

AXIS Camera Station S22 Appliance Series

AXIS Camera Station S2208 Appliance

AXIS Camera Station S2212 Appliance

AXIS Camera Station S2216 Appliance

AXIS Camera Station S2224 Appliance

AXIS Camera Station S22 Appliance Series

About your device

About your device

AXIS Camera Station S22 Appliance series is an all-in-one recording solution with integrated, manageable PoE switch designed to deliver reliable high-definition surveillance with up to 4K resolution. For quick and easy installation, the appliance series is preconfigured and preloaded with AXIS Camera Station video management software including licenses plus all necessary system software. AXIS Camera Station offers an intuitive user interface that allows users to take full advantage of Axis wide range of video surveillance cameras and other IP products. With the operating system stored on a solid-state drive (SSD) and 5-year hardware warranty, the appliance series provides a reliable surveillance solution.

An AXIS Camera Station S22 Appliance consists of two parts:

- **Switch:** Built-in Power over Ethernet (PoE) switch.
- **Computer:** Preloaded with all necessary software you need to create a surveillance solution including the video management software AXIS Camera Station.

- The switch and computer are two separate parts.
- The switch and computer communicate through the internal uplink connectors: one is located on the switch Power Circuit Board and the other is located on the computer motherboard.
- The server uplink U2 is an external network interface that can connect to an existing network.
- Devices connected to server uplink U2 can not communicate with devices connected to the switch directly.
- Devices connected to server uplink U2 can communicate with devices connected to the switch through AXIS Camera Station.

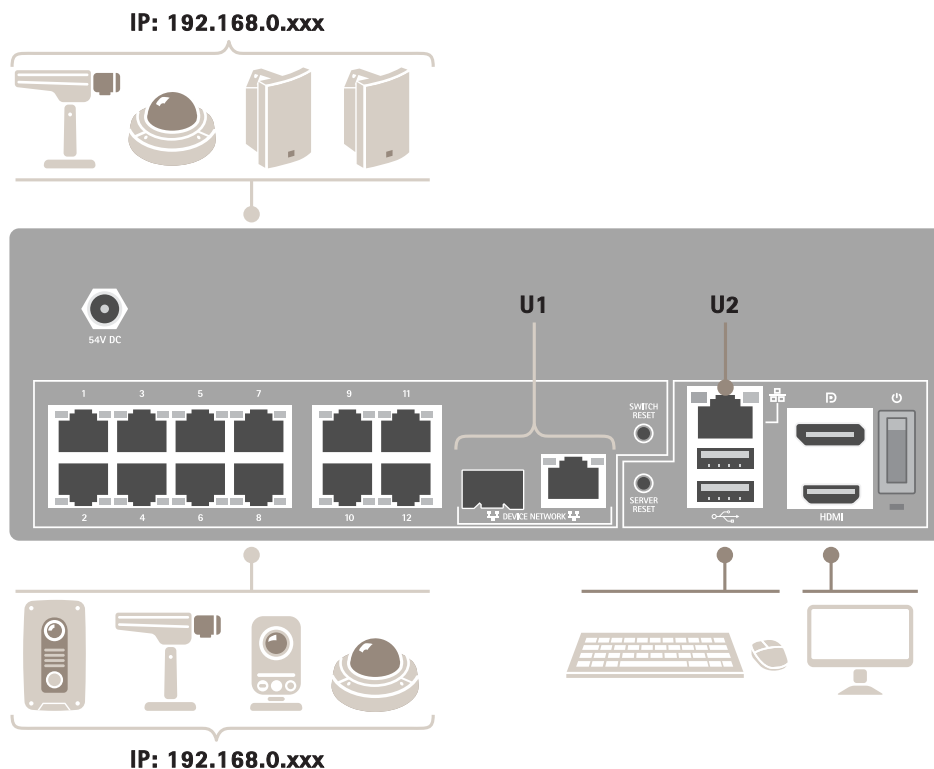
AXIS Camera Station S22 Appliance Series

Setup examples

Setup examples

Setup in an independent surveillance network

You can create an independent surveillance network which has no interconnectivity to another external network. This setup is a basic plug and play installation. The built-in switch's DHCP server is enabled by default. As soon as you plug the cameras into the PoE ports, the cameras will power on and obtain an IP address and be accessible via AXIS Camera Station.



Difficulty level	Basic
Benefits	Dedicated surveillance network with no interconnectivity to another external network Plug and play installation
Limitations	Bandwidth PoE budget No remote access
Actions needed	Change the default password for the built-in switch Register the AXIS Camera Station license
Connectors used	PoE enabled network connectors, port 1-12 USB 2.0 connector x2 (for keyboard and mouse) Displayport™ or HDMI connector
Connectors NOT used	RJ45 switch uplink (U1) SFP switch uplink (U1) RJ45 server uplink (U2) USB 3.0 connector (front side) Audio line in (front side) Audio line out (front side)

Setup in an existing network

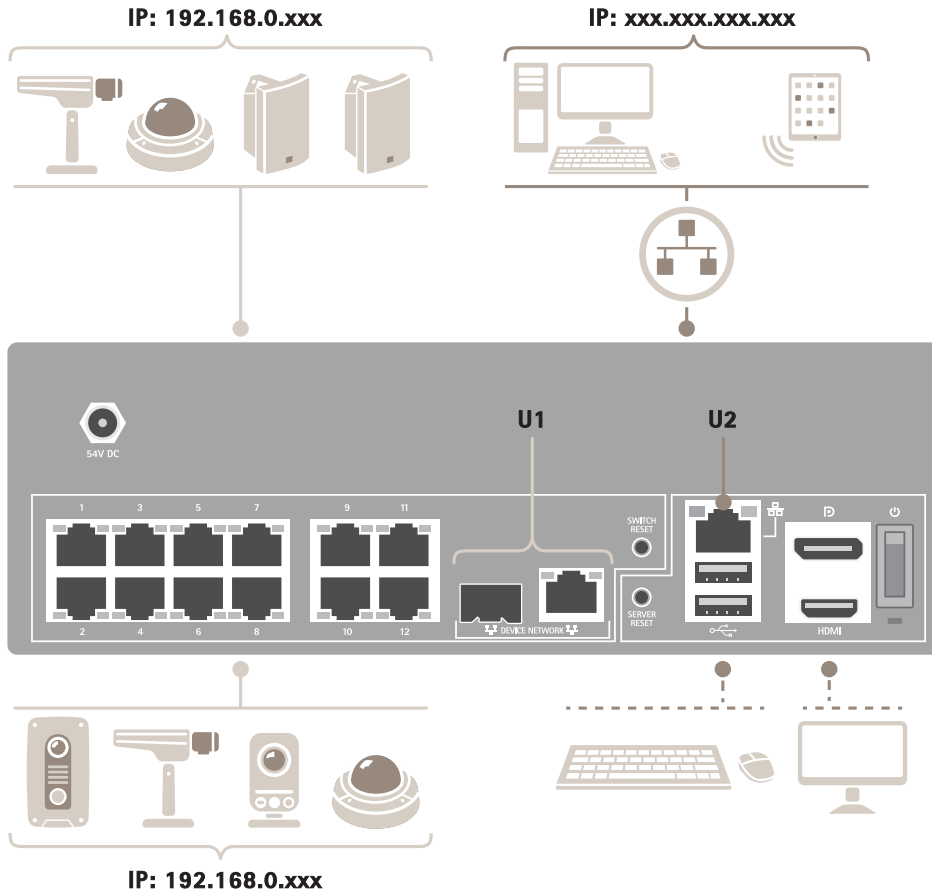
You can create a surveillance network within an existing network. This means that the surveillance network is separated from the existing network.

AXIS Camera Station S22 Appliance Series

Setup examples

Note

When you use an additional recorder, for example, the AXIS S30 Recorders, the appliance does not route network data from the surveillance network to the server network for recording. Make sure that the AXIS S30 Recorders are connected to the same network as the cameras.



Difficulty level	Advanced
Benefits	Ability to use an AXIS Camera Station client to connect to S22 series over the network. Network segregation
Limitations	May require you to follow corporate network policies
Actions needed	Change the default password for the built-in switch Register the AXIS Camera Station license
Connectors used	PoE enabled network connectors, port 1-12 RJ45 server uplink (U2) for connection to network (Optional) USB 2.0 connector x2 (for keyboard and mouse) (Optional) Displayport™ or HDMI connector
Connectors NOT used	RJ45 switch uplink (U1) SFP switch uplink (U1) USB 3.0 connector (front side) Audio line in (front side) Audio line out (front side)

AXIS Camera Station S22 Appliance Series

Get started

Get started

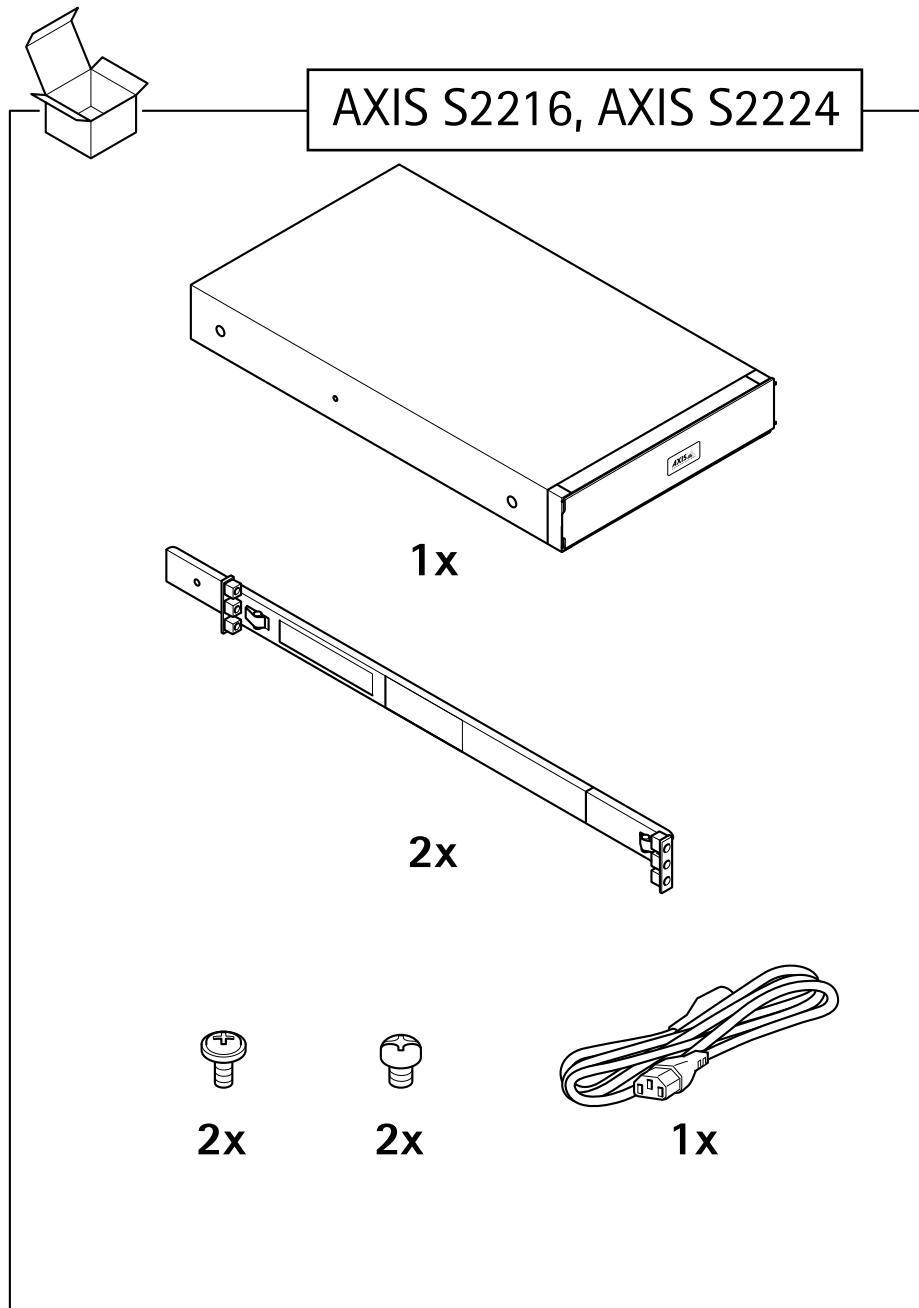
The standard workflow to configure an AXIS Camera Station recorder is:

- 1.
2. Configure Windows®. We recommend to:
 - Update Windows® to the latest version. See
 - Create a standard user account. See
- 3.
4. Update AXIS Camera Station to the latest version.
 - If your system is online: open the AXIS Recorder Toolbox app and click **Update AXIS Camera Station**.
 - If your system is offline: go to *axis.com* and download the latest version.
- 5.
6. Register you AXIS Camera Station licenses.
 -
 -
7. Connect your system to the AXIS Camera Station mobile viewing app. See *Configure AXIS Secure Remote Access*

AXIS Camera Station S22 Appliance Series

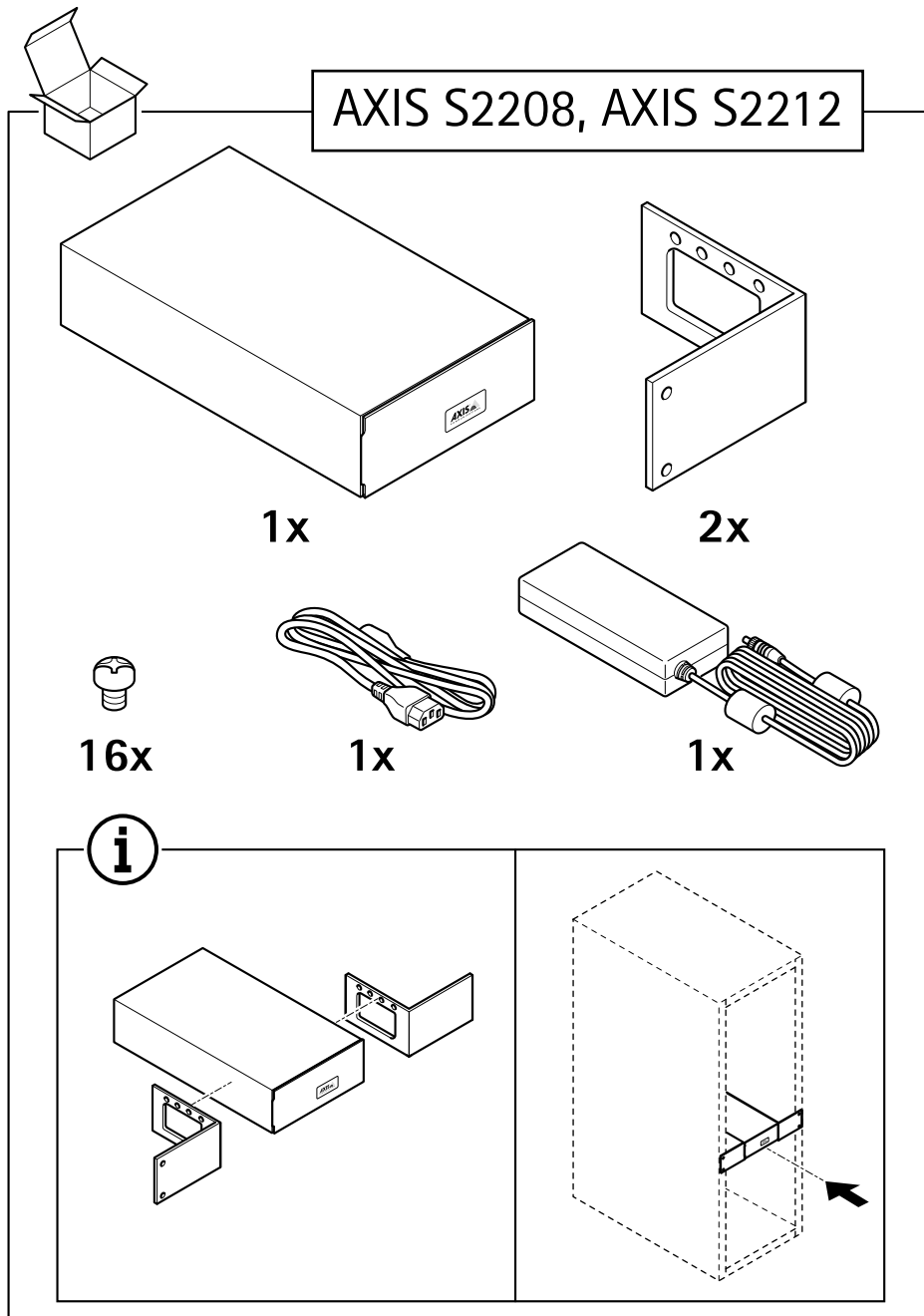
Install your device

Install your device



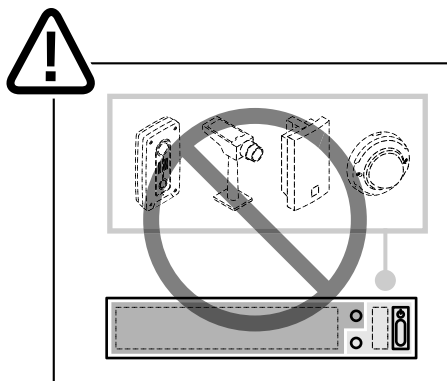
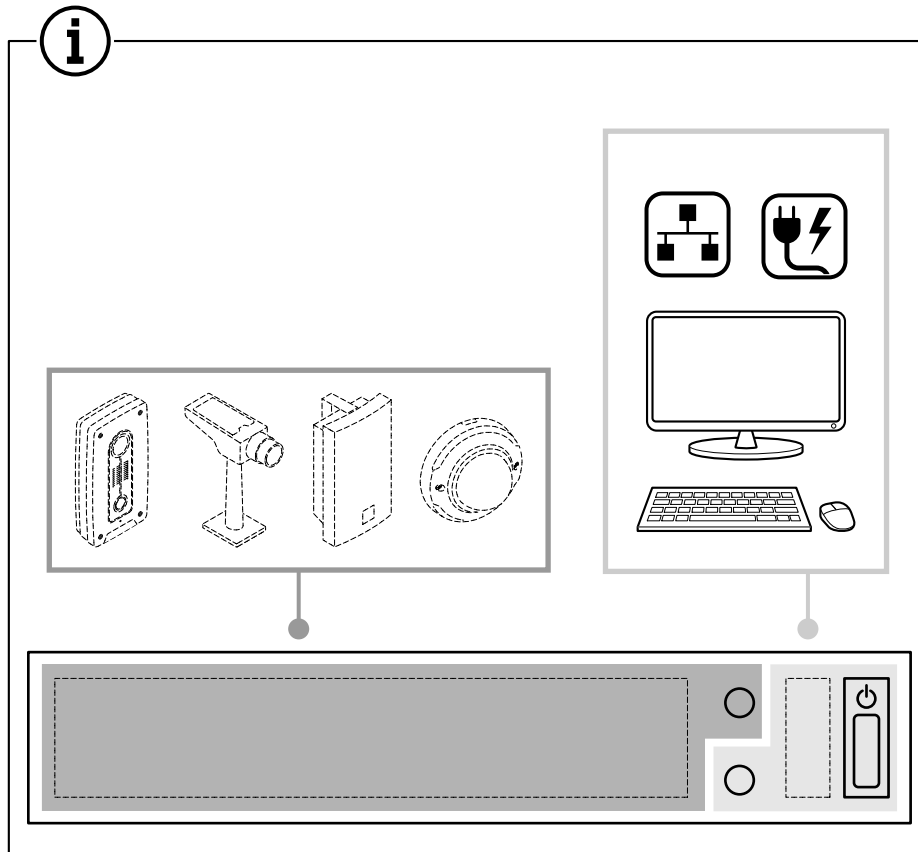
AXIS Camera Station S22 Appliance Series

Install your device



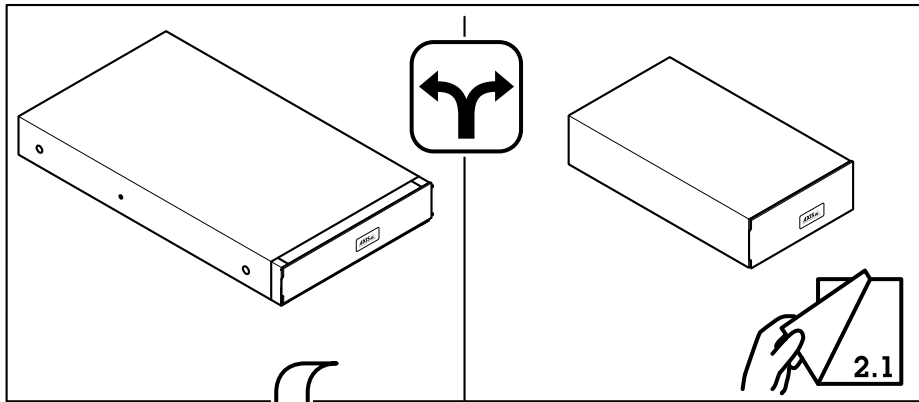
AXIS Camera Station S22 Appliance Series

Install your device

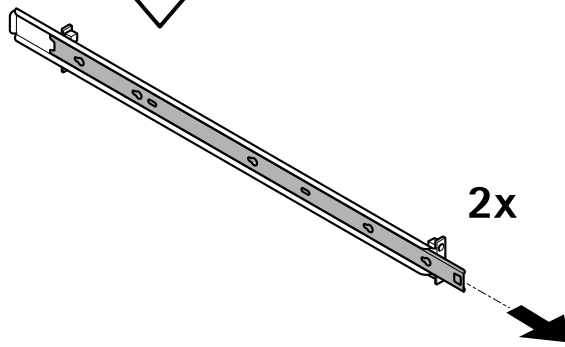


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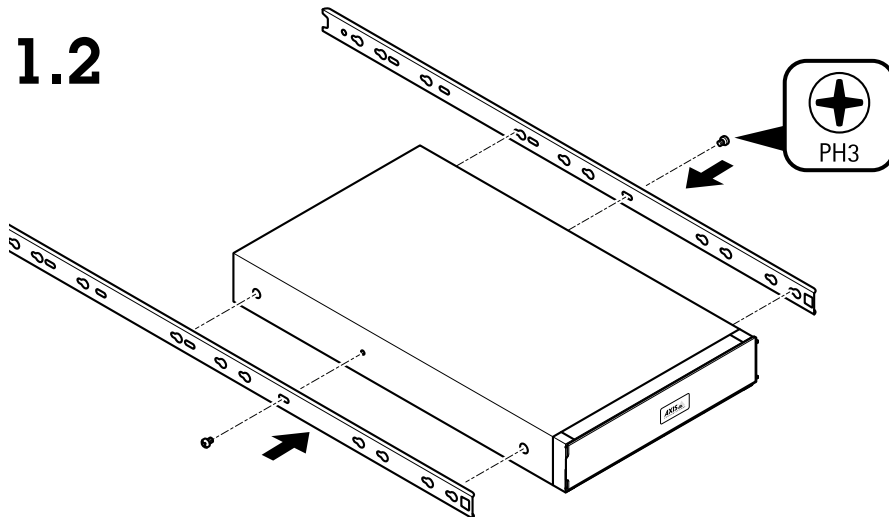
Install your device



1.1

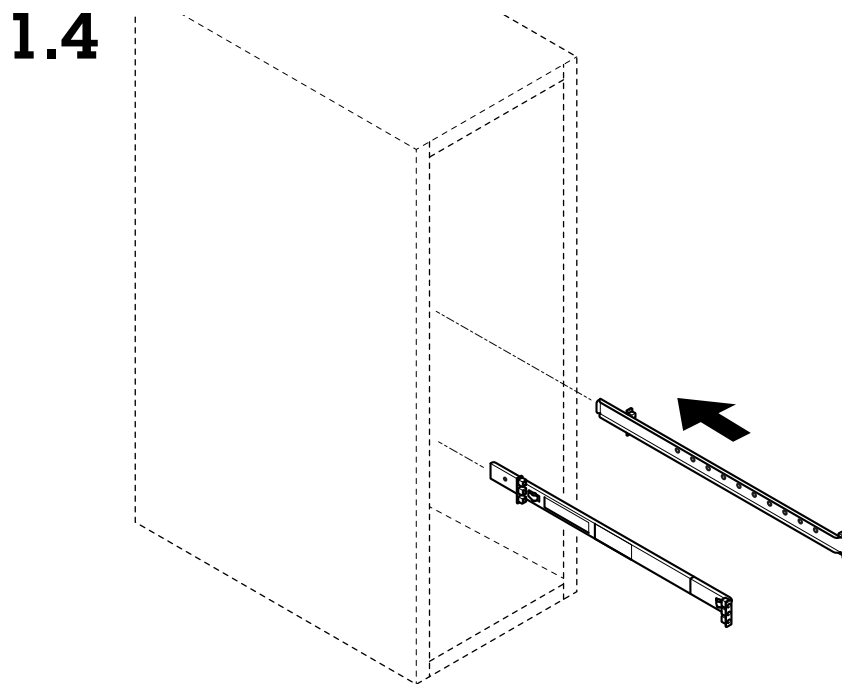
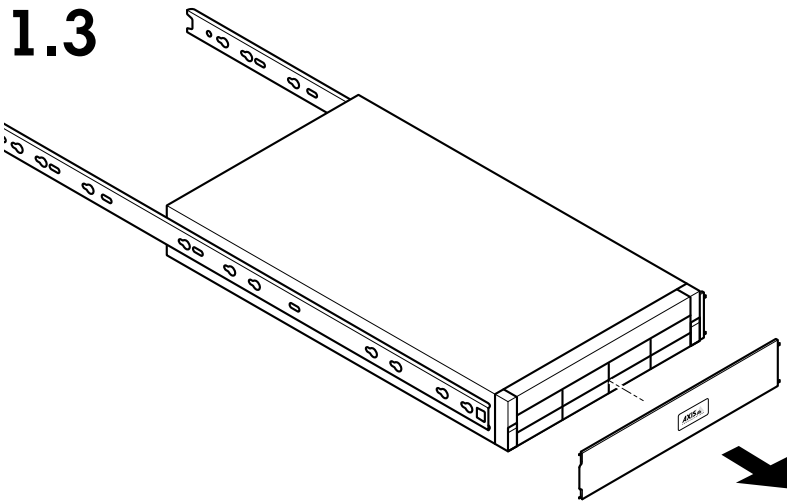


1.2



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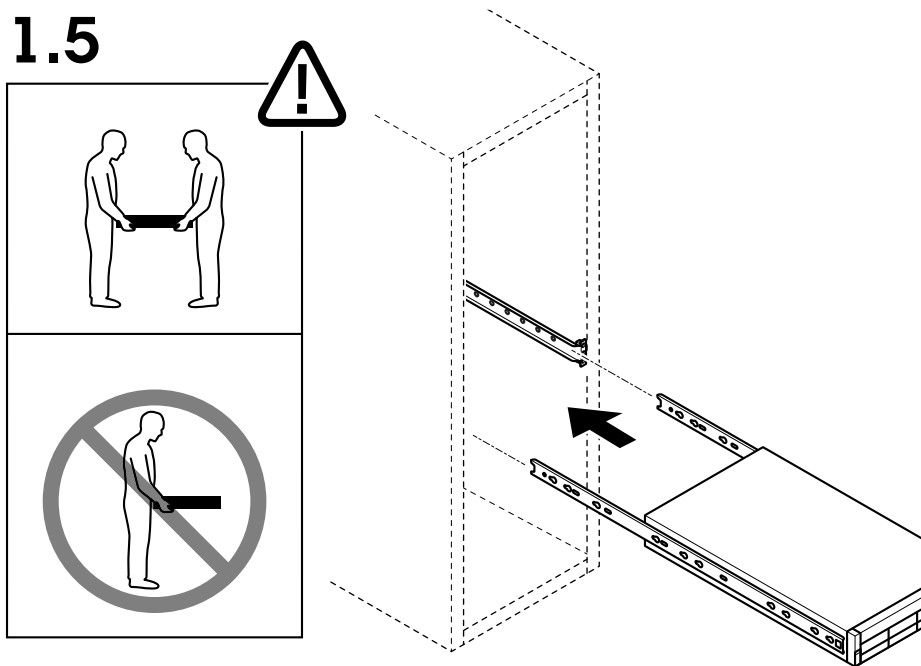
Install your device



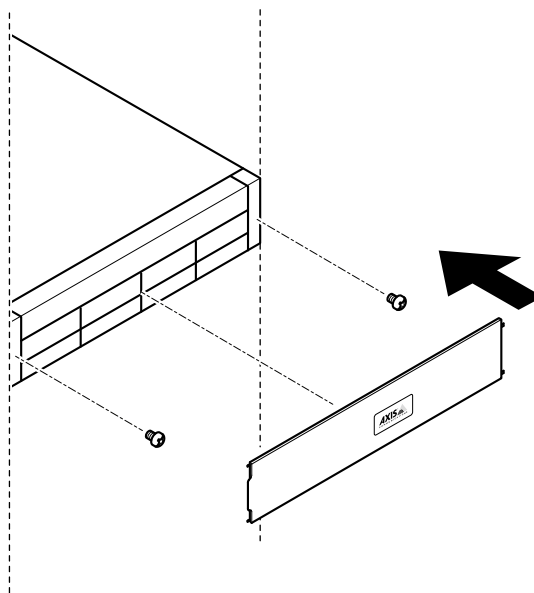
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Install your device

1.5



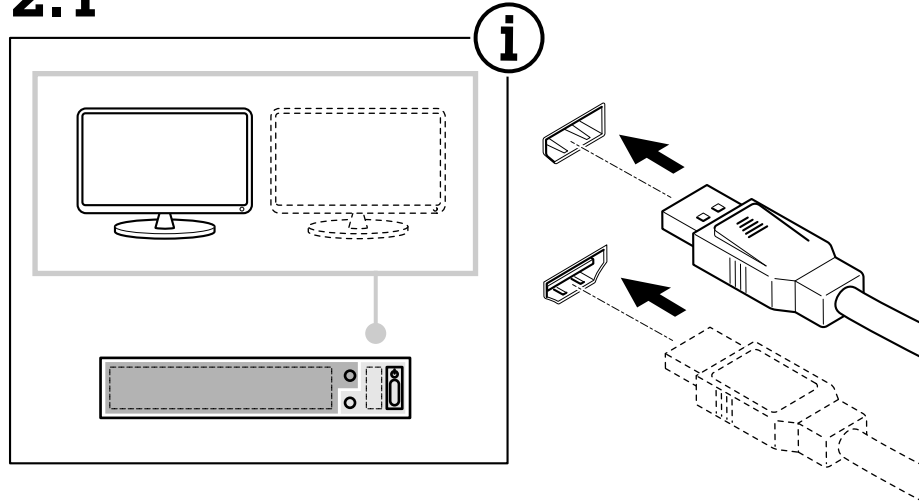
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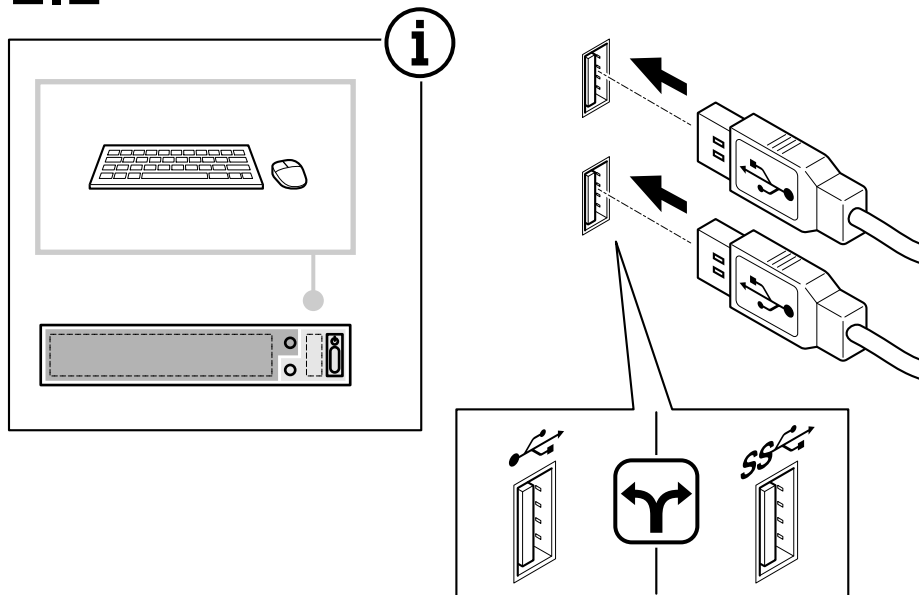
AXIS Camera Station S22 Appliance Series

Install your device

2.1



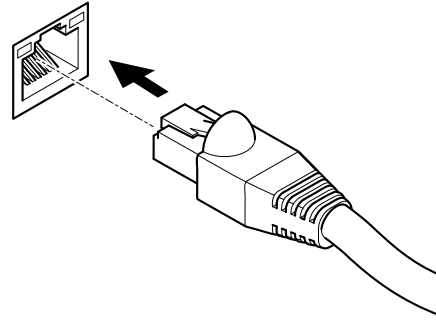
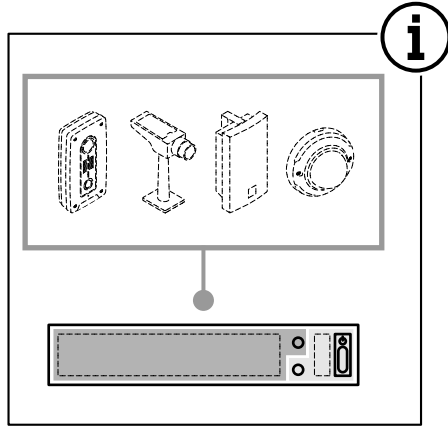
2.2



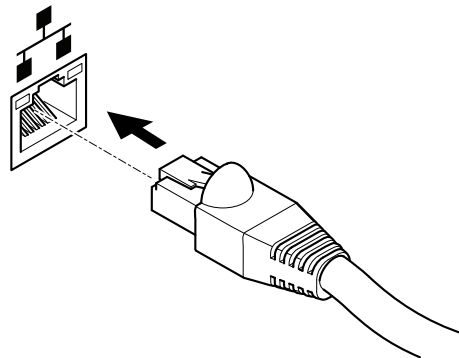
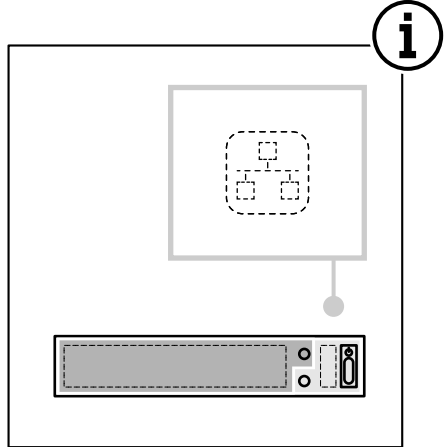
AXIS Camera Station S22 Appliance Series

Install your device

2.3



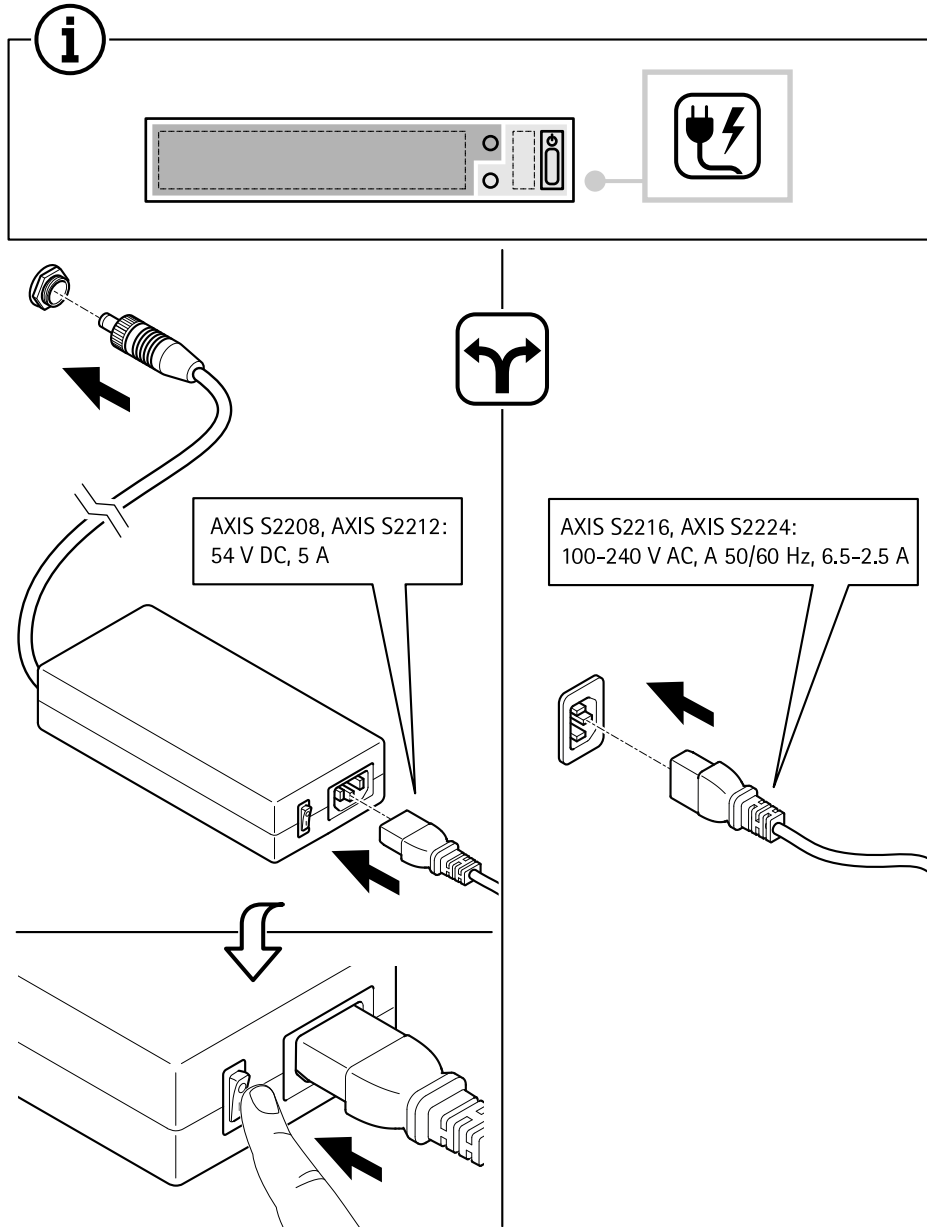
2.4



AXIS Camera Station S22 Appliance Series

Install your device

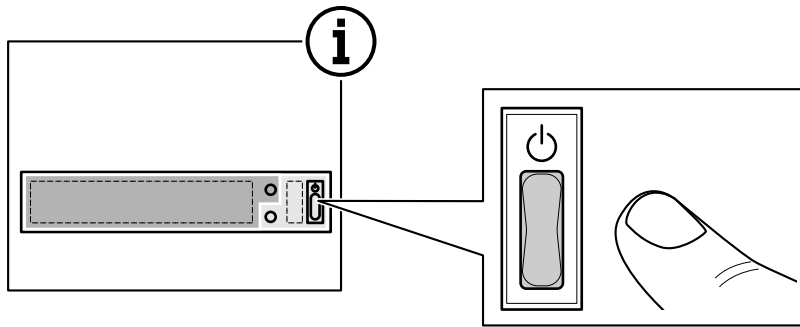
2.5



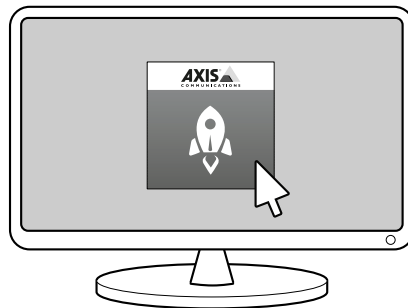
AXIS Camera Station S22 Appliance Series

Install your device

2.6



2.7



AXIS Camera Station S22 Appliance Series

Configure your device

Configure your device

First-time configuration



To watch this video, go to the web version of this document.
help.axis.com/?&pid=49695§ion=first-time-configuration

After you have configured Windows®, AXIS Recorder Toolbox is opened automatically and you are guided through the first-time configuration wizard. In this wizard, you can configure several basic and necessary settings before you manage your device in AXIS Recorder Toolbox.

Note

The settings are for the server. To change the switch's settings, go to the switch's management page. See .

1. Change the computer name if you want and click **Next**.
2. Under **Date and time**, configure the following settings and click **Next**.
 - Select a time zone.
 - To set up an NTP server, select **NTP server** and enter the NTP server address.
 - To set manually, select **Manual** and select a date and time.
3. Under **Network settings**, configure the following settings and click **Next**.
 - **Use automatic IP settings (DHCP)** and **Use automatic DNS settings** are turned on by default.
 - If your device is connected to a network with a DHCP server, the assigned IP address, subnet mask, gateway, and preferred DNS are automatically displayed.
 - If your device is not connected to a network or there is no DHCP server available, enter the IP address, subnet mask, gateway, and preferred DNS manually depending on the network requirements.
4. Click **Finish**. If you have changed the computer name, AXIS Recorder Toolbox will prompt you to restart the device.

Log in to the server

Using the AXIS Camera Station client, you can connect to multiple servers or a single server installed on the local computer or somewhere else on the network. You can connect to AXIS Camera Station servers in different ways:

Last used servers – Connect to the servers used in the previous session.

This computer – Connect to the server installed on the same computer as the client.

Remote server – See .


AXIS Secure Remote Access – See .

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Configure your device

Note

When trying to connect to a server for the first time, the client checks the server certificate ID. To ensure that you're connecting to the correct server, manually verify the certificate ID with the one displayed in AXIS Camera Station Service Control.

Server list	To connect to servers from a server list, select a one from the Server list drop-down menu. Click  to create or edit the server lists.
Import server list	To import a server list file exported from AXIS Camera Station, click Import server list and browse to an .msl file.
Delete saved passwords	To delete saved usernames and passwords all connected servers, click Delete saved passwords .
Change client proxy settings	You might need to change the client proxy settings to connect to a server, click Change client proxy settings .

Log in on a remote server

1. Select **Remote server**.
2. Select a server from the **Remote server** drop-down list or enter the IP or DNS address. If the server isn't listed, click  to reload all the available remote servers. If the server is configured to accept clients on a different port than the default port number 55752, enter the IP address followed by the port number, for example, 192.168.0.5:46001.
3. You can:
 - Select **Log in as current user** to log in as the current Windows user.
 - Clear **Log in as current user** and click **Log in**. Select **Other user** and provide another username and password to log in with a different username and password.

Sign in to AXIS Secure Remote Access

Note

When trying to connect to a server using Axis Secure Remote Access, the server can't upgrade the client automatically.

1. Click the **Sign in to AXIS Secure Remote Access** link.
2. Enter your My Axis account credentials.
3. Click **Sign in**.
4. Click **Grant**.

Configure AXIS Camera Station

This Get started tutorial will walk you through the basic steps to make your system up and running.

Before you start, you may need to:

- Configure your network depending on your installation. See .
- Configure your server ports if needed. See .
- Consider security issues. See .

After necessary configurations, you can start to work with AXIS Camera Station:

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Configure your device

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

Start the video management system

Double-click the AXIS Camera Station client icon to start the client. When you start the client for the first time, it attempts to log in to the AXIS Camera Station server installed on the same computer as the client.

You can connect to multiple AXIS Camera Station servers in different ways.

Add devices

The Add devices page opens the first time you start AXIS Camera Station. AXIS Camera Station searches the network for connected devices and shows a list of devices found.

1. Select the cameras you want to add from the list. If you can't find your camera, click **Manual search**.
2. Click **Add**.
3. Select **Quick configuration** or **Site Designer configuration**. Click **Next**.
4. Use the default settings and ensure the recording method is **None**. Click **Install**.

Configure recording method

1. Go to **Configuration > Recording and events > Recording method**.
2. Select a camera.
3. Turn on **Motion detection**, or **Continuous**, or both.
4. Click **Apply**.

View live video

1. Open a **Live view** tab.
2. Select a camera to view its live video.

View recordings


1. Open a **Recordings** tab.
2. Select the camera you want to view recordings from.

Add bookmarks

1. Go to the recording.
2. In the timeline of the camera, zoom in and out and move the timeline to put the marker at your desired position.

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Configure your device



3. Click  .
4. Enter the bookmark name and description. Use keywords in the description to make the bookmark easy to find and recognize.
5. Select **Prevent recording deletion** to lock the recording.

Note


It's not possible to delete a locked recording. To unlock the recording, clear the option or delete the bookmark.

6. Click **OK** to save the bookmark.

Export recordings

1. Open a **Recordings** tab.
2. Select the camera you want to export recordings from.
3. Click  to display the selection markers.
4. Drag the markers to include the recordings that you want to export.
5. Click  to open the **Export** tab.
6. Click **Export...**

Play and verify recordings in AXIS File Player

1. Go to the folder with the exported recordings.
2. Double-click **AXIS File Player**.
3. Click  to show the recording's notes.
4. To verify the digital signature:
 - 4.1 Go to **Tools > Verify digital signature**.
 - 4.2 Select **Validate with password** and enter your password.
 - 4.3 Click **Verify**. The verification result page appears.

Note

Digital signature is different from Signed video. Signed video allows you to trace video back to the camera it came from, making it possible to verify that the recording wasn't tampered with. See *Signed video* and the camera's user manual for more information.

Network configuration

Configure proxy or firewall settings before using AXIS Camera Station if the AXIS Camera Station client, AXIS Camera Station server, and the connected network devices are on different networks.

Client proxy settings

When a proxy server separates the client and the server, configure the client proxy settings.

1. Open the **AXIS Camera Station client**.
2. Click **Change client proxy settings**.

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Configure your device

3. Change the client proxy settings.
4. Click **OK**.

Server proxy settings

When a proxy server separates the network devices and the server, configure the server proxy settings.

1. Open **AXIS Camera Station Service Control**.
2. Select **Modify settings**.
3. In the **Proxy settings** section, use the default **System account internet option** or select **Use manual proxy settings**.
4. Click **Save**.

NAT and Firewall

When a NAT, firewall, or similar separates the client and the server, configure the NAT or firewall to ensure that the HTTP port, TCP port, and streaming port specified in **AXIS Camera Station Service Control** can pass through the firewall or NAT. Contact the network administrator for instructions on configuring the NAT or firewall.

Server port configuration

AXIS Camera Station server uses ports 55752 (HTTP), 55754 (TCP), 55756 (mobile communication), and 55757 (mobile streaming) for communication between the server and the client. You can change the ports in **AXIS Camera Station Service Control** if required.

Security considerations

To prevent unauthorized access to cameras and recordings, keep the following in mind:

- Use strong passwords for all network devices (cameras, video encoders, and auxiliary devices).
- Install **AXIS Camera Station S22 Appliance Series** server, cameras, video encoders, and auxiliary devices on a secure network separate from the office network. You can install the **AXIS Camera Station S22 Appliance Series** client on a computer on another network, for example, a network with internet access.
- Make sure all users have strong passwords. Windows Active Directory provides a high level of security.

License a system online

Both the **AXIS Camera Station** client and the server must have internet connection.

1. Go to **Configuration > Licenses > Management**.
2. Make sure **Manage licenses online** turns on.
3. Sign in with your **My Axis** account.
4. The license key automatically generates and appears under **License keys**.
5. If you purchased license keys separately, enter your license key under **Add license key**.
6. Click **Add**.
7. In **AXIS Camera Station** client, make sure your license keys appear under **Configuration > Licenses > Keys**.

License a system offline

1. Go to **Configuration > Licenses > Management**.
2. Turn off **Manage licenses online**.

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Configure your device

3. Click **Export system file**.
4. Save your system file to a USB flash drive.
5. Go to AXIS License Portal, axis.com/licenses,
6. Sign in with your My Axis account.
7. Click **Upload system file** to upload the system file from your USB flash drive.
8. The license key automatically generates and shows under **License keys**.
9. If you purchased license keys separately, enter your license key under **Add license key**.
10. Click **Add**.
11. Under **License keys**, click **Download license file** and save the file to a USB flash drive.
12. In AXIS Camera Station client, go to **Configuration > Licenses > Management**.
13. Click **Import license file** and select the license file on your USB flash drive.
14. Make sure your license keys appear under **Configuration > Licenses > Keys**.

AXIS Camera Station S22 Appliance Series

Manage Windows® user accounts

Manage Windows® user accounts

Create a user account

To help keep your personal data and information more secure, we recommend that you add a password for each local account.

Important

Once you create a password for a local account, don't forget it. There's no way to recover a lost password for local accounts.

1. Go to **Settings > Accounts > Other people > Add someone else to this PC**.
2. Click **I don't have this person's sign-in information**.
3. Click **Add a user without a Microsoft account**.
4. Enter a user name, password and password hint.
5. Click **Next** and follow the instructions.

Create an administrator account

1. Go to **Settings > Accounts > Other people**.
2. Go to the account you want to change and click **Change account type**.
3. Go to **Account type** and select **Administrator**.
4. Click **OK**.
5. Restart your device and sign in with the new administrator account.

Create a local user group

1. Go to **Computer Management**.
2. Go to **Local Users and Groups > Group**.
3. Right-click **Group** and select **New Group**.
4. Enter a group name and a description.
5. Add group members:
 - 5.1 Click **Add**.
 - 5.2 Click **Advanced**.
 - 5.3 Find the user account(s) you want to add to the group and click **OK**.
 - 5.4 Click **OK** again.
6. Click **Create**.

Delete a user account

Important

When you delete an account you remove the user account from the login screen. You also remove all files, settings and program data stored on the user account.

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Manage Windows® user accounts

1. Go to **Settings > Accounts > Other people**.
2. Go to the account you want to remove and click **Remove**.

Change a user account's password

1. Log in with an administrator account.
2. Go to **User Accounts > User Accounts > Manage another account in sequence**.
You'll see a list with all user accounts on the device.
3. Select the user account whose password you would like to change.
4. Click **Change the password**.
5. Enter the new password and click **Change password**.

Create a password reset disk for a user account

We recommend to create a password reset disk on a USB flash drive. With this, you can reset the password. Without a password reset disk, you can't reset the password.

Note

If you're using Windows 10, or later, you can add security questions to your local account in case you forget your password, so you don't need to create a password reset disk. To do this, go to **Start** and click **Settings > Sign-in options > Update your security questions**.

1. Sign in to your device with a local user account. You can't create a password reset disk for a connected account.
2. Plug an empty USB flash drive into your device.
3. From the Windows search field, go to **Create a password reset disk**.
4. In the **Forgotten Password** setup assistant, click **Next**.
5. Select your USB flash drive and click **Next**.
6. Type your current password and click **Next**.
7. Follow the onscreen instructions.
8. Remove the USB flash drive and keep it in a safe placet. You don't have to create a new disk when you change your password even if you change it several times.

AXIS Camera Station S22 Appliance Series

Manage AXIS Camera Station user accounts

Manage AXIS Camera Station user accounts

Configure user permissions



Go to **Configuration > Security > User permissions** to view the users and groups that exists in AXIS Camera Station S22 Appliance Series.

Note

Administrators of the computer that runs AXIS Camera Station S22 Appliance Series server are automatically given administrator privileges to AXIS Camera Station S22 Appliance Series. You can't change or remove the Administrators group's privileges.

Before you can add a user or group, register the user or group on the local computer or make sure they have an Windows Active Directory user account. To add users or groups, see .

When a user is part of a group, the user gets the highest role permission assigned to the individual or the group. The user also gets the access granted as an individual and receives the rights as part of a group. For example, a user has access to camera X as an individual. The user is also a member of a group that has access to cameras Y and Z. The user therefore has access to cameras X, Y, and Z.

	Indicates the entry is a single user.
	Indicates the entry is a group.
Name	Username as it appears in the local computer or Active Directory.
Domain	The domain that the user or group belongs to.
Role	The access role given to the user or group. Possible values: Administrator, Operator, and Viewer.
Details	Detailed user information as it appears in the local computer or Active Directory.
Server	The server that the user or group belongs to.

Add users or groups

Microsoft Windows and Active Directory users and groups can access AXIS Camera Station S22 Appliance Series. To add a user to AXIS Camera Station S22 Appliance Series, you must add users or a group to Windows.

To add a user in Windows vary depending on which version of Windows you use. Follow the instructions on *Microsoft's site*. If you use an Active Directory domain network, consult your network administrator

Add users or groups

1. Go to **Configuration > Security > User permissions**.

2. Click **Add**.

You can see the available users and groups in the list.

3. Under **Scope**, select where to search for users and groups.

4. Under **Show**, select to show users or groups.

The search result doesn't display if there are too many users or groups. Use the filter function.

5. Select the users or groups and click **Add**.

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Manage AXIS Camera Station user accounts

Scope	
Server	Select to search for users or groups on the local computer.
Domain	Select to search for Active Directory users or groups.
Selected server	When connected to multiple AXIS Camera Station S22 Appliance Series servers, select a server from the Selected server drop-down menu.

Configure a user or group

1. Select a user or group in the list.
2. Under **Role**, select **Administrator**, **Operator**, or **Viewer**.
3. If you selected **Operator** or **Viewer**, you can configure the user or group privileges. See .
4. Click **Save**.

Remove a user or group

1. Select the user or group.
2. Click **Remove**.
3. In the pop-up dialog, click **OK** to remove the user or group.

User or group privileges

There are three roles you can give to a user or group. For how to define the role for a user or group, see .

Administrator - Full access to the entire system, including access to live and recorded video of all cameras, all I/O ports, and views. This role is required to configure anything in the system.

Operator - Select cameras, views, and I/O ports to get access to live and recorded. An operator has full access to all functionality of AXIS Camera Station S22 Appliance Series except system configuration.

Viewer - Access to live video of selected cameras, I/O ports, and views. A viewer doesn't have access to recorded video or system configuration.

Cameras

The following access privileges are available for users or groups with the **Operator** or **Viewer** role.

Access	Allow access to the camera and all camera features.
Video	Allow access to live video from the camera.
Audio listen	Allow access to listen from the camera.
Audio speak	Allow access to speak to the camera.
Manual Recording	Allow to start and stop recordings manually.
Mechanical PTZ	Allow access to mechanical PTZ controls. Only available for cameras with mechanical PTZ.
PTZ priority	Set the PTZ priority. A lower number means a higher priority. No assigned priority is set to 0. An administrator has the highest priority. When a role with higher priority operates a PTZ camera, others can't operate the same camera for 10 seconds by default. Only available for cameras with mechanical PTZ and have Mechanical PTZ selected.

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Manage AXIS Camera Station user accounts

Views

The following access privileges are available for users or groups with the **Operator** or **Viewer** role. You can select multiple views and set the access privileges.

Access	Allow access to the views in AXIS Camera Station S22 Appliance Series.
Edit	Allow to edit the views in AXIS Camera Station S22 Appliance Series.

I/O

The following access privileges are available for users or groups with the **Operator** or **Viewer** role.

Access	Allow full access to the I/O port.
Read	Allow to view the state of the I/O port. The user can't change the port state.
Write	Allow to change the state of the I/O port.

System

You can't configure greyed out access privileges in the list. Privileges with check mark means the user or group have this privilege by default.

The following access privileges are available for users or groups with the **Operator** role. **Take snapshots** is also available for the **Viewer** role.

Take snapshots	Allow to take snapshots in the live view and recordings modes.
Export recordings	Allow to export recordings.
Generate incident report	Allow to generate incident reports.
Prevent access to recordings older than	Prevent access to recordings older than the specified number of minutes. When using search, the user doesn't find recordings older than the specified time.
Access alarms, tasks, and logs	Get alarm notifications and allow access to the Alarms and tasks bar and Logs tab.
Access data search	Allow searching for data to track what happened at the time of an event.

Access control

The following access privileges are available for users or groups with the **Operator** role. **Access Management** is also available for the **Viewer** role.

Access control configuration	Allow configuration of doors and zones, identification profiles, card formats and PIN, encrypted communication, and multi-server.
Access management	Allow access management and access to the active directory settings.

System health monitoring

The following access privileges are available for users or groups with the **Operator** role. **Access to system health monitoring** is also available for the **Viewer** role.

AXIS Camera Station S22 Appliance Series

Manage AXIS Camera Station user accounts

Configuration of system health monitoring	Allow configuration of the system health monitoring system.
Access to system health monitoring	Allow access to the system health monitoring system.

AXIS Camera Station S22 Appliance Series

Manage your device

Manage your device

Update Windows®

Windows® periodically checks for updates. When an update is available, your device automatically downloads the update but you've to install it manually.

Note

Recording will be interrupted during a scheduled system restart.

To manually check for updates:

1. Go to **Settings > Update & Security > Windows Update**.
2. Click **Check for updates**.

Configure Windows update settings

It is possible to change how and when Windows® do its updates to suit your needs.

Note

All ongoing recordings stop during a scheduled system restart.

1. Open the Run app.
 - Go to **Windows System > Run**, or
2. Type `gpedit.msc` and click **OK**. The Local Group Policy Editor opens.
3. Go to **Computer Configuration > Administrative Templates > Windows Components > Windows Update**.
4. Configure the settings as required, see example.

Example:

To automatically download and install updates without any user interaction and have the device restart, if necessary, at out of office hours, use the following configuration:

5. Open **Always automatically restart at the scheduled time** and select:
 - 5.1 **Enabled**
 - 5.2 **The restart timer will give users this much time to save their work (minutes): 15.**
 - 5.3 **Click OK.**
6. Open **Configure Automatic Updates** and select:
 - 6.1 **Enabled**
 - 6.2 **Configure Automatic updates: Auto download and schedule the install**
 - 6.3 **Schedule Install day: Every Sunday**
 - 6.4 **Schedule Install time: 00:00**
 - 6.5 **Click OK.**
7. Open **Allow Automatic Updates immediate installation** and select:
 - 7.1 **Enabled**

AXIS Camera Station S22 Appliance Series

Manage your device

7.2 Click OK.

Reset your server

You can use the server reset button to reset your server. It will take more than one hour to reset your server.

1. Power off your device.
2. Press and hold the server reset button for 5 seconds. Windows RE will be started.
3. Select **Troubleshoot**.
4. Select **Reset your PC**.
5. Select **Keep my files** or **Remove everything**. If you select **Keep my files**, you need to provide the administrator credentials.
6. Follow the instructions on the screen.
7. The server reboots and starts the procedure to restore Windows to factory default settings.



To watch this video, go to the web version of this document.

help.axis.com/?&pid=49695§ion=reset-your-server

Reset your server to factory default settings

Reset your switch

You can reset your switch to factory default settings by using one of the following ways:

- The switch reset button. Before you start, ensure that the switch is on. Press and hold the switch reset button for about 5 seconds until the power button LED at the rear side of the device turns blue. It will take about 6 minutes.
- The switch's management page. See .

Add additional storage

The demand for storage can differ. Retention time of stored data or for storing high-resolution recordings often results in a need to install more storage. This section explains how to install an additional hard drive in your AXIS S22 series product.

Note

Follow the instructions below to add additional storage to applicable AXIS S22 products. These instructions are as-is, and Axis Communications AB takes no responsibility for loss of data or misconfiguration during these steps. The standard precautions should be taken to backup data that is business critical. The following procedure of expanding storage will not be supported by Axis Technical Support.

Note

To avoid electrostatic discharge, we recommend that you always use a static mat and static strap while working on internal system components.

AXIS Camera Station S22 Appliance Series

Manage your device

Warranty

Detailed information about warranty is available at: www.axis.com/support/warranty.



To watch this video, go to the web version of this document.
help.axis.com/?&pid=49695§ion=add-an-additional-storage

AXIS Camera Station S22 Appliance Series

Manage the built-in switch

Manage the built-in switch

About the built-in switch


The AXIS Camera Station S22 Appliance Series comes with an integrated Power over Ethernet (PoE) switch. You can configure and manage the built-in switch.

The purpose of the switch is to segregate traffic on the network so that security cameras and related traffic managed by the switch (PoE ports and U1 network uplinks) are not shared with other networks.


The switch's power management follow these rules:

- Each port can reserve power according to the connected powered device's PoE class. Power can also be allocated manually and by actual consumption.
- If the actual power consumption for a given port exceeds the reserved power for that port, it will shut down.
- Ports will shut down when the actual power consumption for all ports exceeds the total amount of power that the power supply can deliver. The ports are then shut down according to the ports priority where a lower port number means higher priority.

Select a language


In the switch's management page, go to  > **Language** and select the language that you want to use.

Go to the help pages

In the switch's management page, go to  > **Help**.

Log in to the switch's management page

1. Go to the switch's management page.
 - From the web browser, enter the switch's IP address. By default: 192.168.0.1
 - From AXIS Recorder Toolbox, go to **Switch > Open the switch configuration**.
 - From AXIS Camera Station Client, go to **Configuration > Switch > Management**. See *Configure switch*.
2. Log in with your credentials.
 - user name: `admin`
 - password: you can find the randomly generated password on a sticker underneath the product or a self-adhesive sticker in the box content.

To log out the switch's management page, go to  > **Log out**.

Overview

In the switch's management page, click **Overview**.

General information

AXIS Camera Station S22 Appliance Series

Manage the built-in switch


Category	Item	Description
Ports summary	Active ports	The number of ports that are in use.
	Ports using PoE	The number of ports with PoE enabled that are in use.
	Locked ports	The number of ports that are locked.
Current PoE usage		The total power in watts and percentage consumed by the PoE devices.
Port status		Click the port to see the details about the port.
	Active	The port is in use.
	Inactive	The port is ready to be used.
	Blocked	The port is blocked.

Port list


Item	Description
Port	The port number that the device is connected to.
Device	The name of the device connected to the port.
IP address	The IP address of the device connected to the port.
PoE	Displays the PoE status. You can click the icon to turn on or turn off PoE on the port.
Power consumption (W)	The power in watts consumed by the device connected to the port.
Upstream (Mbit/s)	The average data rate in megabits per second for outbound data on the port.
Downstream (Mbit/s)	The average data rate in megabits per second for inbound data on the port.
MAC address	The MAC address of the device connected to the port.
Lock	Displays whether the port is locked. You can click the icon to lock or unlock the port.

Turn on and turn off PoE


Turn on PoE on a port

1. In the switch's management page, click **Overview**.
2. In the PoE column, click  to turn on PoE on the specific port.


Turn on PoE on all ports

1. In the switch's management page, click **Overview**.
2. Click  and select **Turn on PoE on all ports**.

Turn off PoE on a port

1. In the switch's management page, click **Overview**.
2. In the PoE column, click  to turn off PoE on the specific port.

Turn off PoE on all ports

1. In the switch's management page, click **Overview**.
2. Click  and select **Turn off PoE on all ports**.

AXIS Camera Station S22 Appliance Series

Manage the built-in switch


Note

You can also turn on and turn off PoE in the Power management page.


Lock and unlock ports

You can lock a MAC address to a port so that only traffic coming from that MAC address will pass. This improves security and prevents unauthorized users from connecting a laptop or other devices to the security network.


Lock a port

1. In the switch's management page, click **Overview**.
2. In the Lock column, click  to lock the port.


Lock all ports

1. In the switch's management page, click **Overview**.
2. Click  and select **Lock all ports**.

Unlock a port

1. In the switch's management page, click **Overview**.
2. In the Lock column, click  to unlock the port.

Unlock all ports

1. In the switch's management page, click **Overview**.
2. Click  and select **Unlock all ports**.

Power management

In the switch's management page, click **Power management**.

General information

- Ports using PoE: the number of ports with PoE enabled that are in use.
- Current PoE usage: the PoE power in watts consumed by devices and the percentage of used PoE power out of the total dedicated PoE power.
- Power requested: the total power in watts and percentage allocated to devices. Only available when you select **Reserved power** as the power allocation method.

Port list

Item	Description
Port	The port number that the device is connected to.
PoE	The PoE status. You can click the icon to turn on or turn off PoE on the port.
PoE class	The PoE class of the connected device.
Priority	The priority of power allocation to the connected device. Lower numbered ports have higher priority. By default, the priority is the port number.
Power consumption (W)	The power in watts consumed by the device connected to the port.

AXIS Camera Station S22 Appliance Series

Manage the built-in switch

Power requested (W)	The power in watts requested by the device connected to the port. Only available when you select Reserved power as the power allocation method.
Power allocated (W)	Manually adjust the power allocated to the port. Only available when you select Reserved power > Manual as the power allocation method.

Allocate power

PoE power can be allocated to the connected devices in the following ways:

- **Reserved power:** In this method, each port reserves the amount of power. The total reserved power cannot exceed the total power budget. A port will not be powered up if the device tries to reserve more power than available. This method ensures that the connected devices will be powered.
 - **PoE class:** Each port automatically determines the amount of power to reserve according to the PoE class of the connected device.
 - **Manual:** You can manually adjust the amount of power allocated to each port by changing the value under **Power allocated**.
 - **LLDP-MED:** Each port determines the amount of power to reserve by exchanging PoE information using the LLDP protocol.

Note

The power allocation method LLDP-MED works only for cameras with firmware 9.20 or later.

- **Actual consumption:** In this method, devices use the amount of power they need until reaching the power budget. A port will be shut down if the device consumes more power than available. The ports are shut down according to the priority.

To change the power allocation method:

1. In the switch's power management page, go to **Power management**.
2. To use the reserved power method, select **Reserved power** under **Allocate power** and select **PoE Class, Manual, or LLDP-MED** under **Reserved power determined by**.
3. To use the actual consumption method, select **Actual consumption** under **Allocate power**.
4. If you have selected **Manual**, go to the **Power allocated** column and change the power allocated to the connected device.
5. If you want to change the priority of the connected device, select a priority for that device. The priority of other devices will change automatically.

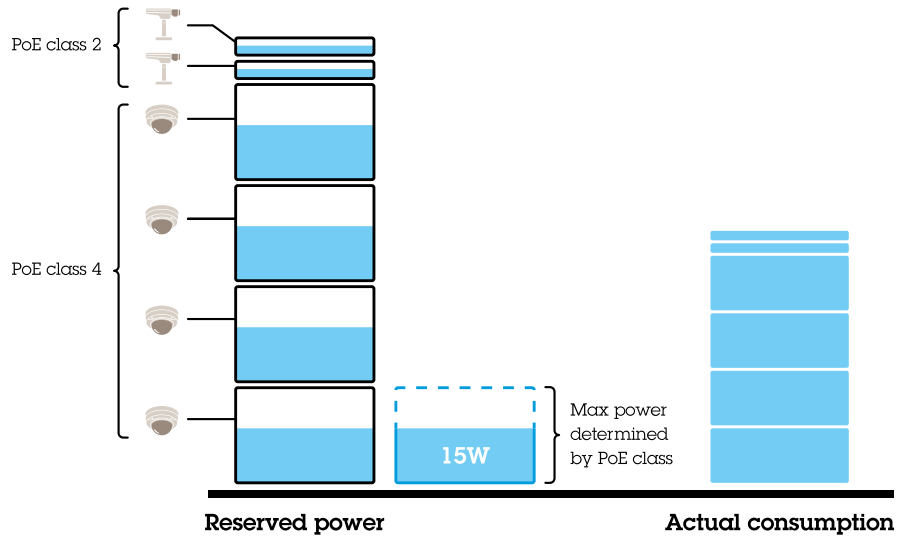
Example:

In this example, the switch has a total power budget of 135 W. A PoE class 4 device requests 30 W power and actually consumes 15 W power. A PoE class 2 device requests 7 W power and actually consumes 5 W power.

Allocate power by PoE class

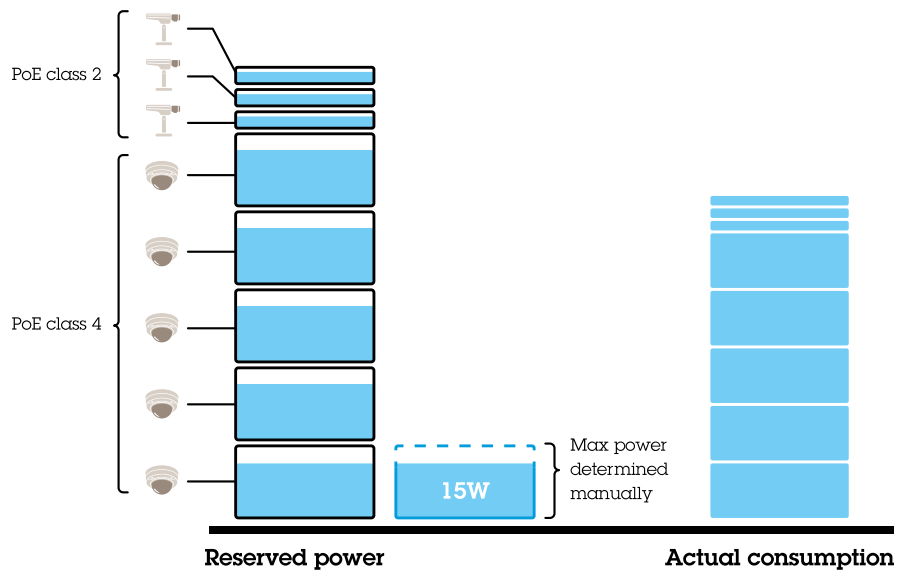
AXIS Camera Station S22 Appliance Series

Manage the built-in switch



- Each port reserves the amount of power according to the device's PoE class.
- The switch can power 4 PoE class 4 devices and 2 PoE class 2 devices.
- The total power reserved is $(4 \times 30) + (2 \times 7) = 134$ W.
- The actual power consumed is $(4 \times 15) + (2 \times 5) = 70$ W.
- In this way, all connected devices are guaranteed enough power and the priority is less important.

Allocate power manually



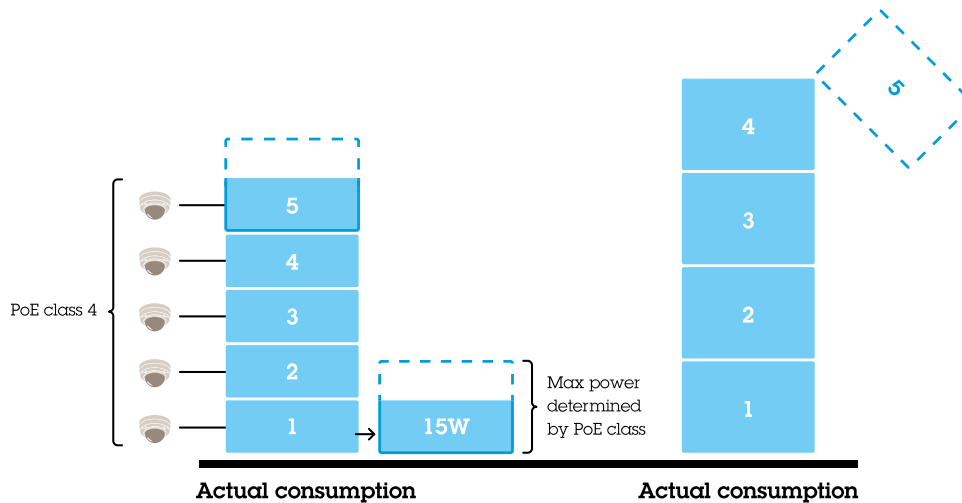
- The reserved power is manually adjusted to 20 W for PoE class 4 devices.
- The switch can power 5 PoE class 4 devices and 3 PoE class 2 devices.
- The total power reserved is $(5 \times 20) + (3 \times 7) = 121$ W.

AXIS Camera Station S22 Appliance Series

Manage the built-in switch

- The actual power consumed is $(5 \times 15) + (3 \times 5) = 90 \text{ W}$.
- In this way, all connected devices are guaranteed enough power and the priority is less important.

Allocate power by actual consumption



- When connecting a device, the switch will power it up if the max power limit can be ensured at that time.
- First the switch connects to five PoE class 4 devices and the actual consumption of power is $5 \times 15 = 75 \text{ W}$.
- Later each device consumes up to 30 W power. The switch cannot power five devices and the port 5 with the lowest priority is shut down. The actual consumption is $4 \times 30 = 120 \text{ W}$.
- In this way, the priority of the port is important. The port with the lowest priority will be shut down first when the actual consumption exceeds the power budget.

Settings

Configure network settings

You can change the switch's IP address. But for most camera installations, we recommend using the default settings. The reason for this is that a surveillance network is normally isolated from other networks, for example a corporate LAN. In this case, you would only use the surveillance network to manage and collect surveillance devices and data from the video management software installed on the server.

1. In the switch's management page, go to **Settings > Network settings**.
2. Enter the connection type, IP address, subnet mask, gateway, DNS1, DNS2, and hostname.

Note

The factory default settings are: a static IP connection with address 192.168.0.1 and a subnet mask with address 255.255.255.0.

3. Click **Save**.

Configure date and time

1. In the switch's management page, go to **Settings > Date and time**.

AXIS Camera Station S22 Appliance Series

Manage the built-in switch

2. Select the country and time zone.
3. To set the time manually, select **Manual** and manually adjust the time.
4. To set up an NTP server, select **NTP server** and enter the NTP server address.

Note

NTP only works when the switch is connected to a network and configured with Internet access.

5. Click **Save**.

Configure DHCP server

Important

If the switch's DHCP server is enabled and your AXIS Camera Station S22 Appliance is connected to an external network with its own DHCP server, you will have IP address conflicts. This might result in the corporate network not working.

You can configure the switch to use its internal DHCP server for assigning IP addresses to connected devices. When you use the switch uplink connection to allow devices to access or being accessed by external application, you must specify the gateway and DNS addresses.

1. In the switch's management page, go to **Settings > DHCP server**.
2. Select **Use DHCP server**.
3. Enter the start IP address, end IP address, subnet mask, gateway, DNS 1, DNS 2, lease length, and domain name.
4. Click **Save**.

Configure SNMP

1. In the switch's management page, go to **Settings > SNMP**.
2. Enter the server name, contact, and location used for the SNMP connection.
3. If you want to use SNMPV1 or SNMPV2c, select **SNMPV1 / SNMPV2c** and enter the read community.
4. If you want to use SNMPV3, select **SNMPV3 (MD5)** and enter the username and password.

Note

Currently we only support MD5 authentication used for SNMP.

5. Click **Save**.

Configure web settings

1. In the switch's management page, go to **Settings > Web settings**.
2. Enter the port number.
3. For more secure connection, select **Secure connection (HTTPS)** and enter the port number used for HTTPS connection.
4. Click **Save**.

Important

If you have changed the port number, ensure you record the new port number. If you've forgotten the new port number, contact Axis support.

AXIS Camera Station S22 Appliance Series

Manage the built-in switch

Maintenance

Update firmware

1. In the switch's management page, go to **Maintenance > Update firmware**.
2. Drag and drop the firmware file or click **Browse** and navigate to the firmware file.
3. Click **Upload**.
4. After the firmware updating is done, reboot the switch.

Reboot the switch

Important

While the switch reboots, all connected devices will temporarily lose connection with the switch including PoE.

1. In the switch's management page, go to **Maintenance > Reboot switch**.
2. Click **Reboot and Yes**.
3. When the switch reboots after a few minutes, enter your username and password to log in.

Backup the switch's settings

Note

The username and password are included in the backup file.

1. In the switch's management page, go to **Maintenance > Backup and restore**.
2. Click **Create a backup file**. The backup file in the .bin format is created in the **Downloads** folder.

Restore the switch's settings




Note

To restore the switch's settings, you must previously have created a backup file.

1. In the switch's management page, go to **Maintenance > Backup and restore**.
2. Drag and drop the backup file or click **Browse** and navigate to the backup file.
3. Click **Upload**.

It could take a few minutes to restore the switch from the backup file. Once the settings are restored, the switch will automatically reboot and you need to log in again.

Manage certificates

1. In the switch's management page, go to **Maintenance > Manage certificates**.
2. Click  and navigate to your private key file.
3. Click  and navigate to your certificate file.
4. Click  and navigate to your CA bundle file.
5. Click **Save**.

AXIS Camera Station S22 Appliance Series

Manage the built-in switch

6. Reboot the switch.

Change password

You can change the switch's default password to a password you choose yourself.

Important

Ensure you select a password you remember. If you have forgotten the new password, contact Axis support.

1. In the switch's management page, go to **Maintenance > Change password**.
2. Enter the current password and your new password as required.
3. Click **Save**.

Reset to factory default settings

1. In the switch's management page, go to **Maintenance > Reset to factory default settings**.
2. Click **Reset** and **Yes**.

After the reset is done, the switch will reboot automatically.

Log

In the switch's management page, click **Log** to see a list of logs. Click **Refresh** to refresh the list. Click the column title to sort in alphabetical order.

Item	Description
Time	The date and time when the log event happened.
Level	The serious level shown as warning icons.
User	The user that initiates the log event.
IP address	The IP address of the user that initiates the log event.
Service	The service that the log event is related to. Possible values are desktop, network, system, ntpd, storage, dhcp, etc.
Event	The description about the log event.

Create switch reports

1. In the switch's management page, click **Log**.
2. Click **Create switch report**.

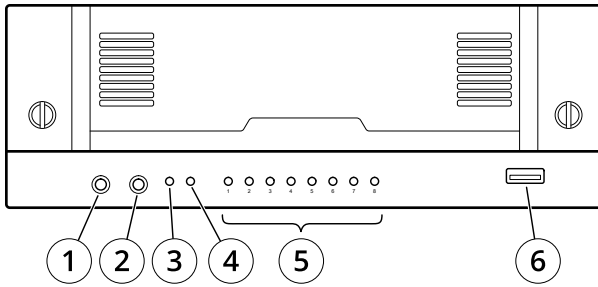
AXIS Camera Station S22 Appliance Series

Product overview

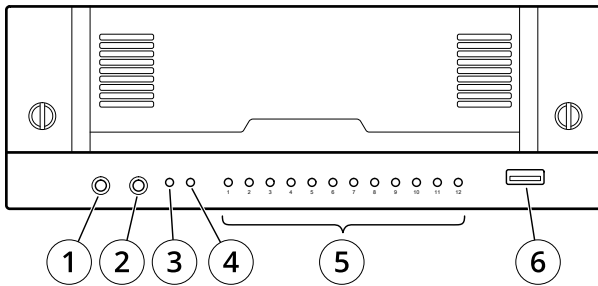
Product overview

Front side

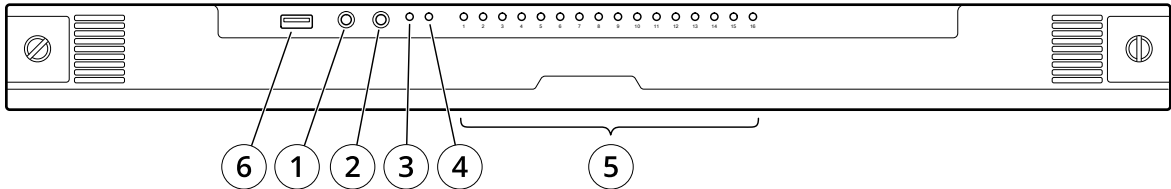
AXIS Camera Station S2208 Appliance



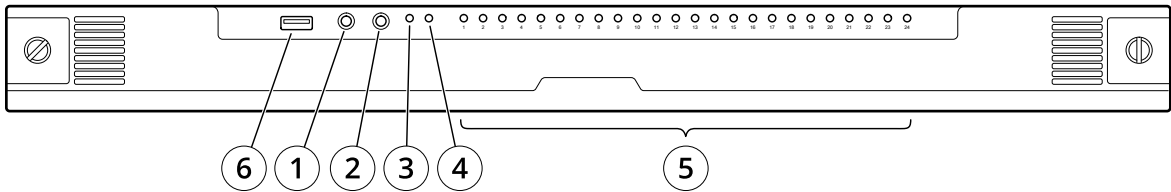
AXIS Camera Station S2212 Appliance



AXIS Camera Station S2216 Appliance



AXIS Camera Station S2224 Appliance



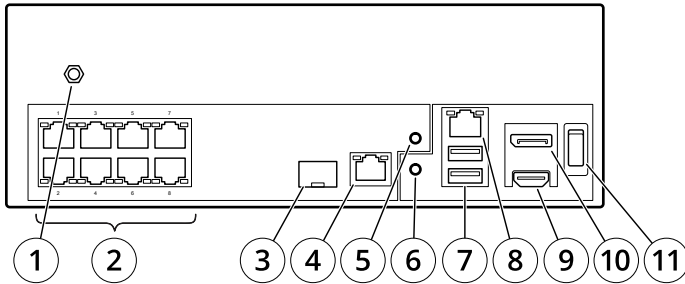
- 1 Audio in
- 2 Audio out
- 3 System power LED
- 4 Disk activity LED
- 5 Status LEDs of PoE ports
- 6 USB 3.0

AXIS Camera Station S22 Appliance Series

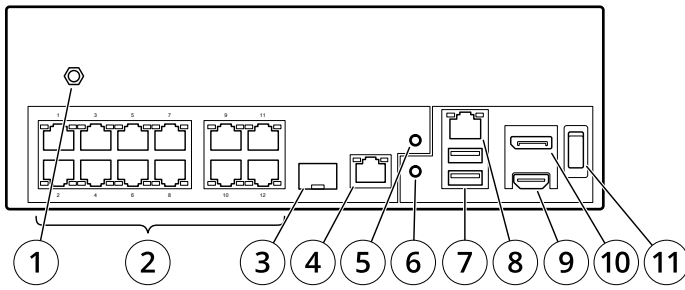
Product overview

Rear side

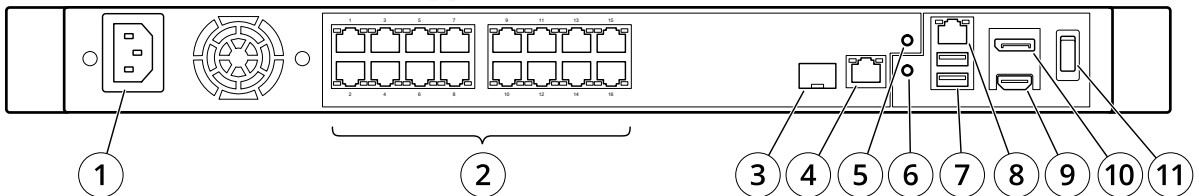
AXIS Camera Station S2208 Appliance



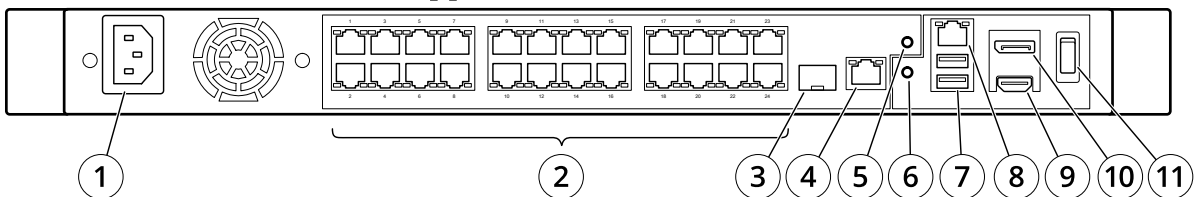
AXIS Camera Station S2212 Appliance



AXIS Camera Station S2216 Appliance



AXIS Camera Station S2224 Appliance



- 1 Power connector
- 2 PoE ports
- 3 SFP switch uplink (U1)
- 4 RJ45 switch uplink (U1)
- 5 Switch reset button
- 6 Server reset button
- 7 USB 2.0 x2
- 8 RJ45 server uplink (U2)
- 9 HDMI port
- 10 Displayport
- 11 Power button

AXIS Camera Station S22 Appliance Series

Product overview

Specifications

Front LEDs

LED indicator	Color	Indication
Power	Green	Server on
Network ports	Green	Link state
Hard drive	Blinks amber	Hard drive activity
	Blinks red	Possible hard drive failure

Rear LEDs

Network speed and activity	Color	Indication
Right LED	Amber	10/100 Mbit/s
	Green	1000 Mbit/s
Left LED	Blinks green	Network activity

Power button	Color	Indication
When the power button is not pressed	Off	Switch and server off
	Blue	During switch boot
	Green	Switch boot completed
When the power button is pressed	Red (flashes once for 1s)	Power on
	>5s blinks green	Restarting server
	>10s steady blue	Power off switch
	>15s blinks blue	Power off switch and server

AXIS Camera Station S22 Appliance Series

Troubleshooting

Troubleshooting

Perform a system recovery

If the device has had a complete system failure, you must use a recovery image to recreate the Windows® system. To download the AXIS Network Video Recorder Recovery Kit, contact Axis technical support and supply the serial number of your device.

1. Download the AXIS Network Video Recorder Recovery Kit and AXIS Network Video Recorder Recovery: ISO to USB Tool.
2. Insert a USB drive into your computer.
 - Use a USB drive with a minimum of 16 GB.
 - The USB drive will be formatted, and all existing data will be erased.
3. Run the AXIS Network Video Recorder Recovery: ISO to USB Tool and follow the onscreen instructions.

Writing data to the USB drive takes approximately 10 to 15 min. Don't remove the USB drive until the process is complete.
4. After the AXIS Network Video Recorder Recovery: ISO to USB Tool is complete, take the USB drive and plug it into your device.
5. Start your device.
6. When you see the Axis splash screen, press F12.
7. Click **UEFI: USB Drive**.
8. Navigate to your USB drive and press ENTER. The system boots into the AXIS Network Video Recorder Recovery Kit.
9. Click **Reinstall Operating System**.

The recovery takes roughly 10 to 15 min to complete. You find detailed instructions in the download for the recovery kit.

Troubleshoot AXIS Camera Station

For information about how to troubleshoot AXIS Camera Station, go to the *AXIS Camera Station user manual*.

AXIS Camera Station S22 Appliance Series

Need more help?

Need more help?

Useful links

- *AXIS Camera Station user manual*
- *Configure Axis Secure Remote Access*
- *What to include in an Antivirus allowlist for AXIS Camera Station*

Contact support

If you need more help, go to axis.com/support.

