HIKVISION

Quick Start Guide (QSG): DS-720xHTI-Kx

About this Manual

This Manual is applicable to the Hikvision DS-720xHTI-Kx TurboHD Digital Video Recorder (DVR).

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. Find the latest version in the company Web site at (http://overseas.hikvision.com/en/).

Please use this user manual under the guidance of professionals.

Trademarks Acknowledgement

HIKVISION and other Hikvision trademarks and logos are the properties of Hikvision in various jurisdictions. Other trademarks and logos mentioned below are the properties of their respective owners.

Legal Disclaimer

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 LVD Directive 2014/35/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: 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.

Symbol Conventions

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

Symbol	Description
⚠ NOTE	Provides additional information to emphasize or supplement important points of the main text.
⚠ WARNING	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
⚠ DANGER	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.

Safety Instructions

- 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 100 to 240 VAC, 12 VDC, or 48 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.
- 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.

Preventive and Cautionary Tips

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

- Ensure unit is installed in a well-ventilated, dust-free environment.
- Unit is designed for indoor use only.
- Keep all liquids away from the device.
- Ensure environmental conditions meet factory specifications.
- Ensure unit is properly secured to a rack or shelf. Major shocks or jolts to the unit as a result of dropping it may cause damage to the sensitive electronics within the unit.
- Use the device in conjunction with an UPS if possible.
- Power down the unit before connecting and disconnecting accessories and peripherals.
- Use only a factory recommended HDD 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.

Mandatory Electrical Requirements

Hikvision requires the following conditions and equipment for all of its electronic equipment:

- **Grounding**

  Ensure good conductivity for all ground paths; examine ground path contact surfaces for defects, dirt, corrosion, or non-conductive coatings that may impede conductivity. Repair or clean contact surfaces as necessary to assure good metal-to-metal contact. Ensure fasteners are properly installed and tightened.

- **Electrical Wiring**

  Ensure your outlets are properly wired. They can be checked with an electrical outlet tester.

- **Surge Suppressor (Required)**

  Hikvision is not responsible for any damage to equipment caused by power spikes in the electrical power grid. Use of a surge suppressor meeting the following specifications is mandatory for all Hikvision electronic equipment:

- **Specifications**
  - Listed by Underwriter's Laboratories, meeting the UL 1449 Voltage Protection Rating (VPR)
  - Minimum protection of 1,000 joules or higher
  - Clamping voltage of 400 V or less
  - Response time of 1 nanosecond or less

- **Usage**
  - Surge suppressors must not be daisy chained with power strips or other surge suppressors

- **Maintenance**
  - Replace after a serious electrical event (e.g., lighting blew out a transformer down the street)
  - Replace yearly in storm-prone areas
  - Replace every two years as routine maintenance

■ WHAT'S IN THE BOX

DVR

Mouse

Remote

Power Supply

HDD

HDD Screws
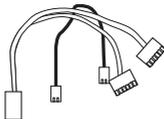
HDD Power and Data Cables

QSG
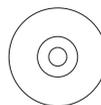
CD Documentation

■ FRONT PANEL
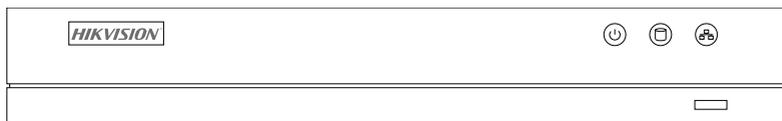
Figure 1 DS-7204HTI-K1
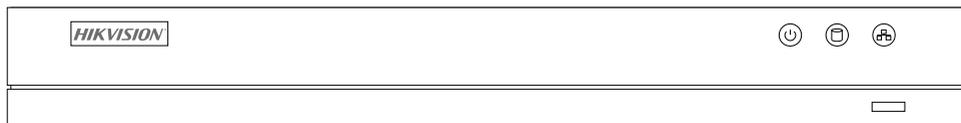
Figure 2 DS-7208HTI-K2

■ REAR PANEL

The rear panel interfaces vary by model. See Table 1-1 for the common rear panel interface descriptions.
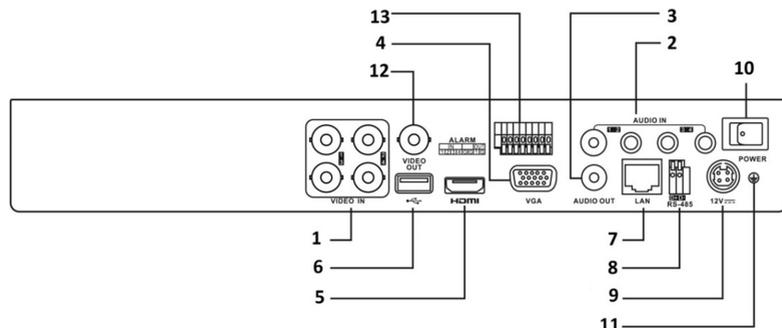
Figure 3 DS-7204HTI-K1
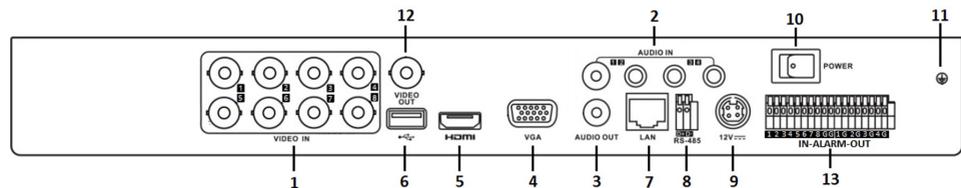
Figure 4 DS-7208HTI-K2

Table 1-1 Common Rear Panel Interface Descriptions

Item	Description	Item	Description
1. VIDEO IN	BNC for TurboHD and analog video	8. RS-485 Interface	Connector for RS-485 devices
2. AUDIO IN	RCA connector	9. Power Supply	12 VDC
3. AUDIO OUT	RCA connector	10. Power Switch	Switch for turning on/off the device
4. VGA OUT	DB15 connector for local video, menu	11. GND	Ground
5. HDMI	HDMI video output connector	12. VIDEO OUT	BNC connector for video output
6. USB Interface	USB port for additional devices	13. ALARM IN/OUT	Connector for alarm input/output
7. LAN	Connector for network		

1 INSTALLATION

■ **DVR Installation**

During DVR Installation

- Use brackets for rack mounting.

- 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 its diameter.

- Connect the alarm cable.

- Allow at least 2 cm (~0.75") of space between rack-mounted devices.

- Ensure the DVR is grounded.

- Environmental temperature should be within the range of +14 to +131° F (-10° to +55° C).

- Environmental humidity should be within the range of 10% to 90%.

■ **Hard Disk (HDD) Installation**

Before You Start

Before installing an HDD, disconnect power from the DVR. Use only a factory recommended HDD.

One or two SATA hard disks can be installed depending on DVR model.

- **Tools Required:** Screwdriver

> ℹ️ **NOTE**
> As the HDD installation steps are similar among different models, here is just an example.

1. Remove the cover from the DVR by unfastening the screws on the back side.

Figure 1-2 Remove Cover

2. Connect one end of the data cable to the DVR motherboard and the other end to the HDD.
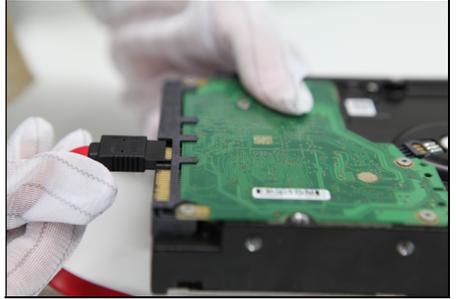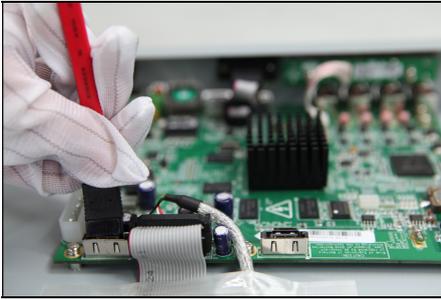
Figure 1-3 Connect Data Cable

3. Connect the power cable to the HDD.
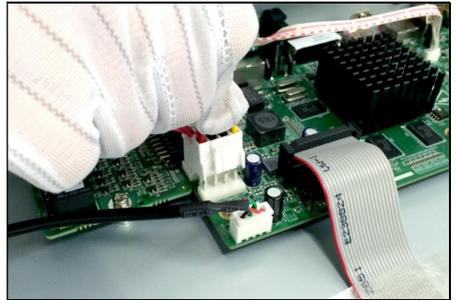
Figure 1-4 Connect Power Cable

4. Place the HDD on the bottom of the device, then fasten the screws on the bottom to affix the HDD.

5. Re-install the DVR cover and fasten screws.

Figure 1-5 Affix Hard Disk

■ **Connecting PTZ to the DVR**

1. Disconnect *pluggable block* from the RS-485 terminal block.

2. Connect A+ on PTZ to D+ on terminal block and B- on controller to D- on terminal block.

3. Fasten stop screws.

4. Connect pluggable block back into terminal block.

   NOTE
   Make sure both the controller and the DVR are grounded.
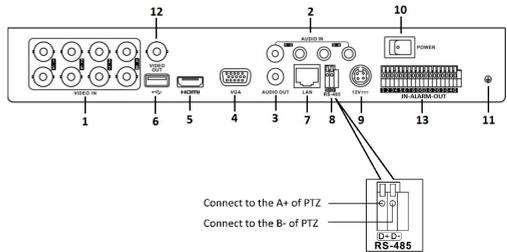
Figure 1-6 Controller Connection A (Typical)

2 MENU OPERATION

■ **Startup**

Proper startup is crucial to extending the life of the DVR.

It is HIGHLY recommended that an Uninterruptible Power Supply (UPS) be used in conjunction with the device. The **Power** light on the front panel should be red, indicating the device is receiving power.

1. Check that the power supply is plugged into an electrical outlet.

2. Press the **Power** button on the rear panel. The Power LED should turn blue. The unit will start.

■ **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 a Web browser, SADP, or client software.

1. Enter the same password in the text fields of **Create New Password** and **Confirm New Password**.

2. In the **IP Camera Activation** text field, enter the password to activate the IP camera(s) connected to the device.

3. Click **OK** to save the password and activate the device.

   NOTE
   Click ◉ to see password text. Click again to hide password.
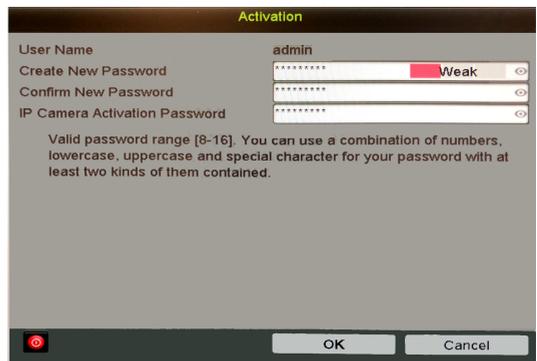
Figure 1-7 Set Admin Password

> ⚠️ **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 also recommend that you reset your password regularly. Especially in high security systems, resetting the password monthly or weekly can better protect your product.

■ **Using the Unlock Pattern for Login**

For the Admin user, you can configure an unlock pattern for device login after the device has been activated.

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

   ℹ️ **NOTE**

   Connect at least four dots to draw the pattern.

   Each dot can be connected only once.

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

3. Use the unlock pattern for future logins.
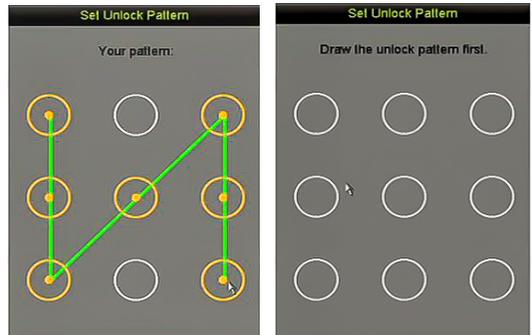
Figure 1-8 Draw the Pattern

■ **User Login**

If the DVR has logged out, you must log in to the device again 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.

   ℹ️ **NOTE**

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

Figure 1-9 Login

■ **User Logout, Shutdown, and Reboot**

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

1. Go to Menu > Shutdown.

2. Click **Logout**, **Shutdown**, or **Reboot**.

   NOTE
   After logging out of the system, menu operation on the screen is invalid. A user name and password must be entered to unlock the system.

Figure 1-10 Logout

■ **Viewing Signal Input Status**

The analog signal inputs (TurboHD, AHD, HD-CVI, CVBS) and IP signal input can be recognized and connected automatically. For some DVR series, you can configure 5 MP long distance transmission on the Signal Input Status interface. For other models, there is no Signal Input Status interface.

   NOTE
   The following steps are for configuring 5 MP long distance transmission for DVRs that support this feature.

1. Go to Menu > Camera > Signal Input Status.

2. Click ▣ to enter the 5 MP Long Distance Transmission Settings interface.

3. Check the channel(s) to enable 5 MP long distance transmission.

4. Click **Apply** to save the settings and **OK** to return to the Signal Input Status interface.
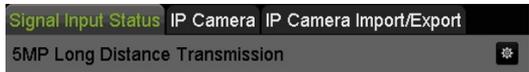
Figure 1-11 Signal Input Status

Figure 1-12 5 MP Long Distance Transmission Settings

3 ADDING CAMERAS

■ **Adding IP Cameras**

Before you can view live video or record video files, you must add the network cameras to the device's connection list.

Before You Start

Ensure the network connection is valid and correct, and the IP camera to add has been activated. Refer to the camera's user manual for steps to activating an inactive IP camera.

1. Go to Menu > Camera > IP Camera.

2. Select the IP camera from the list and click ⊕ to add the camera (with the DVR's admin password).

3. (Optional) Check **Enable H.265 (For Initial Access)** for the connected IP camera supporting H.265. Then the IP camera will be encoded with H.265.
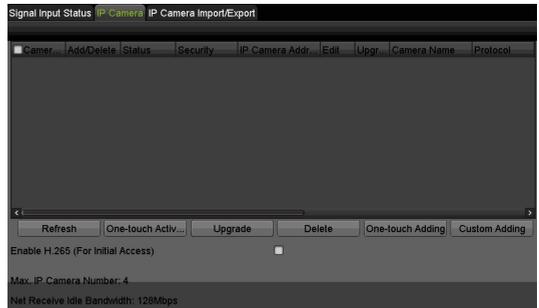

Figure 1-13 Add IP Camera

■ **Adding Analog Cameras**

• **Connect Analog Cameras**
  Connect analog camera(s) to the "Video In" BNC connectors.

• **Enabling Analog Cameras**
  Analog cameras are enabled by default; no further action is required.

4 NETWORK SETTINGS

■ **Configuring General Settings**

Network settings must be properly configured before operating the DVR over a network.

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

2. Configure the network's general parameters.

3. Click **Apply** to save the settings.
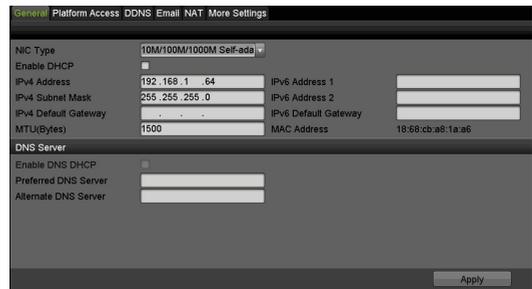
Figure 1-14 Network Settings

■ **Configuring Hik-Connect**

Hik-Connect provides a mobile phone application and a service platform page (*www.hik-connect.com*) to remotely access and manage a connected DVR.

📋 **NOTE**
> Hik-Connect can be enabled via SADP software, the DVR GUI, or a Web browser. We introduce the operation steps on the DVR GUI in this section.

1. Go to Menu > System Configuration > Network > Platform Access.

2. Check the **Enable** checkbox to activate the function and display the **Service Terms** interface.

Figure 1-15 Hik-Connect Settings

   1) Create the verification code and enter the code in the **Verification Code** text field.

   2) Check the **The Hik-Connect service will require internet access. Please read Service Terms and Privacy Statement before enabling the service** checkbox.

   3) Scan the QR code on the interface to read the Service Terms and the Privacy Statement.

   4) Click **OK** to save the settings and return to the Hik-Connect interface.

Figure 1-16 Service Terms

3. (Optional) Check **Custom** and enter the **Server Address**.

4. (Optional) Check **Enable Stream Encryption**. After this feature is enabled, the verification code is required for remote access and live view.

Figure 1-17 Hik-Connect Settings

📋 **NOTE**
> Use your phone's scanning tool to get the device code quickly by scanning the QR code.

5. Click **Apply** to save the settings.

📋 **NOTE**
> Hik-Connect is disabled by default.
>
> The verification code is empty when the device leaves the factory.
>
> The verification code must contain 6 to 12 letters or numbers and is case sensitive.
>
> Every time you enable Hik-Connect, the Service Terms interface pops up and you must check the checkbox before enabling it.

■ **Downloading the Hik-Connect App**

Access and manage the DVR with your mobile phone or the *www.hik-connect.com* Web site.

- iOS Users: Scan the following QR code to download the Hik-Connect application for subsequent operations.

- Android Users: Scan the following QR code to download the Hik-Connect application for subsequent operations.

Figure 1-18 QR Code for iOS Users

Figure 1-19 QR Code for Android Users

ℹ NOTE
You must install Google Play on your Android mobile phone to skip to the address successfully.

ℹ NOTE
Refer to the help file on the *www.hik-connect.com* Web site and the *Hik-Connect Mobile Client User Manual* for adding the device to Hik-Connect and more operation instructions.

5 L I V E   V I E W

■ **Icons**

Icons on screen in Live View mode indicate camera status. These icons include:

- **Live View Icons**

In live view mode, there are icons at the upper-right corner of the screen for each channel, showing the status of the record and alarm in 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)

■ **Recording Settings**

Two kinds of record types are introduced in the following section, including Instant Record and All-Day Record. For other record types, refer to the user manual for detailed information.

Before You Start

Make sure that a hard disk has been installed. If not, install and initialize a hard disk. Refer to the user manual for detailed information.

NOTE
After rebooting, all the enabled manual records 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 the settings.
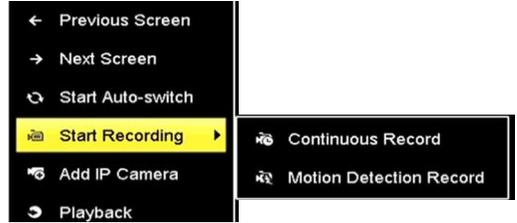
Figure 1-20 Start Recording from Right-Click Menu

■ **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 of the Playback interface to control the playing progress.

5. (Optional) Select the channel(s) to execute simultaneous playback of multiple channels.
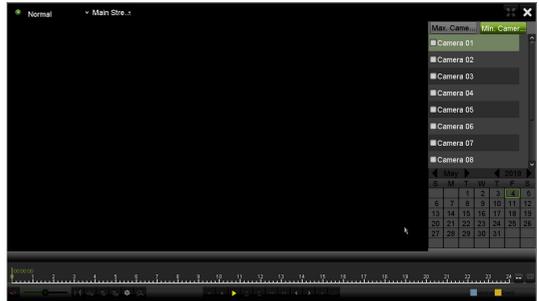
Figure 1-21 Playback

6 ACCESSING BY WEB BROWSER

NOTE
You shall acknowledge that the use of the product with Internet access might be under network security risks. To avoid network attacks and information leakage, strengthen your protection. If the product does not work properly, contact your dealer or the nearest service center.

You can access the device via a 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. Supported resolutions include 1024*768 and above.

1. Open a Web browser, enter the device's IP address, and then press **Enter**.

2. Log in to the device.

   - If the device has not been activated, you need to 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 in the login interface, and click **Login**.

3. Install the plug-in before viewing the live video and managing the camera. Follow the prompts to install the plug-in.

   NOTE

   You might have to close the Web browser to finish installing the plug-in.

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

Figure 1-22 Activate the Device

Figure 1-23 Login

First Choice for Security Professionals