

## **AXIS V59 Series**

**AXIS V5914 Network Camera**

**AXIS V5915 Network Camera**

## **Installation Guide**

## Legal Considerations

Video and audio surveillance can be regulated by laws that vary from country to country. Check the laws in your local region before using this product for surveillance purposes.

This product includes one (1) H.264 decoder license and one (1) AAC decoder license. To purchase further licenses, contact your reseller.

## Liability

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## Intellectual Property Rights

Axis AB has intellectual property rights relating to technology embodied in the product described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the patents listed at [www.axis.com/patent.htm](http://www.axis.com/patent.htm) and one or more additional patents or pending patent applications in the US and other countries.

This product contains licensed third-party software. See the menu item "About" in the product's user interface for more information.

This product contains source code copyright Apple Computer, Inc., under the terms of Apple Public Source License 2.0 (see [www.opensource.apple.com/aps/](http://www.opensource.apple.com/aps/)). The source code is available from <https://developer.apple.com/bonjour/>

## Equipment Modifications

This equipment must be installed and used in strict accordance with the instructions given in the user documentation. This equipment contains no user-serviceable components. Unauthorized equipment changes or modifications will invalidate all applicable regulatory certifications and approvals.

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## Regulatory Information

### Europe



This product complies with the applicable CE marking directives and harmonized standards:

- Electromagnetic Compatibility (EMC) Directive 2004/108/EC. See *Electromagnetic Compatibility (EMC) on page 2*.
- Low Voltage (LVD) Directive 2006/95/EC. See *Safety on page 3*.
- Restrictions of Hazardous Substances (RoHS) Directive 2011/65/EU. See *Disposal and Recycling on page 3*.

A copy of the original declaration of conformity may be obtained from Axis Communications AB. See *Contact Information on page 3*.

### Electromagnetic Compatibility (EMC)

This equipment has been designed and tested to fulfill applicable standards for:

- Radio frequency emission when installed according to the instructions and used in its intended environment.
- Immunity to electrical and electromagnetic phenomena when installed according to the instructions and used in its intended environment.

### USA

This equipment has been tested using an unshielded network cable (UTP) and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. This equipment has also been tested using a shielded network cable (STP) and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### Canada

This digital apparatus complies with CAN ICES-3 (Class A). The product shall be connected using a shielded network cable (STP) that is properly grounded. Cet appareil numérique est conforme à la norme NMB ICES-3 (classe A). Le produit doit être connecté à l'aide d'un câble réseau blindé (STP) qui est correctement mis à la terre.

### Europe

This digital equipment fulfills the requirements for RF emission according to the Class A limit of EN 55022. The product shall be connected using a shielded network cable (STP) that is properly grounded. Notice! This is a Class A product. In a domestic environment this product may cause RF interference, in which case the user may be required to take adequate measures.

This product fulfills the requirements for immunity according to EN 61000-6-1 residential, commercial and light-industrial environments.

This product fulfills the requirements for immunity according to EN 61000-6-2 industrial environments.

This product fulfills the requirements for immunity according to EN 55024 office and commercial environments.

### Australia/New Zealand

This digital equipment fulfills the requirements for RF emission according to the Class A limit of AS/NZS CISPR 22. The product shall be connected using a shielded network cable (STP) that is properly grounded. Notice! This is a Class A product. In a domestic environment this product may cause RF interference, in which case the user may be required to take adequate measures.

### Japan

この装置は、クラスA 情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。本製品は、シールドネットワークケーブル(STP)を使用して接続してください。また適切に接地してください。

### Korea

이 기기는 업무용(A급) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다. 적절히 접지된 STP (shielded twisted pair) 케이블을 사용하여 제품을 연결하십시오.

### Safety

This product complies with IEC/EN/UL 60950-1, Safety of Information Technology Equipment. If its connecting cables are routed outdoors, the product shall be grounded either through a shielded network cable (STP) or other appropriate method.

The power supply used with this product shall fulfill the requirements for Safety Extra Low Voltage (SELV) and Limited Power Source (LPS) according to IEC/EN/UL 60950-1.

### Disposal and Recycling

When this product has reached the end of its useful life, dispose of it according to local laws and regulations. For information about your nearest designated collection point, contact your local authority responsible for waste disposal. In accordance with local legislation, penalties may be applicable for incorrect disposal of this waste.

### Europe



■ This symbol means that the product shall not be disposed of together with household or commercial waste. Directive 2012/19/EU on waste electrical and electronic equipment (WEEE) is applicable in the European Union member states. To prevent potential harm to human health and the environment, the product must be disposed of in an approved and environmentally safe recycling process. For information about your nearest designated collection point, contact your local authority responsible for waste disposal. Businesses should contact the product supplier for information about how to dispose of this product correctly.

This product complies with the requirements of Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS).

### China



This product complies with the requirements of the legislative act Administration on the Control of Pollution Caused by Electronic Information Products (ACPEIP).

### Contact Information

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[www.axis.com](http://www.axis.com)

### Support

Should you require any technical assistance, please contact your Axis reseller. If your questions cannot be answered immediately, your reseller will forward your queries through the appropriate channels to ensure a rapid response. If you are connected to the Internet, you can:

- download user documentation and software updates
- find answers to resolved problems in the FAQ database. Search by product, category, or phrase
- report problems to Axis support staff by logging in to your private support area
- chat with Axis support staff
- visit Axis Support at [www.axis.com/techsup/](http://www.axis.com/techsup/)

### Learn More!

Visit Axis learning center [www.axis.com/academy/](http://www.axis.com/academy/) for useful trainings, webinars, tutorials and guides.



## Safety Information

Read through this Installation Guide carefully before installing the product. Keep the Installation Guide for future reference.

### Hazard Levels

#### **▲DANGER**

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

#### **▲WARNING**

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

#### **▲CAUTION**

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

#### **NOTICE**

Indicates a situation which, if not avoided, could result in damage to property.

### Other Message Levels

#### **Important**

Indicates significant information which is essential for the product to function correctly.

#### **Note**

Indicates useful information which helps in getting the most out of the product.

## Safety Instructions

### **NOTICE**

- The Axis product shall be used in compliance with local laws and regulations.
- Store the Axis product in a dry and ventilated environment.
- Avoid exposing the Axis product to shocks or heavy pressure.
- Do not install the product on unstable brackets, surfaces or walls.
- Use only applicable tools when installing the Axis product. Using excessive force with power tools could cause damage to the product.
- Do not use chemicals, caustic agents, or aerosol cleaners.
- Use a clean cloth dampened with pure water for cleaning.
- Use only accessories that comply with the technical specification of the product. These can be provided by Axis or a third party.
- Use only spare parts provided by or recommended by Axis.
- Do not attempt to repair the product yourself. Contact Axis support or your Axis reseller for service matters.
- Do not point the camera lens toward the sun or other high-intensity radiation sources because this could cause damage to the camera.

## Transportation

### **NOTICE**

- When transporting the Axis product, use the original packaging or equivalent to prevent damage to the product.

## Battery

Low battery power affects the operation of the RTC, causing it to reset at every power-up. When the battery needs replacing, a log message will appear in the product's server report. For more information about the server report, see the product's setup pages or contact Axis support.

The battery should not be replaced unless required, but if the battery does need replacing, contact Axis support at [www.axis.com/techsup](http://www.axis.com/techsup) for assistance.

Lithium coin cell 3.0 V batteries contain 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME), CAS no. 110-71-4.

### **⚠WARNING**

- Risk of explosion if the battery is incorrectly replaced.
- Replace only with an identical battery or a battery which is recommended by Axis.
- Dispose of used batteries according to local regulations or the battery manufacturer's instructions.



## Installation Guide

This Installation Guide provides instructions for installing AXIS V59 Series Network Camera on your network. For other aspects of using the product, see the User Manual available at [www.axis.com](http://www.axis.com)

## Installation Steps

1. Make sure the package contents, tools and other materials necessary for the installation are in order. See *page 9*.
2. Study the hardware overview. See *page 10*.
3. Study the specifications. See *page 13*.
4. Install the hardware. See *page 16*.
5. Access the product. See .

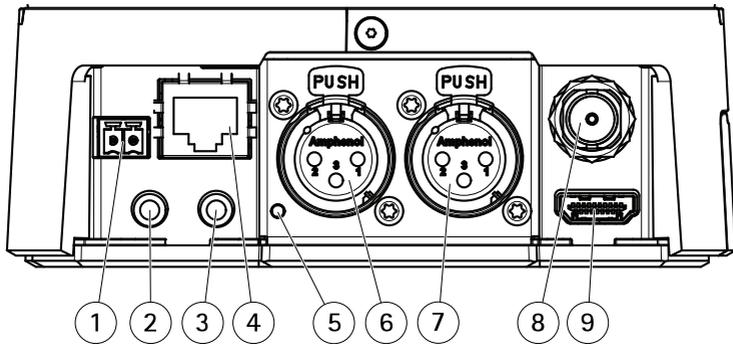
## Package Contents

- AXIS V5914/V5915 Network Camera
- Power supply with mains cable
- Mounting kit for walls and ceilings
- Terminal connector for I/O
- Cable tie (2x)
- Installation and Management Software CD
- Printed materials
  - Installation Guide (this document)
  - Extra serial number label (2x)
  - AVHS Authentication key

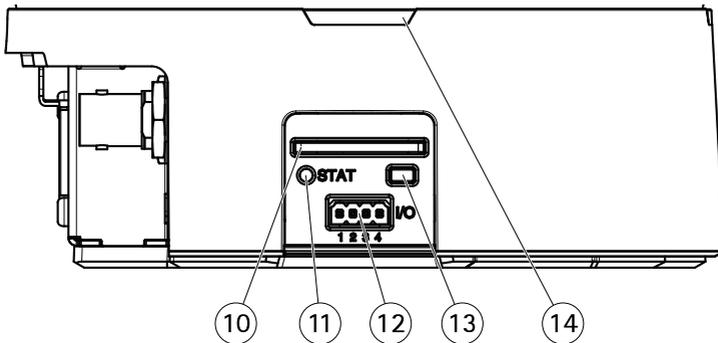
## Recommended Tools

- Drill – if using the wall or drop ceiling mount

## Hardware Overview



- 1 Power connector
- 2 3.5 mm, unbalanced audio in
- 3 3.5 mm, unbalanced audio out
- 4 Network connector
- 5 Microphone power LED (XLR)
- 6 XLR, balanced audio in (left)
- 7 XLR, balanced audio in (right)
- 8 BNC connector (SDI)
- 9 HDMI connector



- 10 SD card slot (SDHC)
- 11 Status LED indicator
- 12 I/O connector
- 13 Control button
- 14 Tally LED (3x)

## LED Indicators

Status LED	Indication
Unlit	Connection and normal operation.
Green	Shows steady green for 10 seconds for normal operation after startup completed.
Amber	Steady during startup. Flashes during firmware upgrade.
Amber/Red	Flashes amber/red if network connection is unavailable or lost.
Red	Flashes red for firmware upgrade failure.

Microphone power LED	Indication
Unlit	Phantom power off.
Blue	Phantom power on.

### Note

- The tally LED can be configured to be lit or unlit during normal operation. To configure, go to **Setup > System Options > Ports & Devices > LED**. See the online help for more information.
- The tally LED only indicates network transmission. If video or audio is only transmitted through HDMI or SDI the tally LED will be unlit.

Tally LED	Indication
Unlit	Camera idle.
Red	Active network transmission or recording.

## Connectors and Buttons

For specifications and operating conditions, see *page 13*.

### BNC Connector

The BNC connector is used for connecting broadcast equipment using SDI. Connect a 75 Ohm coaxial SDI cable.

### **⚠CAUTION**

The connector may be hot during normal operation in elevated ambient temperatures.

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## HDMI Connector

The HDMI™ Connector is used for connecting to a display or monitor.

## Network Connector

RJ45 Ethernet connector.

### NOTICE

Due to local regulations or the environmental and electrical conditions in which the product is to be used, a shielded network cable (STP) may be appropriate or required. All cables connecting the product to the network and that are routed outdoors or in demanding electrical environments shall be intended for their specific use. Make sure that the network devices are installed in accordance with the manufacturer's instructions. For information about regulatory requirements, see *Electromagnetic Compatibility (EMC)* on page 2.

## I/O Connector

Use with external devices in combination with, for example, tampering alarms, motion detection, event triggering, time lapse recording and alarm notifications. In addition to the 0 V DC reference point and power (DC output), the I/O connector provides the interface to:

- **Digital output** – For connecting external devices such as relays and LEDs. Connected devices can be activated by the VAPIX® Application Programming Interface, output buttons on the Live View page or by an Action Rule. The output will show as active (shown under **System Options > Ports & Devices**) if the alarm device is activated.
- **Digital input** – An alarm input for connecting devices that can toggle between an open and closed circuit, for example: PIRs, door/window contacts, glass break detectors, etc. When a signal is received the state changes and the input becomes active (shown under **System Options > Ports & Devices**).

## Power Connector

2-pin terminal block for power input. Use a Safety Extra Low Voltage (SELV) compliant limited power source (LPS) with either a rated output power limited to  $\leq 100$  W or a rated output current limited to  $\leq 5$  A.

## Audio Connector

The Axis product has the following audio connectors:

- **Audio in** – 3.5 mm input for a stereo microphone, or a line-in stereo signal.
- **Audio out** – 3.5 mm output for audio (line level) that can be connected to a public address (PA) system or an active speaker with a built-in amplifier. A pair of headphones can also be attached. A stereo connector must be used for audio out.
- **Left** – 3-pin XLR connector for balanced audio input. Use left connector for mono.

- Right – 3-pin XLR connector for balanced audio input.

### SD Card Slot

#### **NOTICE**

- Risk of damage to SD card. Do not use sharp tools or excessive force when inserting or removing the SD card.
- Risk of data loss. To prevent data corruption, the SD card should be unmounted before removal. To unmount, go to **Setup > System Options > Storage > SD Card** and click **Unmount**.

This product supports SD/SDHC/SDXC cards (not included).

For SD card recommendations, see [www.axis.com](http://www.axis.com)

### Control Button

For location of the control button, see *Hardware Overview on page 10*.

The control button is used for:

- Resetting the product to factory default settings. See *page 19*.
- Connecting to an AXIS Video Hosting System service or AXIS Internet Dynamic DNS Service. For more information about these services, see the User Manual.

## Specifications

This section contains the following specifications:

- Operating Conditions, see *page 13*
- Power Consumption, see *page 14*
- I/O Connector, see *page 14*
- Power Connector, see *page 15*
- Audio Connector, see *page 15*
- SD Card Slot, see *page 16*

## Operating Conditions

The Axis product is intended for indoor use.

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Product	Classification	Temperature	Humidity
AXIS V5914	IEC60721-4-3 Class 3K3, 3M3, C60529IP52	0°C to 40°C(32°F to 104°F)	10-85%RH (non-condensing)
AXIS V5915			

## Power Consumption

### NOTICE

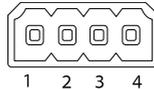
Use a limited power source (LPS) with either a rated output power limited to  $\leq 100W$  or a rated output current limited to  $\leq 5A$ .

Product	DC
AXIS V5914	8–28 V DC, max. 21 W
AXIS V5915	8–28 V DC, max. 21 W

## Connectors

### I/O Connector

4-pin terminal block

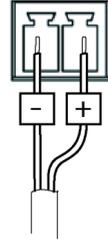


For an example diagram, see .

Function	Pin	Notes	Specifications
0 V DC (-)	1		0 V DC
DC output	2	Can be used to power auxiliary equipment. Note: This pin can only be used as power out.	12 V DC Max load = 50 mA
Configurable (Input or Output)	3– 4	Digital input – Connect to pin 1 to activate, or leave floating (unconnected) to deactivate.	0 to max 30 V DC
		Digital output – Connected to pin 1 when activated, floating (unconnected) when deactivated. If used with an inductive load, e.g. a relay, a diode must be connected in parallel with the load, for protection against voltage transients.	0 to max 30 V DC, open drain, 100 mA

## Power Connector

2-pin terminal block for DC power input. Use a Safety Extra Low Voltage (SELV) compliant limited power source (LPS) with either a rated output power limited to  $\leq 100$  W or a rated output current limited to  $\leq 5$  A.



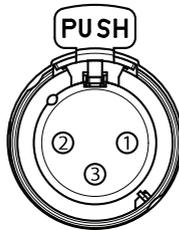
## Audio Connector

3.5 mm audio connectors (stereo)



	1 Tip	2 Ring	3 Sleeve
<b>Audio Input</b>	Microphone/Line in (left)	Microphone/Line in (right)	Ground
<b>Audio Output</b>	Line out (left)	Line out (right)	Ground

3-pin XLR connectors (balanced)



Pin	1	2	3
<b>Function</b>	Ground	Balanced Microphone Hot (+) In	Balanced Microphone Cold (-) In

## SD Card Slot

Supports SD cards with up to 64 GB of storage. For best recording performance, use an SDHC or SDXC card with speed class 10.

## Install the Hardware

There are three ways to install the camera:

### **NOTICE**

The camera shall be installed upright or upside down, never sideways or at an angle.

- Standing on a table top.
- Hanging on a wall, see *Wall Mount on page 16*
- Hanging from a drop ceiling, see *Drop Ceiling Mount on page 17*

To install the camera on a table top:

1. Place the camera on a table top or other horizontal surface. Make sure that the surface is stable.
2. Insert the SD memory card (optional).
3. Connect the required cables to the camera.

### **NOTICE**

Be careful not to stretch or bend the cables too much. This could cause damage to the cables.

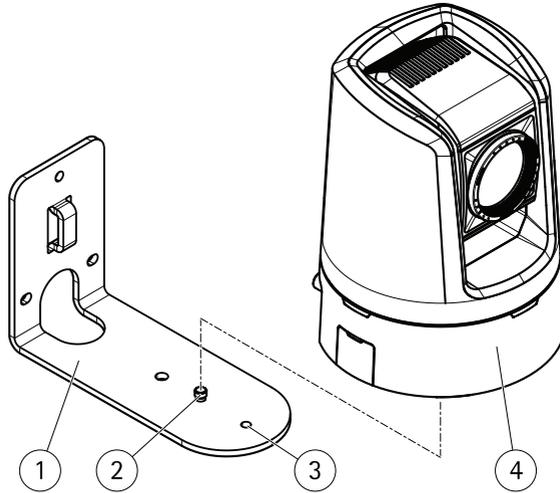
4. Connect the power supply to a mains power outlet (100–240 VAC).

## Wall Mount

### **▲WARNING**

The combined weight of the camera and mounting bracket is approximately 1.7 kg (3.7 lb.). Make sure that the wall material is strong enough to support this weight.

1. If required, route the cables through the wall.
2. Install the mounting bracket on a wall and make sure that the screws and plugs are appropriate for the material (e.g. wood, metal, sheet rock, stone).
3. Insert the SD memory card (optional).
4. Mount the camera on the mounting bracket and tighten the tripod screw. Alternatively use the Outer mounting hole to allow for more cable to fit behind the camera.



- 1 Mounting bracket
- 2 Tripod screw
- 3 Outer mounting hole
- 4 Camera

5. Route and connect all cables to the camera.

**NOTICE**

Be careful not to stretch or bend the cables too much. This could cause damage to the cables.

6. To avoid strain on the connectors and cables, fasten all cables to the mounting bracket with cable ties.
7. Connect the power supply to a mains power outlet (100–240 VAC).

## Drop Ceiling Mount

**▲WARNING**

The combined weight of the camera and mounting bracket is approximately 1.7 kg (3.7 lb.). Make sure that the ceiling material is strong enough to support this weight.

**NOTICE**

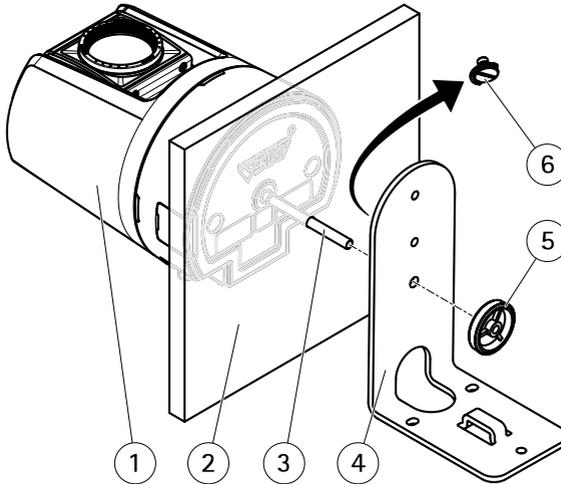
The ceiling tile should be 5–60mm (0.2–2.4in.) thick.

1. Insert the SD memory card (optional).
2. Remove the ceiling tile in which the drop ceiling mount is to be fitted.

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3. Drill a 7 mm (9/32 in) hole in the ceiling tile.
4. Remove the tripod screw from the mounting bracket.
5. Attach the short end of the threaded rod to the camera and tighten.
6. Assemble the camera, ceiling tile and the mounting bracket and tighten the nut.



- 1 Camera
- 2 Ceiling tile
- 3 Threaded rod
- 4 Mounting bracket
- 5 Nut
- 6 Tripod screw

7. Route and connect all cables to the camera.

### **NOTICE**

Be careful not to stretch or bend the cables too much. This could cause damage to the cables.

8. Connect the power supply to a mains power outlet (100–240 VAC).
9. Install the ceiling tile with the camera mounted on it.

## Connect the Camera to a HDMI Display

The camera can be connected to a HDMI display and transmit audio and video to that display without the need for a network connection.

If the display supports the maximum resolution of the camera, just connect the display without adjusting any settings.

If the display's maximum resolution does not match that of the camera, the capture mode in the camera has to be changed to match the resolution of the display.

Go to **Setup > Video and Audio > Camera Settings** and select a capture mode that matches the display.

### Note

Only capture modes containing the text **(HDMI)** can be used with the HDMI connector.

## Access the Product

Use the tools provided on the Installation and Management Software CD to assign an IP address, set the password and access the video stream. This information is also available from the support pages on [www.axis.com/techsup/](http://www.axis.com/techsup/)

## Reset to Factory Default Settings

### Important

Reset to factory default should be used with caution. A reset to factory default will reset all settings, including the IP address, to the factory default values.

### Note

The installation and management software tools are available from the support pages on [www.axis.com/techsup](http://www.axis.com/techsup)

To reset the product to the factory default settings:

1. Disconnect power from the product.
2. Press and hold the control button and reconnect power. See *Hardware Overview on page 10*.
3. Keep the control button pressed for 15–30 seconds until the status LED indicator flashes amber.
4. Release the control button. The process is complete when the status LED indicator turns green. The product has been reset to the factory default settings. If no DHCP server is available on the network, the default IP address is 192.168.0.90
5. Using the installation and management software tools, assign an IP address, set the password, and access the video stream.

It is also possible to reset parameters to factory default via the web interface. Go to **Setup > System Options > Maintenance** and click **Default**.

## Further Information

For the latest version of this document, see [www.axis.com](http://www.axis.com)

The User Manual is available at [www.axis.com](http://www.axis.com)

Visit [www.axis.com/techsup](http://www.axis.com/techsup) to check if there is updated firmware available for your network product. To see the currently installed firmware version, go to **Setup > About**.

Visit Axis learning center [www.axis.com/academy](http://www.axis.com/academy) for useful trainings, webinars, tutorials and guides.

## Warranty Information

For information about Axis' product warranty and thereto related information, see [www.axis.com/warranty/](http://www.axis.com/warranty/)



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