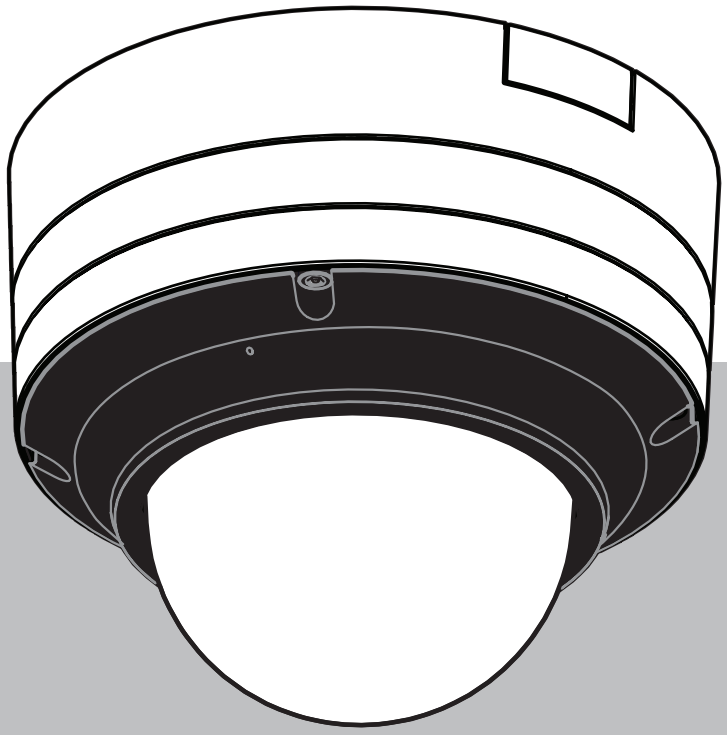
# FLEXIDOME 8100i IR | FLEXIDOME 8100i IR – X series

NDE-8702-RXL | NDE-8703-RL | NDE-8703-RXL | NDE-8704-RL | NDE-8704-RXL



**en** Installation manual

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# 1 Safety and security information

Read, follow, and retain for future reference all of the following safety instructions. Follow all warnings before operating the device.

## 1.1 Safety message explanation

In this manual, the following symbols and notations are used to draw attention to special situations:

**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 the equipment or environment, or data loss.

## 1.2 Safety precautions

**Caution!**
Installation should only be performed by qualified service personnel in accordance with the National Electrical Code (NEC 800 CEC Section 60) or applicable local codes.

**Caution!**
The product must be supplied only by an external source having an output complying with PS2 or Annex Q conform to IEC 62368-1 and UL62368-1.

## 1.3 Important safety instructions

- To clean the device, do not use liquid cleaners or aerosol cleaners.
- Do not install the device near any heat sources such as radiators, heaters, stoves, or other equipment (including amplifiers) that produce heat.
- Do not spill liquids on the device before installation is completed.
- Take precautions to protect the device from power and lightning surges.
- Adjust only those controls specified in the operating instructions.
- Operate the device only from the type of power source indicated on the label.
- Unless qualified, do not attempt to service a damaged device yourself. Refer all servicing to qualified service personnel.

- Install in accordance with the manufacturer's instructions in accordance with applicable local codes.
- Use only attachments/accessories specified by the manufacturer.
- Protect all connection cables from possible damage, particularly at connection points.

## 1.4 Notices

**UL Disclaimer**

Underwriter Laboratories Inc. ("UL") has not tested the performance or reliability of the security or signaling aspects of this product. UL has only tested fire, shock and/or casualty hazards as outlined in Standard(s) for Safety for Information Technology Equipment, UL 62368-1. UL Certification does not cover the performance or reliability of the security or signaling aspects of this product.
UL MAKES NO REPRESENTATIONS, WARRANTIES, OR CERTIFICATIONS WHATSOEVER REGARDING THE PERFORMANCE OR RELIABILITY OF ANY SECURITY OR SIGNALING-RELATED FUNCTIONS OF THIS PRODUCT.

**FCC Supplier's Declaration of Conformity**

FLEXIDOME 8100i IR : NDE-8703-RL, NDE-8704-RL
FLEXIDOME 8100i IR – X series: NDE-8702-RXL, NDE-8703-RXL, NDE-8704-RXL

**Compliance statement**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**Responsible party**

Bosch Security Systems, LLC
130 Perinton Parkway
14450 Fairport, NY, USA
For more information please contact the nearest Bosch Security Systems location or visit: www.boschsecurity.us
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**Note:** This equipment has been tested 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.

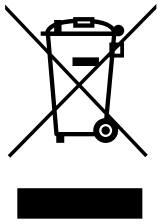
**Use latest software**

Before operating the device for the first time, make sure that you install the latest applicable release of your software version. For consistent functionality, compatibility, performance, and security, regularly update the software throughout the operational life of the device. Follow the instructions in the product documentation regarding software updates.
The following links provide more information:

- General information: https://www.boschsecurity.com/xc/en/support/product-security/
- Security advisories, that is a list of identified vulnerabilities and proposed solutions: https://www.boschsecurity.com/xc/en/support/product-security/security-advisories.html

Bosch assumes no liability whatsoever for any damage caused by operating its products with outdated software components.

**Old electrical and electronic equipment**

| | |
|---|---|
|  | This product and/or battery must be disposed of separately from household waste. Dispose such equipment according to local laws and regulations, to allow their reuse and/or recycling. This will help in conserving resources, and in protecting human health and the environment. |

# 2 Short information

This manual has been compiled with great care and the information it contains has been thoroughly verified. The text was correct at the time of publication, however, the content can change without notice. Bosch Security Systems accepts no liability for damage resulting directly or indirectly from faults, incompleteness or discrepancies between this manual and the product described.

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**Trademarks**
All hardware and software product names used in this document are likely to be registered trademarks and must be treated accordingly.

**More information**
For more information please contact the nearest Bosch Security Systems location or visit www.boschsecurity.com.

https://www.boschsecurity.com/xc/en/product-catalog/

# 3 System overview

## 3.1 Product description

All FLEXIDOME 8100i IR and FLEXIDOME 8100i IR – X series have a unique 3-step concept for simple installation and provide crisp, highly detailed images with the perfect balance between high resolution and extreme low-light sensitivity (up to 4K ultra HD with starlight and high dynamic range).
The cameras deliver incredible accuracy in high security applications and interpret captured data for smart decision-making that goes beyond security with state-of-the-art intelligent video analytics.

## 3.2 Intended use

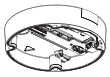
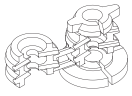
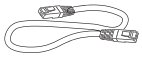
The camera is designed to be integrated in professional IP video surveillance solutions as a surveillance camera. Installation, commissioning and operation of the camera shall be carried out by trained professionals only.
The use of surveillance cameras is restricted by national laws and regulations. Use the camera accordingly.

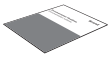
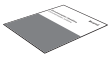
# 4 Preparing for installation

## 4.1 Unpacking

This equipment should be unpacked and handled with care. If an item appears to have been damaged in shipment, notify the shipper immediately.
Verify that all parts are included. If any items are missing, notify your Bosch Security Systems sales or customer service representative.
The original packaging is the safest container in which to transport the unit and can be used if returning the unit for service.

## 4.2 Parts included

| | Quantity | Component |
|---|---|---|
| | 1 | Mounting plate |
| | 1 | Camera module |
|  | 1 | Camera base |
| | 1 | T-20 security Torx bit |
| | 1 | Mini screwdriver |
|  | 1 | IP66 rubber grommet |
| | 1 | IP67 grommet |
|  | 1 | Network patch cable 50 cm |
| | 1 | Desiccant bag<br>**Note: Do not open the bag before it is necessary to use its content.** |

| | Quantity | Component |
|---|---|---|
| | 3 | Identification label stickers |
|  | 1 | Quick installation guide |
|  | 1 | Safety and security information |

## 4.3 Preparation

Before installation, prepare and plan the installation process and materials needed.

**Pre-requisites**

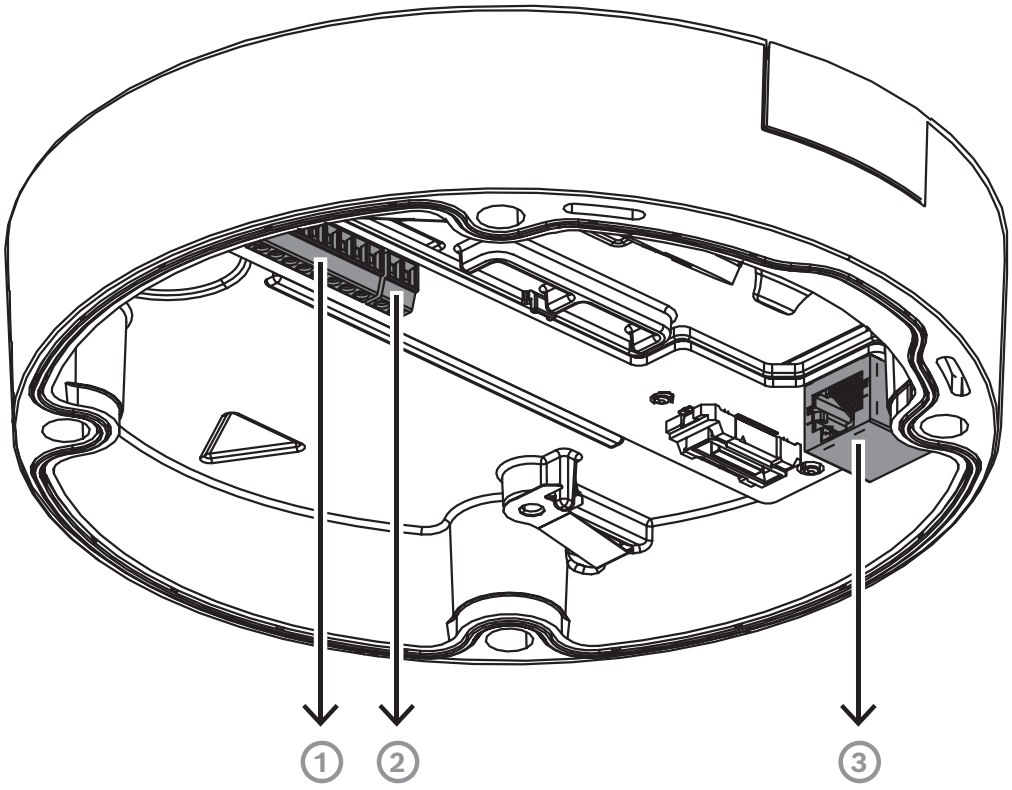
Remove the components from the box. Make sure that all parts are included and are not damaged.

The necessary material and equipment:

- Appropriate size power drill.
- Screwdriver for TR20 bit, or use a torque wrench TR20 hex key.
- microSD card (optional)

  **Note**: Bosch recommends the use of industrial microSD cards with health monitoring.

## 4.4 Wiring




| | |
|---|---|
| 1 | 10-pin I/O connector |
| 2 | 2-pin 24V AC / 12-26V DC power input connector |
| 3 | RJ45 network connector |

### 4.4.1 Network and PoE power

Connect the camera to a 10/100/1000 Base-T network:

- Use STP Category 5e (or higher) cable with RJ45 connectors (the camera network socket is Auto MDIX compliant).
- Power can be supplied to the camera via the Ethernet cable compliant with the Power-over-Ethernet standard and/or via the 24V AC / 12-26V DC auxiliary power.

**Notice!**
Use only PoE+ approved devices.

Power-over-Ethernet+ (PoE+) can be connected at the same time as a 24V AC / 12-26V DC power supply. If auxiliary power (24V AC / 12-26V DC) and PoE+ is applied simultaneously, the camera draws its power from PoE+ by default, and seamlessly switches to auxiliary input if PoE+ power fails.
When PoE+ power returns, the camera seamlessly switches back to PoE+ as its default power source.

### 4.4.2 24V AC/12-26V DC power input

Connect a SELV-LPS or a SELV Class 2 power supply with a rated supply voltage of 24V AC or 12-26V DC.

**Notice!**
When using a 24V AC power supply, do not make a ground connection with one of the 24V AC supply leads. This will damage the camera.

### 4.4.3 10-pin I/O connector

| Pin | Connection |
|---|---|
| 1 | ALARM OUT |
| 2 | ALARM OUT |
| 3 | GND |
| 4 | ALARM IN 1 |
| 5 | ALARM IN 2 |
| 6 | GND |
| 7 | AUDIO IN |
| 8 | AUDIO OUT |
| 9 | +12V OUT |
| 10 | GND |

**12V DC power output**
The 12V DC output can be enabled/disabled via the web interface, and controlled via the Alarm Task Editor.
Maximum load of 50 mA.

**Alarm I/O**
1. Input:
   Use the alarm input to connect external alarm devices such as door contacts or sensors:
   – TTL logic, +5V nominal, +40V DC maximum, DC coupled with 50k Ohm pull-up to +3.3V.
   – Configurable as active low or active high.
   Use a zero potential make-contact or switch as the actuator (with a bounce-free contact system).
2. Output:
   Use the alarm output for switching external devices such as lamps or sirens. The alarm output switching capability has a maximum voltage of 30V AC or +40V DC; maximum 0.5 A continuous, 10 VA.

**Audio I/O**
Connect audio devices to the audio input and audio output connectors.

The unit has full-duplex mono audio for two-way communication between a speaker or door intercom system. The audio input signal is transmitted in synchronization with the video signal.

1. Input:
– **Line In**: Line level input
– **Microphone**: Microphone level input with 2.5 VDC (4 mA) supply voltage for external microphone
2. Output:
   Line output level (not suitable for direct speaker connection); impedance 1.5 kOhm minimum; 0.85 Vrms maximum output voltage.

Use shielded audio connection cable with advised maximum cable lengths for audio line input and output levels.

### 4.4.4 Grounding

The camera does not need a safety earth connection, but grounding is recommended for outdoor applications.
Grounding provides improved surge protection (up to 2 kV, 2 kA to ground (8/20 µs pulse)).
The grounding wire is not included in the box. Bosch recommends the use of a grounding wire with a ring terminal.
The ring terminal must not have a thickness greater than 2 mm (0.01 in.).

**Notice!**
Use proper surge protection on cables that are routed outdoors, or close to large inductive loads or electrical mains supply cables.

# 5 In-box configuration

In-box configuration of the camera can be done via a wired connection with the camera still inside the box, by using a mobile device or PC.

1. Connect a network cable with PoE+, and wait 1 minute for the camera to power up.
2. Connect and configure the camera via a wired network, using the Project Assistant app, the Configuration Manager or the web interface.

For more detail about the Project Assistant app, refer to Commissioning.

**Notice!**
The provided patch cable is only intended for in-box configuration. Dispose of the patch cable after the in-box configuration is successfully completed.

# 6 Hardware installation

**Caution!**
Do not remove the bubble to move the camera lens manually.
The lens system is motorized for easy commissioning. Moving these parts manually will break the gears and damage the camera. In order to move or focus the camera lens, always use the motorized PTRZ controls mentioned in this manual. Removal of the bubble is only allowed for bubble replacement.

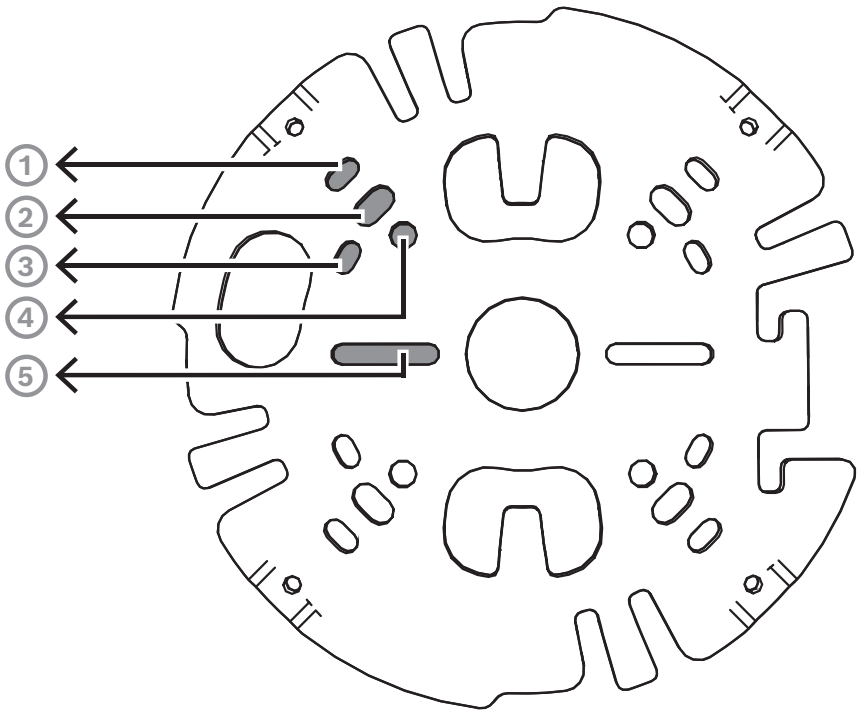
**Installation overview**
The installation of the camera follows these steps:
1. Installing the mounting plate.
2. Installing the camera base.
3. Installing the camera module.

**Notice!**
Direct wall or pole mounting of the camera is recommended for improved IR performance.

**Notice!**
The device's integrated microphone is located at the top of the camera base. To ensure optimal microphone performance, especially when pairing the device with the weather protector accessory, make sure to rotate and to mount the camera such that the integrated microphone is placed at the bottom.

## 6.1 Installing the mounting plate

The mounting plate is used to fix the camera to a flat surface. It offers different holes and slots for a variety of fixing options.




| | |
|---|---|
| 1 | 10.2 cm / 4 in. Square junction box |
| 2 | Pole mount (NDA-U-PMAL/NDA-U-PMAS)/Corner mount (NDA-U-CMA) |
| 3 | Single gang box or universal slot, 45 mm / 1.8 in to 85 mm/3.3 in |
| 4 | Double gang box |
| 5 | Ceiling/wall mount and pendant interface plate (NDA-8000-PIP(WIR)) |

**Note:** Only options 1, 2, and 5 maintain IK11 rating.

**Installation options**

The camera has two configurations for surface mounting:

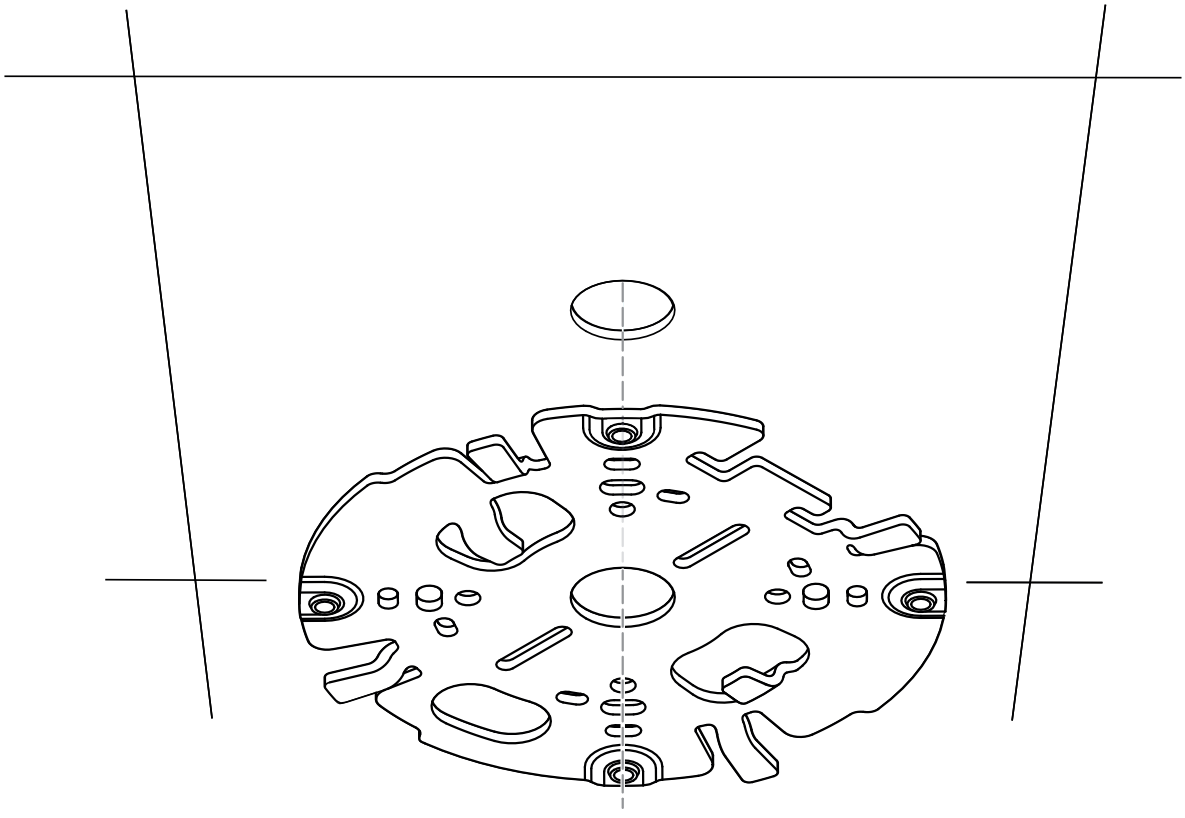
- Refer to Installing the mounting plate without conduit, if the wires are not on the outside of the surface.
- Refer to Installing the mounting plate with conduit, if the wires are on the outside of the surface.

Additionally, the camera can cover various mounting options when combined with the available accessories. See the Mounting accessories chapter for the available accessories.

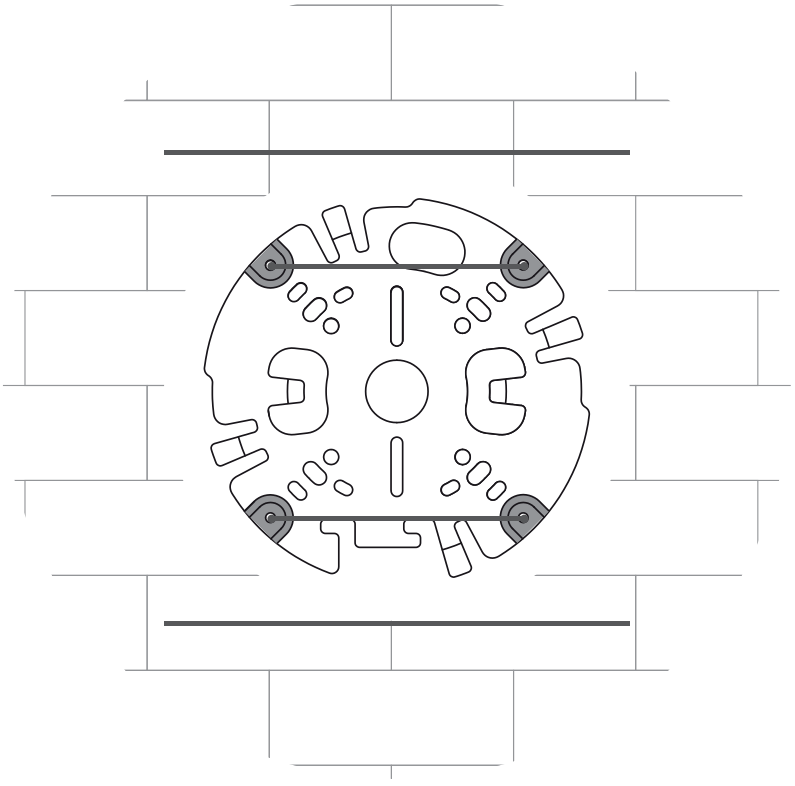
**Notice!**
The plugs and screws for surface mounting are not supplied with the camera.

### 6.1.1 Installing the mounting plate without conduit

1. Remove the mounting plate from the box.
2. Position the mounting plate with the center hole on top of the cable exit on the surface, and mark the positions of the screw holes on the surface.



– For a camera mounted on a wall: make sure that the mounting plate is oriented in a 90º angle, with the holes parallel to the floor, to allow for the use of a weather protector if necessary.

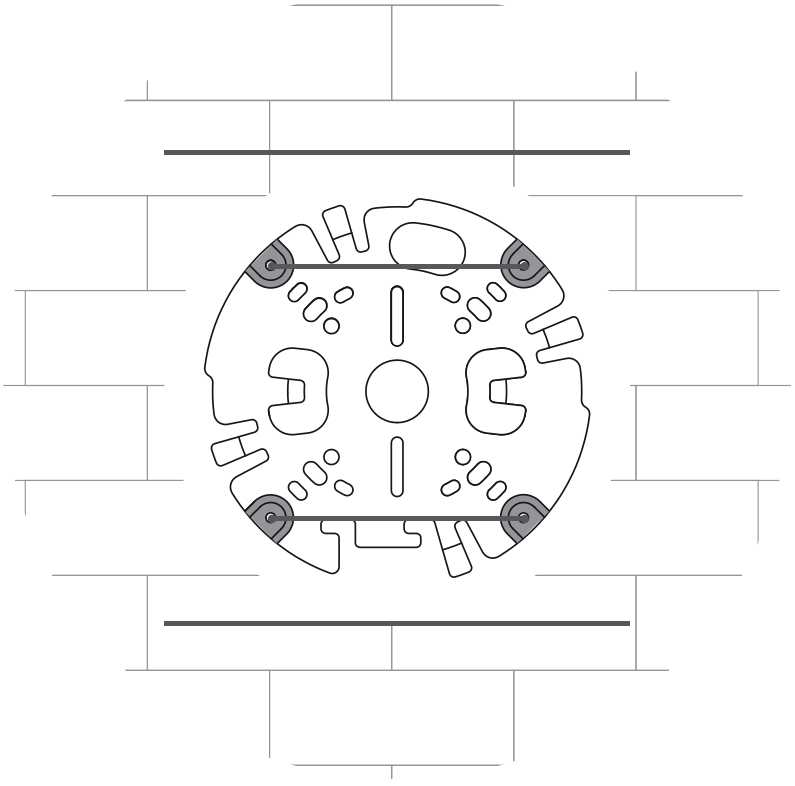


3. Drill the 4 holes with the appropriate diameter drill to support your 5-6 mm (0.2 inch) screws and plugs.
4. Put the cable through the center hole of the mounting plate.
5. Attach the mounting plate to the surface with 4 screws. Tighten the screws between 4 and 7 Nm (3 and 5.2 lbft).

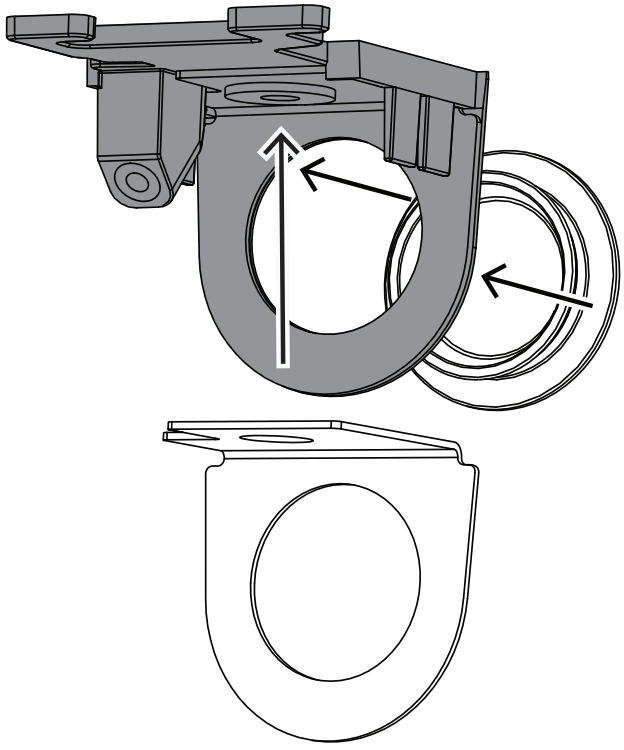
### 6.1.2 Installing the mounting plate with conduit

**Notice!**
Conduit is sold separately.

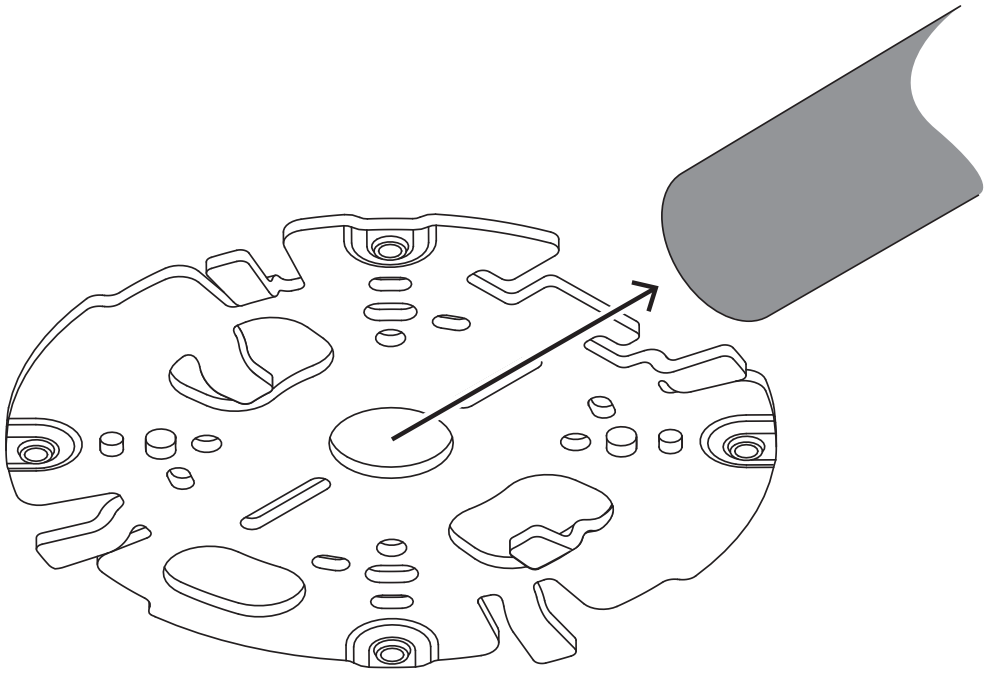
– For a camera mounted on a wall: make sure that the mounting plate is oriented in a 90º angle, with the holes parallel to the floor, to allow for the use of a weather protector if necessary.



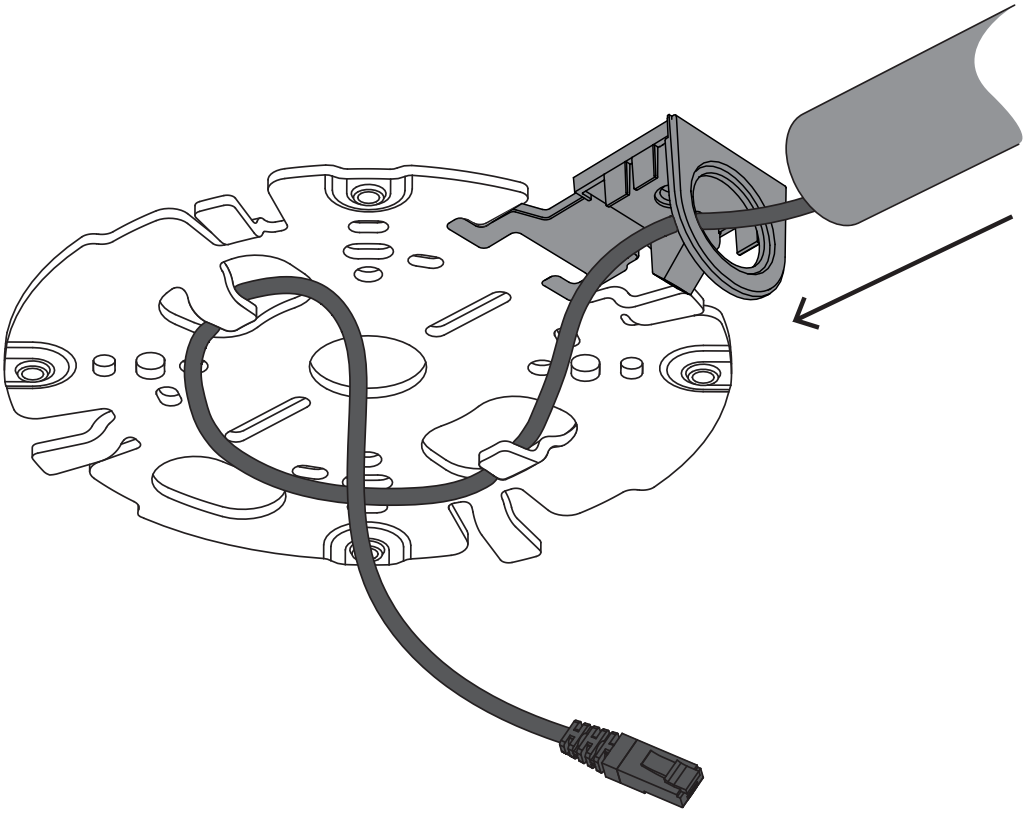
1. Remove the conduit plate from the box.
2. Mark the position of the hole on the surface.
3. Drill the hole with the appropriate diameter drill.
4. Install a plug in the hole.
5. Select the applicable conduit plate adapter and install it on the conduit plate:
   - If the conduit is M25 / ¾ in., use the conduit plate adapter with the larger hole (mounted by default).
   - If the conduit is M20 / ½ in., use the conduit plate adapter with the smaller hole.
   - If the conduit or cable diameter is smaller than M20, use the rubber adapter with the conduit plate adapter with the larger hole. The rubber must be perforated to put the conduit or cable through.



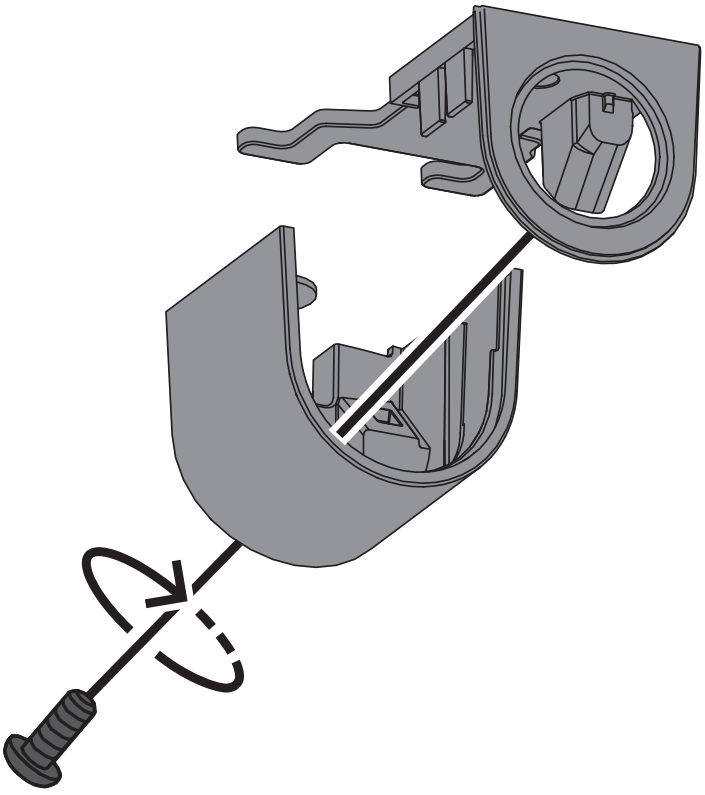
6. Put the cable through the hole of the conduit plate.
7. Attach the conduit plate with the conduit plate adapter to the surface with the washer and a 5-6 mm (0.2 in.) screw. The recommended torque is 3.25 Nm (2.39 lbft).
8. Remove the mounting plate from the box.
9. Mark the positions of the holes on the surface. The mounting plate has only one side available for the conduit. Make sure to position it accordingly.



10. Drill the 4 holes with the appropriate diameter drill to support your 5-6 mm (0.2 inch) screws and plugs.
11. Install 4 plugs in the holes.
12. Attach the mounting plate to the surface with 4 screws. Tighten the screws between 4 and 7 Nm (3 and 5.2 lbft).



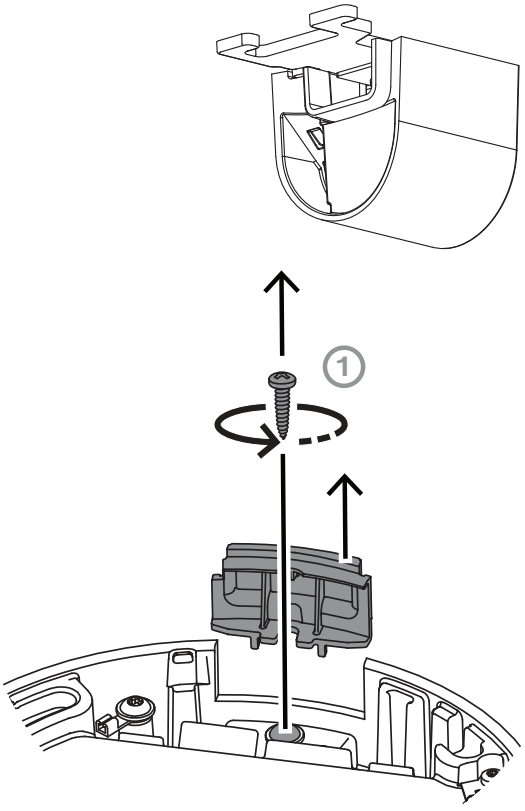
13. Install the conduit cover on the conduit plate with the bolt. Tighten the screw between 1.4 and 2 Nm (1 lbft and 1.5 lbft).



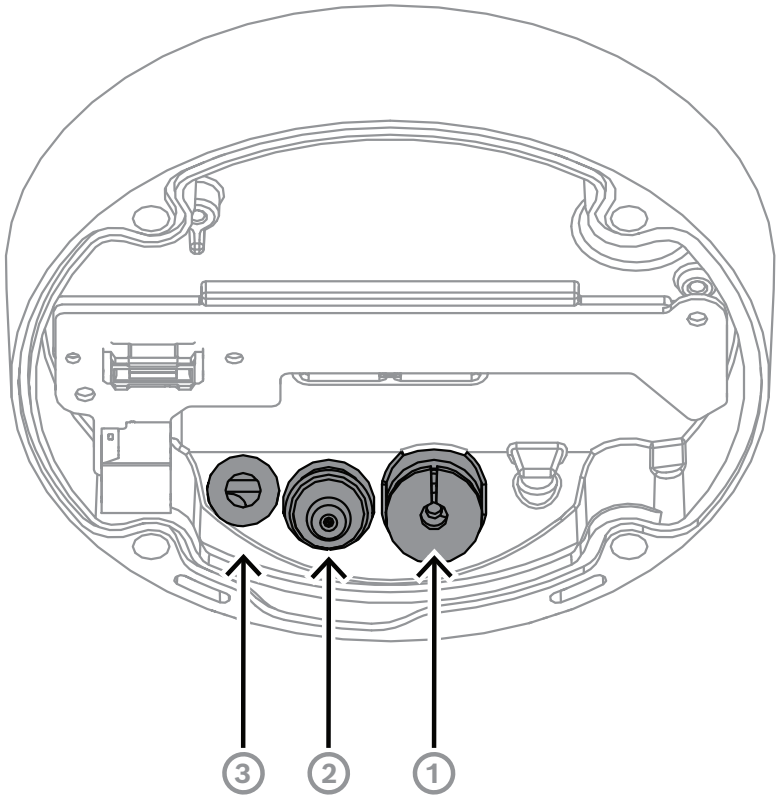
## 6.2 Installing the camera base

### 6.2.1 Before the installation

1. With the camera inside the box, remove the tapes from the sides of the camera base.
2. Remove the camera base from the box.
3. If it is not preferred for installation, remove the optional CAT5e patch cable (50 cm / 19.7 in.).
4. If the installation of the mounting plate was done with the conduit, remove the door on the camera base as shown in the image. Keep the screw and lid.




5. If there are auxiliary connections, puncture a hole in the rubber of the secondary cable inlet (2) in the camera base to put them through. The diameter of the whole must be between 5 and 8 mm (0.2 and 0.3 in.).
   The network cable inlet (1) is for the network cable only.

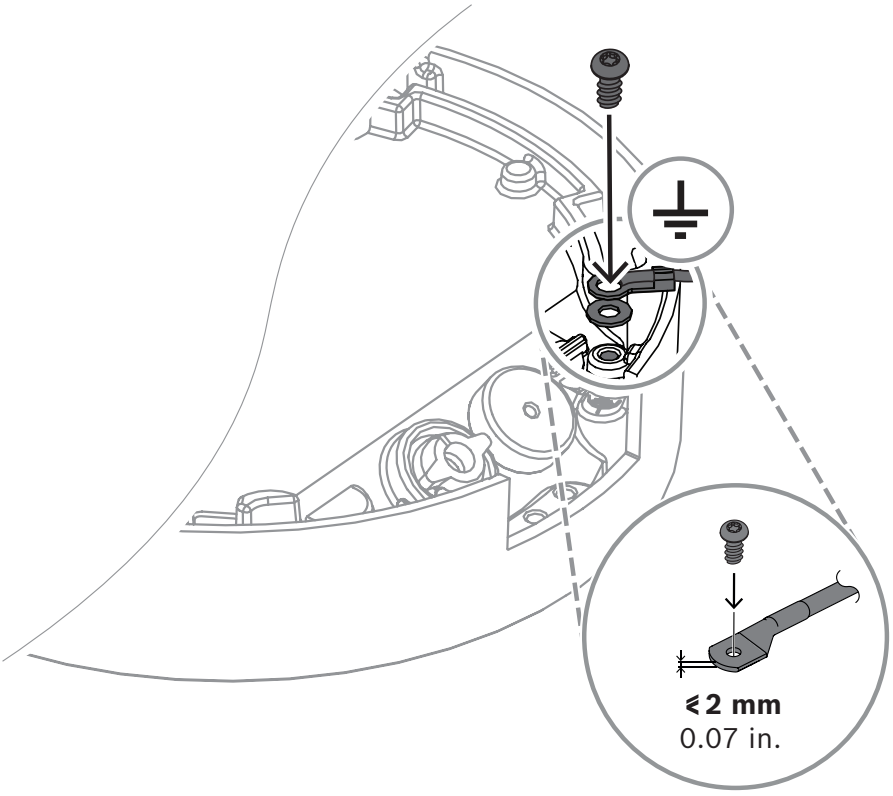



| | |
|---|---|
| 1 | Network cable inlet. |
| 2 | Secondary cable inlet for additional cabling. It is waterproof if not in use. |
| 3 | Protective breathing vent. Do not remove or break the sealing from this hole. |

**Grounding (optional)**

To ground the camera:

1. Remove the screw from the bottom of the camera base.
2. Install the ring terminal on the screw.
3. Hold the camera base and attach the screw with the grounding cable.

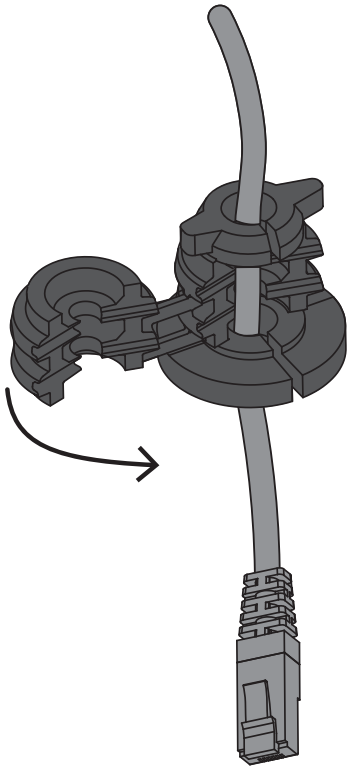



**Warning!**
Trained electricians only!
Work at electric appliances must only be carried out by qualified technicians.

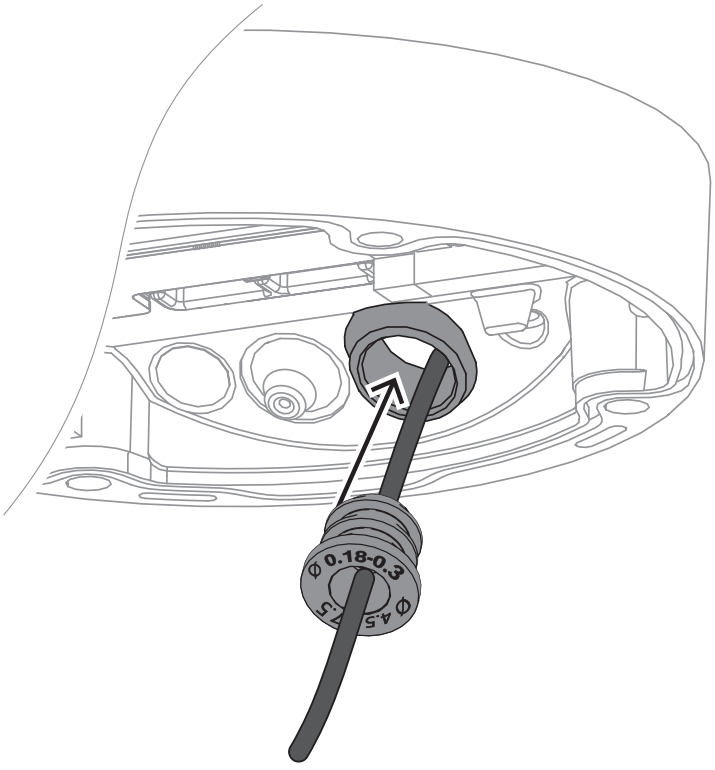
### 6.2.2 Installation steps

1. Put the network cable through the network cable inlet.
2. If necessary, put all auxiliary connections through the secondary cable inlet.
3. Attach a grommet to the network cable:

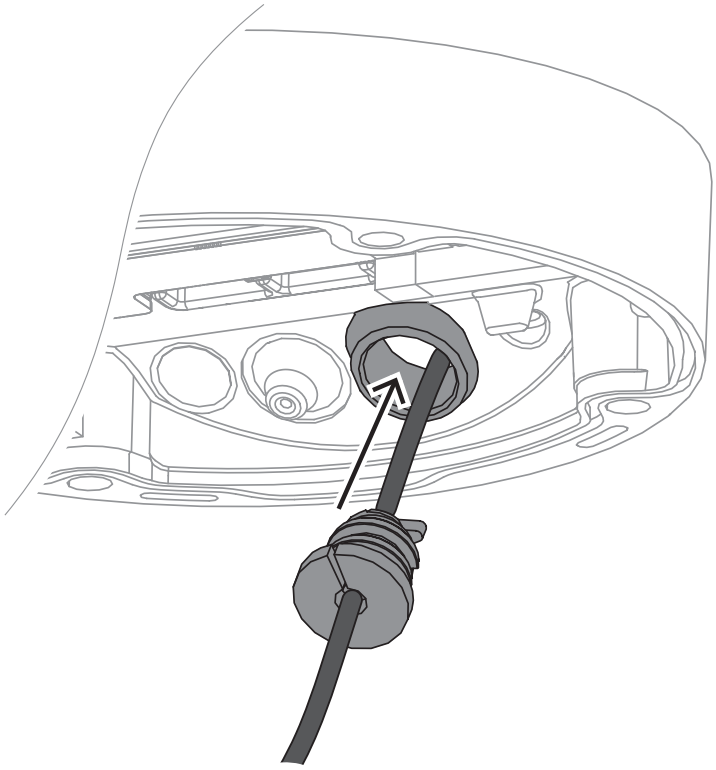
– For an RJ45 network cable, insert the IP66 grommet tightly around the cable.

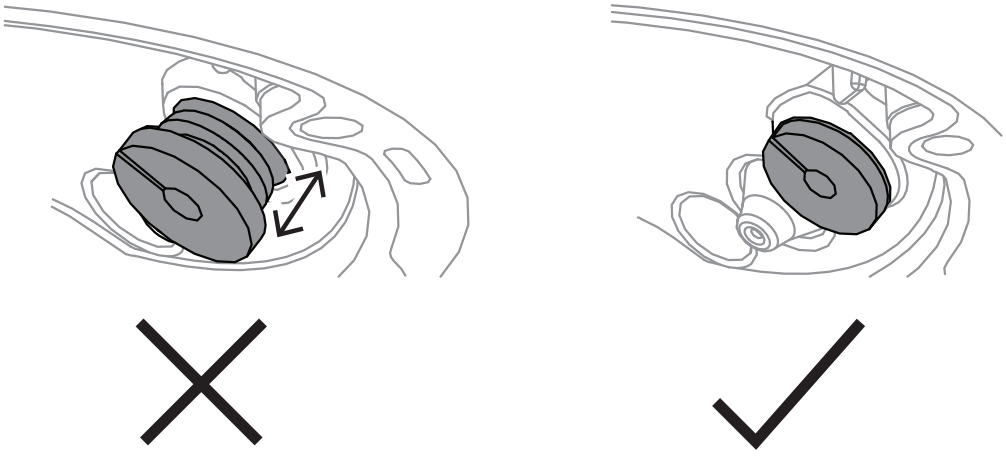


– Insert the cable through the IP67 grommet and crimp the RJ45 connector on the network cable.

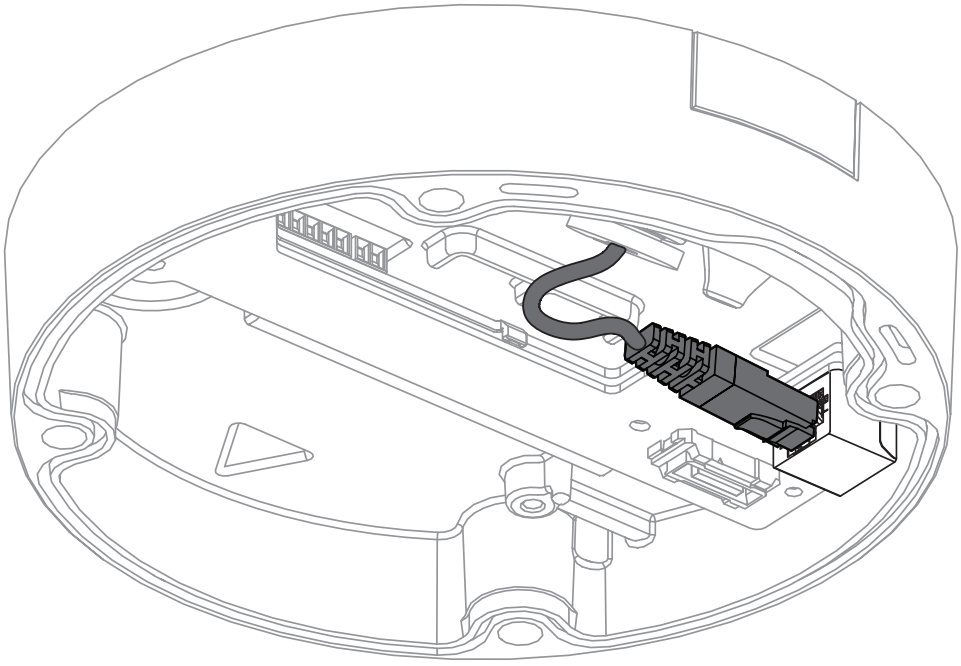



4. Grab the camera base with both hands and push the grommet into the network cable inlet with both thumbs on the opposite sides of the network cable.



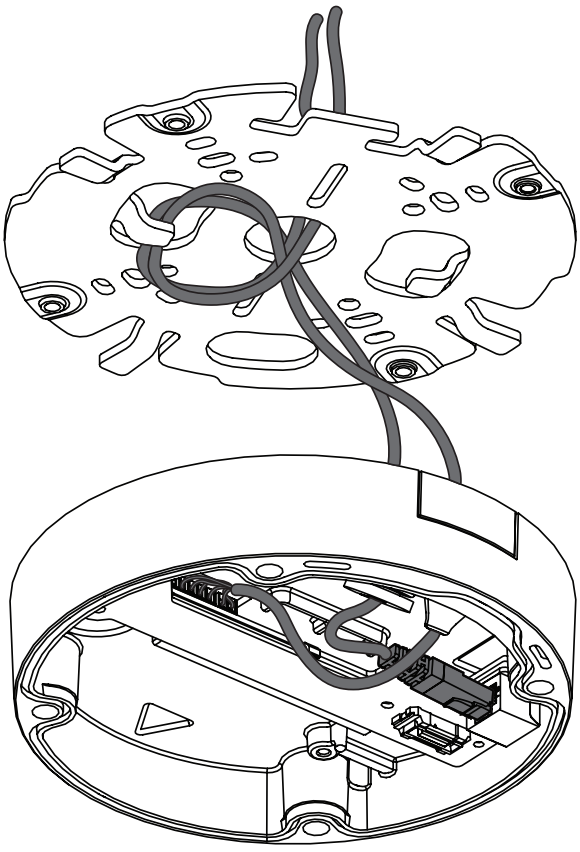


5. Adjust the length of the network cable as necessary.
6. Connect the network cable to the network connector.

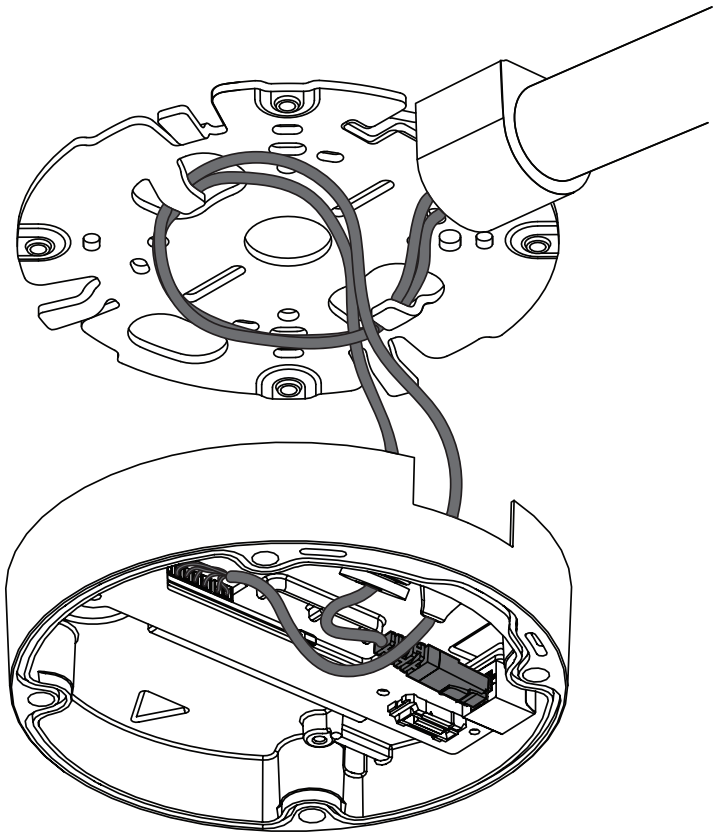


7. If required, do a loop with the cable on the hooks of the mounting plate.

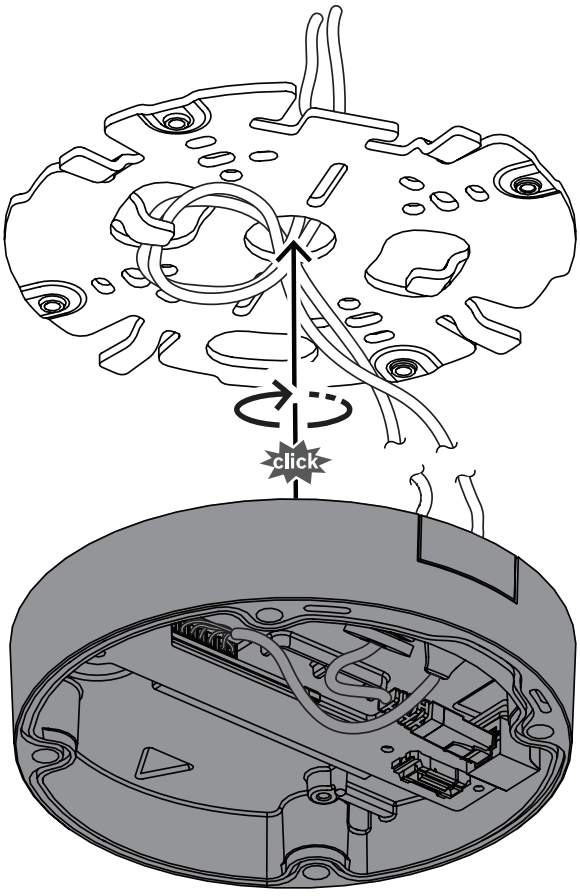
– For an installation without conduit, do a loop with the cable on one of the hooks of the mounting plate.



– For an installation with conduit, do a loop with the cable on both hooks of the mounting plate.



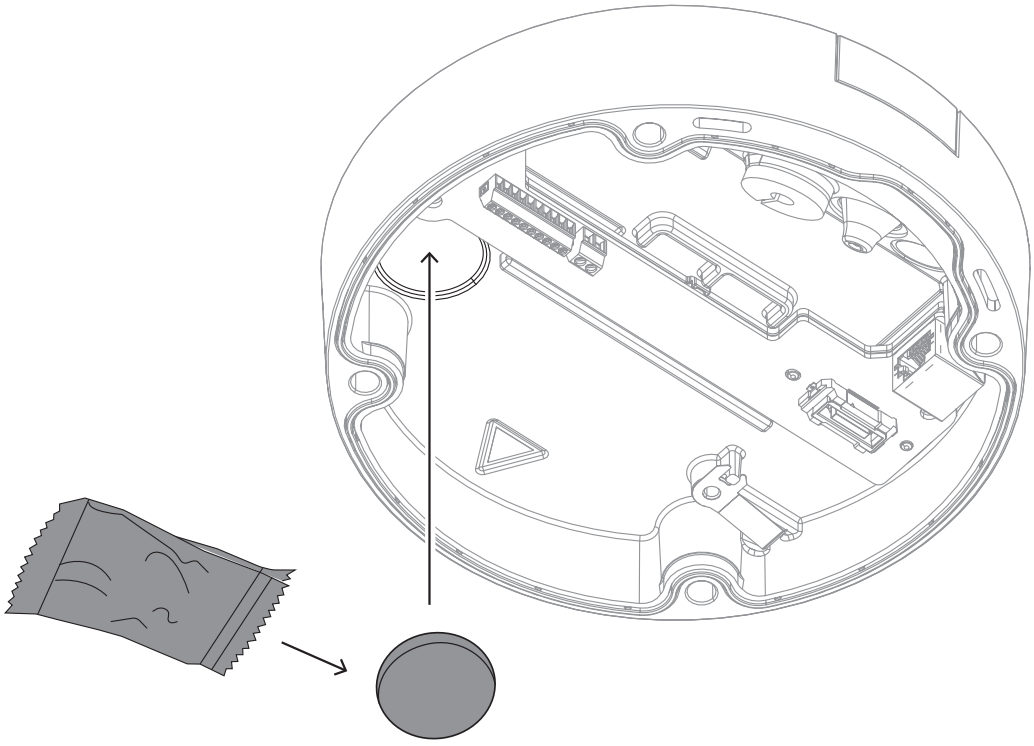
8. Push the camera base against the mounting plate and turn the camera base in the clockwise direction until you hear/feel a click. Make sure that the camera base is secured.




9. If necessary, connect the auxiliary wires to the terminals supplied (refer to Wiring).
10. Connect the terminals to their related connectors.

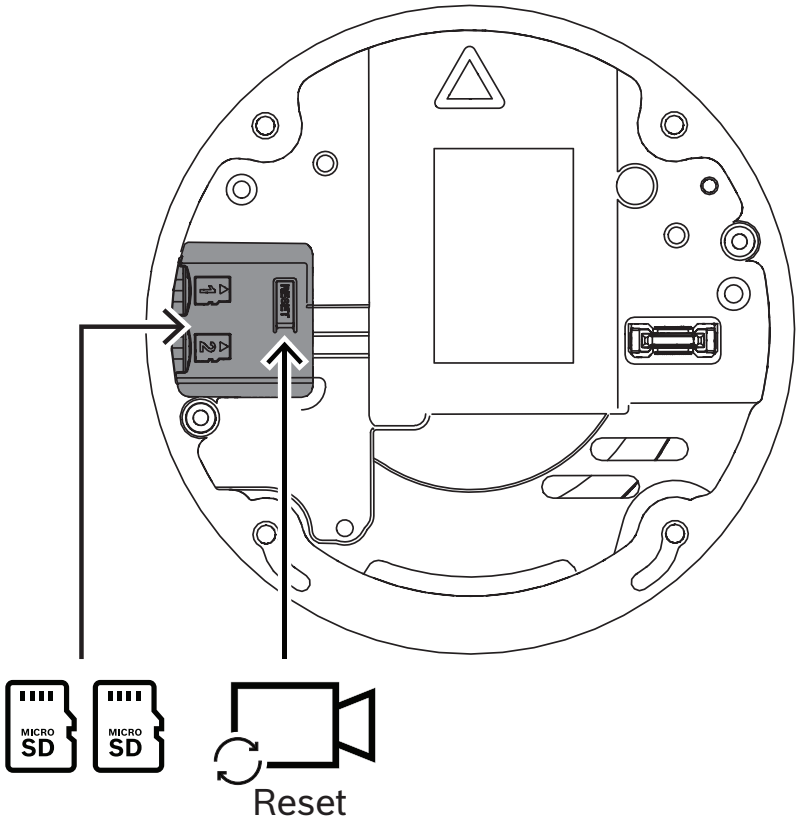
**Moisture protection**

1. Remove the desiccant tablet from the bag.
   After removing the desiccant tablet from the bag, installation must be completed in less than 10 minutes.
2. Attach the desiccant tablet with the adhesive side facing the camera base. Make sure not to cover the vents with the desiccant.



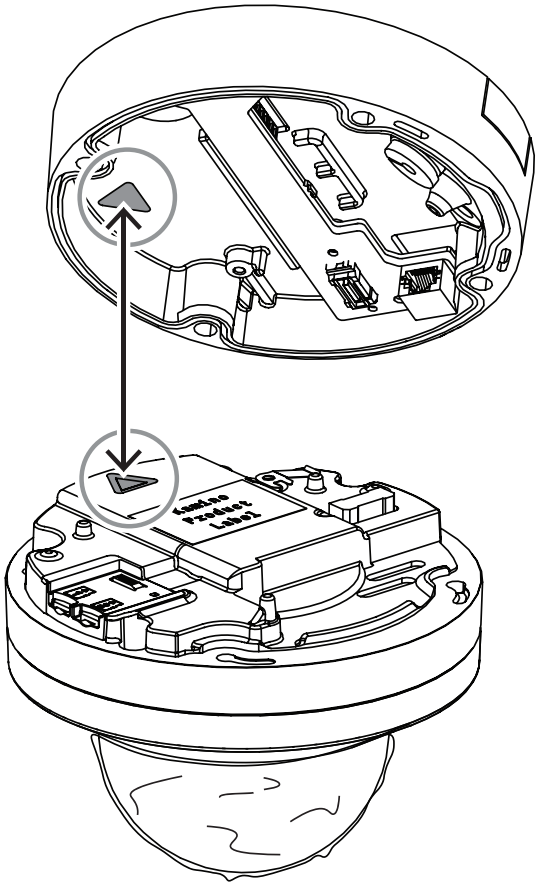
## 6.3 Installing the camera module

1. Remove the camera module from the box.
– If necessary, install the micro SD card in micro SD slot 1.
– Press the micro SD card firmly until it latches into place in the slot.

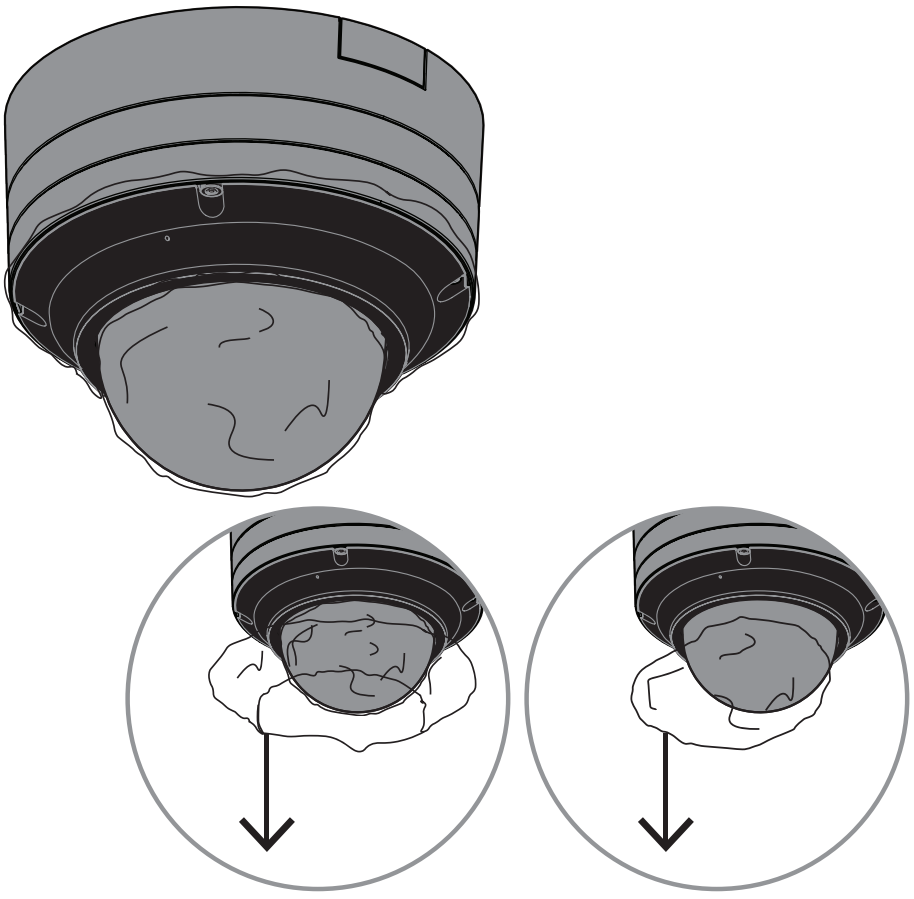



  - To remove the card, press it into the slot until it unlatches again.
- If more than one micro SD card is necessary, install the other micro SD card in micro SD slot 2.

2. Attach the camera module to the camera base and tighten the four screws. The recommended torque is 3.25 Nm (2.39 lbft). Make sure that the arrow on the camera module points in the same direction as the red arrow on the camera base.



3. Remove the protective cover from the bubble.



4. Make sure that all necessary wiring is done, and that energy is being supplied.

## 6.4 LED status

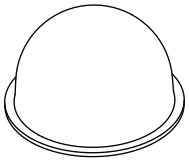
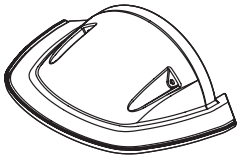
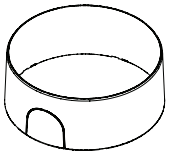
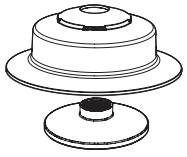
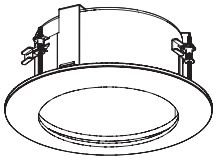
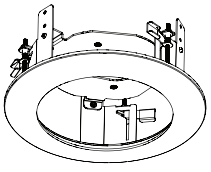
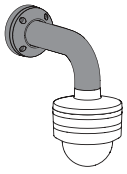
The device includes a status LED. The LED can be seen in the camera bubble on the opposite side of the camera lens.
Refer to the table below for the different status LED functions.

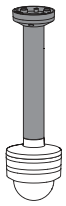
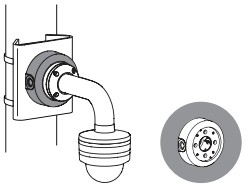
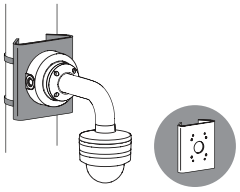
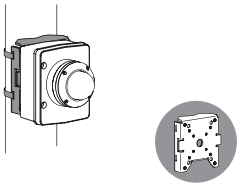
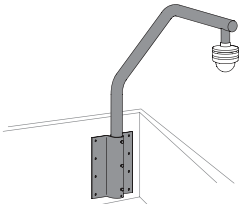
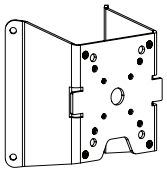
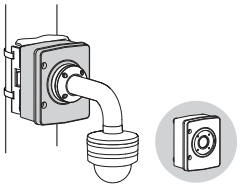
| **Status LED** | **Meaning** |
|---|---|
| Red | Booting |
| Blinking red | Resetting |
| Green | Working, but stream is not being watched or recorded |
| Blinking green | Stream is being watched and/or recorded |

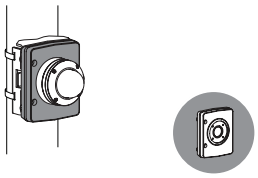
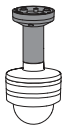
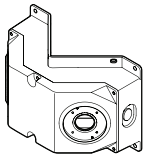
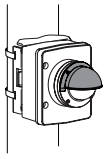
Disable the status LED in the camera settings, if necessary.

1. Select **Camera**.
2. Select **Installer menu**.
3. Select **Disabled** in **Camera LED**.

## 6.5 Mounting accessories

| | | |
|---|---|---|
| NDA-8000-CBL | Clear replacement bubble |  |
| NDA-8000-TBL | Tinted bubble for FLEXIDOME IP 8000i and FLEXIDOME 8100i cameras | |
| NDA-8000-HCBL | Hydrophilic bubble for FLEXIDOME IP 8000i and FLEXIDOME 8100i cameras | |
| NDA-8000-WPIR | On camera weather protector for FLEXIDOME 8100i IR cameras |  |
| NDA-8000-PCIR | Paintable cover for FLEXIDOME 8100i IR cameras |  |
| NDA-8000-PIPWIR | Pendant interface plate with weather protector for FLEXIDOME 8100i IR cameras |  |
| NDA-8002-PLEN | Plenum-rated in-ceiling mount kit for FLEXIDOME IP 8000i and FLEXIDOME 8100i cameras. |  |
| NDA-8002-IC | In-ceiling mount kit with microphone support for FLEXIDOME IP 8000i and FLEXIDOME 8100i cameras. |  |
| NDA-U-WMT | Universal wall mount for dome cameras, white. |  |

| | | |
|---|---|---|
| NDA-U-PMT | Universal pipe mount for dome cameras, 31 cm, white. |  |
| NDA-U-PMTE | Extension for universal pipe mount, 50 cm, white | |
| NDA-U-PSMB | Surface mount box (SMB) for wall mount or pipe mount. |  |
| NDA-U-PMAS | Universal pole mount adapter, white; small. |  |
| NDA-U-PMAL | Universal pole mount adapter, white; large. |  |
| NDA-U-RMT | Universal roof mount for dome cameras, white. |  |
| NDA-U-CMT | Universal corner mount, white |  |
| NDA-U-PAx | Surveillance cabinet |  |

| | | |
|---|---|---|
| NDA-U-WMP | Back plate for universal wall mount, corner mount and pole mount, white, IP66 |  |
| NDA-U-PMTS | Universal pendant pipe mount for dome cameras, 11 cm (4"), white |  |
| NDA-U.DWMT | Universal dual wall mount for dome cameras |  |
| NBA-7070-PAx | Surveillance cabinet |  |

## 6.6 Removing the camera

1. Untighten the 4 captive screws of the screw holes in the camera module.
2. Push the camera upwards and rotate counterclockwise to un-click it from the mounting plate.
3. Disconnect the Ethernet cable and remove the camera.

# 7 Commissioning

With the FLEXIDOME 8100i IR and FLEXIDOME 8100i IR – X series remote commissioning functionality, only a PC or a mobile device is needed to pan, tilt, roll, and zoom (PTRZ), and point the camera to the required field of view - without ever having to remove the camera from the box.
Do the commissioning locally at the camera via wireless access to local network using the Project Assistant app, available for iOS, Windows or Android, or by connecting remotely to the camera via the network using the Project Assistant app, the camera's web interface, or the Configuration Manager.

To commission the camera using the Project Assistant app:

1. Connect the network cable to the PoE+.
2. Download the Project Assistant app.

BOSCH

3. Do the necessary steps to configure the device. Use the step-by-step instructional video for help.

If required, re-commissioning can be done at any time.

**Notice!**
The remote commissioning functionality (PTRZ) of the camera is designed as installation aid for first set-up or adjustments at a later moment in time.

# 8 Connection via the web browser

A computer with a web browser (Google Chrome, Microsoft Edge, or Mozilla Firefox) is used to receive live images, control the unit, and replay stored sequences. The unit is configured over the network using the browser.

## 8.1 System requirements

Our recommendations are:

- Computer with Dual core HyperThreading processor or better
- Graphic card with performance that matches or is better than the resolution of the camera
- Windows 10 or later
- Network access
- Google Chrome, Microsoft Edge, or Mozilla Firefox

  **- or -**

  Application software, for example, Video Security Client or BVMS.

## 8.2 Establishing the connection

The unit must have a valid IP address and a compatible subnet mask to operate on your network. By default, DHCP is pre-set at the factory to **On** and so your DHCP server assigns an IP address. With no DHCP server the default address is automatically assigned via link-local address.

The Project Assistant app or Configuration Manager (version 7.74 or higher) can be used to find the IP address. Download the software from https://downloadstore.boschsecurity.com:

1. Start the web browser.
2. Enter the IP address of the device as the URL.
3. During the initial installation, confirm any security questions that show.

**Note:**

If you cannot connect, the unit may have reached its maximum number of connections. Depending on the device and network configuration, each unit can have up to 50 web browser connections, or up to 100 connections via BVMS.

## 8.3 Password protection in camera

The camera requires a strong password. Follow the prompts in the dialog box, which specifies what is required. The system measures the strength of the password that you enter.

When you use Configuration Manager to access your device for the first time, you must set the initial password of the device in Configuration Manager. The Users section (General > Unit Access > Users) displays the message, "Before you can use this device you have to secure it with an initial password."

**Note**: After you set the initial password, a "lock" icon appears next to the device name in the **Devices** list in Configuration Manager.

You can also launch the device webpage directly. In the device webpage, an initial password page appears, displaying input fields and a password strength gauge.

Enter the user name (“**service**”) and a password in the appropriate fields. Refer to the section **User Management** for more information.

After a service-level password is set for the device, the device displays a dialog box that prompts users to enter the user name (“**service**”) and the service-level password every time that they access the device.

1. Fill in the fields **User name** and **Password**.
2. Click **OK**. If the password is correct, the desired page appears.

**Note**: New releases of software may require you to set a new and stronger password.

# 9 Troubleshooting

## 9.1 Resolving problems

The following table is intended to help identify the causes of malfunctions and correct them where possible.

| Malfunction | Possible causes | Solution |
|---|---|---|
| Unit does not operate. | Power failure. | Make sure that the power supply is working properly. |
| | Faulty cable connections. | Do a check of all cables, plugs, contacts, and connections. |
| PTRZ does not work | Motors have been used for long and have overheated. | Pause any lens movement until motors have cooled down. |
| | Camera parts are out of place or broken due to transportation. | Please contact your supplier or system integrator, or go directly to Bosch Security Systems customer service. |
| PTRZ does not work correctly. | Camera has lost calibration during transportation. | Reset the PTR in the user interface to reset the pan, tilt and roll motors.<br>Reset the lens in the user interface to reset the focus and zoom of the lens.<br>If that does not work, please contact your supplier or system integrator, or go directly to Bosch Security Systems customer service. |
| No connection established, no image transmission. | Incorrect unit configuration. | Check all configuration parameters (reset to factory default if necessary). |
| | Faulty installation. | Check all cables, plugs, contacts and connections. |
| | Wrong IP address. | Check the IP addresses (ping). |
| | Faulty data transmission within the LAN. | Check the data transmission with ping. |
| | The maximum number of connections has been reached. | Wait until there is a free connection and call the transmitter again. |

| | | |
|---|---|---|
| Moisture/condensation inside the bubble, camera leaking. | Housing is not closed properly. | Re-install camera and check for proper closure of bubble cover and SD card lid. |
| | Closing seals are damaged. | Please contact your supplier or system integrator, or go directly to Bosch Security Systems customer service. |
| | Rubber grommet not placed correctly on IP54 protection kit.. | Re-install rubber grommet. |
| | Cable diameter or shape is not as specified for IP54 protection kit. | Re-install camera with proper cabling. |
| | Air vent is blocked due to dirt/ water. | Gently clean air vent.. |
| | Air vents are damaged or loose. | Please contact your supplier or system integrator, or go directly to Bosch Security Systems customer service. |
| | Camera has been off for an extensive period of time. | Turn camera on and leave it on until condensation clears. |

| | | |
|---|---|---|
| No audio transmission to remote station | Faulty microphone cable connection. | Open camera bubble and correctly connect microphone connector. |
| | Incorrect configuration. | Check audio parameters on the **Audio** configuration and **LIVE** page functions pages. |

| | | |
|---|---|---|
| The unit does not report an alarm. | Alarm source is not selected. | Select possible alarm sources on the Alarm sources configuration page. |
| | No alarm response specified. | Specify the desired alarm response on the Alarm connections configuration page; if necessary change the IP address. |

| | | |
|---|---|---|
| The unit is not operational after a firmware upload. | Power failure during programming by firmware file. | Have the unit checked by Customer Service and replace if necessary. |

| | | |
|---|---|---|
| | Incorrect firmware file. | Enter the IP address of the unit followed by /main.htm in your Web browser and repeat the upload. |

| | | |
|---|---|---|
| Web browser contains empty fields. | Active proxy server in network. | Create a rule in the local computer's proxy settings to exclude local IP addresses. |

## 9.2 Testing the network connection

The ping command can be used to check the connection between two IP addresses. This allows testing whether a device is active in the network.

1. Open the DOS command prompt.
2. Type `ping` followed by the IP address of the device.

If the device is found, the response appears as "Reply from ... ", followed by the number of bytes sent and the transmission time in milliseconds. Otherwise, the device cannot be accessed via the network. This might be because:

– The device is not properly connected to the network. Check the cable connections in this case.
– The device is not correctly integrated into the network. Check the IP address, subnet mask, and gateway address.

## 9.3 Customer service

If a fault cannot be resolved, please contact your supplier or system integrator, or go directly to Bosch Security Systems customer service.

The version numbers of the internal firmware can be viewed on a service page. Please note this information before contacting customer service.

1. In the address bar of your browser, after the unit IP address, enter: /version
   for example: 192.168.0.80/version
2. Write down the information or print out the page.

# 10 Maintenance

There are different types of bubbles available to choose from. All bubbles require special care when handling and cleaning to avoid scratches.

## 10.1 Bubble handling

The bubble may be packaged with a protective plastic sheet. It is recommended that the bubble remain stored this way until it is ready to install. Limit handling the bubble, as any scratches can quickly affect visibility.

## 10.2 Bubble cleaning

If cleaning the bubble is required, use the following procedures and comply with all the warnings listed below.

**Cleaning the bubble interior**

The extremely soft interior surface should not be cleaned by rubbing or dusting with a cloth. Use clean dry compressed air, preferably from a spray can, to remove any dust from the interior surface.

**Warning!**

Do not use alcohol-based solutions to clean the bubble. This will cause it to cloud and over time cause stress aging, which makes the bubble brittle.

**Cleaning the bubble exterior**

The exterior of the bubble is hard coated for increased scratch resistance. If cleaning is needed, only use clean microfiber lens cloths use a non-abrasive, solvent-free neutral soap or detergent with water. Dry the bubble thoroughly with a dry and clean microfiber lens cloth to prevent water spots. Never scrub the bubble with any abrasive material or cleaners.

**Cautions**

- Do not clean bubbles in the hot sun or on very hot days.
- Do not use abrasive or highly alkaline cleaners on the bubble.
- Do not scrape the bubble with razor blades or other sharp instruments.
- Do not use Benzene, Gasoline, Acetone, or Carbon Tetrachloride on the bubble.

## 10.3 Bubble replacement

**Notice!**

Yellowing of bubble

Bubble may become yellow overtime due to exposure to UV radiation like direct or indirect sunlight.

In case the bubble gets damaged or yellow, it can be replaced by a clear bubble (NDA-8000-CBL), a tinted bubble (NDA-8000-TBL), or a hydrophilic bubble (NDA-8000-HCBL).

Clear bubbles offer maximum sensitivity by allowing as much light through as possible. Tinted bubbles offer covertness by making it difficult to see from the outside the direction the camera is facing. Hydrophilic bubbles help shield the dome from water droplets in rainy conditions.
For instructions on how to replace the bubble, refer to the respective *Quick Installation Guide*.

## 10.4 Camera reset

To reset the camera to factory settings:

1. Remove the camera module from the camera base.
2. Press tightly and hold the reset button on top of the micro SD card slot until the LED light by the reset button flashes in red.
3. Release the reset button.

– If LED light does not flash, connect the camera to a network cable with PoE+ and repeat steps 2 and 3.

4. Re-attach the camera module onto the camera base.

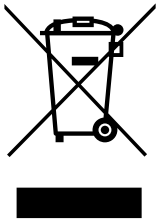
# 11 Decommissioning

## 11.1 Transfer

The device should only be passed on together with this Installation manual.

## 11.2 Disposal

**Old electrical and electronic equipment**



This product and/or battery must be disposed of separately from household waste. Dispose such equipment according to local laws and regulations, to allow their reuse and/or recycling. This will help in conserving resources, and in protecting human health and the environment.

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