

INSTALLATION GUIDE

AXIS M31 Network Camera Series

AXIS M3113-R Network Camera

AXIS M3113-R M12 Network Camera

AXIS M3114-R Network Camera

AXIS M3114-R M12 Network Camera

**AXIS M3114-R M12 2MM Network
Camera**

About this Document

This document includes instructions for installing AXIS M31 Network Camera Series on your network. Previous experience of networking will be beneficial when installing the product.

Legal Considerations

surveillance can be prohibited 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. To purchase further licenses, contact your reseller.

Trademark Acknowledgments

Apple, Boa, Bonjour, Ethernet, Internet Explorer, Linux, Microsoft, Mozilla, Real, SMPTE, QuickTime, UNIX, Windows, Windows Vista and WWW are registered trademarks of the respective holders. Java and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates. UPnPTM is a certification mark of the UPnPTM Implementers Corporation.

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 a shielded network cable

(STP) and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Canada – This Class B digital apparatus complies with Canadian ICES-003.

Europe –  This digital equipment fulfills the requirements for RF emission according to the Class B limit of EN 55022.

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 residential and commercial environments.

Australia

This digital equipment fulfills the requirements for RF emission according to the Class B limit of AS/NZS CISPR 22.

Japan - この装置は、クラスB 情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。取扱説明書に従って正しい取り扱いをして下さい。

Korea - 이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

Safety

This product complies with IEC/EN 60950-1, Safety of Information Technology Equipment.

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

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.

Liability

Every care has been taken in the preparation of this document. Please inform your local Axis office of any inaccuracies or omissions. Axis Communications AB cannot be held responsible for any technical or

typographical errors and reserves the right to make changes to the product and documentation without prior notice. Axis Communications AB makes no warranty of any kind with regard to the material contained within this document, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Axis Communications AB shall not be liable nor responsible for incidental or consequential damages in connection with the furnishing, performance or use of this material. This product is only to be used for its intended purpose.

RoHS

This product complies with both the European RoHS directive, 2002/95/EC, and the Chinese RoHS regulations, ACPEIP.



WEEE Directive

The European Union has enacted a Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE Directive). This directive is applicable in the European Union member states.



The WEEE marking on this product (see right) or its documentation indicates that the product must not be disposed of together with household waste. To prevent possible harm to human health and/or the environment, the product must be disposed of in an approved and environmentally safe recycling process. For further information on how to dispose of this product correctly, contact the product supplier, or the local authority responsible for waste disposal in your area.

Business users should contact the product supplier for information on

how to dispose of this product correctly. This product should not be mixed with other commercial waste.

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 firmware updates
- find answers to resolved problems in the FAQ database. Search by product, category, or phrases
- report problems to Axis support by logging in to your private support area.
- chat with Axis support staff (selected countries only)
- visit Axis Support at www.axis.com/techsup/

Safeguards

Please read through this Installation Guide carefully before installing the Axis product. Keep the Installation Guide for further reference.

NOTICE

- Store the Axis product in a dry and ventilated environment.
- Only use applicable tools when installing the Axis product; excessive force could cause damage to the product.
- Do not use chemicals, caustic agents, or aerosol cleaners. Use a damp cloth for cleaning.
- Use only accessories that comply with 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 by yourself, contact Axis or your Axis reseller for service matters.

Important

- This Axis product shall be used in compliance with local laws and regulations.
- To use this Axis product outdoors, it shall be installed in an approved outdoor housing.
- The Axis product should be installed by a trained professional. Observe relevant national and local regulations for the installation.
- If the installation requires IP66/IP67 classification, the attached network cable and IP66/IP67 classified network connector must be used to create a waterproof seal.
- The product is designed for installation in vehicles. Mount the product on the ceiling or wall.
- For proper protection from water ingress:
 - The top cover shall be properly closed.
 - The camera shall not be mounted outdoors facing the sky where the screws can collect water.
 - When mounted on a wall, the cable shall not go downwards into the camera, which can cause water to enter the camera. It is recommended that the cables go down from the camera or sideways.
 - Do not bend the network cable too close to the camera.

Transportation

NOTICE

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

AXIS M31-R Series Installation Guide

This installation guide provides instructions for installing the following network cameras:

- AXIS M3113-R
- AXIS M3113-R M12
- AXIS M3114-R
- AXIS M3114-R M12
- AXIS M3114-R M12 2MM

For all other aspects of using the product, please see the user manual, available from www.axis.com/techsup

Installation steps

1. Check the package contents against the list below.
2. Hardware overview.
See page 9.
3. Install the hardware. See page 12.
4. Access the video stream. See page 15
5. Adjust the focus. See page 16.
6. Complete the installation. See page 16.

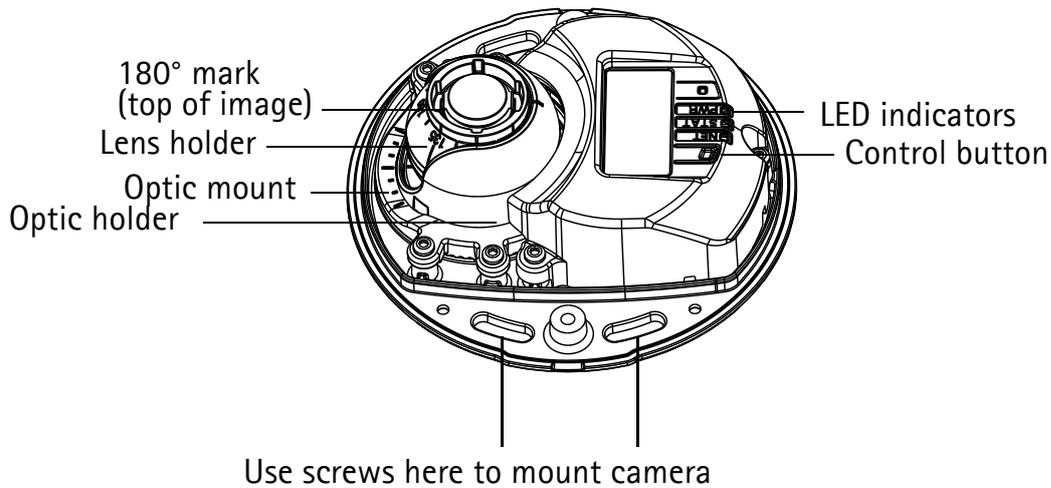
Important!

This product must be used in compliance with local laws and regulations.

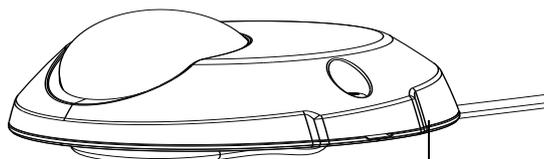
1 Package contents

Item	Models/variants/notes
Network camera	AXIS M3113-R, AXIS M3113-R M12 AXIS M3114-R, AXIS M3114-R M12 AXIS M3114-R M12 2MM
Tools	Lens tool, Allen key, Top cover tool, Drill template
Optional accessories	Adaptor for flat surface with 4 screws Adaptor for curved surface
CD	Installation and Management Software CD
Printed Materials	AXIS Product Installation Guide (this document) Extra serial number labels (2x) AVHS Authentication key Drill template

2 Hardware overview



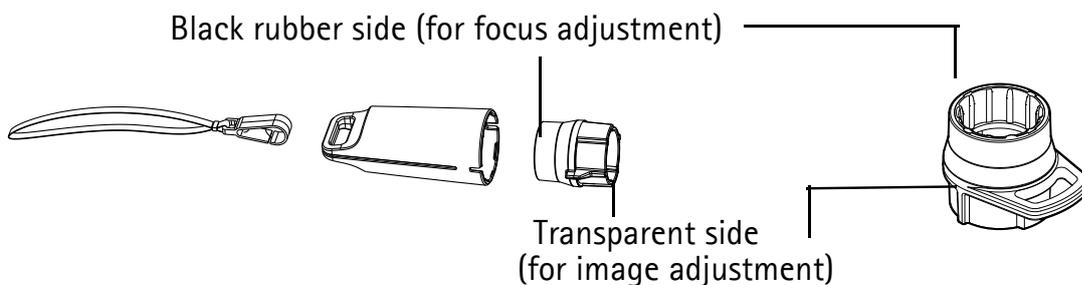
Top cover tool



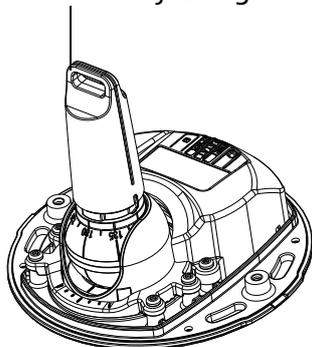
Netzwirkabel cable (0.5m/1.6ft.)

Lens tool

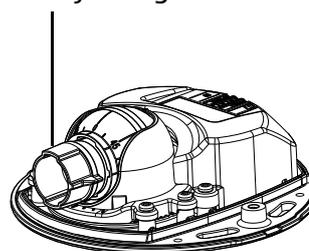
Lens tool
(AXIS M3114-R M12 2MM)



Lens tool for adjusting image



Lens tool for adjusting focus



LED indicators

LED	Color	Indication
Network	Green	Steady for connection to a 100 Mbit/s network. Flashes for network activity.
	Amber	Steady for connection to 10 Mbit/s network. Flashes for network activity.
	Unlit	No network connection.
Status	Green	Steady green for normal operation.
	Amber	Steady during startup, during reset to factory default or when restoring settings.
	Red	Slow flash for failed upgrade.
Power	Green	Normal operation.
	Amber	Flashes green/amber during firmware upgrade.

Note: The Network and Status LEDs can be configured to be unlit during normal operation from **Setup > System Options > LED settings**; and the Status LED can also be configured to flash only when the camera is accessed. See online help files for more information.

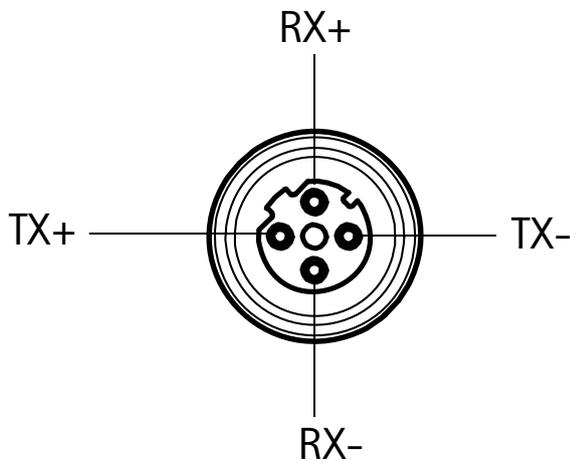
Connectors

Network connector (AXIS M3113-R/AXIS M3114-R) - Female RJ-45 Ethernet connector for 10BaseT/100BaseTX. Supports Power over Ethernet. Using shielded cables is recommended.

Network connector (AXIS M3113-R M12/AXIS M3114-R M12/AXIS M3114-R M12 2MM - Rugged female, D-coded M12 connector. Supports Power over Ethernet. Using shielded cables is recommended.

NOTICE

The product shall be connected using a shielded network cable (STP). All cables connecting the product to the midspan shall be shielded (STP) and intended for their specific use. Make sure the network switch is properly grounded. See Electromagnetic Compatibility (EMC) for regulatory requirements on page 2.



M12	
Data	Power
TX+	DC+/DC-
RX+	DC-/DC+
TX-	DC+/DC-
RX-	DC-/DC+

3 Install the hardware

1. Remove top cover from the camera unit by loosening the 2 screws. Insert the top cover tool into the slit in the bottom cover and lift.
2. Depending on the kind of installation required, follow the appropriate instructions below.



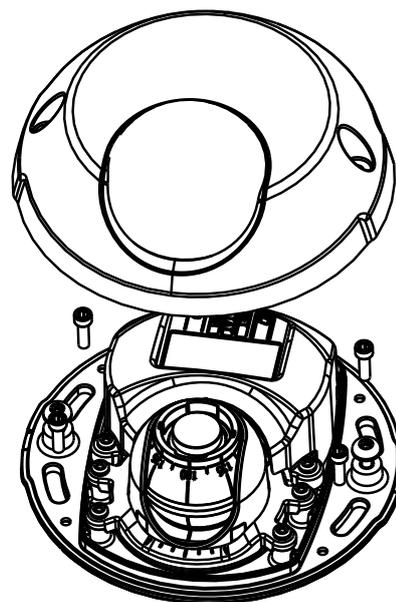
Mount the camera without adaptor

1. Adjust the drill template on the mounting surface so the camera's lens faces the right direction, and drill four holes for the screws, and one hole for the cable.
2. Align the screw slots in the camera with the screw holes in the mounting surface, and attach the camera with 4 screws.

Note: It is recommended that each screw head with the washer does not exceed 5mm in height and 7mm in diameter.

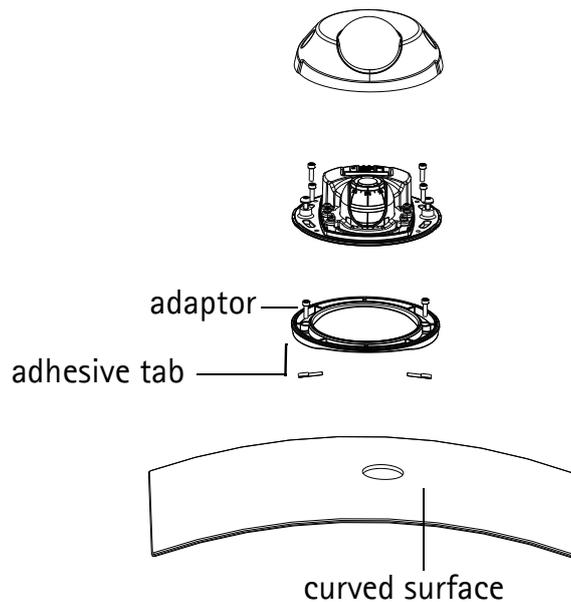
Do not use a countersunk screw head.

3. Attach the network cable to the camera's Ethernet cable.



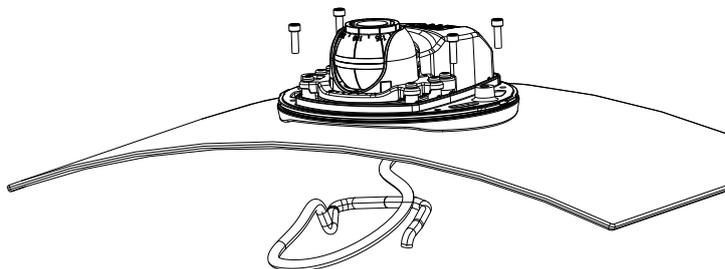
Mount on a curved surface with an adaptor

1. Place the adaptor on the curved mounting surface, align the two curvatures, and mark the two screw holes if drilling is required.
2. Remove protective paper from the adhesive tabs on the adaptor by pulling the ends.
3. Place the adaptor in position and press down on the adhesive tabs.



Note: Fasten the adaptor to the surface with two screws if the adhesive tabs do not stick to the surface material.

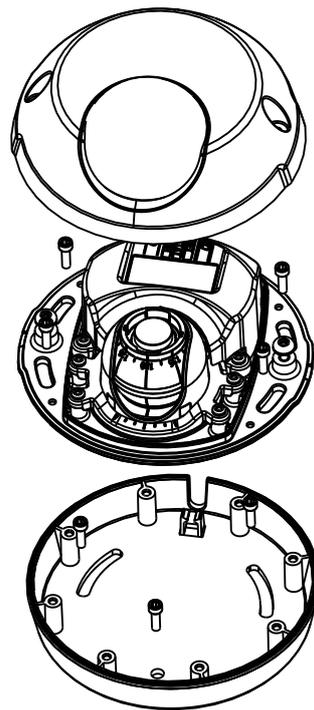
4. Place the drill template on the adaptor and turn the camera lens in the direction you want the camera to point.
5. Adjust template to align screw holes with the adaptor's screw holes.
6. Mark the cable hole, and mark the four screw holes if drilling is required.
7. Drill the cable hole, and if required, 4 holes for the screws.
8. Route the camera's Ethernet cable through the hole.
9. Place the camera on the adaptor in the right direction and fasten with four screws.



Mount on a flat surface with an adaptor

1. Place the adaptor on the mounting surface and position the slot for the cable where appropriate.
2. Fasten the adaptor with three screws appropriate to the surface material.
3. Fix the camera's Ethernet cable in the slot in the adaptor and press into place.
4. Place the camera on the adaptor, and turn the camera so the lens faces the correct direction.
5. Adjust so the screw slots on the camera are aligned with the screw holes in the adaptor, and attach the 4 screws (torque < 2.5 Nm).
6. Attach the network cable to the camera's Ethernet cable.

Note: Do not use a countersunk screw head.



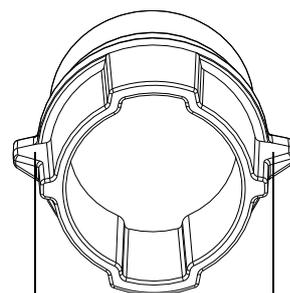
4 Adjust the direction of the lens

Fit the lens tool to the lens holder, and adjust the position of the lens by pointing the lens tool handle in the preferred direction (See illustration on page 6). This can be done vertically from 0 to 90 degrees, and 30 degrees to the left or the right on either side in increments of five.

The lens holder can also be rotated to adjust the image.

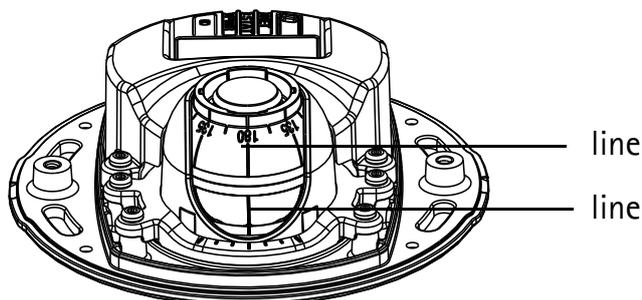
Align the ribs in the lens tool horizontally so that the image is also aligned horizontally.

Note: The '0' mark on the lens holder indicates the bottom of the image and the '180' mark indicates the top, see Hardware overview above. If the camera is mounted upside down, adjust so the '0' mark is on top and the '180' mark below the lens.



Align ribs horizontally

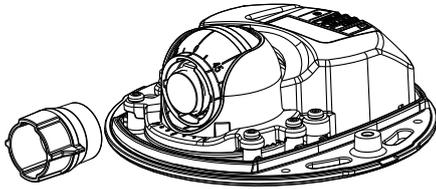
The line inside of the bottom of the optic holder should be aligned with the line at the center of the optic mount.



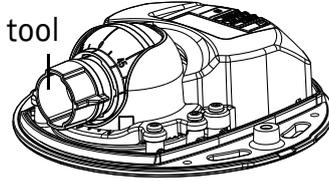
5 Access the video stream

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

6 Adjust the focus



lens tool



Fit black rubber side to adjust focus

Pull the lens tool from the lens tool holder, turn it around and fit the black rubber side to the lens. Adjust the focus. Check the image in the Live View page, and move the lens to the desired position using the transparent side of the lens tool. See illustration under Hardware overview, on page 6.

After replacing the top cover, the image may appear slightly out of focus due to the optical effect of the dome (especially in the case of tele/zoom lenses). To compensate, focus on an object slightly closer than the intended area. If possible, position the top cover in front of the lens while adjusting focus.

7 Complete the installation

To complete the installation, replace the top cover with care and tighten the captive screws. Ensure that the rubber gasket in the top cover, and the ridge it fits into in the bottom plate, are dust-free.

Changing the lens

To change the lens of the network camera:

1. Fit the black rubber side of the lens tool to the lens holder and unscrew the lens.
2. Remove the lens from the lens tool and fix the new lens to it.
3. Fit the new lens to the camera and tighten the lens into place.

Adjust the focus as described above.

Resetting to the Factory Default Settings

This will reset all parameters, including the IP address, to the Factory Default settings:

1. Disconnect the network cable from the camera.
2. Remove the top cover by loosening the 2 captive screws.
3. Press and hold the Control button and reconnect the power\network cable.
4. Keep the Control button pressed until the Status indicator displays amber (this may take up to 15 seconds).
5. Release the Control button. When the Status indicator displays green (which can take up to 1 minute) the process is complete and the camera has been reset.
6. Re-assign the IP address.

It is also possible to reset parameters to the original factory default settings via the web interface. For more information, please see the online help or the user's manual.

Further Information

The User Manual is available from the Axis Web site at www.axis.com

Visit Axis learning center www.axis.com/academy for useful trainings, webinars, tutorials and guides.

Tip!

Visit www.axis.com/techsup to check if there is updated firmware available for your network product. To see the currently installed firmware version, see Setup > About.

Warranty

For information about Axis' product warranty and thereto related information, see www.axis.com/warranty