

AXIS W10x Body Worn Cameras

AXIS W100 Body Worn Camera

AXIS W101 Body Worn Camera

AXIS W10x Body Worn Cameras

Axis body worn solution

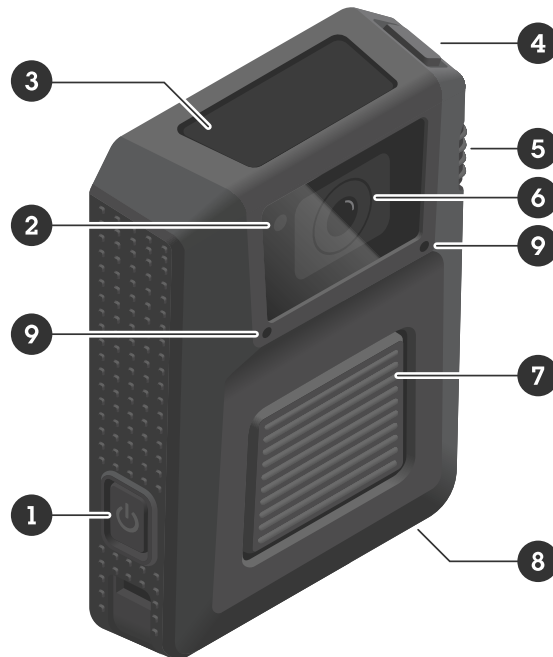
Axis body worn solution

For information about the complete body worn solution, see the *Axis body worn solution user manual*.

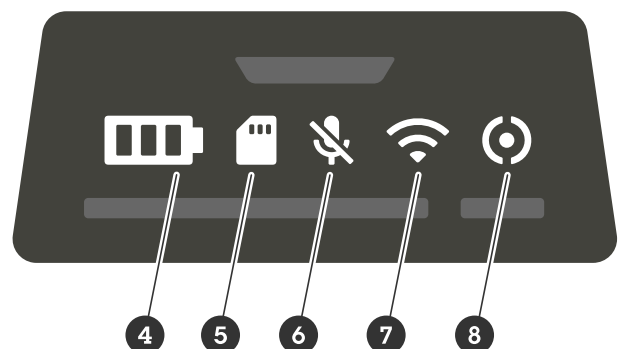
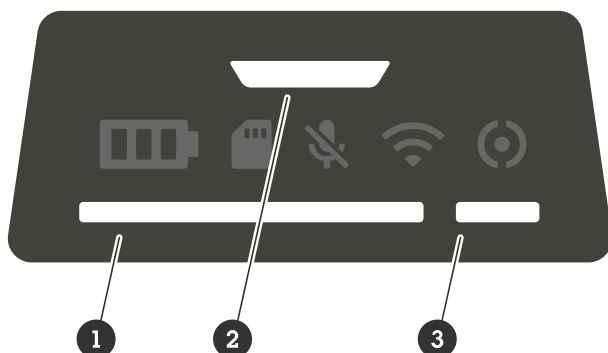
AXIS W10x Body Worn Cameras

Product overview

Product overview



- 1 Power button
- 2 Front recording indicator
- 3 Display
- 4 Top button
- 5 Function button
- 6 Camera lens
- 7 Recording button
- 8 USB connector
- 9 Microphone (2x)



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Product overview

Number	LED name	Display feedback
1	Docking LED	Green: Camera is ready to use (battery charged, files transferred, software up to date). Pulsing amber: Battery charging, file transfer, software update (any combination of) is ongoing.
2	Recording LED	Red: Recording
3	Status LED	Green: Standby, ready to use Flashing green: Less than 0.5 hours of battery (red battery LED) or storage (red storage LED) left Amber: Recording not possible (storage full, storage error, software error, or other operational error)
4	Battery LED	Green: >1 hour left Amber: 0.5–1 hours left Red: 0–0.5 hours left
5	Storage LED	Green: >1 hour of recording left Amber: 0.5–1 hours of recording left Red: 0–0.5 hours of recording left
6	Microphone LED	Lights up if you've turned off the microphone
7	Wireless connectivity LED	Lights up green: Paired with AXIS Body Worn Assistant or a holster sensor. Pulsing amber: Pairing/connecting Lights up red: Failed to pair/connect
8	Sensor camera LED	Green: Sensor camera connected Pulsing amber: Switching between camera sources when connecting the sensor camera to the body worn camera. Recording is disabled. Red: Sensor camera error

AXIS W10x Body Worn Cameras

Daily use

Daily use

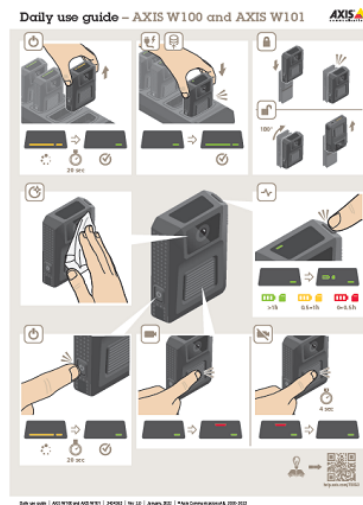
I want to...	Action	Information
Turn on my camera	Press the power button .	The docking and status LEDs pulse amber until the camera is ready for use. Then the status LED turns green. This takes up to 30 seconds.
Turn off my camera	Press the power button for at least 5 seconds.	The camera vibrates and beeps.
Start a recording	Press the recording button once. 1	The camera vibrates, beeps and the front recording indicator turns on when the recording starts. 1
Stop a recording	Press the recording button for at least 4 seconds.	The camera vibrates and beeps when the recording stops.
Start a live stream	Double-press the function button .	For more information, see the <i>AXIS Body Worn Live user manual</i> .
Stop a live stream	Press the recording button for at least 4 seconds.	
Create a bookmark	Press the recording button once while recording.	The camera vibrates and beeps. This feature is available if the content destination you're using supports it. See <i>Bookmarks</i> for more information.
Turn off microphone (audio is on by default)	Press the function button for at least 3 seconds.	Microphone LED on.
Turn on microphone	Press the function button for at least 3 seconds.	Microphone LED off
Turn on silent mode	Press the top button for at least 3 seconds.	Turns off the display, front recording indicator, beep, and vibration.
Turn off silent mode	Press the top button for at least 3 seconds.	Turns on the display, front recording indicator, beep, and vibration.
Check remaining battery capacity	Press the top button and check the battery status on the display.	Green: >1 hour left Amber: 0.5–1 hours left Red: 0–0.5 hours left
Check remaining storage capacity	Press the top button and check the storage status on the display.	Green: > 1 hour of recording left Amber: 0.5–1 hours of recording left Red: 0–0.5 hours of recording left

1. Configurable in AXIS Body Worn Manager.

Download the Daily Use Guide from the *camera's support page* and print it, to help the camera users in their daily work.

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Daily use



Daily Use Guide

Starting a shift

We recommend checking a few things before starting a shift:

- Before you undock the camera, make sure that the docking LED is green. The green color indicates that the battery is charged, all files are transferred, and the software is up to date.
- If you're using self-assign camera assignment, tap your self-assign tag on the RFID reader. All LEDs on the self-assigned camera flash green, indicating that it's ready to be undocked. You must undock the camera within 15 seconds after tapping the self-assign tag. Only one user can self-assign a camera at a time.
- If you're connecting the camera to a holster sensor, make sure that it's 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.).
- When you undock the camera, it restarts. This takes up to 40 seconds, after which the camera is ready to use.
- Clean the lens window, using a dry, nonabrasive cloth. See *Cleaning* for more cleaning recommendations.
- Optionally, use the live view in AXIS Body Worn Assistant to check your camera image, making sure that it is working properly and that the camera orientation is okay. For more information, see *AXIS Body Worn Assistant* in the body worn solution manual.

Ending a shift

Important

Always dock your body worn camera after a shift. This ensures that:

- the camera battery is charged before the next shift
- all content is uploaded to the system controller
- the camera's software is up to date
- user configuration and camera settings are synchronized with the system
- When you dock the camera, it restarts. To make sure the camera is properly docked, wait another 10 seconds for LEDs to come back on.

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- The time it takes to fully charge a depleted battery varies depending on the ambient charging temperature. Check the datasheet for detailed information.
- The time to upload recorded video varies. For example, 12 hours of recorded video can take up to about 30 minutes to upload to the system controller, depending on the bitrate of the video recordings.

Battery health

To ensure optimal battery capacity throughout the life of the product, follow these recommendations on normal use.

NOTICE

- Always use the camera within the operating temperature range specified in the product's datasheet. If you use the camera outside of the specified temperature range it damages the battery.
- Always charge the camera within the charging temperature range specified in the product's datasheet. If you charge the camera outside of the specified temperature range it damages the battery.
- Don't leave the camera in your car. Temperatures in parked cars can exceed the specified temperature range.
- Always recharge a camera that is turned off with a low battery, as soon as possible. The battery discharges over time, which shortens the expected battery life.
- Don't charge a camera for more than 45 days. It can shorten the expected battery life.

To ensure optimal battery capacity throughout the life of the product, follow these recommendations on storage.

NOTICE

- Always remove the camera from the body worn system through AXIS Body Worn Manager before you store it. When you remove the camera from the system, the camera enters shipping mode, which ensures a healthy battery level.
- Always store the camera within the storage temperature range specified in the product's datasheet. The recommended temperatures are different for short-term storage (less than 3 months) and long-term storage (more than 3 months). If you store the camera outside of the specified temperature it damages the battery.
- Don't store the camera with the battery fully charged. It shortens the expected battery life.
- Don't store the camera with a depleted battery. It shortens the expected battery life.
- If you store the camera for more than 3 months, charge it every 3 months.
- Don't store the camera in damp environments. It can increase battery discharge rates.
- Use the camera at least once a year so that the battery is discharged and charged again. This helps to activate the battery and restore its energy.

To learn more about battery health, go to axis.com/learning/white-papers and search for the white paper *Battery health in body worn cameras*.

Replace the battery

You can replace a body worn camera battery using the AXIS TW1906 Battery Kit 5P. Before you replace the battery, read the installation guide available on the *AXIS TW1906 Battery Kit 5P support page*.



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

help.axis.com/?&piid=58704&tsection=replace-the-battery

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Note

Do not replace the 3.7 V ID1058 battery during the period under which the Axis Hardware Product is covered by the Axis 3-year Limited Hardware Warranty. Replacement of the battery carried out by any other party than Axis during the warranty period voids the main item's warranty. Contact Axis Support or your reseller for matters regarding the battery or other service-related matters.

Cleaning

Clean the camera

- Use a non-abrasive, solvent-free neutral soap, or detergent, with water.
- Use a soft microfiber cloth, or moist non-abrasive sponge.
- Dry with a soft cloth to prevent water spotting.

NOTICE

- Never use harsh detergents, such as gasoline, benzene or acetone, to avoid material degradation.
- Never use abrasives of any kind to clean the camera.
- Never use water with any detergent on the docking connectors since it causes corrosion and a bad connection.

Disinfect the camera

- Use disinfection products with up to 50 percent isopropyl alcohol on the exterior surfaces of the camera.
- Apply with a soft microfiber cloth, or non-abrasive sponge.

Clean the docking station

To clean the outer surface of the docking station:

- Use a non-abrasive, solvent-free neutral soap, or detergent, with water.
- Use a soft microfiber cloth, or moist non-abrasive sponge.
- Dry with a soft cloth to prevent water spotting.

To clean the inside of the docking bay:

- Use canned air intended for electronics to clear any dust in between and around the pogo pins.
- Use a dry cloth to carefully clean the pogo pins.
- After cleaning, make sure all of the pogo pins spring back to their upper position.

NOTICE

- Never use harsh detergents, such as gasoline, benzene or acetone, to avoid material degradation.
- Never use abrasives of any kind to clean the docking station.
- Never use water with any detergent on the pogo pins inside the docking bays since it causes corrosion and a bad connection.

Charging the camera

To charge the body worn camera, always use:

- Compatible Axis docking station
- 5 V DC output mobile phone charger

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- 5 V DC output power bank

Operating time

Operating time varies depending on how you use the body worn camera. The limiting factors of operating time are battery capacity and storage space. These are affected by power consumption and recording bitrate, respectively.

NOTICE

If the ambient charging temperature is above 35 °C (95 °F) the battery is only charged up to 70% of full capacity, with a significantly shortened operating time as a result.

Factors that increase power consumption are:

Location data – When the camera positioning system is on.

Wireless connection – When you use AXIS Body Worn Live, AXIS Body Worn Assistant, or turn on broadcasts.

Sensor camera – When you connect a sensor camera to the body worn camera.

Outdoor use – When you use the camera outdoors, the LED display increases its intensity, which increases power consumption.

Temperature – +25°C (77 °F) is the optimal operating temperature. Using the camera in temperatures above or below this affects the battery capacity.

Movement – Increased movement in the scene, or camera movement. The camera processor uses power in relation to the movement in the scene.

Image resolution – High recording resolution.

Factors that increase recording bitrate are:

Movement – Increased movement in the scene, or camera movement.

Image resolution – High recording resolution.

Light – Low light increases image noise.

Scene complexity – A scene with few objects and colors, for instance a typical office, results in a lower bitrate than a more complex scene.




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Troubleshooting

Troubleshooting



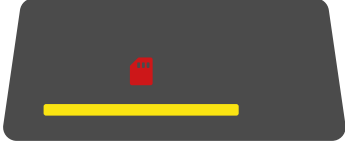


Camera error feedback

Use the body worn camera feedback to identify different errors. The table below shows the different camera behaviors, what they mean, and how to solve the problem.

Behavior	What it means	What to do
All LEDs are off when the camera is docked	No user is assigned to the camera.	<ul style="list-style-type: none"> If you are using fixed camera assignment, assign a user to the camera, see <i>Assign a user to a camera</i>. If you are using self-assign camera assignment, this means that the camera is ready to be self-assigned.
<ul style="list-style-type: none"> No feedback Camera doesn't start 	The camera is in shipping mode ¹	Add the camera in the body worn system, see <i>Add cameras</i> .
	The camera has run out of battery.	Charge the camera.
 <ul style="list-style-type: none"> LED: Operation status amber Beep: 2 short, 1 long Buzz: 2 short, 1 long 	Recording not possible, SW error or other operational error.	Try the <i>General troubleshooting steps</i> . If the problem persists try axis.com/support .
 <ul style="list-style-type: none"> LED: Sensor camera red, Operation status green Beep: 1 short Buzz: 1 short 	Faulty sensor camera, or body worn camera.	Disconnect the sensor camera to eliminate body worn camera error. Press the top button. If the sensor camera LED is still red, then there is something wrong with the body worn camera. If the sensor camera LED is off, then there is something wrong with the sensor camera. Try replacing the sensor camera.
 <p>LED: All flash amber</p>	The camera is not added in the body worn system.	Add the camera to the body worn system, see <i>Add cameras</i> .

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Behavior	What it means	What to do
 <ul style="list-style-type: none"> • LED: All flash red • Beep: 2 x 3 • Buzz: 2 x 3 	A user is not assigned to the camera.	Dock the camera and assign a user to it, see <i>Assign a user to a camera</i> .
 <p>LED: Docking status flashes amber</p>	General error.	Try the <i>General troubleshooting steps</i> . If the problem persists try axis.com/support .
 <p>LED: Docking status flashes amber, Storage red</p>	Error when uploading content to the system controller.	Check the connection between the body worn camera and the docking station. Check the connection between the docking station and the system controller. Make sure that the system controller is okay, see <i>Dashboard</i> .
 <ul style="list-style-type: none"> • LED: Docking status flashes amber, Battery red • Beep: continuous 	The battery is not charging.	Try the <i>General troubleshooting steps</i> . If the problem persists try axis.com/support .
 <ul style="list-style-type: none"> • LED: Operation status flashes green, Battery red 	The battery is about to run out.	<p>This behavior only occurs when the camera profile setting <i>Low battery warning</i> is set to <i>Periodic</i> or <i>Periodic reinforced</i>.</p> <p>The camera needs charging.</p> <p>If the camera is placed in the docking station, make sure it's docked properly.</p>

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Troubleshooting

Behavior	What it means	What to do
<ul style="list-style-type: none"> • Beep: 1 every second minute (Periodic), or 3 every minute (Periodic reinforced) • Buzz: 1 every second minute (Periodic), or 3 every minute (Periodic reinforced) 		

1. The body worn camera is in shipping mode until it is docked and added to a body worn system. Shipping mode is a power saving mode used for transportation and storage.

Technical issues, clues, and solutions

Issue	Cause	Solution
Camera doesn't turn on.	Camera is in shipping mode.	Add the camera to the body worn system, see <i>Add cameras</i> .
	Camera is out of battery.	Charge the camera, see <i>Charging the camera</i> . If that doesn't help: <ol style="list-style-type: none"> 1. Press and hold the power button on the camera for 4 seconds. 2. Dock the camera and wait until it's charged. 3. Undock the camera and wait for it to restart. Or if you don't have access to a docking station: <ol style="list-style-type: none"> 1. Press and hold the power button on the camera for 4 seconds. 2. Use a USB charger to charge the camera. See <i>Charging the camera</i>.
Camera doesn't record.	Camera storage is full.	Dock the camera.
Pre-buffer video is not complete. Pre-buffer 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.	–
	When using the maximum resolution 1080p in very complex scenes with a lot of movement, or in low light, the pre-buffer memory can get full.	–
Image looks foggy.	The lens is dirty.	Clean the lens, see <i>Cleaning</i>
	The protective film is still on the lens window.	Remove the protective film.
LED display doesn't work.	Camera is in silent mode which turns off the display.	Press the top button for 2 seconds, see <i>Daily use</i>

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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.
Offloading recordings is slow.	Many simultaneous offloads affect transfer speed.	Check camera status in AXIS Body Worn Manager. Wait for recordings to be transferred.
	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 <i>Cleaning on page 8</i> .
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.	Enable IPv6 on the network.
No camera is assigned to the user when the user taps the RFID tag on the reader (using self-assign).	There can be different reasons: <ul style="list-style-type: none"> 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 firmware version as the rest of the system. The RFID tag isn't registered in the system. 	<ul style="list-style-type: none"> Dock the assigned camera. Wait until a camera is ready for use. Register the RFID tag in the system.
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 .
	The body worn system time is wrong.	Set a correct system time. We recommend using NTP server (DHCP) or NTP static and fallback server as opposed to Manual time , as these ensure an accurate system time.
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.
Camera status is In safe mode .	If a camera is undocked for eight weeks, for security reasons, it enters safe mode.	See <i>Allow cameras back into the system</i>

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Troubleshooting

Camera doesn't charge.	The camera isn't docked properly, or there is something wrong with the docking station.	Try the following in the stated order: <ol style="list-style-type: none">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 <i>Cleaning on page 8</i>.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.
Camera doesn't offload files.		

