Axis body worn solution

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AXIS W800 System Controller
AXIS TW1200 Mini Bullet Sensor

User manual

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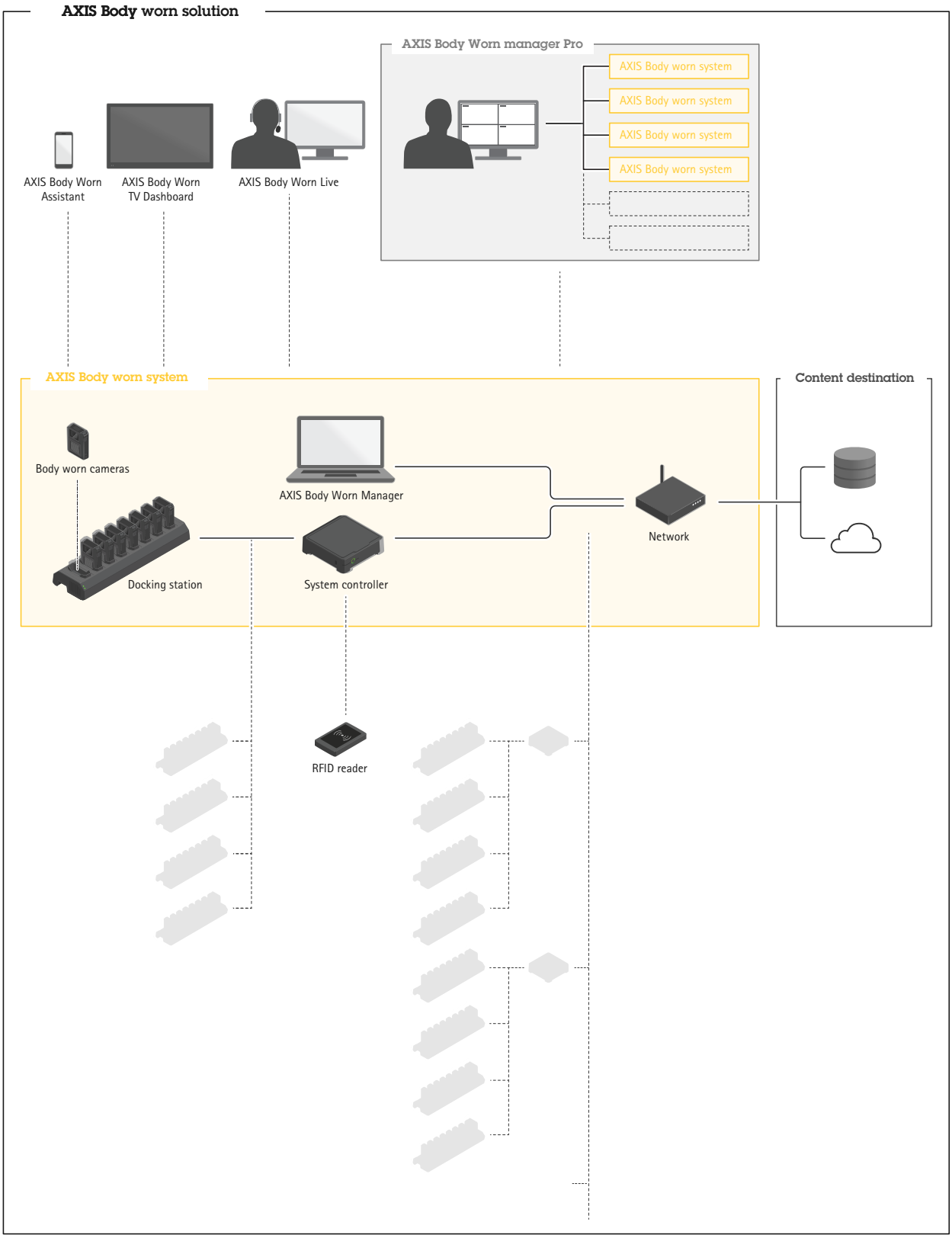
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This is the Axis body worn solution



The Axis body worn solution – is one or more Axis body worn systems connected to a content destination. The body worn system functions only when it's connected to a content destination.

The Axis body worn system – consists of Axis body worn cameras, Axis docking stations, Axis system controllers, and AXIS Body Worn Manager.

AXIS Body Worn Manager – is the web application where you can configure and manage your body worn system.

AXIS Body Worn Manager Pro – is the application where you can centrally manage several body worn systems. For more information, see *AXIS Body Worn Manager Pro product page*.

AXIS Body Worn Assistant – is an application for mobile devices that connects directly to the body worn camera and, for instance, lets you view recorded video. For more information, see *AXIS Body Worn Assistant, on page 52*.

AXIS Body Worn Live – is a solution that lets body worn camera users stream live video over Wi-Fi® or mobile networks. For more information, see *AXIS Body Worn Live product page*. To reach the version that's hosted by Axis, click *here*.

An optional RFID reader – can be connected to the system controller. It lets the camera user self-assign any available body worn camera, using their self-assign tag.

When you place a camera in the docking station, the docking station charges the camera's battery, and the camera connects to the system. The system controller then seamlessly transfers all data from the camera to the content destination of your choice. The system controller also keeps the cameras up-to-date with the latest device software and settings, and monitors the health of the Axis body worn solution.

The system is supported by different types of content destinations such as evidence management systems (EMS), video management systems (VMS), and media servers. You can use the Body Worn Integration API to integrate with any third party VMS or EMS. Go to *developer.axis.com* > **Body worn** to get access to the Body Worn Integration API documentation.

What's new in the latest release?

To find out what's new in each release, check out *Axis body worn solution – What's new*.

Get started

To set up your body worn system you must go through the following steps:

1. *Install your system, on page 7*
2. *Access AXIS Body Worn Manager for the first time, on page 8*
3. Connect to a content destination. See *Content destinations, on page 10*.
4. *Add cameras, on page 11*
5. *Add users, on page 11*
6. *Assign users to cameras, on page 12*.
7. *Edit a camera profile, on page 14*



Get started with the Axis body worn solution

Install your system

Note

You need these hardware components to install a body worn system:

- System controller, see *System controller, on page 49*
- Docking station
- Body worn camera, see *Axis body worn cameras, on page 51*
- Computer
- Network cables
- Optional RFID reader for self-assign camera assignment.

Important

Install the system controller in a secure location so no one can connect unauthorized devices. Keep the docking station network separate from the production network. Protect your network from unauthorized access. Follow best practices when you set up the network.

1. Connect the system controller to your network.
2. Connect the docking station to the **Docking stations** ports on the system controller. Install the docking station:
   - horizontally
   - in a space with good ventilation and air circulation
   - not in direct sunlight
3. Optionally, connect the RFID reader to the system controller USB connector.
4. Connect a computer to the same network as the system controller.
5. Power on the devices.
6. Dock the cameras.
7. Continue to *Access AXIS Body Worn Manager for the first time, on page 8*.

Access AXIS Body Worn Manager for the first time

Note

- Before you start, make sure you have the:
  - latest device software version available. You can download it at *axis.com*. To get access to device software you need a My Axis account.
  - content destination connection file available, see *Content destinations*.

1. Find the system controller on your network:
   1.1. Go to *axis.com/support/software* and download AXIS IP Utility.
   1.2. Start AXIS IP Utility.
   1.3. Use the serial number to locate the system controller in the list. You can find the serial number on the underside of the system controller, or on the label on the system controller box.
   1.4. Access your system controller from the search result list. AXIS Body Worn Manager opens in your browser.
2. Follow the setup assistant:
   2.1. If you want to set up a brand new system, select **Create a new system**.
   If you want to add more system controllers to your existing system, select **Extend an existing system** and then follow the instructions in *Extend the system, on page 21*.
   2.2. Select **Standard** mode if you want to set up a regular system. Select **Evaluation** mode if you want to try out the solution. For more information about evaluation mode, see *Evaluation mode, on page 9*.
   2.3. Create an administrator account. Your administrator username is `root`.
   2.4. Install the latest device software version. You can download device software from *axis.com*. We support different AXIS OS tracks for the body worn system. This lets you choose the track best suited for your system, whether you want all the latest features from the **Active track**, or you prioritize stability from the **Long-term support (LTS) track**. For more information, see *Device software, on page 47*.
   2.5. Give your body worn system a name. This makes it easier to identify it in your content destination and in different cloud services, and when you receive email notifications about critical system events. You can change the system name under **Settings**.
   2.6. Configure network settings.
   2.7. Connect the system to a content destination using a connection file. The content destination is where your recordings and metadata are stored and managed. The body worn system is locked to a content destination once connected to it. To change to another content destination, you need to reset the body worn system first. For more information, see *Content destinations, on page 10*.
   2.8. The **Super admin passphrase** provides extra security for the body worn system. System critical actions, for example restoring the system, require verification with the Super admin passphrase. It is also required to reestablish the connection between the body worn system and cameras that are in safe mode. You can't change the passphrase.
   2.9. The **System restore key** is an important security feature. The body worn system requires a system restore key for certain operations. These operations include for example, reestablishing the connection between the body worn system and the existing cameras, after replacing a system controller that has failed. Download the **System restore key** to your computer and store it in a secure location.
   2.10. Select the country where the body worn system will be used. If you plan to use the system in several countries, select **Global**. For regulatory reasons, the Wi-Fi performance might be degraded when you select **Global**.
   2.11. Select the power line frequency that is used in your region. With the right frequency, there is less image flicker. The American regions usually use 60 Hz. The rest of the world mostly uses 50 Hz. If you're not sure of your region's power line frequency, check with the local authorities.

2.12. You can assign cameras to users in two ways. With **Fixed** camera assignment every user is manually assigned to a specific camera. With **Self-assign** the camera user taps a self-assign tag on an RFID reader, connected to the system, to pick up any available camera. It is not possible to switch between **Fixed** and **Self-assign** without resetting the system. For more information, see *Assign users to cameras, on page 12*.

3. Set the correct date and time. Setting the time correctly is critical for several reasons, see *Adjust date and time, on page 47*.

Secure passwords

Important

Use HTTPS (which is enabled by default) to set your password or other sensitive configurations over the network. HTTPS enables secure and encrypted network connections, thereby protecting sensitive data, such as passwords.

The password is the primary protection for your data and services.

To protect your data we strongly recommend that you:

- Don't expose the password.
- Change the password at a recurring interval, at least once a year.

Evaluation mode

Important

- You can't change a system that is in evaluation mode into standard mode.
- You can't connect a body worn system in evaluation mode to AXIS Body Worn Manager Pro.

If you want to try out the body worn solution, you can choose to set up the system in evaluation mode. Just like in standard mode, all communication between cameras, system controllers, and the content destination is encrypted. In evaluation mode:

- you can easily reset the system, even if there are still cameras or extension system controllers in the system, or if there are recordings that haven't been transferred to the content destination.
  If there are undocked cameras in the system, you get a warning when you try to reset the system. Undocked cameras won't be reset when you reset the system, but must be reset individually.
- you can reset a camera at any time, regardless if it's docked or undocked. Any recordings that haven't been transferred get deleted. If you want to add a camera that has been reset back into the system, force remove it first. See *Force remove camera, on page 40*.
- there is a demo account for AXIS Body Worn Manager with a preconfigured username (`demo`) and password (`demo`). You can't delete the demo account. With the demo account, you can log into the system even if you lose the administrator account password. It allows you to back up and restore the system, remove hardware, and retrieve recordings that couldn't be transferred to the content destination.

To reset AXIS W100 or AXIS W101 Body Worn Cameras:

1. Double-press both the function and recording buttons simultaneously to verify that the camera is in evaluation mode.
   If the camera is in evaluation mode, all LEDs flash amber.
2. Within 7 seconds, double-press the recording button to reset the camera.

To reset AXIS W102, AXIS W120, AXIS W110 or AXIS W111 Body Worn Cameras:

1. Double-press the power button to verify that the camera is in evaluation mode.
   If the camera is in evaluation mode, the display of AXIS W102 and AXIS W120 shows the text `Evaluation mode`. On AXIS W110 and AXIS W111, all LEDs flash amber.
2. Within 7 seconds, double-press the power button again to reset the camera.

Content destinations

The content destination stores and manages your recordings and metadata. A content destination is for example an EMS (evidence management system), a VMS (video management system), or a media server. The Axis body worn solution supports a number of different content destinations.

All content destinations require a connection file to integrate with the Axis body worn system. The connection file is generated in your content destination. For information about how to generate the connection file, check the user help in your content destination.

The connection with the content destination also requires that the network communication is working properly. This can include proxy, firewall, and anti-virus configuration.

Important

The time and time zone of your body worn system must always match the time and time zone of the content destination. See *Adjust date and time, on page 47*.

Connect to AXIS Camera Station Pro

Go to the *AXIS Camera Station Pro Integrator Guide* for help on how to integrate an Axis body worn system with AXIS Camera Station Pro.

Connect to AXIS Camera Station 5

Go to the *AXIS Camera Station 5 Integrator Guide* for help on how to integrate an Axis body worn system with AXIS Camera Station 5.

Connect to AXIS Case Insight

Go to the *AXIS Case Insight System Integrator Guide* for help on how to integrate an Axis body worn system with AXIS Case Insight.

Integrate with third party applications

Go to *Body worn integration Genetec* for help on how to integrate with Genetec Security Center, and *AXIS Optimizer Body Worn Extension* for help on how to integrate with Milestone XProtect®.

Note

- The body worn system pushes changes to the content destination, for example when you add, remove, or change a user, or when you change a camera name. This type of communication is one way, which means that the content destination doesn't push corresponding changes to the body worn system.
- You must connect to a content destination before you can use the body worn system.
- We recommend that you delete the connection file from your computer when you have connected to the content destination.
- The body worn system is locked to a content destination once connected to it. To change to another content destination, you need to reset the body worn system first.
- Never remove or reset the content destination before resetting the body worn system. Always reset the body worn system first. If you remove or reset the content destination first, recordings can remain on cameras or in the system controllers, preventing you from resetting the body worn system. This is a security feature ensuring that all evidence is uploaded to the content destination.

Associate recordings with a user in AXIS Case Insight

A recording transferred to AXIS Case Insight is associated with a user. The AXIS Case Insight user corresponds to the person wearing the camera, the camera user. The association makes it easier to search for and collect recordings made by a specific person, for example when you create a case.

See *Create a user, on page 11* for information on how to associate recordings with a user in AXIS Case Insight.

Add cameras

1. Dock the cameras that you want to add to your system. Camera LEDs flash amber.
2. Go to **Cameras**.
3. In the camera list, click **New**.
4. In the **Add cameras** list, select the cameras you want to add and click **Add**.
   The camera state changes from **Adding** to **Docked** or **Charging** when a camera has been added. It can take a couple of minutes.

Add users

A camera user in the system is the link between a recording and the person using a body worn camera. To add camera users, you can either create them directly in the system, or import them from a file.

- *Create a user, on page 11*
- *Import users, on page 11*

Create a user

1. Go to **Users**.
2. Click to add a new user.
3. Enter user information:
   3.1. Name of the user (can be shown in the overlay).
   3.2. User's unique ID within the organization (can be shown in the overlay).
   3.3. Optionally, enter the AXIS Case Insight username.

   Note
   - This option is presented only if you're using AXIS Case Insight.
   - When you enter a user's email address as username, a corresponding guest user is created in AXIS Case Insight. This guest user has no access to any recorded evidence in the system. Access rights for the user are managed in AXIS Case Insight.
   - You can't change the username for an existing user. To do this, you must remove the user and add it again.

   3.4. Choose a **Camera profile**
4. Click **Add user**.

Import users

The body worn system allows you to import your camera users' data from a CSV UTF-8 (Comma delimited) file. This is the most efficient way to add new users, as well as update usernames and camera profiles for existing camera users with a user ID.

	A	B	C	D	E	F
1	#ID (required)(max 30 characters)	Name (required)(max 60 characters	Policy	Email	RFID number	
2	123	Officer_James	Default		1D1AC750	
3	567	Officer Paul	Default		FDA3C650	
4	987	Officer Smith	Default		3DFDC650	
5						
6						

CSV file example

You can also include RFIDs for each user. This means that if you're using self-assign camera assignment, you can associate RFID tags with all the users at once, instead of pairing each self-assign tag individually.

If you already have users in the system that you want to update before doing the import, see *Export users, on page 30*.

To import camera users:

1. Go to **Users**.
2. Open the context menu and click **Import users**.
3. Download the **CSV template**, which shows you the correct format for the users, user IDs, and RFIDs.
4. Enter the users and user IDs in the CSV file.
5. Click **Select CSV file** and select the file that you created.
6. Resolve any conflicts shown in the status window and then click **Import**.

Assign users to cameras

Note

- A camera doesn't function unless a user is assigned to it. Camera LEDs flash red when you undock it to indicate that a user must be assigned to the camera before use.
- You can only assign a user to a camera that supports all features in the user's camera profile.

There are two ways to assign users to cameras:

- *Fixed camera assignment, on page 12*
- *Self-assign camera assignment, on page 12*

Fixed camera assignment

The body worn system administrator or local administrator assigns the camera user to a specific camera. The camera user always uses the same body worn camera. See *Assign a user to a specific camera*

Assign a user to a specific camera

Note

Fixed camera assignment is selected in the system setup wizard. Changing to self–assign camera assignment requires a system reset.

1. Go to **Cameras**.
2. Open the camera you want to assign a user to.
3. In the **Assigned user** list, select a user.

Self-assign camera assignment

The camera user taps a self-assign tag on an RFID reader connected to the system. The system then assigns the user to an available camera. LEDs on the self-assigned camera flash green to indicate that the user can undock the camera.

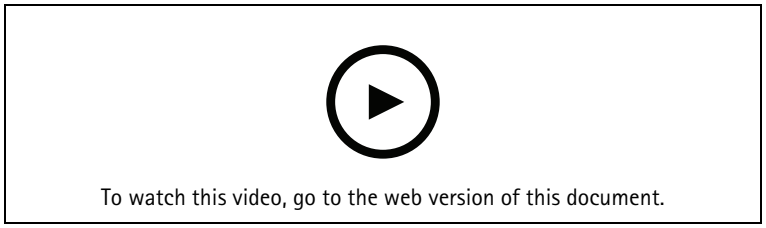
For some body worn systems, the hardware is installed in different locations, and for others, the entire system is in the same room. Choose the option that corresponds to your system setup:

Single location self–assign – When all cameras and system controllers are in the same room.

Multiple locations self–assign – When cameras and system controllers are spread out in different locations. With multiple locations self-assign, the user gets to pick a camera from the same place as the card reader, but can still dock the camera at any location within the system.

For self-assign camera assignment setup, see *Set up self-assign camera assignment*.

Set up self-assign camera assignment



Set up self-assign camera assignment

Note

- Self-assign camera assignment is selected in the system setup wizard. Changing to fixed camera assignment requires a system reset.
- This setup requires RFID reader **External RFID Card Reader 125kHz + 13.56MHz with NFC (USB)**. There are two models of this reader. The model name is printed on the product label:
  - **TWN4 Multitech** is supported by all device software versions.
  - **TWN4 Multitech 2 LF HF** requires device software version 10.12 or later.

To set up self-assign camera assignment:

1. Connect the RFID reader to the system controller. Wait for the LED on the reader to light up green, which takes about 15 seconds. The reader now has the correct device software and is ready for use.
2. To pair each RFID tag individually, continue with next step.
   Alternatively, to associate already existing RFIDs with all users at once, see *Import users, on page 11*.
3. Disconnect the RFID reader from the system controller.
4. Connect the **same** RFID reader to the computer that you use for accessing AXIS Body Worn Manager.

Note

Setup through remote desktop solutions isn't supported. The RFID reader must be connected directly to the computer that you use for accessing AXIS Body Worn Manager.

5. In AXIS Body Worn Manager, go to **Users**.
6. Select the user that you want to pair the self-assign tag with.
7. Click to pair new equipment.
8. Click **Pair** (Self-assign tag).
9. Tap the self-assign tag on the RFID reader to register it. Keep tapping until all the dots in the user interface turn yellow.

Note

Repeat steps 6–9 if you want to do more than one pairing.

10. Disconnect the RFID reader from the computer.
11. Connect the **same** RFID reader to the system controller.

Now the camera user can use the tag to self-assign a body worn camera.

Camera profiles

Use camera profiles to apply the same camera settings to a group of users. You can for example create different profiles for the day and night shifts. A default camera profile is assigned to new users.

Edit a camera profile

1. Go to **Camera profiles** and select one of the pre-configured camera profiles from the drop down menu.
2. Click  to edit the selected camera profile.
3. Edit the camera profile **Name**.
4. Enter a **Description** for the camera profile.
5. Select the cameras that you want to make available for camera assignment for users with this camera profile.
6. Click **Done**.
7. Expand the devices in the list to edit the settings. For a description of the different settings, see *Camera profile settings, on page 14*.

Camera profile settings

AXIS Body Worn Cameras

Support for the features and settings described in this section varies between camera models. This icon indicates that the feature or setting is available only for some camera models.

Video	**Recording image quality**	• **720p** • **720p high** • **1080p**. For AXIS W100 and AXIS W101 prebuffer is limited to maximum 90 seconds. • **1080p high** . For AXIS W100 and AXIS W101 prebuffer is limited to maximum 60 seconds. The **high** settings use less compression and increase sharpness, which results in a higher bitrate. These settings are suitable for incident based recording.
	Live streaming image quality	• **320p**. • **720p**
	Electronic image stabilization	Minimizes the effects from shaking and vibration and makes the image more smooth and steady.
	Barrel distortion correction	Barrel distortion is a lens effect that makes the image appear curved and bent outwards. With **Barrel distortion correction** you get a straighter image.

Audio	Includes audio in the recording.	
	Optimization	• **Default** – Amplified audio, suitable for most environments. • **Post-processing** – Unprocessed (no automatic gain control or noise reduction) audio in stereo. Suitable for post-processing applications when you want to apply your own signal processing algorithms off-line or require audio that hasn't been optimized in any way. Results in a much lower audio level than the default optimization. • **Voice** – Isolates voices in the recording by filtering out monotonous ambient sound.
Standby mode	Puts the camera in a power saving mode when it's not recording. Extends the operating time. Can't be combined with prebuffer.	
Prebuffer	Adds recording time before the recording starts, to make sure the whole event is captured.	
	Length	Prebuffer length: 15, 30, 60, 90, or 120 seconds. For AXIS W100 and AXIS W101 the 120 second option is available only with the 720p image quality.
	Audio	Includes audio in the prebuffer.
Postbuffer	Continues to record after the camera user has stopped the recording. The camera still indicates that the recording has been stopped. Audio is included in the postbuffer if it's turned on under **Audio**.	
	Length	Postbuffer length: 10, 30, or 60 seconds.
Location Assisted GNSS (ephemeris) enabled	Provides the camera's geographical position as coordinates. Only recommended for outdoor use. Shortens the operating time.	
	Mode	• **While recording and streaming** – When you record, if your content destination supports continuous updates, the camera's movements are

		saved with the recording. You can then view the movements as a trail. If continuous updates aren't supported, the start and end positions are saved with the recording. If you're using an overlay that shows the camera's position, it shows the updates. When you stream, the camera's position is continuously updated and sent to AXIS Body Worn Live. • **Always** – Also sends the camera's position to AXIS Body Worn Live while the camera is undocked.
Overlay	Overlays are superimposed over the video stream. They provide extra information in the recordings. You always get information if the microphone is off.	
	User name	Shows the name you entered when you created the camera user.
	User ID	Shows the user ID you entered when you created the camera user.
	Position 	Shows the camera's current geographical position as coordinates. Requires that **Location** is turned on.
Activation	**Recording button**	• **Single press** – Starts to record when the user presses the button once. • **Double press** – Starts to record when the user presses the button twice. This setting also applies to AXIS TW1201 Mini Cube Sensor if it's connected to the camera.
	Always record	Starts to record when the camera user undocks the camera and continues to record until they dock it again. The camera user can't use the recording button to stop the recording. If the user turns off the camera the recording stops. When they turn on the camera, the recording automatically starts. The recording button can still be used to create bookmarks or stop a live stream.

		Can't be combined with **Privacy zone broadcast response: Stop recording**.
	Record on fall detection	Starts to record when the camera detects a fall.
	Live stream on fall detection	Starts to live stream when the camera detects a fall. Requires **Record on fall detection** and **Streaming** under **AXIS Body Worn Live** to be turned on.
	Live stream on unholster	Starts to live stream when the holster sensor detects unholstering. Requires **Streaming** under **AXIS Body Worn Live** to be turned on.
	Broadcast wireless signal	Makes other cameras nearby start to record when this camera starts to record. The other cameras must have **Receive wireless broadcast** turned on.
	Signal strength	Adjusts the reach of the wireless broadcast signal from the camera. The stated distances are applicable for open, outdoor spaces without any obstructions. • **High** – Up to 100 meters (328 feet). • **Medium** – Up to 75 meters (246 feet). • **Low** – Up to 35 meters (115 feet).
	Delay at undock	Disable wireless broadcasting for 2, 5, 10, or 30 minutes after undock.
	Record on received wireless broadcast	Starts to record on this camera when a nearby camera broadcasts a recording signal.
Privacy zone	**Privacy zone broadcast response**	The camera's response to a privacy zone broadcast. • **None** • **Alert** – The camera beeps and vibrates three times, or plays a voice clip. • **Stop recording** – The camera stops recording. Can't be combined with **Activation > Always record**.

	Alert settings	• **Always alert** – Alert regardless if the camera is recording or not. • **Alert when recording** – Only alert if the camera is recording.
Feedback	**Front recording indicator**	The state of the indicator while the camera is recording: • **None** • **Steady** • **Flash** When AXIS TW1201 Mini Cube Sensor is connected, the indicator behavior is applied to the sensor's front recording indicator.
	Alert	Provides camera feedback through: • **Vibration** • **Sound** • **Sound and vibration** • **Voice** • **Voice and vibration**
	Low battery warning	The camera gives feedback when there is less than 0.5 hours battery time left. • **Once** – The camera beeps and vibrates once. • **Periodic** – The camera beeps and vibrates once every second minute. • **Periodic reinforced** – The camera beeps and vibrates three times every minute.
	Periodic reminder when recording is on	The camera alerts at regular intervals while recording. This works as a reminder as well as a confirmation that the camera is recording. This is mainly suitable for incident based recording. Select a preferred interval for the periodic reminder.
	Periodic reminder when recording is off	The camera alerts at regular intervals when recording is off. This is mainly suitable for continuous recording since it reminds the user to start recording again, for example, after taking a break. Select a preferred interval for the periodic reminder. Turn on

		Escalating to gradually increase the frequency of the reminders.
Camera feature access	Allow silent mode	Makes it possible for the camera user to turn off the display, the front recording indicator, and alerts.
	Allow microphone mute	Makes it possible for the camera user to turn off audio recording.
AXIS TW1201 Mini Cube Sensor	Disable main camera recording button	Disables the main body worn camera's recording button (used to start and stop recordings) when the mini cube sensor is connected. Select this option if you want to use the recording button on the mini cube sensor only.
	Rotate image 180 degrees	The ability to rotate the image gives you added mounting flexibility for the mini cube sensor.

AXIS Body Worn Assistant

Allow access to recordings	Allow the camera user to view their own recordings in AXIS Body Worn Assistant.
Allow change of wireless network	Allow the camera user to change the wireless network in AXIS Body Worn Assistant. If the user changes the network in AXIS Body Worn Assistant it also gets updated in AXIS Body Worn Manager.
Allow user to set categories	Allow the camera user to categorize their own recordings in AXIS Body Worn Assistant.

Wireless connection

Wi-Fi network	Assign a Wi-Fi network to use for streaming video and audio to AXIS Body Worn Live.

AXIS Body Worn Live

Only visible when you have connected your body worn system to AXIS Body Worn Live.

Streaming	Allows the camera user to stream to AXIS Body Worn Live. For more information, see *Enable live streaming* in the AXIS Body Worn Live, Axis Hosted user manual.	
	Live stream on record	When the camera user starts a recording by pressing the recording button, a live stream starts at the same time.
Remote stream activation	Makes it possible for an operator to start live streaming remotely from AXIS Body Worn Live. Requires the camera to be connected to a wireless network, which decreases battery time.	

	Mode	• **While recording** – Possible to start streaming from remote while the camera is recording. • **Always** – Possible to start streaming from remote while the camera is undocked.

Configure your system

Open AXIS Body Worn Manager

1. Open a browser and enter the IP address or host name of the system controller.
   If you do not know the IP address, see *Access AXIS Body Worn Manager for the first time, on page 8*.
2. Enter your username and administrator password.
   AXIS Body Worn Manager opens in your browser.

Note

The username for the default administrator account is `root`.

Extend the system

You can extend your system by adding more system controllers. With additional system controllers, you can add up to 1000 cameras to the system. The extension system controllers become instances of the existing system. All settings are inherited from the system to the extension system controllers. You manage the users and cameras that are added to the extension system controller through AXIS Body Worn Manager.

1. Connect the new system controller to the same network as the existing body worn system.
2. Access the new system controller, see *Access AXIS Body Worn Manager for the first time*.
3. Select **Extend an existing system**.
4. Create an administrator password and click **Okay**.
5. Type in the IP address of the system controller that you initially created the body worn system on, and click **Connect**.

Note

If the extension system controller has a newer device software version than the existing system, you're asked to either upgrade the existing system, or to downgrade the extension system controller.

6. Add the new system controller to the body worn system, see *Add system controllers*.

Note

- Distributed systems require stable network connections. A bad connection can for example prevent users from self-assigning cameras.
- The body worn system supports one time zone. The date and time of the recordings are the same regardless of the time zone in which the extension system controller and cameras are located.

Add system controllers

1. Install the new system controller, see *Extend the system*
2. Go to **System controllers** .
3. In the system controller list, click **New**.
4. In the **Add system controllers** list, select the system controller(s) you want to add and click **Add**.

To access the new system controller:

1. Go to **System controllers** .
2. Open the extension system controller you want to access.
3. Open the context menu ⋮.
4. Click **Open**.

Configure the system backup

The system backup saves all your settings to an extension system controller. It lets you restore the body worn system in the unlikely event that the system controller, on which the system was initially created, malfunctions. The backup includes all users, camera profiles, camera assignment, and system settings. The backup is updated automatically every 24 hours. System backup is available for systems with more than one system controller.



Axis body worn system backup and restore

To configure the system backup:

1. Go to **Settings** > **System** > **System backup**.
2. Click **Configure**.
3. Select **System controller backup**.
4. Select the extension system controller where you want to save the backup.
5. Click **Save**.

You can manually backup the system at any time instead of waiting for the scheduled backup. This ensures that all your data and settings can be saved on demand. To manually start the backup, go to **Settings** > **System** > **System backup** and click **Backup now**.

Note

- The backup does not include any recorded evidence.
- We recommend that you physically label the backup system controller. This will be your way of identifying it in the unlikely event that the system controller, on which the system was initially created, malfunctions.
- Backup requires a body worn system with multiple system controllers.

See *Restore a system with more than one system controller, on page 43* if you want to restore a system.

You can receive a system notification If the system backup fails to synchronize. See *Set up email notifications, on page 38*.

Stream live video to AXIS Body Worn Live

With AXIS Body Worn Live, body worn camera users can stream live video and audio over Wi-Fi® or mobile networks. There are two hosting options:

Hosted by Axis – hosted in the Axis cloud. *User manual*

Self-hosted – hosted by you. *User manual*

Activate recording automatically

In combination with prebuffer, automatic recording activation ensures that the whole incident is captured without the need for the camera user to manually start a recording. You can set up cameras to start recording automatically using:

- *Fall detection, on page 23*

- *Unholster detection, on page 23*
- *Wireless broadcast, on page 24*

Fall detection

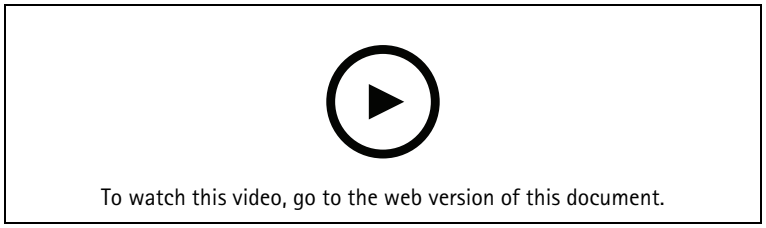
Fall detection can trigger the camera to automatically start to record video and live stream when the person who wears the camera falls. In combination with prebuffer, this feature ensures that the whole incident is captured without manual activation.

To turn on fall detection:

1. Go to **Camera profiles** .
2. Open the camera profile that you want to edit.
3. Under **Activation**, turn on **Record on fall detection**.
4. To activate live streaming as well as recording, turn on **Live stream on fall detection**.

Unholster detection

A holster sensor detects unholstering to automatically trigger video recording or live streaming. In combination with prebuffer, this feature ensures that the whole incident is captured without manual activation. This feature requires you to pair the camera user with the *Yardarm* holster sensor. To pair a second holster sensor with the same camera user, repeat the instructions.



Set up holster sensor for your body worn camera

To enable unholster detection:

1. Make sure the holster sensor is disconnected from its power supply.
2. Go to **Users** and select the user that you want to pair the holster sensor with.
3. Click to pair new equipment.
4. Click **Pair** (Holster sensor).
5. Dock the camera (do one of the following, based on camera assignment method):
   - **Fixed camera assignment:** Dock the camera assigned to the body worn user that you want to pair the holster sensor with.
   - **Self-assign camera assignment:** Make sure a camera is docked.
6. Enter the 6-character serial number found on the holster sensor.
7. Undock the camera (do one of the following, based on camera assignment method):
   - **Fixed camera assignment:** Undock the camera and wait for it to start. Status LED lights up green.
   - **Self-assign camera assignment:** Self-assign a camera, undock it, and wait for it to start. Status LED lights up green.
8. Connect the power supply to the holster sensor.

9. For AXIS W102 and AXIS W120, the holster sensor icon lights up white to show that the pairing started. For the other camera models, the Wi-Fi® connectivity LED pulses yellow. Wait for the icon or LED to light up green, which indicates a successful pairing (can take up to 20 seconds). The icon or LED lights up red if the pairing failed.
10. Disconnect power from the holster sensor.
11. Install the holster sensor and unholster to make sure the pairing was successful. The recording LED on the camera should light up red.
12. Dock the camera.

After completing the pairing, check the pairing status for the holster sensor under **Paired equipment**. Green status shows that the pairing is registered in the body worn system.

To connect the camera to a holster sensor in the daily use, undock the camera and make sure that it's in the holster sensor's range within 10 minutes after undocking. Under normal circumstances the range is 5–10 m (16–33 ft).

Wireless broadcast

Wireless broadcast allows cameras to activate recording on other cameras that belong to the same body worn system and that are located nearby.

When one camera starts recording, it broadcasts a wireless signal to other cameras. The broadcast lasts for 5 seconds. Cameras that receive the broadcast automatically start recording too.

Note

The possibility to detect wireless signals highly depends on the surrounding environment.

1. Go to **Camera profiles** .
2. Open the camera profile that you want to edit.
3. To make cameras broadcast to activate recording on other cameras, turn on **Broadcast wireless signal**.
4. To configure the reach of the signal, adjust the **Signal strength**.
5. To avoid activating recording on other cameras immediately after undocking, set the duration to withhold broadcasts in **Delay at undock**. This setting is useful if camera users regularly make test recordings after undocking their cameras.
6. To make cameras start recording when they receive a broadcast from another camera, turn on **Receive wireless broadcast**.

Set up a privacy zone

To make camera users aware that they enter a sensitive area where they should not record, you can set up a privacy zone. When the user enters the sensitive area, you can decide to either stop recording automatically or notify the user.

Prerequisites

AXIS W401 Body Worn Activation Kit installed in the sensitive area.

In this example, we set up AXIS W401 Body Worn Activation Kit to broadcast a wireless signal every three seconds.

1. In AXIS Body Worn Manager, go to **Camera profiles** .
2. Open the camera profile that you want to edit and go to **Privacy zone**.
3. In **Privacy zone broadcast response**:
   - To automatically stop recording when a camera user enters the sensitive area, select **Stop recording**.

- To notify camera users when they enter the sensitive area, select **Alert**.
  The alert makes the camera vibrate and beep three times, or play a voice clip. If the user stays in the privacy zone for two minutes without stopping an ongoing recording, they get a new notification.

4. If you selected **Alert**:
   - To notify only users that are recording, set **Alert settings** to **Alert when recording**.
   - To notify all users regardless if they are recording or not, set it to **Always alert**.
5. Go to **Settings** > **Camera** > **Wireless broadcast**.
6. Click **Show key**.
7. Enter the Super admin passphrase and click **Confirm**.
8. Copy the key.
9. In the web interface of AXIS W401, go to **System** > **Events** > **Schedules** and add a schedule.
10. Give the schedule a name, for example `Every 3 seconds`.
11. Under **Type**, select **Pulse**.
12. In **Recurrence**, type `3`.
13. Click **Save**.
14. Click **Rules** and add a rule.
15. Give the rule a name, for example `Privacy zone`.
16. In the list of conditions, under **Scheduled and recurring**, select **Pulse**.
17. In **Pulse**, select the schedule you created.
18. In the list of actions, under **Wireless**, select **Broadcast signal**.
19. In the list of protocols, select **Wireless broadcast key**.
20. Paste the key from the body worn system in **Wireless broadcast key**.
21. In **Message type**, select **Activate privacy zone**.
22. Click **Save**.
23. To adjust the reach of the wireless broadcast:
    23.1. In the web interface of AXIS W401, go to **System** > **Plain config**.
    23.2. In the list of groups, select **Wireless**.
    23.3. In **Range**, set a number from 0 to 30.
    Set a lower number if the privacy zone is small or if the walls are thin.
    23.4. Click **Save**.

Include location in recording or stream

Note

Only some camera models support this feature.

The **Location** feature provides the camera's geographical position as coordinates.

When you record, you can show the camera's position in an overlay as well as save it as metadata in the recording. The overlay shows updated positions as the camera moves. If your content destination supports continuous updates, you can view the movements as a trail. Otherwise, the camera's positions at the start and end of the recording are saved.

When you stream live video to AXIS Body Worn Live, the position is included with the stream and updated as the camera moves. You can view the position in the map view of AXIS Body Worn Live (the version that's hosted by Axis).

To include the geographical position in recordings and streams:

1. Go to **Camera profiles** .
2. Select a camera profile.
3. Expand the camera model for which you want to include the geographical position in the recordings.
4. Turn on **Location**.

Note

- Location uses satellites (GNSS) to get the camera's position when used outdoors. When cloud extensions are turned on, Assisted GNSS (ephemeris) improves positioning performance and decreases the time to get the first satellite position.
- Different content destinations can present or use location data in different ways. For example, it can be used for searching recordings, or be displayed in a map or bookmark for a recording.
- The location feature is only for outdoor use. We recommend that you turn it off for indoor use.
- The location feature decreases battery time.

To include the continuously updated position for a recording as an overlay in the video, go to **Overlay** in the camera profile and turn on **Position**.

Limit access to recordings

The **Allow access to recordings** setting lets you decide whether the camera user can view recordings in AXIS Body Worn Assistant, or not. You can turn it on or off in the camera profile. To turn off access to recordings:

1. Go to **Camera profiles** .
2. Open the profile you want to edit.
3. Clear **Allow access to recordings**.

Save battery with standby mode

Important

You can't use prebuffer in combination with standby mode.

To save battery, the camera can enter standby mode when it's not recording. To set it up:

1. Go to **Camera profiles** .
2. Open the profile you want to edit.
3. Turn on **Standby mode**.

When you use standby mode, it takes about two seconds for the camera to start recording when you press the recording button.

Show or hide Axis logo overlay

By default, the Axis logo is included as an overlay in the recordings. To hide or show the overlay, go to **Settings** > **Camera** > **Logo in video overlay** and turn off or on **Show Axis logo in video overlay**.

Assign tags to cameras

You can create and assign custom tags to your cameras. Use the tags to filter cameras in the camera usage report.

To create a custom tag:

1. Go to **Settings** > **Camera > Tags**.
2. Click **Create**.
3. Type a name and description for the tag.
4. Click **Create**.

To assign a tag to a camera:

1. Go to **Cameras** and click the camera that you want to assign a tag to.
2. Select one or more tags from the list.

Cloud extensions

The body worn system comes with a set of standard features out of the box. The cloud extensions are a set of additional cloud-based capabilities.

Available cloud extensions are:

Assisted GNSS (ephemeris) – Improves the location data performance, and helps decrease the time it takes to get the first fix.

Email notifications – The notifications help reduce time spent monitoring the system health. See *Set up email notifications, on page 38* for more information.

Assisted device software upgrade – Lets you install the latest device software version without manually downloading it to your computer. It also shows you what's new in an upgrade, directly in AXIS Body Worn Manager, before you install it. You can choose to receive email notifications when there's a new version available.

Note

- Once you've turned on cloud extensions, you can't turn them off without resetting your body worn system.
- To turn on cloud extensions, the system must have access to the hostnames in the table below.

To turn on cloud extensions:

1. Go to **Add-on services** > **Cloud**.
2. Click **Turn on**.
3. Click **Continue** to confirm.

These are the hostnames that the body worn system must have access to when you set up and use cloud extensions:

Domain	Information
*.bodyworn.axis.com	Bodyworn specific APIs.
*.bodyworn.axis.cloud	Bodyworn specific APIs.
*.axis.com	Common Axis APIs.
axisbws-prod.azure-devices.net	Application communication between devices and cloud.

For a list of hostnames required for the version of AXIS Body Worn Live that's hosted by Axis, see *AXIS Body Worn Live, Axis Hosted user manual*.

Secure your system

Signed video

Signed video adds a cryptographic checksum into each video frame which is then signed by the Axis device ID. This allows video to be traced back to the camera it originated from, so it's possible to verify that the recording hasn't been tampered with after it left the camera, without proving the chain of custody of the video file. You can use Axis signed media verifier tool to verify your video files, see *Verify the authenticity of your recording, on page 28*.

Go to *axis.com* to find out if your camera supports signed video.

To turn on signed video:

1. Go to **Settings** > **Camera > Signed video**.
2. Turn on **Signed video**.

Note

This feature is available if supported by your content destination.

Verify the authenticity of your recording

Note

To be able verify the integrity and authenticity of your recording, signed video must be on when the video is recorded.

1. In your content destination, export the recording you want to verify.
2. Use Axis *signed media verifier* tool to verify the recording.

Certificates

You can use certificates for authenticating devices on a network, and enable encrypted web browsing using HTTPS. We recommend that you use HTTPS to securely connect to your body worn system. See *Allow HTTPS only, on page 29*.

To securely connect to your body worn system:

1. *Create a certificate signing request*
2. Use your CA (certificate authority) to sign the CSR (certificate signing request).
3. *Install certificate*

Create a certificate signing request

1. Go to **Settings** > **Security > Certificates**.
2. Click **Add**.
3. Select **Create self-signed certificate** and click **Next**.
4. In **Create self-signed certificate**, enter your values and click **Create**.
5. Open the context menu ⋮ next to the new certificate.
6. Click **Create signing request**.
7. In **Create certificate signing request**, click **Create**.
8. In the **Signing request** dialog, copy the whole text and paste it into a file with the file extension `.csr`.

Note

Alternatively, you can create a signing request for the already existing **Default (self-signed)** certificate.

Install certificate

Note

The installed certificate gets its name from the uploaded .crt file, minus the suffix. This name must be unique.

1. Go to **Settings** > **Security** > **Certificates**.
2. Click **Add**.
3. Select **Upload a CA certificate** and click **Next**.
4. Click **Select file** and locate your signed certificate with the filename `<filename>.crt`.
5. Click **Install**.
6. Open the context menu next to the certificate.
7. Click **Activate**.

Set up 802.1x

1. Connect the body worn system to a network without 802.1x.
2. Go to **Settings** > **Security** > **IEEE 802.1x**.
3. Click **Show certificate settings**.
4. Click and create a new, or install an existing certificate.
5. Under **802.1x** select the certificate you installed.
6. Enter **EAP identity**.
7. Select **Use IEEE 802.1x**.
8. Click **Save**.
9. The page displays **Connecting...**
10. Connect the body worn system to your 802.1x enabled network.

Allow HTTPS only

We recommend using HTTPS only to securely connect to your body worn system.

1. Go to **Settings** > **Security** > **HTTP and HTTPS**.
2. In the **Allow access through** drop-down menu select **HTTPS only**.
3. Click **Set**.

Manage users

Remove a user

1. Go to **Users**.
2. Click the user you want to delete.
3. Open the context menu .
4. Click **Remove**.

Important

Never remove camera users from your content destination. Always use AXIS Body Worn Manager to remove users.

Export users

You can export data for all your camera users to a CSV file. This can be useful when you need to make changes to your system that require a system reset, but you still want to keep all the user data. After the system is reset, and all the changes are made, you can just import the user's data back into the system again, see *Import users, on page 11*.

To export camera users:

- Go to **Users**.
- Open the context menu .
- Click **Export users**.

Prioritize offload of a specific user's recordings

If you know that a specific camera user has important recordings that need to be transferred to the content destinations as soon as possible, you can prioritize offload from the user. The prioritization is automatically removed after 24 hours.

1. Go to **Users**.
2. Click the user you want to prioritize.
3. Open the context menu .
4. Click **Prioritize**.

Monitor your system

Dashboard

The **Dashboard** gives you an overview of your devices and system health. It also highlights any issues that require attention. If there are any issues the page gives you easy access and help to fix the problem.

A device can have more than one issue at the same time. Hover over the icons for more details.

Camera alerts

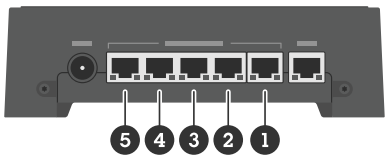
Alert	What it means	What to do
Battery health warning	The camera's battery has completed more than 500 charge cycles, which means it has reached the end of its lifespan. More than 500 cycles increase safety risks and affect performance. To reduce risks, the battery will no longer charge fully. This results in a shorter operating time.	We recommend that you promptly replace the camera or its battery. To replace the battery, use a compatible battery replacement kit from Axis. To reset the cycle count and remove the warning when you have replaced the battery: 1. Click the camera. 2. Go to the **Battery health** tab. 3. Click **Reset**. Important For AXIS W100 it's not possible to reset the cycle count.
Certificate about to expire	The camera certificate expires in less than a week if the camera isn't docked. A camera with an expired certificate enters safe mode the next time it's docked.	Dock the camera.
Docked with empty battery	The camera shut down due to empty battery last session.	Click the camera and go to the **Battery health** tab. To get an indication of the battery status, check how many times the camera has shut down in the last 30 days, and how many hours it was used in the last session. To turn off this alert, go to **Settings** > **Camera** > **Display battery warning**.
Docking issue	The camera doesn't connect properly in the docking bay.	Try the following in the stated order: 1. Undock and dock the camera properly. If the alert remains, continue to next step. 2. Clean the connectors on the camera and the pogo

		pins in the docking bay, see **Cleaning** in the camera's user manual at *help.axis.com*. If the alert remains when you dock the camera, continue to next step. 3. Dock the camera in another docking bay, where other cameras don't get this alert. If the alert disappears, the original docking bay is faulty and the docking station should be replaced. If the alert remains, the camera is faulty and should be replaced.
In safe mode	The camera's certificate isn't valid, and for security reasons the camera has entered safe mode.	To reestablish the connection between the camera and the system, click the camera and follow the on-screen instructions. See *Allow devices back into the system, on page 44*.
Intermediate upgrade required	The camera's device software is too old. The camera can't upgrade to the system's device software and therefore won't be able to offload recordings next time it's docked.	1. Go to **Settings** > **Maintenance > Device software > Stored device software version** and upload and store the LTS version for the same major release that the camera has. If you need help understanding what version to install, see the *Axis device software upgrade guide*. 2. Dock the camera. If the camera is lost, force remove it from the system. For instructions, see *Force remove camera, on page 40*.
Malfunctioning	The camera is malfunctioning.	Replace the camera.
SIM card locked	The camera has a new SIM card that requires a PIN.	Click the camera and enter the correct PIN.
Unable to charge	The camera doesn't charge when docked.	Try the following in the stated order: 1. Undock and dock the camera properly. If the alert remains, continue to next step.

		2. Clean the connectors on the camera and the pogo pins in the docking bay, see **Cleaning** in the camera's user manual at *help.axis.com*. If the alert remains when you dock the camera, continue to next step. 3. Dock the camera in another docking bay, where other cameras don't get this alert. If the alert disappears, the original docking bay is faulty and the docking station should be replaced. If the alert remains, the camera is faulty and should be replaced.
Unknown camera	For systems that aren't connected to AXIS Body Worn Manager Pro: the camera belongs to a different system. For systems connected to AXIS Body Worn Manager Pro: the camera belongs to a system outside the group of systems managed through AXIS Body Worn Manager Pro.	To start using the camera in this system: 1. Dock the camera in its home system where it was originally added. 2. Remove the camera from its home system, see *Remove a camera, on page 40*. 3. Undock the camera from its home system and dock it in the new system. 4. Add the camera to the new system, see *Add cameras, on page 11*.
	For systems connected to AXIS Body Worn Manager Pro: the camera is a guest camera from a different system, also managed through AXIS Body Worn Manager Pro. The camera certificate is invalid.	1. Dock the camera in its home system where it was originally added. 2. In the home system, click the camera and follow the on-screen instructions. See *Allow devices back into the system, on page 44*.

System controller statuses

Status	What it means	What to do
Can't transfer recordings	The date and time in the content destination is different from that in the body worn system.	Make sure the date and time in the content destination is synchronized with that in the body worn system. We recommend that you use the same NTP server for both.

Connection to [content destination] failed	The content destination is not accessible.	Try the following: • Make sure the content destination is up and running. • Check the network connection to the content destination. • In the content destination's user documentation, check which ports need to be open. Make sure these ports are open.
Docking station connection issue at port [x]  *Port numbers*	The link speed between the system controller and the docking station is low. This can cause problems offloading recordings.	Try the following in the stated order: 1. Disconnect and reconnect power to the docking station. If the message remains, continue to next step. 2. Make sure the network cable between the docking station and the system controller is properly connected. If the message remains, continue to next step. 3. Replace the network cable between the docking station and the system controller. If the message disappears, the cable is faulty and should be replaced. If the message remains, continue to next step. 4. Connect a functioning docking station to the same docking station port on the system controller. If the message disappears, the original docking station is faulty and should be replaced. If the message remains, continue to next step. 5. Restart the system controller. If the message remains, the system controller is faulty and should be replaced.
In safe mode	The extension system controller's certificate isn't valid, and for	To reestablish the connection between the extension system

	security reasons it has entered safe mode.	controller and the system, click the system controller and follow the on-screen instructions. See *Allow devices back into the system, on page 44*.
Intermediate upgrade required	The extension system controller's device software is too old. As a result, it won't be able to communicate with the system the next time it's connected.	1. Go to **Settings** > **Maintenance > Device software > Stored device software version** and upload and store the LTS version for the same major release that's installed on the extension system controller. If you need help understanding what version to install, see the *Axis device software upgrade guide*. 2. Connect the system controller to the system. If the extension system controller is not to be used any more, force remove it from the system. For instructions, see *Force remove extension system controller, on page 41*.
Malfunctioning	The system controller is malfunctioning.	Try the following: • Restart the system controller. If the message remains, replace the system controller.
Problems transferring recordings	There are problems when trying to transfer the recordings to the content destination.	1. Try the following: – Check the network connection to the content destination. – Make sure you have enough licenses in your content destination. – Make sure no body worn camera users are missing in the content destination. – Make sure the date and time in the content destination is synchronized with

		that in the body worn system. 2. After you have addressed any of the above issues, go to **System controllers** , click the system controller and click **Retry transfer**. Don't restart the system controller. If the message remains, download the recordings. See *Retrieve recordings from system controller, on page 46*.
Recordings couldn't be transferred	The recordings couldn't be transferred to the content destination.	Download the recordings. See *Retrieve recordings from system controller, on page 46*.
Storage almost full	The storage is almost full.	Try the following: • Make sure the content destination is up and running. • Check the network connection to the content destination. • Make sure recordings transfer normally to the content destination. • Make sure you have enough licenses in your content destination. • Make sure the date and time in the content destination is synchronized with that in the body worn system.
Storage full	The storage is full.	
Unavailable	The system controller is unavailable.	Try the following: • Make sure the system controller is turned on. • Check the network connection to the system controller.

Download camera usage report

The camera usage report shows information about how each user has used their assigned camera for the past 30 days. This includes, for example, start and stop recording, undock and dock, power on and off, and audio mute.

Note

The camera usage report is in CSV format (comma-delimited) with UTF-8 encoding.

To download the camera usage report:

1. Go to **Users**.
2. Open the context menu .
3. Click **Camera usage report**.
4. Click **Download**.

Download camera reports

There are several reports that can give you information about the cameras in the system:

Battery health report – Contains battery health status for all cameras in the system. Warning means the battery has completed more than 500 charge cycles and reached the end of its lifespan. Notice means the battery has completed more than 400 charge cycles and is approaching the end of its lifespan. Healthy means the battery has completed less than 400 charge cycles.

Camera status report – Contains current status for all cameras or the cameras that match the set filter. The report contains, for example, information about what system controller each camera is docked at.

Camera connection report – Contains IMEI and ICCID information for all AXIS W120 cameras.

Note

The reports are in CSV format (comma-delimited) with UTF-8 encoding.

To download the reports:

1. Go to **Cameras**.
2. Open the context menu .
3. Select the report you want to download from the list.
4. Click **Download**.

Monitor system controller storage

In AXIS Body Worn Manager you can monitor how much storage is used and reserved by each system controller. Monitoring the storage can help you identify potential file transfer issues.

Used storage – The storage in the system controller is used as a buffer when recordings are transferred from a camera to the content destination. A continuous high level of used storage can indicate a transfer error.

Reserved storage – When a camera is docked it reserves the memory needed to offload its content to the system controller. When all recordings are transferred to the content destination, the reservation is removed. Any remaining reserved storage can indicate a transfer error.

To view storage information, go to **System controllers** and click the system controller that you're interested in.

Check how long a camera has been undocked

In AXIS Body Worn Manager, you can check how long a camera has been undocked. This can, for example, give you an indication that a camera is lost or needs a device software upgrade.

To check how long a camera has been undocked, go to **Cameras**, and click the camera that you're interested in.

Get an overview of cameras with expired certificates

When a camera hasn't been docked for 8–12 weeks, the certificate eventually expires and the camera enters safe mode. An expired certificate could indicate that the camera has been misplaced.

To list all cameras with expired certificates:

1. Go to **Cameras**.
2. Click **Filter** and select **Undocked**.

The cameras with the alert **Certificate expired** are ordered based on how long they have been undocked.

To allow cameras with expired certificates back into the system, see *Allow devices back into the system, on page 44*.

Find cameras that belong to another system

If you use AXIS Body Worn Manager Pro to manage several body worn systems, users can dock their cameras in any of the systems. The system where the camera was originally added is the home system. Cameras that are docked in another system are shown as guest cameras in that system.

To find all guest cameras in a system:

1. Go to **Cameras**.
2. Click **Filter** and select **Guest**.

Set up email notifications

You can set up the body worn system to notify you by email about the following events:

- Connection to content destination is lost
- Connection to extension system controller is lost
- System controller storage is low
- System backup synchronization failed
- New AXIS OS version available
- Connection to cloud extensions is lost

To turn on system notifications:

1. Go to **Add-on services** > **Cloud > Cloud extensions > Email notifications**.
2. Enter your email address.
3. Click **Set**.

To stop receiving the notifications, remove the email address and click **Set**.

Note

- The email notifications feature requires access to cloud extensions.
- To send email notifications to more than one person, use a mailing list.

Maintain your system

Important

Always initiate all body worn system maintenance, such as resetting the system or removing a camera, from AXIS Body Worn Manager.

Change password

1. Go to **Settings** > **System > Accounts**.
2. Open the context menu of the account you want to change.
3. Click **Edit**.
4. Enter your current password and your new password. The current password is only required if you're changing the root account.
5. Click **Save**.

Add an account

To add an additional account for AXIS Body Worn Manager:

1. Go to **Settings** > **System > Accounts**.
2. Click **Add account**.
3. Select a role. **Administrators** have full access to all settings. **Local administrators** can manage daily tasks such as adding and removing cameras and users, assigning users to cameras, and exporting system logs and reports. **Viewers** can't change any settings.
4. Enter a username and a password.
5. Click **Save**.

Download system report

You can download a system report from your body worn system. Axis support uses the system report for troubleshooting.

1. Click in the top menu.
2. Click **System report**.
3. Download the report.
4. Send the file to Axis support.

Note

- A system report includes all system controllers, and the cameras that are, or have been docked in the system. The latest logs from a camera are included after it's docked.
- A system report is generated the moment you download it, as well as automatically once every day. It's stored in the system for seven days, and is then replaced by a new one.

Transfer a camera to another body worn system

To use a body worn camera in another system, you must first remove the camera from your current system. Then you can add the camera to the new system.

To transfer a camera to another body worn system:

1. Remove the camera from your current system, see *Remove a camera, on page 40*.

2. Follow the instructions in *Add cameras* to add the camera in the new system.

Change connection file

If the connection to the content destination is lost, a possible solution is to replace the current connection file with a new one. The connection can get lost when the content destination gets a new IP address, or when certain configurations are changed in the content destination.

1. Go to **Settings**.
2. Click under **Configuration** for your content destination.
3. Upload the new connection file.
4. Click **Save**.

Note

If you want to switch to a different content destination you need to reset the system, see *Reset system, on page 42*.

Remove hardware from the system

Remove a camera

Note

You can remove a camera both docked and when it's in use. If you choose to remove the camera when it's in use, all content is transferred, and the camera is removed after it's docked. When the content transfer is complete, the camera is reset to factory default with the latest uploaded device software.

To remove a camera from the body worn system:

1. Go to **Cameras**.
2. Open the camera you want to remove.
3. Open the context menu and click **Remove**.
4. Click **Remove**.

Important

Never remove body worn cameras from your content destination. Always use AXIS Body Worn Manager to remove cameras.

If the camera is lost or damaged beyond repair, see *Force remove camera, on page 40*.

Force remove camera

You can force remove a camera from the body worn system if the camera is lost or damaged beyond repair. This option is available only when the camera is in state **Undocked**. To force remove a camera requires access to the highest security level in the body worn system, permitted using the Super admin passphrase. To force remove a camera:

- Go to **Cameras**.
- Open the camera you want to remove.
- Open the context menu and click **Remove**.
- Click **Remove**.
- Enter the Super admin passphrase.
- Click **Force remove**.

Remove an extension system controller

Note

- Always remove the extension system controller from the system in AXIS Body Worn Manager before you physically disconnect it.
- When you remove a system controller from the body worn system, all content is transferred to the content destination, and the system controller is reset to factory default settings.

To remove an extension system controller from the body worn system:

1. Go to **System controllers** .
2. Click the system controller you want to remove.
3. Open the context menu ⋮ and click **Remove**.
4. Click **Remove**.

If the system controller is lost or damaged beyond repair, see *Force remove extension system controller, on page 41*.

Force remove extension system controller

You can force remove an extension system controller from the body worn system if it's lost or damaged beyond repair. This option is available only when the extension system controller is in state **Unavailable**. Force removing an extension system controller requires access to the highest security level in the body worn system, permitted using the Super admin passphrase. To force remove an extension system controller:

- Remove the extension system controller that you want to force remove, see *Remove an extension system controller, on page 41*. If the extension system controller is in state **Unavailable**, it stays in the device list, but is grayed-out.
- Open the extension system controller you want to force remove again.
- Open the context menu ⋮ and click **Remove**.
- Enter the Super admin passphrase.
- Click **Force remove**.

Replace system hardware

You can replace cameras and system controllers in the body worn system.

Replace a camera

1. Dock the camera that you want to replace.
2. Open AXIS Body Worn Manager and wait for the camera to stop offloading.
3. Remove the camera from the system, see *Remove a camera*.
4. Undock the camera.
5. Add the new camera to the system, see *Add cameras*.

Replace extension system controller

To replace a system controller, that is part of the extended body worn system:

1. Remove the old system controller, see *Remove an extension system controller*.
2. Add the new system controller, see *Add system controllers*.

Replace system controller

If the system controller that you created the system on has failed, you may need to replace the system controller and restore the system, see *Restore a system with a single system controller*.

Reset system or hardware

You can reset cameras, system controllers, or the entire body worn system, to factory default settings.

Reset camera

To reset a camera to factory default settings, remove it from the body worn system, see *Remove a camera*.

Reset extension system controller

You can reset an extension system controller to factory default settings by removing it from the body worn system, see *Remove an extension system controller*.

If you can't access the body worn system through AXIS Body Worn Manager, you can reset each extension system controller by accessing them separately:

1. Access the extension system controller.
2. Open the context menu .
3. Click **Reset system controller**

Note

The backup extension system controller can't be reset to factory default settings.

Reset system

Important

- Never remove or reset the content destination before resetting the body worn system. Always reset the body worn system first. If you remove or reset the content destination first, recordings can remain on cameras or in the system controllers, preventing you from resetting the body worn system. This is a security feature ensuring that all evidence is uploaded to the content destination.
- Never remove cameras or users in the content destination before they're removed in AXIS Body Worn Manager.

To reset the entire body worn system to factory default settings:

1. Remove all cameras, see *Remove a camera*.
2. If possible, disable the corresponding cameras in the content destination.
3. Remove all extension system controllers, see *Remove an extension system controller*.
4. Go to **Settings** > **Maintenance > System reset** and click **Reset system**.

Remove paired equipment

1. Go to **Users**.
2. Click the user that you want to remove a pairing from.
3. Locate the equipment that you want to remove, and open the context menu .
4. Click **Remove**.

Note

When a pairing between a camera user and AXIS Body Worn Assistant is removed from the body worn system, it still remains in AXIS Body Worn Assistant. To replace the existing pairing in AXIS Body Worn Assistant, see *Remove existing pairing*.

Restore system

In the unlikely event that the system controller where you initially created the system malfunctions, you can restore the system. Restoring a system with more than one system controller is different from restoring a system with a single system controller:

More than one system controller – Lets you restore the system, including all users, camera profiles, camera assignment, and system settings. When you restore the system from a backup saved on an extension system controller, that controller becomes the system controller where you access AXIS Body Worn Manager. The system restore takes about the same amount of time that it takes to restart the system. For information on how to restore the system, see *Restore a system with more than one system controller, on page 43*.

Single system controller – Lets you replace the system controller, and reestablish the connection between the body worn system and the existing cameras. To restore the system, you need your latest System restore key, see *Download System restore key*. For information on how to restore the system, see *Restore a system with a single system controller*.

Restore a system with more than one system controller



Axis body worn system backup and restore

To be able to restore the body worn system, you must have configured the system backup first. For instructions, see *Configure the system backup, on page 22*.

To restore the body worn system:

1. Access the extension system controller containing the system backup (enter the IP address of the system controller in a web browser).
2. Open the context menu ⋮.
3. Click **Restore system**.
4. Enter the Super admin passphrase.
5. Click **Restore**.
6. Open the existing extension system controllers and update to the new main system controller's IP address.
7. Reestablish the connection between the body worn system and the existing extension system controllers. See *Allow devices back into the system, on page 44*.
8. Reestablish the connection between the body worn system and the existing cameras. See *Allow devices back into the system, on page 44*.

Important

Remember to re-configure the backup when the system restore is done. The previous backup system controller is now where you access AXIS Body Worn Manager. You also need to replace the malfunctioning system controller with a new one.

Restore a system with a single system controller

1. Install a new system controller.
2. Access the new system controller, see *Access AXIS Body Worn Manager for the first time*.
3. Click **Restore**.
4. Create an administrator account and click **Next**.
5. Log in using your administrator account credentials. Your username is `root`.
6. Install the latest device software and click **Next**.
7. Click **Select System restore key**, then locate and open your previously downloaded System restore key.
8. Enter your Super admin passphrase and click **Next**.
9. Finish the system setup.
10. *Allow devices back into the system*.

Important

- Restoring a system with only one system controller means reestablishing the connection between the body worn system and the existing cameras. It doesn't restore system configurations, such as users, camera profiles, content destination, etc.
- You can only restore a system if you have the System restore key. You may not be able to download a System restore key if the system has failed. We recommend that you download the System restore key during the initial system setup, and store it in a secure location.

Download System restore key

There are two ways to download the System restore key:

- The System restore key is generated and downloaded during the system setup.
- You can also download a System restore key at any time in AXIS Body Worn Manager

To download the System restore key in AXIS Body Worn Manager:

1. Go to **Settings** > **Maintenance > System restore key**.
2. Click **System restore key**.
3. Enter the Super admin passphrase that you created in the system setup.
4. Click **Download** and store the System restore key in a secure location.

Important

- The System restore key is passphrase protected.
- Always store the System restore key and the Super admin passphrase in a secure way.

Allow devices back into the system

For security reasons, cameras that are undocked for eight weeks enter safe mode. Extension system controllers that are disconnected from the system for eight weeks, or belong to a system where the main system controller is broken, also enter safe mode.

You can allow devices in safe mode to reestablish the connection to the body worn system in two ways:

- manually once the device has entered safe mode, see *Manually allow devices back into the system, on page 45*
- automatically through a setting (only for cameras), see *Automatically allow cameras back into the system, on page 45*

Allowing devices back into the system requires access to the highest security level in the body worn system, permitted using the Super admin passphrase.

Manually allow devices back into the system

To manually allow cameras or extension system controllers to reestablish the connection to the body worn system:

1. Go to **Dashboard**.
2. Open the device with alert **In safe mode**.
3. If there is more than one device in safe mode, select the devices you want to allow.
4. Click **Next**.
5. Enter the Super admin passphrase.
6. Click **Allow cameras** or **Allow system controllers**.

Automatically allow cameras back into the system

To automatically allow cameras back into the system:

1. Go to **Settings** > **Camera** > **Safe mode**.
2. Turn on **Allow cameras to reconnect automatically**.
3. Enter the Super admin passphrase.

Recover recordings from a broken camera

If a camera gets broken or destroyed but the internal storage is undamaged, you can recover the recordings using a card reader and another camera of the same model.

Important

- Make sure the SD card of the replacement camera has enough space available.
- If the broken camera is an AXIS W110 or AXIS W111, or if you need help to recover your recordings, contact Axis support.

Prerequisites:

- A replacement camera of the same model as the one that is broken. If the replacement camera is already added to the system, you need to unassign and remove it from the system before you start.
- A USB microSD card reader, for example SanDisk® MobileMate® USB 3.0 microSD™ card reader.

1. Force remove the broken camera from the body worn system. See *Force remove camera, on page 40*.
2. Use a T6 screwdriver to open the broken camera.
3. Remove the rubber stopper in front of the SD card holder. Then pull the holder slightly forward, lift up, and carefully remove the microSD card from the broken camera.
4. Dock the replacement camera in a docking station connected to the body worn system.
5. Insert the microSD card into the card reader.
6. Insert the card reader into the USB connector of the system controller where the replacement camera is docked.
   Recover only one microSD card at a time on the same system controller.
7. Go to **Cameras** and click **Recover**.
8. Select the broken camera's serial number from the list and click **Next**.
9. Select the replacement camera and click **Recover**.
10. Enter the Super admin passphrase and click **Confirm**.

The replacement camera enters **Recovering** state. It can remain in this state for up to 30 minutes. The camera then reboots and starts to upload the recordings to the content destination. When the process is complete, you can assign a user to the camera, which is ready for use.

To see the recovered recordings, click the replacement camera and check the list of recordings. Recovered recordings show the broken camera's serial number.

Important

If you need to repeat the procedure, remove the card reader from the system controller first.

Retrieve recordings from system controller

Content destinations normally accept recordings from camera users and cameras that have been removed from the content destination. But if this isn't supported, and you remove users or cameras in the content destination instead of in AXIS Body Worn Manager, recordings might not be transferred from the system controller. To retrieve recordings that couldn't be transferred, you have two options:

- If your content destination supports it, transfer the recordings to a separate area, the rejected content storage, in the content destination. For instructions, see *Transfer recordings to rejected content storage, on page 46*.
- Download the recordings to a USB storage device. For instructions, see *Download recordings to a USB storage device, on page 46*.

Transfer recordings to rejected content storage

Note

Rejected content storage is supported by some content destinations. AXIS Camera Station Pro supports it from version 6.6. For more information, see *AXIS Camera Station Pro user manual*.

Important

Recordings that are transferred to the rejected content storage might be stored in a separate location determined by the content destination, and they might not be visible as usual in the content destination time line.

1. Go to **System controllers** .
2. Open the affected system controller.
3. Click **Transfer to rejected content storage**.

Download recordings to a USB storage device

Note

- To download recordings to a USB storage device requires access to the highest security level in the body worn system, permitted through the Super admin passphrase.
- The USB storage device must be formatted with the exFAT file system. It must contain only the exFAT partition and no other partitions or file systems.
- The USB connector can supply maximum 500 mA.

To download recordings to a USB storage device:

1. Go to **System controllers** .
2. Open the affected system controller.
3. Click **Download recordings**.
4. Insert a USB storage device formatted with the exFAT file system into the affected system controller.
5. Enter your Super admin passphrase.
6. Enter an encryption passphrase for the recordings.

7. Click **Download**.

Note

We recommend that you use *7-Zip*, which supports AES-256 encrypted archives, to extract the downloaded recordings. Your default zip application might not support archives from the body worn system.

Adjust date and time

All body worn cameras in the body worn system get the same date and time as the system. By default, the date and time is synchronized with an NTP server provided by DHCP.

Important

- We recommend that you synchronize the system's date and time with an NTP server, since it ensures an accurate system time.
- The time and time zone of your body worn system must always match the time and time zone of the content destination.
- If the time set in the body worn system is incorrect, time difference could prevent the GPS from providing location data in the recording.
- A correct system time is critical when using recordings as evidence material.

To change the date and time settings:

1. *Open AXIS Body Worn Manager, on page 21*
2. Go to **Settings** > **System > Date and time**.

Device software

AXIS OS is the operating system for Axis edge devices.

AXIS OS tracks

We support different AXIS OS tracks for the body worn system. This lets you choose the track best suited for your system, whether you want all the latest features from the **Active** track, or you prioritize stability from the **Long-term support (LTS)** track. Through assisted device software upgrade you get notifications whenever there's a new version on the track that you've chosen.

Note

To use the assisted device software upgrade, you must first turn on cloud extensions, see *Cloud extensions, on page 27*.

To choose an AXIS OS track, go to **Settings** > **Maintenance > Device software** and click **Change track**.

For recommendations on the most suitable track for your system, see *AXIS OS lifecycle management*.

Paths for device software upgrade

Starting from AXIS OS 12.8, you must install every LTS version between your system's current version and the target version. For example, if the currently installed device software version is AXIS OS 11.5, you have to install the LTS version AXIS OS 11.11 before you can upgrade the system to AXIS OS 12.8. For more information, see *AXIS OS Portal: Upgrade path*.

Note

Make sure all cameras and extension system controllers get upgraded before you install the target version.

Upgrade device software

The body worn system detects new device software versions when they are released. A notification appears in AXIS Body Worn Manager.

Note

Automatic detection of new device software versions requires cloud extensions and that the system has access to `*.bodyworn.axis.cloud`.

To install the latest device software version:

1. Go to **Settings** > **Maintenance > Device software**.
2. Click **Upgrade**.

If you don't have cloud extensions, or if you want to specify another device software version instead of the latest:

1. Go to **Settings** > **Maintenance > Device software**.
2. Click **Choose file** to select a device software file on your computer.
3. Click **Upload and install**.

A device software upgrade takes effect immediately. All system controllers in the system are upgraded. When the upgrade is done, the system restarts. Cameras that are in use are upgraded the next time they are docked.

Note

- You can download device software at *axis.com*.
- If you want to upgrade to a higher major version, you must first install the LTS of the current major version. For more information, see *Paths for device software upgrade, on page 47*.

Downgrade device software

Note

Downgrading to an earlier device software version than the one currently installed requires a system reset.

To downgrade the body worn system to an earlier device software version:

1. *Reset system, on page 42*.
2. Create a new body worn system and install the device software version you want to use.

Device software version report

The device software version report shows the current device software version for all cameras and system controllers that belong to the body worn system right now. You can choose to also get information about previous versions for all devices, including those that are no longer part of the system. This provides traceability and a historical overview of the system. It makes it possible for system administrators to keep track of the status of a device throughout its lifetime.

You can download the device software version report under **Settings** > **Maintenance > Device software**.

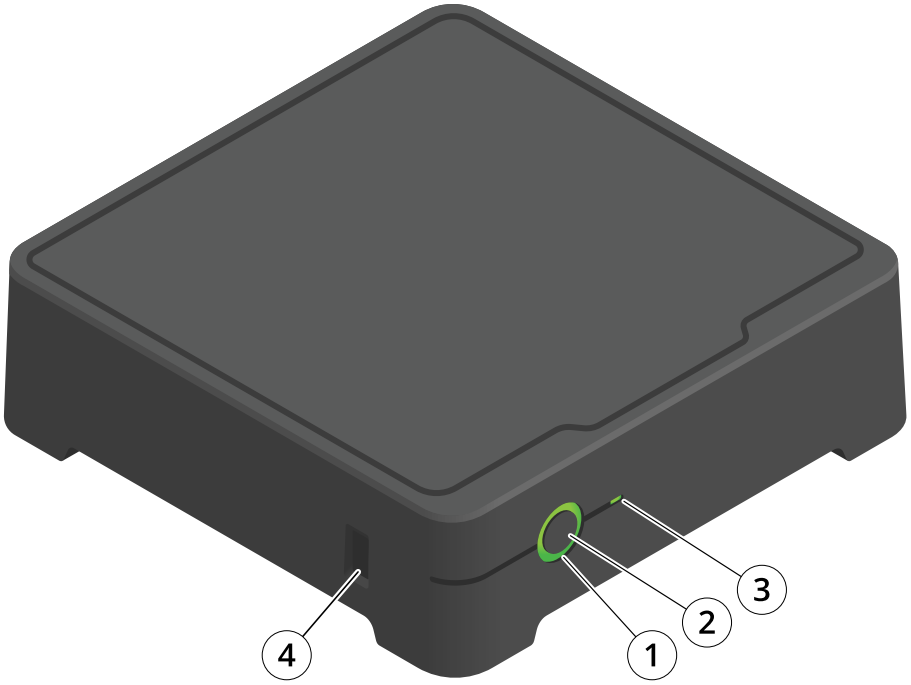
System controller

The system controller is the central integration and management point of the body worn solution. It controls that evidence is transferred from the body worn camera to the content destination in a secure way.

Note

The system controller is not a storage device. The storage in the system controller is used as a buffer when content is transferred from a camera to the content destination. The body worn system only works when it's connected to a content destination, where the recordings are stored.

Product overview



Number	Name	Description
1	Status LED	Green: The system controller is ready to use. Amber: Storage warning. Less than 8% storage left. Red: General warning. Connection with content destination failed, or storage error.
2	Power button	See *Daily use, on page 50*.
3	Storage LED	Green: Standby Flashing green: Accessing storage Red: Storage error
4	USB connector	



1 *Power connector*
2 *Docking station ports (from left to right: 5, 4, 3, 2, 1)*
3 *Network connector*

Daily use

I want to...	Action	Information
Turn on the system controller	Press the **power button**.	The status LED turns amber. The status LED turns green when the system controller is ready for use.
Turn off the system controller	Press and hold the **power button** until the status LED turns amber.	Shut down begins when the status LED turns amber. The system controller is off when the status LED turns off.
Restart a system controller remotely	1. Go to **System controllers**. 2. Open the system controller you want to restart. 3. Open the context menu ⋮. 4. Click **Restart**.	Restarting a system controller stops all ongoing processes, and makes it temporarily inaccessible.

Axis body worn cameras

For information about daily use and troubleshooting of body worn cameras, see the user manual for each camera model:

- *AXIS W100 Body Worn Camera*
- *AXIS W101 Body Worn Camera*
- *AXIS W102 Body Worn Camera*
- *AXIS W110 Body Worn Camera*
- *AXIS W111 Body Worn Camera*
- *AXIS W120 Body Worn Camera*

Find information about a camera

1. Go to **Cameras** .
2. Open the camera you're looking for.
3. The **Overview** tab shows general information about the camera, for example:
   - **Assigned user**: the user who is assigned to the camera if the system uses fixed camera assignment.
   - **Serial number**: the camera's serial number.
   - **IMEI** : International Mobile Equipment Identity number.
   - **SIM card** : information about PIN. If the SIM card is locked you can enter the PIN to unlock it.
   - **State**: the camera's current state. When it was last docked or undocked, at which system controller and which port the docking station is connected to.
   - A list of recordings and where each recording is right now – in the camera, the system controller, or the content destination.
4. The **Battery health** tab shows information related to the camera's battery, for example:
   - Charging levels at the latest undock and dock.
   - The number of complete charge cycles.
   - **Smart charge mode** : helps extend battery life by not charging the battery to 100%. A camera automatically enters smart charge mode if it's docked for a long time. You can temporarily suspend smart charge mode.

Bookmarks

Bookmarks in a recording makes it easier to find the most relevant information later. The bookmarks are shown on the timeline in AXIS Body Worn Assistant video player where you can skip back and forth between them. Bookmarks are a part of the recording's metadata which means that they can be used in a similar way in the content destination.

To create a bookmark you just press the recording button on the body worn camera once while recording.

Note

This feature is available if supported by your content destination.

AXIS Body Worn Assistant

The AXIS Body Worn Assistant mobile app contains:

My camera – Lets you view live streams and recordings from one or more paired camera users. Recordings are available until the camera is docked. For more information, see *My camera, on page 52*.

AXIS Body Worn Live – Lets you view live streams and streams from the last 24 hours as well as GPS positions from all body worn cameras in your organization. You can choose to get notifications when camera users in the organization start live streams. For more information, see *AXIS Body Worn Live, on page 54*.

Download AXIS Body Worn Assistant app

For Android, click *download* or scan the QR code.

For iOS, click *download* or scan the QR code.

My camera

In My camera you can:

- View live streams and recordings from camera users paired with the mobile device.
- View location data for a recording.
- Categorize and add notes to recordings if supported by your content destination.
- Check the battery and storage levels of the body worn camera.
- Access user help, including the Daily Use Guide.
- View bookmarks.

Note

- You can't save recordings to your mobile device.
- The visual watermark in the image is only visible when you view recordings in My camera. The purpose of the visual watermark is to prevent anyone from spreading video without the possibility to trace its origin.
- You can view recordings in My camera up until the moment you dock the camera. After docking, the system controller transfers the recordings to the content destination and empties the camera.

Pair a camera user with a mobile device

To start using My camera, you have to pair the camera user with the mobile device. You generate a QR Code® and a PIN code in AXIS Body Worn Manager, and scan and enter them in the app. This results in a secure pairing.

AXIS Body Worn Manager offers two ways to pair a camera user with a mobile device:

Local pairing – You have access to the body worn user's camera and mobile device.

Remote pairing – You don't have access to the body worn user's camera and mobile device. The camera user receives a pairing request per email.

Note

To complete the pairing, the camera to pair must be assigned to the camera user.

1. Go to **Users**.
2. Click the user you want to pair with the mobile device.
3. In **Paired equipment**, click to start pairing.
4. In the AXIS Body Worn Assistant option, click **Pair**.
5. Select **Local pairing** or **Remote pairing** and click **Next**.
6. If you have already paired the mobile device with one or more users:
   6.1. In AXIS Body Worn Assistant, tap **My camera**.
   6.2. Tap .
   6.3. Tap **Add**.
7. Follow the on-screen instructions in AXIS Body Worn Manager and in AXIS Body Worn Assistant > My camera.

Note

- The QR Code® and the PIN code are valid for 24 hours. You can find them by clicking the user in AXIS Body Worn Manager, open the context menu for the paired equipment, and click **Details**.
- You must enter the PIN code in My camera within 5 minutes after you undock the body worn camera.
- You can pair a mobile device with several camera users.
- The mobile device is paired with the camera users. This means that you can connect any camera to the app once the camera is assigned to the paired user.
- The pairing expires if AXIS Body Worn Assistant isn't connected to the camera for eight weeks. To reconnect, remove the old pairing and then create a new one according to the instructions in this section.

Remove existing pairing

1. Remove the existing pairing in AXIS Body Worn Manager, see *Remove paired equipment*.
2. Open AXIS Body Worn Assistant > My camera and tap .
3. Tap the user you want to remove the pairing for.
4. Tap **Delete**.
5. Confirm that you want to remove the existing pairing.

Connect your mobile device to a body worn camera

Note

Before you connect your mobile device to your body worn camera for the first time, the body worn system administrator or local administrator must pair your camera user with **My camera** on the mobile device.

1. Open AXIS Body Worn Assistant > My camera on your mobile device.
2. If your mobile device is paired with more than one camera user, select the user to connect to from the list.
3. Tap **Connect**.
4. Follow the on-screen instructions.

Daily use

I want to...	Action needed
Watch a live stream	Go to **Camera > Live**.
Watch a recording	Go to **Camera > Recordings**. To view new recordings you may need to swipe down to refresh the view.
Watch recorded video in slow motion	Press and hold anywhere on the video.
Skip one frame forward or backward in a recorded video	Double-tap the right side of the video to go one frame forward. Double-tap the left side of the video to go one frame backward.
Check the battery and storage levels of the camera	Go to **Camera > Details**.
Add a category to a recording	Open the recording you want to categorize. Select one of the predefined categories. For more information, see *Category and notes, on page 54*.
Add notes to a recording	Open the recording you want to add notes to. Add information in **Notes**. For more information, see *Category and notes, on page 54*.
Change to a different Wi-Fi network	1. Go to **Camera > Details**. 2. Tap **Wireless network**. 3. Enter the Wi-Fi network name and password, and tap **OK**. Note When you add a Wi-Fi network this way it overrides any networks added in the camera profile, or directly to the user in AXIS Body Worn Manager.

Category and notes

Categories and notes contain additional information about a recording. This information can, for example, help investigators or evidence management systems when building a case, or when managing files. If allowed by your system administrator, you can categorize and add notes to a recording in the app while the recording is still on the camera.

Note

These features are available if supported by your content destination.

AXIS Body Worn Live

In AXIS Body Worn Live in AXIS Body Worn Assistant you can:

- View live streams and streams from the last 24 hours from any body worn cameras in your organization.
- Let camera users know that you are watching their live stream.
- View a map with live positions of camera users who are currently streaming.
- Get notifications in your mobile device when camera users start live streams.

Note

You can only be connected to one organization at a time.

Get started with AXIS Body Worn Live

To use the version of AXIS Body Worn Live that's hosted by Axis in AXIS Body Worn Assistant:

1. Follow the instructions in *Get started* in the user manual for AXIS Body Worn Live, Axis Hosted.
2. To view camera users in the map view, you must also turn on **Location**, see *Make it possible to view cameras on a map*.
3. In AXIS Body Worn Manager, go to **Add-on services** > **AXIS Body Worn Live** > **Mobile device**. You can download and share the QR code through, for example, an email.
4. In AXIS Body Worn Assistant, tap **AXIS Body Worn Live**.
5. Sign in to your MyAxis account.
6. Tap **Activate AXIS Body Worn Live**.
7. Use the mobile device to scan the QR code from AXIS Body Worn Manager.

Note

If you're not a member of the organization, ask your body worn system administrator to add you.

Daily use

I want to...	Action needed
Watch a live stream	Go to **Wearers** > **Streaming** and tap the camera user whose live stream you want to view.
Acknowledge a live stream	To let the camera user know that you have opened their live stream, click .
Watch recent streams	Go to **Wearers** > **Inactive** and tap the camera user whose stream you want to view. The latest stream starts. To view an older stream, tap and select a stream.
View camera users on a map	To see the location of cameras, go to **Map**.
Stop following a camera user's movements on the map	In the **Map** view, tap .

AXIS Body Worn TV Dashboard

AXIS Body Worn TV Dashboard is an Android TV app that shows real-time status of the cameras in the body worn system. Install the app on a TV in the room where camera users pick up and return their cameras, to give them relevant and straightforward information. The app shows:

- Docked and undocked cameras.
- Camera battery level.
- Cameras with errors or warnings.
- How long a camera has been undocked.

Note

You can't see the battery level for AXIS W100 Body Worn Cameras.

You can customize the app to, for example, show or hide user names, show warnings for cameras that have been undocked for longer than a work shift, or highlight when cameras change state between docked and undocked.

Requirements

- A user account with viewer role for logging into the app. To create an account, see *Add an account, on page 39*.
- An Android TV device.
- Internet access to download the app. Updates also require internet access. Internet access isn't required to run the app.
- To run the app, the TV device must be on the same network as the system controller.

You can download the AXIS Body Worn TV Dashboard app and find more information at *axis.com*.

Troubleshooting

Technical issues, clues, and solutions

General

Issue	Cause	Solution
Can't remove camera.	An extension system controller has been disconnected physically from the system before it was removed in AXIS Body Worn Manager. This prevents the system from verifying the transfer status.	To make sure that all content has been transferred to the content destination, remove the extension system controller in AXIS Body Worn Manager before you remove it from the system physically. Then you can remove the camera.
	The camera is broken and must be force removed from the system.	Undock the camera, then force remove it. For instructions, see *Force remove camera, on page 40*.
Camera status is **In safe mode**.	If a camera is undocked for eight weeks, for security reasons, it enters safe mode.	See *Allow devices back into the system, on page 44*.
Camera is not discovered by the system and doesn't appear in AXIS Body Worn Manager.	The docking station is connected to the system controller through a router or switch.	Enable IPv6 on the network.

Docking station

Issue	Cause	Solution
Docking station LED doesn't turn on.	The docking station doesn't have power.	Connect the docking station to the power supply. Docking stations can't be powered by PoE.
Camera doesn't charge. Camera doesn't offload files.	The camera isn't docked properly, or there is something wrong with the docking station.	Try the following in the stated order: 1. Undock and dock the camera properly. 2. Clean the connectors on the camera and the pogo pins in the docking bay. For instructions, see **Cleaning** in the camera's user manual at *help.axis.com*.. 3. Dock the camera in another docking bay, where other cameras don't have this problem. If the camera starts to charge or offload files, the original docking bay is faulty and the docking station should be replaced.

System controller

Issue	Cause	Solution
Can't find system controller in AXIS IP Utility.	You're using an old version of AXIS IP Utility.	Upgrade to AXIS IP Utility version 4.14 or later.
	System controller is turned off.	Connect the system controller to the power supply.
	System controller is not connected correctly to the network.	Connect the system controller to the network.
Permanently lost connection to extension system controller.	Main system controller has been replaced.	See *Allow devices back into the system, on page 44*.
	Extension system controller hasn't been connected to the system for over eight weeks resulting in expired certificates.	

Content destination

Issue	Cause	Solution
Recordings don't appear in content destination.	Content destination is unavailable.	Check the content destination status on the *Dashboard, on page 31* in AXIS Body Worn Manager.
	Many simultaneous offloads affect transfer speed.	Open the device in AXIS Body Worn Manager to check the transfer status. Wait for recordings to be transferred. Transfer status history is displayed for three days after the transfer is complete.
	Camera was undocked before the transfer of the recording was completed.	Open the device in AXIS Body Worn Manager to check the transfer status. Dock the camera and wait for all recordings to be transferred. Transfer status history is displayed for three days after the transfer is complete.
	The time in the body worn system doesn't match the time of the content destination.	Make sure that the body worn system and the content destination have matching time.
	The connection between the camera and the docking station is bad. The camera is docked incorrectly. The docking connectors are dirty or worn out.	Make sure all connectors are clean, see **Cleaning** in the camera's user manual at *help.axis.com*.
	Out of licenses.	Check licenses and buy additional licenses if needed.
Recordings have the wrong resolution.	The image resolution setting in AXIS Body Worn Manager is wrong.	Go to the camera profile in AXIS Body Worn Manager and set the correct image resolution.
Recording is deleted.	Retention time of the content destination is short. For example: If the retention time on the	Change the retention time on the content destination to a higher value.

	content destination is 7 days, and the recording on the camera is 8 days old when docking, then the recording will be deleted when it reaches the content destination.	
Recording is transferred from camera to system controller, but not from the system controller to the content destination.	The camera has been removed from the content destination.	Rename the user that the camera is assigned to, and restart the system controller.
	Content destinations normally accept recordings from camera users and cameras that have been removed from the content destination. But if this isn't supported, and you remove users or cameras in the content destination instead of in AXIS Body Worn Manager, recordings might not be transferred from the system controller.	See *Retrieve recordings from system controller, on page 46*.
	The time in the body worn system doesn't match the time of the content destination.	Make sure that the body worn system and the content destination have matching time.
	It took too long to offload the recordings from the camera to the system controller because the connection between the camera and the docking station is bad. The camera is docked incorrectly. The docking connectors are dirty or worn out. The pogo pins in the docking bay are dirty or worn out.	Make sure all connectors are clean, see **Cleaning** in the camera's user manual at *help.axis.com*.
Connection between the body worn system and the content destination is lost.	Certain configurations, such as the IP address of the content destination were changed.	*Change connection file, on page 40*

AXIS Body Worn Assistant

Issue	Cause	Solution
Can't complete pairing.	The wireless range between the mobile device and the body worn camera is limited.	Keep the mobile device and the body worn camera closer together.
Can't connect to body worn camera.		
Can't use **Live view**.		

Can't see the full user ID in the visual watermark.	Only the first 12 characters of the user ID are shown in the visual watermark.	If the user ID is longer than 12 characters, we recommend including the most unique part of it first.
Can't connect to body worn camera.	The pairing is expired, or removed from the body worn system.	Contact the system administrator or local administrator and request a new pairing. Once you receive the information needed, open the app and follow the instructions in *Remove existing pairing, on page 53*.

RFID reader

Issue	Cause	Solution
The LED on the reader doesn't turn green when connecting it to the system controller.	You are using an RFID reader that is not supported by the body worn system.	Use **External RFID Card Reader 125kHz + 13.56MHz with NFC (USB)**.
No camera is assigned to the user when they tap the RFID tag on the reader (using self-assign).	There can be different reasons: • The user is already assigned to an undocked camera. • There is currently no camera ready for use. A camera is ready for use when it has enough storage and battery, and it has the same AXIS OS version as the rest of the system. • The RFID tag isn't registered in the system.	• Dock the assigned camera. • Wait until a camera is ready for use. • Register the RFID tag in the system.

Video

Issue	Cause	Solution
No location data in text overlay.	Location data is turned off.	Turn on Location data in the camera profile.
	No GPS signal at the start of the recording.	-
No user ID in text overlay.	The camera user has no user ID.	Add a user ID to the camera user.
Prebuffer video is not complete. Prebuffer time is shorter than configured in AXIS Body Worn Manager.	Recording started directly after the camera was turned on, or directly after the previous recording was ended.	–
	Recording started directly after the previous recording was ended.	
	For AXIS W100 and AXIS W101, when you use the maximum resolution 1080p in very complex scenes with a lot of movement, or	

	in low light, the prebuffer memory can get full.	
Image looks foggy.	The lens is dirty.	Clean the lens, see **Cleaning** in the camera's user manual at *help.axis.com*
	The protective film is still on the lens window.	Remove the protective film.
No audio in recordings.	Audio is turned off in the camera profile.	Make sure audio is turned on in the camera profile in AXIS Body Worn Manager.
Not recording location data.	The time it takes to receive the first GPS position after starting the camera depends on the outdoor environment. For example, tall buildings and humidity in the atmosphere can increase the time it takes to get the first GPS position.	–
	Location data is turned off in the camera profile.	Go to the camera profile and turn on **Location data**. See *Camera profile settings, on page 14*.
	The body worn system time is wrong.	Set a correct system time. See *Adjust date and time, on page 47*.

Holster sensor

Issue	Cause	Solution
Recording doesn't start when unholstering.	The holster sensor is not connected to the camera.	When you connect the camera to the holster sensor, make sure that it is in the camera's range within 10 minutes after you undock the camera. Under normal circumstances the range is 5–10 m (16–33 ft).
	The holster sensor is uncalibrated.	Calibrate the holster sensor. See the *Yardarm support page* for information.
Holster sensor doesn't pair or connect to camera.	The Holster Aware Setup mobile application is connected to the holster sensor.	Close the Holster Aware Setup mobile application and restart the pairing process.

AXIS Body Worn Live

Issue	Cause	Solution
Issues with live streaming and error message **Location not set**.	You have upgraded the system and added AXIS W111 cameras.	Go to **Settings** > **Location** and set the country where the system is used. We use the information to configure country-specific settings, such as Wi-Fi channels.

Issues with live streaming and error message **Location not verified**.	You have added AXIS W111 cameras in the system.	When the AXIS W111 cameras scan different Wi-Fi access points, this provides data to verify the location in the system. This process normally takes no more than a day.
Issues with live streaming and error message **Location mismatch**.	The country set in the system doesn't match the country reported by the cameras.	Try the following in the stated order: 1. Go to **Settings** > **Location** and check that you have selected the correct country. 2. If the system is used in several countries, select **Global**. 3. If the problem persists, contact Axis support.

General troubleshooting steps

If you're not sure what's causing the problem with your body worn system, one of the following actions may help:

Camera

1. Restart the body worn camera.
   - If the camera is docked, undock the camera and dock it again.
   - If the camera is undocked, use the power button to turn it off, and then turn it back on again.
2. Upgrade the body worn camera with the latest device software version, see *Upgrade device software*.
3. Dock the camera and remove it from the system through AXIS Body Worn Manager. This resets the camera to factory default. Add the camera to the system again. See *Reset camera*.

System controller

1. Restart the system controller, see *System controller*. Logs and recordings remain intact on the system controller storage during the restart.
2. Upgrade the system controller with the latest device software version, see *Upgrade device software*.
3. Reset the extension system controller to factory default (this doesn't apply to the system controller that the body worn system was initially created on), using one of the following methods:
   - We recommend that you reset the extension system controller from AXIS Body Worn Manager, see *Reset extension system controller*.
   - When the above method is not possible, access the extension system controller and click **Reset system controller**.
4. Reset the body worn system to factory default settings, see *Reset system*.

Also see *Monitor system controller storage, on page 37* and *Check how long a camera has been undocked, on page 37* for more help on how to identify potential problems.

Need more help?

Contact support

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

Sharing data with Axis

We collect anonymous data on how users interact with our products and how our products perform. This way we can improve our products and the user experience. We don't collect any personal data. Please refer to our *Privacy Policy* for details.

To change your privacy settings, go to **Settings** > **System > Privacy**.

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