

User manual

# About your device

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AXIS S3008 Recorder is a compact network video recorder with a built-in PoE switch for easy installation. The device features a surveillance-grade hard drive. It also includes a USB port for easy export of video footage. The recorder comes in three models – including a 2 TB, 4 TB or 8 TB hard drive.

# How many cameras can I connect to the recorder?

Up to eight devices can be connected to the PoE switch of the recorder.

# How much power can the recorder supply to the cameras?

These are the limitations for power over Ethernet (PoE):

- The recorder can supply up to eight devices with PoE.
- The total amount of power available:
  - 2 TB and 4 TB: 65 W
  - 8 TB: 60 W
- Each network port supports up to 15.4 W (PoE Class 3) at the PoE port (PSE) and 12.95 W on the camera side (PD).
- The switch allocates PoE power based on the PoE class of the connected device.

# **Browser support**

### Windows®

- Chrome<sup>TM</sup> (recommended)
- Firefox®
- Edge<sup>®</sup>

#### OS X®

- Chrome<sup>TM</sup> (recommended)
- Safari®

#### Other

- Chrome<sup>TM</sup>
- Firefox®

To find out more about how to use the device, see the Manual available at *Documentation* | *Axis Communications*. If you want more information about recommended browsers, go to *Axis OS browser support* | *Axis Communications*.

## Get started

## Get started

#### Note

Internet access is required during the system setup.

- 1. Register a My Axis account on page 3
- 2. Install the hardware on page 3
- 3. Install the desktop app on page 4
- 4. Create a site on page 4
- 5. Install the mobile app on page 4

When the installation is done:

- All Axis devices in the system have the latest firmware.
- All devices have a password.
- Recording using the default settings is active.
- You can use remote access.

# Register a My Axis account

Register a My Axis account at axis.com/my-axis/login.

To make your My Axis account more secure, activate multi-factor authentication (MFA). MFA is a security system that adds another layer of verification to ensure the user's identity.

To activate MFA:

- 1. Go to axis.com/my-axis/login.
- 2. Log in with your My Axis credentials.
- 3. Go to and select Account settings.
- 4. Click Security settings
- 5. Click Handle your 2-factor authentication.
- 6. Enter your My Axis credentials.
- 7. Choose one of the authentication methods Authenticator App (TOTP) or Email and follow the on-screen instructions.

## Install the hardware

- 1. Install your camera hardware.
- 2. Connect the recorder to your network via the LAN port.
- 3. Connect the cameras to the recorder's integrated PoE switch or an external PoE switch.
- 4. Connect the computer to the same network as the recorder.
- 5. Connect the power supply to the recorder.

## Get started

#### Important

You must first connect the power cord to the recorder, and then connect the power cord to the power outlet.

6. Wait a few minutes for the recorder and cameras to boot up before proceeding.

# **▲**CAUTION

Keep the recorder in a well ventilated environment and with plenty of empty space around the recorder to avoid overheating.

## Install the desktop app

- 1. Go to axis.com/products/axis-camera-station-edge and click Download to download for Windows.
- 2. Open the setup file and follow the setup assistant.
- 3. Sign in with your My Axis account.

## Create a site

A site is a single point of entry to a surveillance solution, for example all cameras in a store. You can keep track of several sites through a single My Axis account.

- 1. Start the desktop app.
- 2. Sign in with your My Axis account.
- 3. Click Create new site and give the site a name.
- 4. Click Next.
- 5. Select the devices you want to add to your site.
- 6. Click Next.
- 7. Select storage.
- 8. Click Next.
- 9. On the Ready to install page, Offline mode and Upgrade firmware are turned on by default. You can turn them off if you don't want to access offline mode or upgrade your devices to the latest firmware version.
- 10. Click Install and wait while configures the devices.

The configuration can take several minutes.

# Install the mobile app

With mobile app, you can access your devices and recordings from anywhere. You can also get notifications when events occur, or when someone calls from an intercom.

#### For Android

Click Download or scan the following QR Code®.



For iOS

Click *Download* or scan the following QR Code.



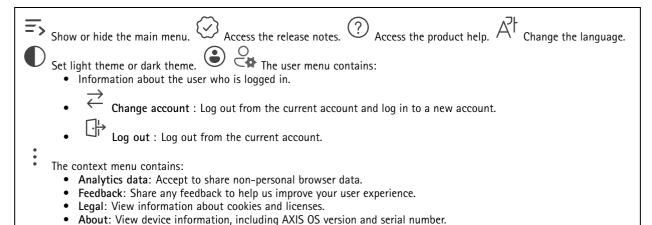
Open the mobile app and log in with your Axis credentials.

If you don't have a My Axis account, you can go to axis.com/my-axis to register a new account.

 ${\it QR \ Code is a registered \ trademark \ of \ Denso \ Wave \ Incorporated \ in \ Japan \ and \ other \ countries.}$ 

## The web interface

To reach the device's web interface, type the device's IP address in a web browser.



#### Status

#### Device info

Shows the device information, including AXIS OS version and serial number.

Upgrade AXIS OS: Upgrade the software on your device. Takes you to the Maintenance page where you can do the upgrade.

#### Time sync status

Shows NTP synchronization information, including if the device is in sync with an NTP server and the time remaining until the next sync.

NTP settings: View and update the NTP settings. Takes you to the Time and location page where you can change the NTP settings.

## Security

Shows what kind of access to the device that is active, what encryption protocols are in use, and if unsigned apps are allowed. Recommendations to the settings are based on the AXIS OS Hardening Guide.

Hardening guide: Link to AXIS OS Hardening guide where you can learn more about cybersecurity on Axis devices and best practices.

#### Connected clients

Shows the number of connections and connected clients.

View details: View and update the list of connected clients. The list shows IP address, protocol, port, state, and PID/process of each connection.

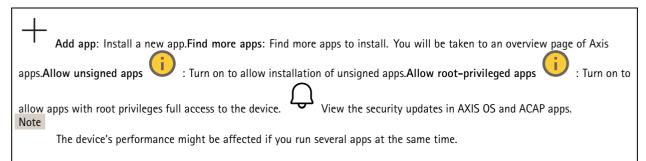
#### Ongoing recordings

Shows ongoing recordings and their designated storage space.

#### The web interface

**Recordings:** View ongoing and filtered recordings and their source. For more information, see Shows the storage space where the recording is saved.

# **Apps**



Use the switch next to the app name to start or stop the app. Open: Access the app's settings. The available settings depend on the

application. Some applications don't have any settings. • The context menu can contain one or more of the following options:

- Open-source license: View information about open-source licenses used in the app.
- App log: View a log of the app events. The log is helpful when you contact support.
- Activate license with a key: If the app requires a license, you need to activate it. Use this option if your device doesn't have internet access.
  - If you don't have a license key, go to axis.com/products/analytics. You need a license code and the Axis product serial number to generate a license key.
- Activate license automatically: If the app requires a license, you need to activate it. Use this option if your device has internet access. You need a license code to activate the license.
- Deactivate the license: Deactivate the license to replace it with another license, for example, when you change from a trial license to a full license. If you deactivate the license, you also remove it from the device.
- Settings: Configure the parameters.
- Delete: Delete the app permanently from the device. If you don't deactivate the license first, it remains active.

## System

#### Time and location

Date and time

The time format depends on the web browser's language settings.

Note

We recommend you synchronize the device's date and time with an NTP server.

**Synchronization**: Select an option for the device's date and time synchronization.

- Automatic date and time (manual NTS KE servers): Synchronize with the secure NTP key establishment servers connected to the DHCP server.
  - Manual NTS KE servers: Enter the IP address of one or two NTP servers. When you use two NTP servers, the device synchronizes and adapts its time based on input from both.
  - Max NTP poll time: Select the maximum amount of time the device should wait before it polls the NTP server to get an updated time.
  - Min NTP poll time: Select the minimum amount of time the device should wait before it polls the NTP server to get an updated time.
- Automatic date and time (NTP servers using DHCP): Synchronize with the NTP servers connected to the DHCP server.
  - Fallback NTP servers: Enter the IP address of one or two fallback servers.
  - Max NTP poll time: Select the maximum amount of time the device should wait before it polls the NTP server to get an updated time.

#### The web interface

- Min NTP poll time: Select the minimum amount of time the device should wait before it polls the NTP server to get an updated time.
- Automatic date and time (manual NTP servers): Synchronize with NTP servers of your choice.
  - Manual NTP servers: Enter the IP address of one or two NTP servers. When you use two NTP servers, the device synchronizes and adapts its time based on input from both.
  - Max NTP poll time: Select the maximum amount of time the device should wait before it polls the NTP server to get an updated time.
  - Min NTP poll time: Select the minimum amount of time the device should wait before it polls the NTP server to get an updated time.
- Custom date and time: Manually set the date and time. Click Get from system to fetch the date and time settings
  once from your computer or mobile device.

Time zone: Select which time zone to use. Time will automatically adjust to daylight saving time and standard time.

- DHCP: Adopts the time zone of the DHCP server. The device must connected to a DHCP server before you can select this option.
- Manual: Select a time zone from the drop-down list.

Note

The system uses the date and time settings in all recordings, logs, and system settings.

#### **Device location**

Enter where the device is located. Your video management system can use this information to place the device on a map.

- Latitude: Positive values are north of the equator.
- Longitude: Positive values are east of the prime meridian.
- Heading: Enter the compass direction that the device is facing. 0 is due north.
- Label: Enter a descriptive name for the device.
- Save: Click to save your device location.

#### Network

IPv4

Assign IPv4 automatically: Select to let the network router assign an IP address to the device automatically. We recommend automatic IP (DHCP) for most networks.IP address: Enter a unique IP address for the device. Static IP addresses can be assigned at random within isolated networks, provided that each address is unique. To avoid conflicts, we recommend you contact your network administrator before you assign a static IP address.Subnet mask: Enter the subnet mask to define what addresses are inside the local area network. Any address outside the local area network goes through the router.Router: Enter the IP address of the default router (gateway) used to connect devices that are attached to different networks and network segments.Fallback to static IP address if DHCP isn't available: Select if you want to add a static IP address to use as fallback if DHCP is unavailable and can't assign an IP address automatically.

Note

If DHCP isn't available and the device uses a static address fallback, the static address is configured with a limited scope.

## IPv6

Assign IPv6 automatically: Select to turn on IPv6 and to let the network router assign an IP address to the device automatically.

## Hostname

Assign hostname automatically: Select to let the network router assign a hostname to the device automatically. Hostname: Enter the hostname manually to use as an alternative way of accessing the device. The server report and system log use the hostname. Allowed characters are A–Z, a–z, 0–9 and -.Enable dynamic DNS updates: Allow your device to automatically update its domain name server records whenever its IP address changes.Register DNS name: Enter a unique domain name that points to your device's IP address. Allowed characters are A–Z, a–z, 0–9 and -.TTL: Time to Live (TTL) sets how long a DNS record stays valid before it needs to be updated.

#### DNS servers

#### The web interface

Assign DNS automatically: Select to let the DHCP server assign search domains and DNS server addresses to the device automatically. We recommend automatic DNS (DHCP) for most networks. Search domains: When you use a hostname that is not fully qualified, click Add search domain and enter a domain in which to search for the hostname the device uses. DNS servers: Click Add DNS server and enter the IP address of the DNS server. This provides the translation of hostnames to IP addresses on your network.

#### Network discovery protocols

Bonjour®: Turn on to allow automatic discovery on the network.Bonjour name: Enter a friendly name to be visible on the network. The default name is the device name and MAC address.UPnP®: Turn on to allow automatic discovery on the network.UPnP name: Enter a friendly name to be visible on the network. The default name is the device name and MAC address.WS-Discovery: Turn on to allow automatic discovery on the network. Turning LLDP and CDP: Turn on to allow automatic discovery on the network. Turning LLDP and CDP off can impact the PoE power negotiation. To resolve any issues with the PoE power negotiation, configure the PoE switch for hardware PoE power negotiation only.

## Global proxies

Http proxy: Specify a global proxy host or IP address according to the allowed format. Https proxy: Specify a global proxy host or IP address according to the allowed format. Allowed formats for http and https proxies:

- http(s)://host:port
- http(s)://user@host:port
- http(s)://user:pass@host:port

#### Note

Restart the device to apply the global proxy settings.

No proxy: Use No proxy to bypass global proxies. Enter one of the options in the list, or enter several separated by a comma:

- · Leave empty
- Specify an IP address
- Specify an IP address in CIDR format
- Specify a domain name, for example: www.<domain name>.com
- Specify all subdomains in a specific domain, for example .<domain name>.com

#### One-click cloud connection

One-click cloud connection (O3C) together with an O3C service provides easy and secure internet access to live and recorded video from any location. For more information, see axis.com/end-to-end-solutions/hosted-services.

#### Allow O3C:

- One-click: This is the default setting. Press and hold the control button on the device to connect to an O3C service over the internet. You need to register the device with the O3C service within 24 hours after you press the control button. Otherwise, the device disconnects from the O3C service. Once you register the device, Always is enabled and the device stays connected to the O3C service.
- Always: The device constantly attempts to connect to an O3C service over the internet. Once you register the device, it stays connected to the O3C service. Use this option if the control button on the device is out of reach.
- No: Disables the O3C service.

**Proxy settings**: If needed, enter the proxy settings to connect to the proxy server.**Host**: Enter the proxy server's address.**Port**: Enter the port number used for access.**Login** and **Password**: If needed, enter username and password for the proxy server.**Authentication** method:

- Basic: This method is the most compatible authentication scheme for HTTP. It's less secure than the Digest method
  because it sends the username and password unencrypted to the server.
- Digest: This method is more secure because it always transfers the password encrypted across the network.
- Auto: This option lets the device select the authentication method depending on the supported methods. It prioritizes
  the Digest method over the Basic method.

Owner authentication key (OAK): Click Get key to fetch the owner authentication key. This is only possible if the device is connected to the internet without a firewall or proxy.

#### **SNMP**

The Simple Network Management Protocol (SNMP) allows remote management of network devices.

SNMP: Select the version of SNMP to use.

- v1 and v2c:
  - Read community: Enter the community name that has read-only access to all supported SNMP objects. The default value is public.
  - Write community: Enter the community name that has read or write access to all supported SNMP objects (except read-only objects). The default value is write.
  - Activate traps: Turn on to activate trap reporting. The device uses traps to send messages for important events or status changes to a management system. In the web interface, you can set up traps for SNMP v1 and v2c. Traps are automatically turned off if you change to SNMP v3 or turn off SNMP. If you use SNMP v3, you can set up traps through the SNMP v3 management application.
  - Trap address: Enter the IP address or host name of the management server.
  - **Trap community:** Enter the community to use when the device sends a trap message to the management system.
  - Traps:
  - Cold start: Sends a trap message when the device starts.
  - Warm start: Sends a trap message when you change an SNMP setting.
  - Link up: Sends a trap message when a link changes from down to up.
  - Authentication failed: Sends a trap message when an authentication attempt fails.

#### Note

All Axis Video MIB traps are enabled when you turn on SNMP v1 and v2c traps. For more information, see AXIS OS Portal > SNMP.

- v3: SNMP v3 is a more secure version, which provides encryption and secure passwords. To use SNMP v3, we recommend you to activate HTTPS, as the password is then sent through HTTPS. This also prevents unauthorized parties' access to unencrypted SNMP v1 and v2c traps. If you use SNMP v3, you can set up traps through the SNMP v3 management application.
  - Password for the account "initial": Enter the SNMP password for the account named "initial". Although the password can be sent without activating HTTPS, we don't recommend it. The SNMP v3 password can only be set once, and preferably only when HTTPS is enabled. Once the password is set, the password field is no longer displayed. To set the password again, you must reset the device to factory default settings.

#### Power over Ethernet

Allocated power: Number of watts (W) that are currently allocated. Total PoE consumption: Number of watts (W) that are consumed. Keep PoE active during recorder restart: Turn on to supply power to connected devices during a restart of the recorder. Used space: Percentage of space used. Free space: Percentage of space available for recordings. Free space: Available disk space displayed in megabytes (MB), gigabytes (GB), or terabytes (TB). Disk status: Current status of the disk. Disk temperature: Current running temperature. PoE: Turn on or off PoE for each port. When a device is connected, you'll see the following information:

- Friendly name: The friendly name is set in Network settings. The default name is a combination of the model and the media access control address (MAC address) of the connected device.
- Power consumption: Number of watts (W) that are currently consumed and allocated.

## Security

Certificates

## The web interface

Certificates are used to authenticate devices on a network. The device supports two types of certificates:

Client/server certificates

A client/server certificate validates the device's identity, and can be self-signed or issued by a Certificate Authority (CA). A self-signed certificate offers limited protection and can be used before a CA-issued certificate has been obtained.

CA certificates

You can use a CA certificate to authenticate a peer certificate, for example to validate the identity of an authentication server when the device connects to a network protected by IEEE 802.1X. The device has several pre-installed CA certificates.

These formats are supported:

Certificate formats: .PEM, .CER, and .PFX
Private key formats: PKCS#1 and PKCS#12

#### Important

If you reset the device to factory default, all certificates are deleted. Any pre-installed CA certificates are reinstalled.



Add certificate: Click to add a certificate.

- More : Show more fields to fill in or select.
- Secure keystore: Select to use Secure element or Trusted Platform Module 2.0 to securely store the private key. For more information on which secure keystore to select, go to help.axis.com/en-us/axis-os#cryptographic-support.
- Key type: Select the default or a different encryption algorithm from the drop-down list to protect the certificate.

The context menu contains:

- Certificate information: View an installed certificate's properties.
- Delete certificate: Delete the certificate.
- Create certificate signing request: Create a certificate signing request to send to a registration authority to apply for a digital identity certificate.

Secure keystore 0 :

- Secure element (CC EAL6+): Select to use secure element for secure keystore.
- Trusted Platform Module 2.0 (CC EAL4+, FIPS 140-2 Level 2): Select to use TPM 2.0 for secure keystore.

### Network access control and encryption

IEEE 802.1xIEEE 802.1x is an IEEE standard for port-based network admission control providing secure authentication of wired and wireless network devices. IEEE 802.1x is based on EAP (Extensible Authentication Protocol).To access a network protected by IEEE 802.1x, network devices must authenticate themselves. The authentication is performed by an authentication server, typically a RADIUS server (for example, FreeRADIUS and Microsoft Internet Authentication Server). IEEE 802.1AE MACsecIEEE 802.1AE MACsec is an IEEE standard for media access control (MAC) security that defines connectionless data confidentiality and integrity for media access independent protocols. Certificates When configured without a CA certificate, server certificate validation is disabled and the device tries to authenticate itself regardless of what network it is connected to. When using a certificate, in Axis' implementation, the device and the authentication server authenticate themselves with digital certificates using EAP-TLS (Extensible Authentication Protocol - Transport Layer Security). To allow the device to access a network protected through certificates, you must install a signed client certificate on the device. Authentication method: Select an EAP type used for authentication. Client certificate: Select a client certificate to use IEEE 802.1x. The authentication server uses the certificate to validate the client's identity.CA certificates: Select CA certificates to validate the authentication server's identity. When no certificate is selected, the device tries to authenticate itself regardless of what network it is connected to.EAP identity: Enter the user identity associated with the client certificate. EAPOL version: Select the EAPOL version that is used in the network switch. Use IEEE 802.1x: Select to use the IEEE 802.1x protocol. These settings are only available if you use IEEE 802.1x PEAP-MSCHAPv2 as the authentication method:

- Password: Enter the password for your user identity.
- Peap version: Select the Peap version that is used in the network switch.
- Label: Select 1 to use client EAP encryption; select 2 to use client PEAP encryption. Select the Label that the network switch uses when using Peap version 1.

These settings are only available if you use IEEE 802.1ae MACsec (Static CAK/Pre-Shared Key) as the authentication method:

Key agreement connectivity association key name: Enter the connectivity association name (CKN). It must be 2 to 64
(divisible by 2) hexadecimal characters. The CKN must be manually configured in the connectivity association and
must match on both ends of the link to initially enable MACsec.

• Key agreement connectivity association key: Enter the connectivity association key (CAK). It should be either 32 or 64 hexadecimal characters long. The CAK must be manually configured in the connectivity association and must match on both ends of the link to initially enable MACsec.

#### Firewall

Activate: Turn on the firewall.

**Default Policy**: Select the default state for the firewall.

- Allow: Allows all connections to the device. This option is set by default.
- Deny: Denies all connections to the device.

To make exceptions to the default policy, you can create rules that allows or denies connections to the device from specific addresses, protocols, and ports.

- Address: Enter an address in IPv4/IPv6 or CIDR format that you want to allow or deny access to.
- Protocol: Select a protocol that you want to allow or deny access to.
- Port: Enter a port number that you want to allow or deny access to. You can add a port number between 1 and 65535.
- Policy: Select the policy of the rule.



: Click to create another rule.

Add rules: Click to add the rules that you have defined.

- Time in seconds: Set a time limit for testing the rules. The default time limit is set to 300 seconds. To activate the rules straight away, set the time to 0 seconds.
- Confirm rules: Confirm the rules and their time limit. If you have set a time limit of more than 1 second, the rules will be active during this time. If you have set the time to 0, the rules will be active straight away.

Pending rules: An overview of the latest tested rules that you are yet to confirm.

#### Note

The rules that have a time limit appear under **Active rules** until the displayed timer runs out, or until you confirm them. If you don't confirm them, they will appear under **Pending rules** once the timer runs out, and the firewall will revert to the previously defined settings. If you confirm them, they will replace the current active rules.

Confirm rules: Click to activate the pending rules. Active rules: An overview of the rules you are currently running on the device.



: Click to delete an active rule.



 $oldsymbol{\&}$  : Click to delete all rules, both pending and active.

## Custom signed AXIS OS certificate

To install test software or other custom software from Axis on the device, you need a custom signed AXIS OS certificate. The certificate verifies that the software is approved by both the device owner and Axis. The software can only run on a specific device which is identified by its unique serial number and chip ID. Only Axis can create custom signed AXIS OS certificates, since Axis holds the key to sign them.Install: Click to install the certificate. You need to install the certificate before you install the

software.

- The context menu contains:
- Delete certificate: Delete the certificate.

#### **Accounts**

#### Accounts

## The web interface

Add account: Click to add a new account. You can add up to 100 accounts. Account: Enter a unique account name. New password: Enter a password for the account. Passwords must be 1 to 64 characters long. Only ASCII printable characters (code 32 to 126) are allowed in the password, for example, letters, numbers, punctuation, and some symbols. Repeat password: Enter the same password again. Privileges:

- Administrator: Has full access to all settings. Administrators can also add, update, and remove other accounts.
- Operator: Has access to all settings except:
  - All **System** settings.
- Viewer: Has access to:
  - Watch and take snapshots of a video stream.
  - Watch and export recordings.
  - Pan, tilt, and zoom; with PTZ account access.

• The context menu contains: **Update account**: Edit the account properties. **Delete account**: Delete the account. You can't delete the root account.

#### SSH accounts



Add SSH account: Click to add a new SSH account.

- Restrict root access: Turn on to restrict functionality that requires root access.
- Enable SSH: Turn on to use SSH service.

Account: Enter a unique account name.New password: Enter a password for the account. Passwords must be 1 to 64 characters long. Only ASCII printable characters (code 32 to 126) are allowed in the password, for example, letters, numbers, punctuation,

and some symbols. Repeat password: Enter the same password again. Comment: Enter a comment (optional). • The context menu contains: Update SSH account: Edit the account properties. Delete SSH account: Delete the account. You can't delete the root account.

#### Virtual host

Add virtual host: Click to add a new virtual host. Enabled: Select to use this virtual host. Server name: Enter the name of the server. Only use numbers 0-9, letters A-Z, and hyphen (-). Port: Enter the port the server is connected to Type: Select the type

of authentication to use. Select between Basic, Digest, and Open ID. • The context menu contains:

- Update: Update the virtual host.
- Delete: Delete the virtual host.

Disabled: The server is disabled.

#### **OpenID Configuration**

## Important

If you can't use OpenID to sign in, use the Digest or Basic credentials you used when you configured OpenID to sign in.

Client ID: Enter the OpenID username.Outgoing Proxy: Enter the proxy address for the OpenID connection to use a proxy server.Admin claim: Enter a value for the admin role.Provider URL: Enter the web link for the API endpoint authentication. Format should be https://[insert URL]/.well-known/openid-configurationOperator claim: Enter a value for the operator role.Require claim: Enter the data that should be in the token.Viewer claim: Enter the value for the viewer role.Remote user: Enter a value to identify remote users. This assists to display the current user in the device's web interface.Scopes: Optional scopes that could be part of the token.Client secret: Enter the OpenID password Save: Click to save the OpenID values.Enable OpenID: Turn on to close current connection and allow device authentication from the provider URL.

#### **Events**

Rules

## The web interface

A rule defines the conditions that triggers the product to perform an action. The list shows all the currently configured rules in the product.

### Note

You can create up to 256 action rules.

Add a rule: Create a rule.Name: Enter a name for the rule.Wait between actions: Enter the minimum time (hh:mm:ss) that must pass between rule activations. It is useful if the rule is activated by, for example, day-night mode conditions, to avoid that small light changes during sunrise and sunset activate the rule repeatedly.Condition: Select a condition from the list. A condition must be met for the device to perform an action. If multiple conditions are defined, all of them must be met to trigger the action. For information about specific conditions, see *Get started with rules for events*.Use this condition as a trigger: Select to make this first condition function only as a starting trigger. It means that once the rule is activated, it remains active for as long as all the other conditions are met, no matter the state of the first condition. If you don't select this option, the rule will simply be active whenever all the conditions are met.Invert this condition: Select if you want the condition to be the opposite of your

selection. Add a condition: Click to add an additional condition. Action: Select an action from the list and enter its required information. For information about specific actions, see *Get started with rules for events*.

#### Recipients

You can set up your device to notify recipients about events or send files.

#### Note

If you set up your device to use FTP or SFTP, don't change or remove the unique sequence number that's added to the file names. If you do that, only one image per event can be sent.

The list shows all the recipients currently configured in the product, along with information about their configuration.

#### Note

You can create up to 20 recipients.



Add a recipient: Click to add a recipient. Name: Enter a name for the recipient. Type: Select from the list:



- Host: Enter the server's IP address or hostname. If you enter a hostname, make sure that a DNS server is specified under System > Network > IPv4 and IPv6.
- Port: Enter the port number used by the FTP server. The default is 21.
- Folder: Enter the path to the directory where you want to store files. If this directory doesn't already exist on the FTP server, you will get an error message when uploading files.
- Username: Enter the username for the login.
- Password: Enter the password for the login.
- Use temporary file name: Select to upload files with temporary, automatically generated filenames. The
  files get renamed to the desired names when the upload completes. If the upload is aborted/interrupted,
  you don't get any corrupt files. However, you probably still get the temporary files. This way you know
  that all files that have the desired name are correct.
- **Use passive FTP**: Under normal circumstances, the product simply requests the target FTP server to open the data connection. The device actively initiates both the FTP control and data connections to the target server. This is normally needed if there is a firewall between the device and the target FTP server.
- HTTP
  - URL: Enter the network address to the HTTP server and the script that will handle the request. For example, http://192.168.254.10/cgi-bin/notify.cgi.
  - Username: Enter the username for the login.
  - Password: Enter the password for the login.
  - Proxy: Turn on and enter the required information if a proxy server must be passed to connect to the HTTP server.
- HTTPS

- **URL**: Enter the network address to the HTTPS server and the script that will handle the request. For example, https://192.168.254.10/cgi-bin/notify.cgi.
- Validate server certificate: Select to validate the certificate that was created by HTTPS server.
- Username: Enter the username for the login.
- Password: Enter the password for the login.
- Proxy: Turn on and enter the required information if a proxy server must be passed to connect to the HTTPS server.

## Network storage

You can add network storage such as NAS (network-attached storage) and use it as a recipient to store files. The files are stored in the Matroska (MKV) file format.

- Host: Enter the IP address or hostname for the network storage.
- Share: Enter the name of the share on the host.
- Folder: Enter the path to the directory where you want to store files.
- Username: Enter the username for the login.
- Password: Enter the password for the login.

# • SFTP

- Host: Enter the server's IP address or hostname. If you enter a hostname, make sure that a DNS server is specified under System > Network > IPv4 and IPv6.
- Port: Enter the port number used by the SFTP server. The default is 22.
- Folder: Enter the path to the directory where you want to store files. If this directory doesn't already exist on the SFTP server, you will get an error message when uploading files.
- Username: Enter the username for the login.
- Password: Enter the password for the login.
- SSH host public key type (MD5): Enter the fingerprint of the remote host's public key (a 32-digit hexadecimal string). The SFTP client supports SFTP servers using SSH-2 with RSA, DSA, ECDSA, and ED25519 host key types. RSA is the preferred method during negotiation, followed by ECDSA, ED25519, and DSA. Make sure to enter the right MD5 host key that is used by your SFTP server. While the Axis device supports both MD5 and SHA-256 hash keys, we recommend using SHA-256 due to stronger security over MD5. For more information on how to configure an SFTP server with an Axis device, go to the AXIS OS Portal.
- SSH host public key type (SHA256): Enter the fingerprint of the remote host's public key (a 43-digit Base64 encoded string). The SFTP client supports SFTP servers using SSH-2 with RSA, DSA, ECDSA, and ED25519 host key types. RSA is the preferred method during negotiation, followed by ECDSA, ED25519, and DSA. Make sure to enter the right MD5 host key that is used by your SFTP server. While the Axis device supports both MD5 and SHA-256 hash keys, we recommend using SHA-256 due to stronger security over MD5. For more information on how to configure an SFTP server with an Axis device, go to the AXIS OS Portal.
- Use temporary file name: Select to upload files with temporary, automatically generated filenames. The files get renamed to the desired names when the upload completes. If the upload is aborted or interrupted, you don't get any corrupt files. However, you probably still get the temporary files. This way, you know that all\_files that have the desired name are correct.

# SIP or VMS

SIP: Select to make a SIP call.

VMS: Select to make a VMS call.

- From SIP account: Select from the list.
- To SIP address: Enter the SIP address.
- Test: Click to test that your call settings works.

#### • Email

- Send email to: Enter the email address to send emails to. To enter multiple addresses, use commas to separate them.
- Send email from: Enter the email address of the sending server.
- **Username**: Enter the username for the mail server. Leave this field empty if the mail server does not require authentication.
- Password: Enter the password for the mail server. Leave this field empty if the mail server does not require
- Email server (SMTP): Enter the name of the SMTP server, for example, smtp.qmail.com, smtp.mail.yahoo.com.
- Port: Enter the port number for the SMTP server, using values in the range 0-65535. The default value is 587.
- Encryption: To use encryption, select either SSL or TLS.
- Validate server certificate: If you use encryption, select to validate the identity of the device. The certificate can be self-signed or issued by a Certificate Authority (CA).

POP authentication: Turn on to enter the name of the POP server, for example, pop.gmail.com.

#### Note

Some email providers have security filters that prevent users from receiving or viewing large amount of attachments, from receiving scheduled emails and similar. Check the email provider's security policy to avoid your email account being locked or missing out on your expected emails.

- TCP
  - Host: Enter the server's IP address or hostname. If you enter a hostname, make sure that a DNS server is specified under System > Network > IPv4 and IPv6.
  - Port: Enter the port number used to access the server.

Test: Click to test the setup. The context menu contains: View recipient: Click to view all the recipient details. Copy recipient: Click to copy a recipient. When you copy, you can make changes to the new recipient. Delete recipient: Click to delete the recipient permanently.

#### Schedules

Schedules and pulses can be used as conditions in rules. The list shows all the schedules and pulses currently configured in the product, along with information about their configuration.

Add schedule: Click to create a schedule or pulse.

#### Manual triggers

You can use the manual trigger to manually trigger a rule. The manual trigger can, for example, be used to validate actions during product installation and configuration.

## Storage

#### Onboard storage

#### Hard drive

- Free: The amount of free disk space.
- Status: If the disk is mounted or not.
- File system: The file system used by the disk.
- Encrypted: If the disk is encrypted or not.
- Temperature: The current temperature of the hardware.
- Overall heath test: The result after checking the health of the disk.

#### Tools

- Check: Check the storage device for errors and tries to repair it automatically.
- Repair: Repair the storage device. Active recordings will pause during the repair. Repairing a storage device may result in lost data.
- Format: Erase all recordings and format the storage device. Choose a file system.
- Encrypt: Encrypt stored data.
- Decrypt: Decrypt stored data. The system will erase all files on the storage device.
- Change password: Change the password for the disk encryption. Changing the password doesn't disrupt ongoing recordings.
- Use tool: Click to run the selected tool

Unmount : Click before you disconnect the device from the system. This will stop all ongoing recordings. Write protect:

Turn on to protect the storage device from being overwritten. **Autoformat** the ext4 file system.



: The disk will automatically format using

## Logs

#### Reports and logs

#### Reports

- View the device server report: View information about the product status in a pop-up window. The Access Log is automatically included in the Server Report.
- **Download the device server report**: It creates a .zip file that contains a complete server report text file in UTF-8 format, as well as a snapshot of the current live view image. Always include the server report .zip file when you contact support.
- Download the crash report: Download an archive with detailed information about the server's status. The crash report contains information that is in the server report as well as detailed debug information. This report might contain sensitive information such as network traces. It can take several minutes to generate the report.

### Logs

- View the system log: Click to show information about system events such as device startup, warnings, and critical
  messages.
- View the access log: Click to show all failed attempts to access the device, for example, when a wrong login
  password is used.

## Remote system log

Syslog is a standard for message logging. It allows separation of the software that generates messages, the system that stores them, and the software that reports and analyzes them. Each message is labeled with a facility code, which indicates the software type generating the message, and assigned a severity level.

**Server**: Click to add a new server.**Host**: Enter the hostname or IP address of the server.**Format**: Select which syslog message format to use.

- Axis
- RFC 3164
- RFC 5424

Protocol: Select the protocol to use:

- UDP (Default port is 514)
- TCP (Default port is 601)
- TLS (Default port is 6514)

Port: Edit the port number to use a different port. Severity: Select which messages to send when triggered. CA certificate set: See the current settings or add a certificate.

## Maintenance

## Maintenance

**Restart**: Restart the device. This does not affect any of the current settings. Running applications restart automatically.**Restore**: Return *most* settings to the factory default values. Afterwards you must reconfigure the device and apps, reinstall any apps that didn't come preinstalled, and recreate any events and presets. Important

The only settings saved after restore are:

- Boot protocol (DHCP or static)
- · Static IP address
- · Default router
- Subnet mask
- 802.1X settings
- 03C settings
- DNS server IP address

## The web interface

Factory default: Return *all* settings to the factory default values. Afterwards you must reset the IP address to make the device accessible.

#### Note

All Axis device software is digitally signed to ensure that you only install verified software on your device. This further increases the overall minimum cybersecurity level of Axis devices. For more information, see the white paper "Axis Edge Vault" at axis.com.

**AXIS OS upgrade**: Upgrade to a new AXIS OS version. New releases can contain improved functionality, bug fixes, and completely new features. We recommend you to always use the latest AXIS OS release. To download the latest release, go to *axis.com/support*. When you upgrade, you can choose between three options:

- Standard upgrade: Upgrade to the new AXIS OS version.
- Factory default: Upgrade and return all settings to the factory default values. When you choose this option, you can't revert to the previous AXIS OS version after the upgrade.
- Autorollback: Upgrade and confirm the upgrade within the set time. If you don't confirm, the device reverts to the previous AXIS OS version.

AXIS OS rollback: Revert to the previously installed AXIS OS version.

### **Troubleshoot**

Ping: To check if the device can reach a specific address, enter the hostname or IP address of the host you want to ping and click Start.Port check: To verify connectivity from the device to a specific IP address and TCP/UDP port, enter the hostname or IP address and port number you want to check and click Start.Network trace Important

A network trace file might contain sensitive information such as certificates or passwords.

A network trace file can help you troubleshoot problems by recording activity on the network. Trace time: Select the duration of the trace in seconds or minutes and click **Download**.

# Configure your device

# Configure your device

# Allocate power

The recorder reserves a certain amount of power for each port. The total reserved power cannot exceed the total power budget. A port will not be powered up if the recorder tries to reserve more power than what is available. This makes sure that all of the connected devices will be powered.

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

- **PoE class** Each port automatically determines the amount of power to reserve according to the PoE class of the connected device.
- LLDP Each port determines the amount of power to reserve by exchanging PoE information using the LLDP protocol.

## Note

Power allocation with LLDP only works for supported devices with firmware 9.80 or later, and for AXIS S3008 Recorder with firmware 10.2 or later.

LLDP is always active in AXIS S3008 Recorder but must be activated on the connected device. If LLDP is turned off or not supported in the connected device, then PoE class reservation will be used instead.

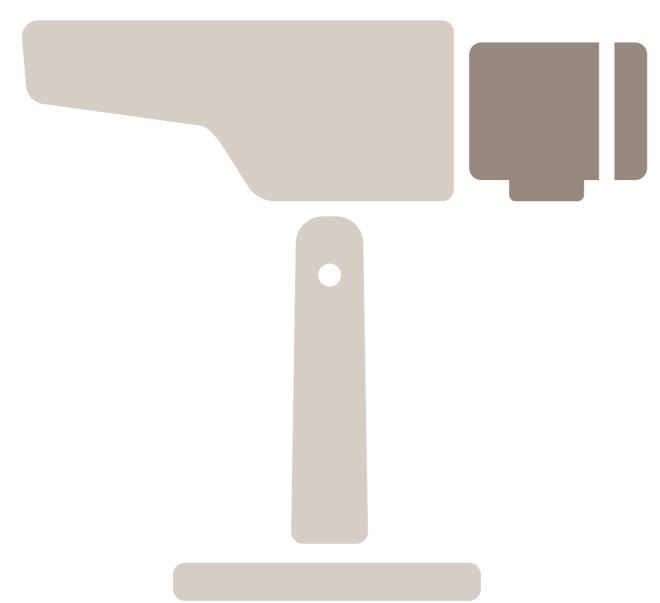
To turn on LLDP on your PoE device:

- 1. Open the device webpage.
- 2. Go to Settings > System > Plain config > Network.
- 3. Under LLDP POE, select the LLDP Send Max PoE checkbox.

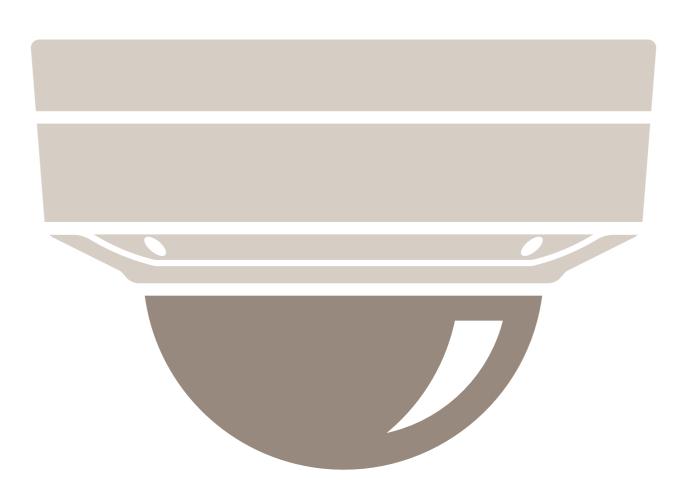
#### Example:

In this example, the AXIS S3008 Recorder has a total power budget of 65 W.

# Configure your device

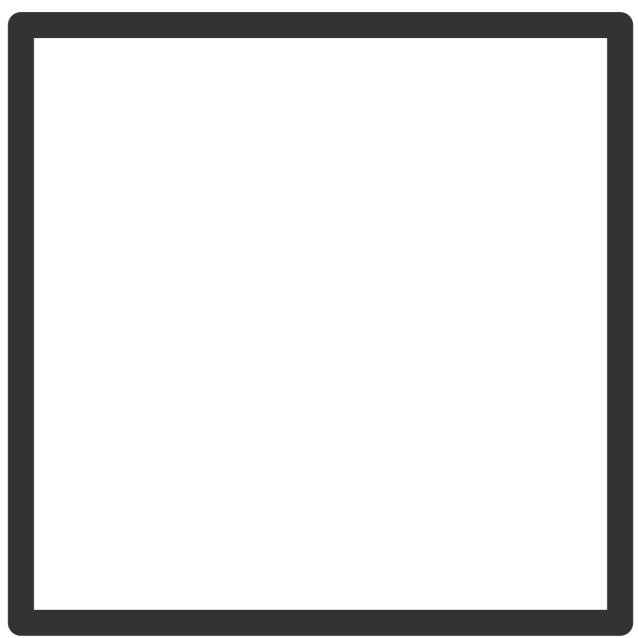


PoE class 2 device. Requests 7 W power but actually consumes 5 W power.



PoE class 3 device. Requests 15.5 W power but actually consumes 7.5 W power.

# Configure your device



Reserved power.



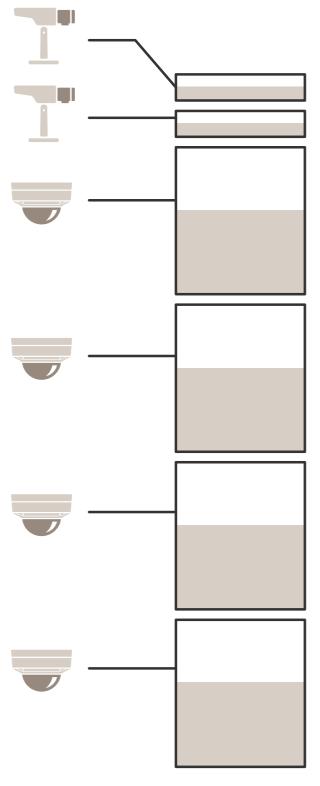
Actual power consumption.

Allocate power by PoE class

# Configure your device

Reserved power

Actual power consumption



# Configure your device

- Each port reserves the amount of power according to the device's PoE class.
- The recorder can power 2 PoE class 3 devices and 4 PoE class 2 devices.
- The total power reserved is  $(2 \times 15.5) + (4 \times 7) = 59 \text{ W}$ .
- The actual power consumed is  $(2 \times 7.5) + (4 \times 5) = 35 \text{ W}$ .

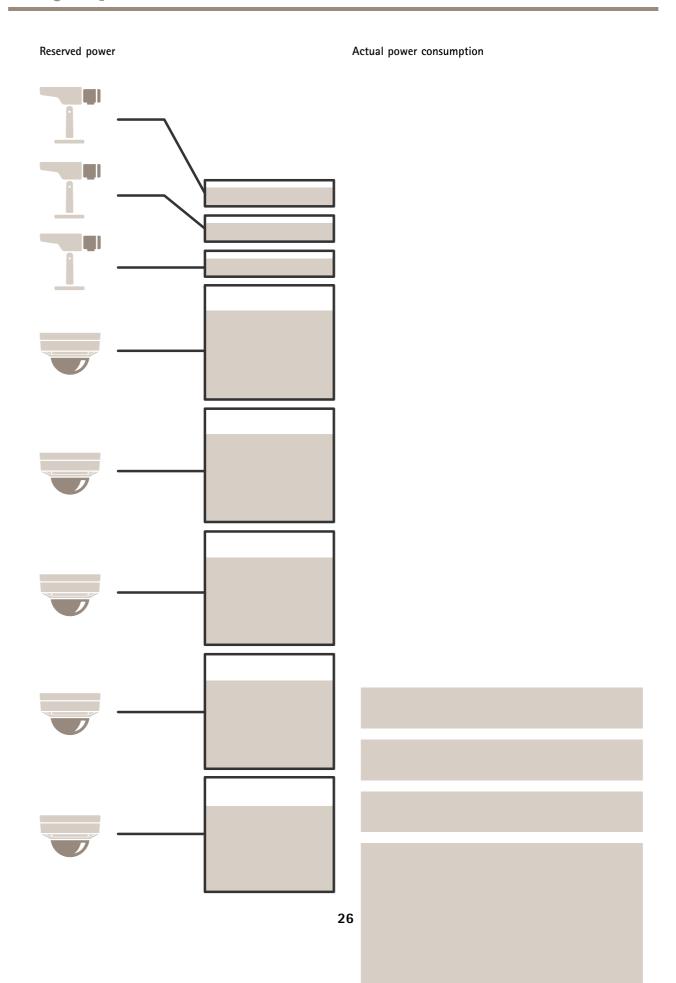
# Allocate power by LLDP

## Note

The power allocation via LLDP will over-provision for a worst-case power loss that will happen over the network cable.

| PoE Class                   | 1    | 2    | 3      |
|-----------------------------|------|------|--------|
| Max power camera            | 3.84 | 6.49 | 12.95  |
| Worst case power loss cable | 0.14 | 0.41 | 1.92   |
| Power needed at recorder    | 3.98 | 6.90 | 14.87  |
| Max power for class         | 4.00 | 7.00 | 15.40  |
| Power reserved at recorder  | 4 W  | 7 W  | 15.5 W |

# Configure your device

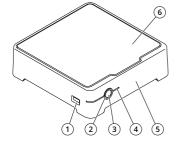


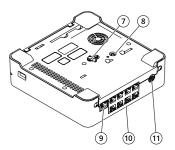
# Configure your device

- Max power determined by the connected device.
- Each port reserves the amount of power according to the device's Max PoE power consumption.
- The recorder can power up to 8 devices, if their max power requirements remain within the limits.
- The total power reserved by 8 PoE class 3 devices with LLDP is  $(8 \times 7.5) = 60 \text{ W}$ .
- The actual power consumed by 8 PoE class 3 devices with LLDP is  $(8 \times 7) = 56 \text{ W}$ .
- In this way, a tighter PoE budget allocation allows for more connected devices.

## Product overview

# Product overview





- 1 USB port
- 2 Status LED
- 3 Power button
- 4 Hard drive LED
- 5 Alarm buzzer
- 6 Hard drive
- 7 Grounding
- 8 Control button
- 9 LAN port
- 10 PoE port (8x)
- 11 Power input

## **Power button**

- To shut down the recorder, long press the power button until the buzzer makes a brief sound.
- To silence the buzzer, short press the power button.

# **Control button**

The control button is used for:

- Resetting the product to factory default settings. See *Hard reset a recorder on page 30*.
- Connecting to a one-click cloud connection (03C) service over the internet. To connect, press and hold the button for about 3 seconds until the status LED flashes green.

# **Troubleshooting**

# Troubleshooting

## The status LED gives you the following information:

| Status LED | Indication   |
|------------|--|
| Green      | The recorder is on and the status is ok.   |
| Orange     | The recorder is starting up, or the firmware is upgrading. Wait until the LED turns green.   |
| Red        | This can mean that the PoE budget is exceeded. If you just connected a device to the recorder, try to remove it again. For more information about PoE limitations, see <i>How much power can the recorder supply to the cameras? on page 2</i> . |

## The hard drive LED gives you the following information:

| Hard drive LED | Indication  |
|----------------|---|
| Green          | The LED is flashing green when data is written to the hard drive.                 |
| Red            | A recording disruption has occurred. Go to System > Storage for more information. |

## The buzzer sounds for this reason:

• The PoE budget is exceeded. If you just connected a device to the recorder, try removing it again. For more information about PoE limitations, see *How much power can the recorder supply to the cameras? on page 2* 

## Note

You can stop the buzzer with a short press of the power button.

## The recorder shuts down:

• The recorder is severely overheated.

# Technical issues, clues and solutions

| Issue                                       | Solution   |
|---|--|
| My recordings are not available.            | Go to Fix common issues on page 29.                            |
| I cannot connect to my cameras.             | Go to Fix common issues on page 29.                            |
| I receive error notification: "No contact". | Go to Fix common issues on page 29.                            |
| My sites do not appear in my mobile app.    | Make sure you have version 4 of the AXIS Companion mobile app. |

## Fix common issues

Before you restart, configure or reset your devices, we recommend that you to save a system report.

See Save a system report on page 31.

1. Check that your cameras and recorder have power.

# **Troubleshooting**

- 2. Check that you are connected to the internet.
- 3. Check that the network is working.
- 4. Check that the cameras are connected to the same network as the computer, unless you are remote.

#### Still not working?

- 5. Make sure that your cameras, recorder and AXIS Companion desktop app have the latest firmware and software updates. See *Upgrade firmware on page 30*.
- 6. Restart the AXIS Companion desktop app.
- 7. Restart you cameras and recorder.

## Still not working?

- 8. Make a hard reset on the cameras and the recorder, to completely put them back to factory default settings.
  - See Hard reset a recorder on page 30.
- 9. Add the reset cameras to your site again.

## Still not working?

10. Update your graphics card with the latest drivers.

#### Still not working?

11. Save a system report and contact Axis technical support.

See Save a system report on page 31.

# Upgrade firmware

New firmware updates bring you to the latest and improved set of features, functions, and security enhancements.

- 1. Go to the leader device's web interface.
- 2. Go to Maintenance > Firmware upgrade and click Upgrade.
- 3. Follow the instructions on the screen.

#### Hard reset a recorder

## Important

Move the recorder carefully while it's switched on. Sudden moves or shocks may damage the hard drive.

## Note

- A hard reset will reset all the settings, including the IP address.
- A hard reset will not remove your recordings.
- 1. Switch off the recorder:

Press the power button on the front of the recorder for 4-5 seconds until you hear a beep.

- 2. Wait until the recorder is switched off, then turn it over to access the control button.
- 3. Press and hold the control button. Press and release the power button to start the recorder. Release the control button after 15–30 seconds when the LED indicator flashes amber.

# **Troubleshooting**

- 4. Carefully put the recorder back in its place.
- 5. The process is complete when the status LED indicator turns green. The product has been reset to the factory default settings. If no DHCP server is available on the network, the default IP address is 192.168.0.90
- 6. Reset your devices connected to the recorder.
- 7. If your hard drive is encrypted, it must be mounted manually after the recorder is reset:
  - 7.1 Go to the device's web interface.
  - 7.2 Go to System > Storage and click Mount.
  - 7.3 Enter the encryption password used when encrypting the hard drive.

# I can't log in to the product's web interface

If you set a password for the product during configuration, and later add that product to a site, you can no longer log in to the product's web interface with the password you've set. This is because AXIS Companion software changes the passwords of all devices in the site.

To log in to a device in your site, type the username root and your site password.

# How to erase all recordings

- 1. In the device's web interface, go to System > Storage.
- 2. Select Format and click Use tool.

## Note

This procedure erases all recordings from the hard drive, but the configuration of the recorder and the site doesn't change.

## Save a system report



. In , go to  $\longrightarrow$  > Save system report.

2. When you register a new case at Axis Helpdesk, attach the system report.

# Need more help?

# Need more help?

# **Useful links**

• AXIS Companion user manual

# **Contact support**

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

User manual AXIS S3008 Recorder © Axis Communications AB, 2020 - 2025 Ver. M30.2

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