1 GENERAL TAB
- 2 NIC TYPE (Not changeable)
- 3 ENABLE DHCP
Check box to have router assign IP address (optional)
- 4 IP V4 ADDRESS
- 5 PREFERRED DNS SERVER
Default is 8.8.8.8
- 6 ALTERNATE DNS SERVER
Leave blank

• Set Remote Viewing Ports

After assigning the IP information, click the **More Settings** tab.



The **More Settings** tab contains the ports that need to be forwarded for remote access.

General	Platform Access	DDNS	NTP	Email	NAT	More Settings
Alarm Host IP						
Alarm Host Port	0					
Server Port	8000					
HTTP Port	80					
Multicast IP						
RTSP Port	10554					

- **SERVER PORT** is responsible for the mobile app and client software log-in
- **HTTP PORT** is responsible for Web browser log-in
- **RTSP PORT** is responsible for video/audio streaming

NOTE: The **HTTP port**, **server port**, and **RTSP port** can be changed to avoid conflicts with the ISP or if multiple devices are installed at a single location.

• Set Up Port Forwarding

Port forwarding redirects communication from one address/port number to another to make services on a protected network available to hosts on an external network.

1. Log into the router, and proceed with **port forwarding**. **Port forwarding** steps differ by router. For **port forwarding** assistance, contact your ISP, router manufacturer, or www.portforward.com.



NOTE

Hikvision is not associated with www.portforward.com and is not responsible for activity between user and www.portforward.com. Avoid downloading any software from the site.

2. Proceed to the **Routers** section on the Web site for step-by-step instructions.



NOTE

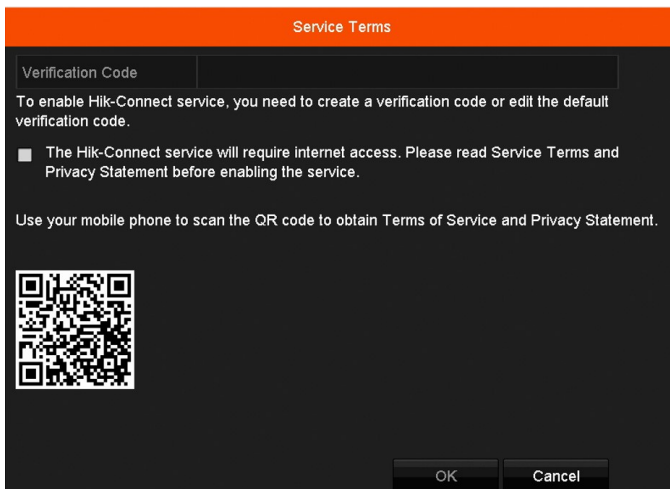
Ports 9010 and 9020 must not be blocked for the Hik-Connect Cloud service to work.

Use the Hik-Connect mobile app (from iOS App Store or Google Play) to create a Hik-Connect P2P Cloud account to connect Hikvision devices over the Internet.

10

SET UP HIK-CONNECT P2P CLOUD SERVICE

1. Enable Hik-Connect P2P on the device.
 - 1) Go to **Menu > Configuration > Network > Platform Access**.




10 SET UP HIK-CONNECT P2P CLOUD SERVICE (continued)

- 2) If the Server Address field is blank, check **Custom** checkbox and type “dev.us.hik-connect.com.”
- 3) Check the **Enable** checkbox to display the Service Terms screen.
- 4) Enter a user-created verification code (6-12 characters, a combination of digits, upper case letters, and lower case letters).
- 5) Check the “The Hik-Connect Service will require Internet access. Please read...” checkbox.
- 6) Click **OK**. Status will change to “Online” (if all settings are correct).
- 7) Note the Serial Number and Verification Code shown (for use when registering the NVR in your Hik-Connect account) or use the QR code displayed.

General	Platform Access	DDNS	NTP	Email	NAT	More Settings
Enable	<input type="checkbox"/>					
Access Type	Hik-Connect					
Server Address	dev.hik-connect.com				<input type="checkbox"/> Custom	
Enable Stream Encryption	<input checked="" type="checkbox"/>					
Verification Code						
Status	Offline					

2. To see a device’s video stream on the Hik-Connect or iVMS-4500 mobile app, add the device.
 - 1) Login to Hik-Connect mobile app with your user name, e-mail, or mobile number and password.
 - 2) Click “+” (upper right corner) on the Home screen.
 - 3) Enter the device’s information.
 - If you have device’s **QR Code**: Use the QR Code Scanner to scan the device’s **QR Code**.
 - If you do not have device’s **QR Code**: Enter the device information manually:
 - a. Click **Edit** (pencil) on top right corner.
 - b. Enter device serial number (device must be online), then click **OK**.
 - c. When the device appears on the “Results” screen, click **Add**.
 - d. Enter device’s 6-character Verification Code (all upper case), then click **OK**.
3. Click **Finish**.

11 ADD IP CAMERAS

1. Right click a window in **Live View** mode to display the menu. Online cameras in the same network segment will be detected and displayed in the camera list.
2. Select camera and click  to add it (using NVR’s **IP Camera Activation** password that was defined when the NVR password was defined) or click **One-touch Adding** to add first two cameras in list of three or more.

11 ADD IP CAMERAS (continued)

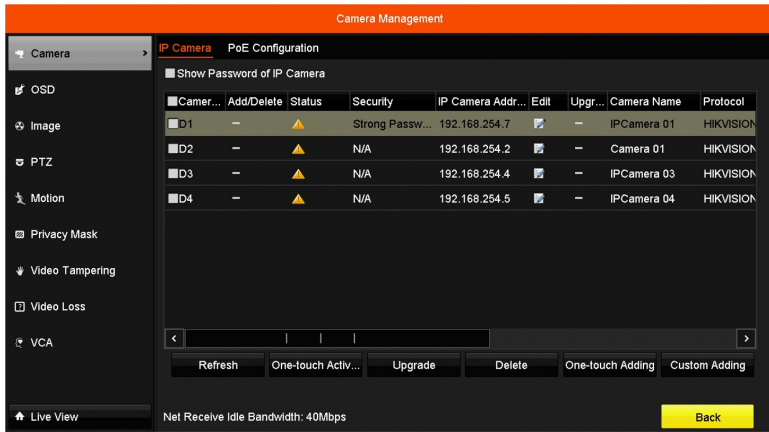
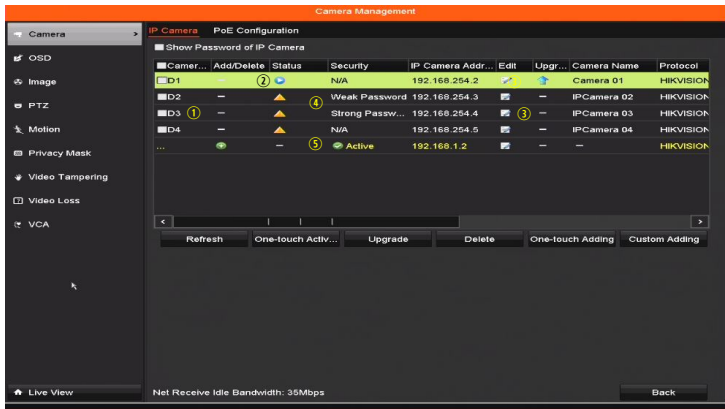


Figure 1, IP Camera Management Interface

IP Camera Management Icons





Icon	Explanation	Icon	Explanation
	Edit basic camera parameters		Upgrade the connected camera
	Camera disconnected; click icon to get camera's exception information		Delete the IP camera
	Play connected camera's live video		Camera connected



- 1 NVR CAMERA CHANNELS**
Cameras connected to NVR
- 2 PLAY**
Play camera's live video
- 3 EDIT (Pencil)**
Change IP address (in LAN range)
- 4 CAMERA LIST (White)**
Added cameras
- 5 LAN CAMERAS LIST (Yellow)**
Detected cameras will appear here

12 LIVE VIEW

In Live View mode, icons at the upper-right corner of the screen for each channel show the record and alarm status of the channel for quick reference.

-  Alarm (video loss, tampering, motion detection, VCA or sensor alarm)
-  Record (manual record, continuous record, motion detection, VCA or alarm triggered record)
-  Alarm and Record
-  Event/Exception (event and exception information appears at the lower-left corner of the screen)

13 RECORDING SETTINGS

Two record types are introduced in the following section: Instant Record and All-Day Record. For other record types, refer to the user manual.

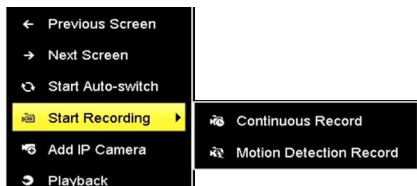
Before You Start

Make sure that the disk has been installed. If not, install and initialize a disk.

NOTE

After rebooting, all the manual records enabled are canceled.

1. Click **Start Recording** from the right-click menu.
2. Select **Continuous Record** or **Motion Detection Record** on your demand.
3. Click **Yes** in the pop-up box to confirm.



14 PLAYBACK

The recorded video files and pictures on the hard disk can be played back in the following modes: instant playback, all-day playback for the specified channel, and playback by normal/event/smart/tag/system logs/sub-periods/external file search/picture.

1. Go to **Menu > Playback**.
2. Check the channel(s) in the channel list for playback.
3. Double click a date on the calendar.
4. (Optional) Use the toolbar in the bottom part of Playback interface to control the playing progress.
5. (Optional) Select the channel(s) to execute simultaneous playback of multiple channels.

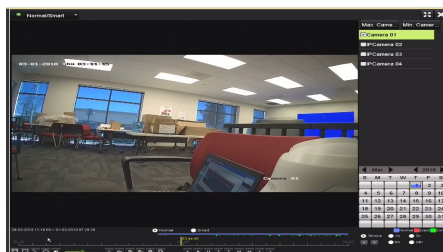


Figure 1-3 Playback

15 ACCESSING BY WEB BROWSER

You can access the device via Web browser. Use one of the following Web browsers: Internet Explorer 6.0, Internet Explorer 7.0, Internet Explorer 8.0, Internet Explorer 9.0, Internet Explorer 10.0, Apple Safari, Mozilla Firefox, or Google Chrome. The supported resolutions are 1024*768 and above.

15 ACCESSING BY WEB BROWSER (continued)



NOTE

You shall acknowledge that 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, contact your dealer or the nearest service center.

1. Open Web browser.
2. Enter the IP address of the device.
3. Press **Enter**.
4. Log in to the device.
 - If the device has not been activated, you must first activate the device by setting the admin user account password.
 - If the device is already activated, enter the user name and password in the login interface, and click **Login**.
5. Follow the prompts to install the installation plug-in before viewing the live video and managing the camera.



NOTE

Close the Web browser to finish the plug-in installation.

After login, you can operate and configure the device, including using live view, playback, log search, configuration, etc.

Activation

User Name admin

Password Strong

Valid password range [8-16]. You can use a combination of numbers, lowercase, uppercase and special character for your password with at least two kinds of them contained.

Confirm




OK

Login


16 BACK UP VIDEO RECORDINGS AND CLIPS

Back up recorded video clips to ensure important video is not lost or destroyed.



• Choose Recorded Video Clips to Back Up

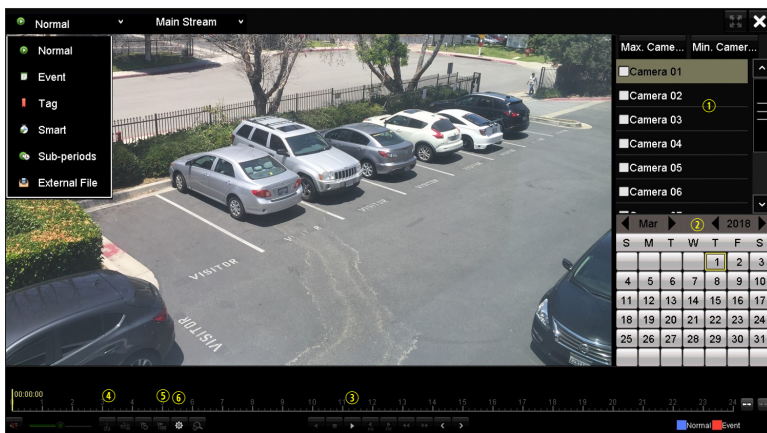
1. Connect a USB flash drive, HDD, or DVD writer to an available USB port (mandatory).
2. Go to **Menu > Playback**.
3. Select cameras for playback.
4. Select the beginning date and time of the incident.
5. Click **START CLIPPING**  icon.
6. Select the ending time of the incident.
7. Click **END CLIPPING**  icon (same as **START CLIPPING**). Clip will be marked.
8. Repeat steps 1-6 as many times as required.
9. Click **FILE MANAGEMENT**  icon to display a new window containing all marked clips.
10. Select the desired clips.
11. Click **EXPORT** to save files to the inserted USB device.

• Lock Video Clips

1. Click on the images of the clips you want to lock.
2. Press **LOCK**  to prevent the file from being erased.

• Back Up Video Clips

1. Connect a USB flash drive, HDD, or DVD writer to an available USB port.
2. Click **File Management**  icon to display the File Management window.
3. In the File Management window, choose video clip(s) to back up and click **Export**.
4. Choose backup device (USB flash drive, USB HDD, or DVD writer).
5. Click **Export** (to check backup, choose recorded file in Export interface and click ).



1 CAMERA LIST

Select cameras to view

2 CALENDAR

Select dates to view

3 PLAY/STOP

Toggles between Play and Stop

4 START/STOP CLIPPING

Toggles between Start Clipping and Stop Clipping

5 LOCK

Locks selected video clips to prevent them from being deleted

6 FILE MANAGEMENT ICON

Displays list of saved clips, export clips from this window



1 VIDEO CLIPS LIST

Select desired clips to export

2 EXPORT BUTTONS

Save clips to USB device



First Choice for Security Professionals