AUTODOME IP starlight 5100i IR

en Installation Manual

Table of contents

1	**Safety**	**4**
1.1	About this manual	**4**
1.2	Legal information	**4**
1.3	Safety precautions	**4**
1.4	Important safety instructions	**5**
1.5	Connection in applications	**7**
1.6	Important notices	**8**
1.7	Important notices - illumination safety	**8**
1.8	Customer support and service	**9**
2	**Introduction**	**11**
2.1	Parts List	**11**
2.2	Additional Products Required	**11**
2.3	Additional tools required	**11**
2.4	Establishing the connection	**12**
2.5	Configuration with Project Assistant app	**12**
3	**Product Description**	**13**
4	**Preparing Wiring**	**14**
5	**(Optional) Configuration Programming on a Temporary Table-top Stand**	**15**
5.1	Installation Overview	**15**
5.2	Configuration Programming on a Temporary Table-top Stand	**15**
6	**(Optional) Installing a microSD card**	**17**
7	**Installing the IP66 kit**	**19**
8	**(Optional) Installing the Surveillance Cabinet**	**22**
9	**Installing a Pendant Wall Mount and Camera**	**23**
9.1	Installing a Pendant Wall Mount (with the Surveillance Cabinet)	**23**
9.2	Attaching the Mounting Cap and the Camera	**24**
10	**Installing a Parapet Roof Mount and Camera**	**31**
10.1	Installing the Roof Mount	**31**
10.2	Attaching the Mounting Cap and the Camera	**33**
11	**Installing a Pipe Mount and Camera**	**39**
11.1	Preparing the Ceiling for Installation	**39**
11.2	Installing the Pipe Mount	**39**
11.3	Attaching the Mounting Cap and the Camera	**40**
12	**Connection**	**46**
13	**Maintenance**	**48**
14	**Decommissioning**	**49**
14.1	Transfer	**49**
14.2	Disposal	**49**
15	**Technical data**	**50**
16	**Support**	**51**

1 Safety

1.1 About this manual

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

1.2 Legal information

Copyright
This manual is the intellectual property of Bosch Security Systems, and is protected by copyright. All rights reserved.

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

1.3 Safety precautions

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

Danger!
High risk: This symbol indicates an imminently hazardous situation such as “Dangerous Voltage” inside the product. If not avoided, this will result in an electrical shock, serious bodily injury, or death.

Warning!
Medium risk: Indicates a potentially hazardous situation. If not avoided, this may result in minor or moderate injury.

Caution!
Low risk: Indicates a potentially hazardous situation. If not avoided, this may result in property damage or risk of damage to the unit.

Notice!
This symbol indicates information or a company policy that relates directly or indirectly to the safety of personnel or protection of property.

1.4 Important safety instructions

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

1. Clean only with a dry cloth. Do not use liquid cleaners or aerosol cleaners.
2. Do not install device near any heat sources such as radiators, heaters, stoves, or other equipment (including amplifiers) that produce heat.
3. Never spill liquid of any kind on the device.
4. Take precautions to protect the device from power and lightning surges.
5. Adjust only those controls specified in the operating instructions.
6. Operate the device only from the type of power source indicated on the label.
7. Unless qualified, do not attempt to service a damaged device yourself. Refer all servicing to qualified service personnel.
8. Install in accordance with the manufacturer's instructions in accordance with applicable local codes.
9. Use only attachments/accessories specified by the manufacturer.
10. Protect all connection cables from possible damage, particularly at connection points.

Caution!
TO REDUCE THE RISK OF ELECTRIC SHOCK, DISCONNECT THE POWER SOURCE WHILE INSTALLING THE DEVICE.

Caution!
Installation must be made by qualified personnel and conform to ANSI/NFPA 70 (the National Electrical Code® (NEC)), Canadian Electrical Code, Part I (also called CE Code or CSA C22.1), and all applicable local codes. Bosch Security Systems accepts no liability for any damages or losses caused by incorrect or improper installation.

Warning!
Risk of bodily injury, property damage, or damage to the unit
Because of the weight of the camera, do not use the optional extension pipe (NDA-U-PMTE) to extend the pipe while using the pipe mount (NDA-U-PMT or NDA-U-PMTS).

All-pole power switch - Incorporate an all-pole power switch, with a contact separation of at least 3 mm, into the electrical installation of the building. If it is needed to open the housing, use this all-pole switch as the main disconnect device for switching off the voltage to the unit.
Camera signal - Protect the cable with a primary protector if the camera signal is beyond 140 feet, in accordance with NEC800 (CEC Section 60).
Fuse rating - For security protection of the device, the branch circuit protection must be secured with a maximum fuse rating of 16A. This must be in accordance with NEC800 (CEC Section 60).
Ventilation – Any openings in the device / enclosure are provided for ventilation to prevent overheating and to ensure reliable operation. Do not block or cover these openings. Do not place the device in an enclosure unless proper ventilation is provided, or the manufacturer’s instructions have been adhered to.
Outdoor signals - The installation for outdoor signals, especially regarding clearance from power and lightning conductors and transient protection, must be in accordance with NEC725 and NEC800 (CEC Rule 16-224 and CEC Section 60).
Power disconnect - When PoE (802.3bt) supplies power to the unit, the Ethernet cable is the main device to disconnect power for all units.

When PoE is not used, the power cord (connected to the 24 VAC power source) is the main device to disconnect power for all units.

Grounding:
- Connect outdoor equipment to the unit's inputs only after this unit has had its ground terminal connected properly to a ground source.
- Disconnect the unit's input connectors from outdoor equipment before disconnecting the grounding terminal.
- Follow proper safety precautions such as grounding for any outdoor device connected to this unit.

U.S.A. models only - Section 810 of the National Electrical Code, ANSI/NFPA No.70, provides information regarding proper grounding of the mount and supporting structure, size of grounding conductors, location of discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Video loss - Video loss is inherent to digital video recording; therefore, Bosch Security Systems cannot be held liable for any damage that results from missing video information. To minimize the risk of losing information, we recommend multiple, redundant recording systems, and a procedure to back up all analog and digital information.

Notice!
Risk of water ingress
Securely seal all fittings and connection points between the device and all mounts to ensure a liquid-tight seal. Failure to do so could allow water to enter the housing and damage the device. Always use Teflon tape (user-supplied) and sealant (user-supplied) on connector threads of any mount (sold separately by Bosch or user-supplied).
If a sealant is used, make sure that it is a neutral cure type. Sealants that release acetic acid may harm electronics.
Use drip loops on the wiring outside the housing.

Always use Teflon tape (user-supplied) and sealant (user-supplied) on connector threads of any mount (sold separately by Bosch or user-supplied).

Warning!
ROUTING OF EXTERNAL WIRING MUST BE DONE THROUGH A PERMANENTLY EARTHED METAL CONDUIT.

Notice!
Always use a shielded twisted pair (STP) connection cable and a shielded RJ45 network cable connector where the camera is used outdoors or the network cable is routed outdoors.
Always use shielded cables/connectors in demanding indoor electrical environments where the network cable is located in parallel with electrical mains supply cables, or where large inductive loads such as motors or contactors are near the camera or its cable.

Notice!
Bosch recommends the use of surge/lightning protection devices (sourced locally) to protect network and power cables and the camera installation site. Refer to NFPA 780, Class 1 & 2, UL96A, or the equivalent code appropriate for your country/region, and to local building codes. Refer also to the installation instructions of each device (surge protector where the cable enters the building, midspan, and camera).

1.5 Connection in applications

24 VAC power source: This unit is intended to operate at 24 VAC (if PoE is not available). User-supplied wiring must be in compliance with electrical codes (Class 2 power levels).
PoE: Use only approved PoE (802.3bt) devices. Power-over-Ethernet can be connected at the same time as a 24 VAC power supply. If auxiliary power (24 VAC) and PoE are applied simultaneously, the camera selects PoE and stops auxiliary input.

1.6 Important notices

Notice!
This device is intended for use in public areas only.
U.S. federal law strictly prohibits surreptitious recording of oral communications.

Notice!
This is a **class A** product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.

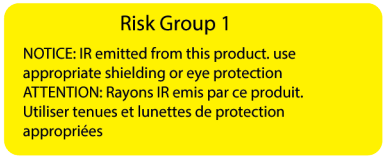
FCC & ICES Information
(U.S.A. and Canadian Models Only)
This device complies with part 15 of the FCC Rules. Operation is subject to the following conditions:

- this device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

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 and ICES-003 of Industry Canada. 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 radiates 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 expense.
Intentional or unintentional modifications, not expressly approved by the party responsible for compliance, shall not be made. Any such modifications could void the user's authority to operate the equipment. If necessary, the user should consult the dealer or an experienced radio/television technician for corrective action.

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, IEC 62368-1.
UL MAKES NO REPRESENTATIONS, WARRANTIES, OR CERTIFICATIONS WHATSOEVER REGARDING THE PERFORMANCE OR RELIABILITY OF ANY SECURITY OR SIGNALING-RELATED FUNCTIONS OF THIS PRODUCT.

1.7 Important notices - illumination safety



Notice!
This product has been tested according to standard IEC62471:2006 “Photobiological safety of lamps and lamp systems”. The product emissions meets the EXEMPT Group limit for Cornea/Lens infrared hazard as defined by IEC 62471:2006. The product was found to meet the EXEMPT Group exposure limits for IR LEDs.

The IEC 62471 provides the methods to determine the risk group of any lamp or any product incorporating a lamp. The risk groups in IEC 62471 indicate the degree of risk from potential optical radiation hazards. The risk groups were developed based upon decades of lamp use experience and the analysis of accidental injuries related to optical radiation emission.
EXEMPT Group – no optical hazard is considered reasonably foreseeable, even for continuous, unrestricted use. Typical examples are most frosted incandescent lamps and fluorescent lamps used in domestic applications.
Exposure Hazard Value (EHV) is a ratio of the Exposure Level (distance, exposure time) to Exposure Limit Value (ELV). When EHV is greater than 1, the device has exceeded the Exposure Limit Values for a particular Risk Group. The ELV is the level where optical radiation to the eye or skin is not expected to result in adverse biological effects.
The **Hazard Distance (HD)** is the distance from the source at which the Exposure Level equals the appropriate ELV. In other words, when EHV=1 for a particular Risk Group.
Regarding the Cornea / Lens infrared hazard of this product, the Exposure Hazard Value (EHV) at a test distance of 200mm is 2.19 based on EXEMPT Group exposure limits. The EHV based on Risk Group 1 limits is 0.386. The HD for the Exempt Group is 297 mm.
These values have been summarized in the table below:

Hazard	EXEMPT Group Limits		
	t, duration	d, distance	EHV
Cornea / Lens Infrared Hazard	1000 s Hazard Distance	200 mm 279 mm	2.19

1.8 Customer support and service

If this unit needs service, contact the nearest Bosch Security Systems Service Center for authorization to return and shipping instructions.
USA and **Canada**
Telephone: 800-289-0096, option 5
Fax: 800-366-1329
Email: repair@us.bosch.com
Customer Service
Telephone: 800-289-0096, option 3
Fax: 800-315-0470
Email: orders@us.bosch.com
Technical Support
Telephone: 800-289-0096, option 4
Fax: 800-315-0470
Email: technical.support@us.bosch.com
Europe, Middle East, Africa, and Asia Pacific Regions
Contact your local distributor or Bosch sales office. Use this link: https://www.boschsecurity.com/xc/en/where-to-buy/

More Information

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

2 Introduction

- This equipment should be unpacked and handled with care. Check the exterior of the packaging for visible damage. If an item appears to have been damaged in shipment, notify the shipper immediately.
- Verify that all the parts listed in the Parts List below are included. If any items are missing, notify your Sales or Customer Service Representative from Bosch Security Systems.
- Do not use this product if any component appears to be damaged. Please contact Bosch Security Systems in the event of damaged goods.
- The original packing carton (if undamaged) is the safest container in which to transport the unit and must be used if returning the unit for service. Save it for possible future use.

2.1 Parts List

Quantity	Component
1	AUTODOME IP starlight 5100i IR camera
1	Screwdriver, T15 Torx
4	MAC address labels
1	Pendant interface plate
2	M4 screw
1	IP66 kit
1	PE foam
1	3/16” Allen key (Hex key)
1	Quick Installation Guide
1	Safety instructions

2.2 Additional Products Required

Quantity	Item
100 m maximum	Ethernet cable (Cat5e or better)
*	Power cable (24 VAC)
*	Alarm wiring as needed
*	Audio wiring as needed
1	microSD card (maximum 32 GB (microSDHC) / 2 TB (microSDXC)) (user-supplied)

* Refer to the chapter Preparing Wiring.

2.3 Additional tools required

The table that follows is a list of additional tools (not supplied by Bosch) required to install an AUTODOME camera or its accessories:

Quantity	Tool
1 roll	Teflon tape
1 tube	Weatherproof sealant, neutral cure type, electronic grade
--	Appropriate fasteners (of corrosion-resistant stainless steel with a diameter of 10 mm (3/8 in.)), and anchors as necessary, dependent on the surface to which the mount is attached

2.4 Establishing the connection

The unit must have a valid IP address to operate on your network and a compatible subnet mask.
By default, DHCP is pre-set at the factory to **On plus Link-Local** so a DHCP server assigns an IP address or, if no DHCP server is available, a link-local address (auto-IP) is assigned within the range 169.254.1.0 to 169.254.254.255.
You can use the Configuration Manager to find the IP address. Download the software from http://downloadstore.boschsecurity.com.

1. Start the Web browser.
2. Enter the IP address of the unit as the URL.
3. During initial installation, confirm any security questions that appear.

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 Bosch Video Client or BVMS.

2.5 Configuration with Project Assistant app

You can also use the Project Assistant app to complete the initial configuration of the camera. In order to use this device with the Project Assistant app by Bosch, you must download the app from the Bosch Download Store, from Google Play, or from the Apple Store.
You can access the app in several ways:

- Scan the QR code from the QIG.
- From www.boschsecurity.com, select Support > Apps and Tools > Online Apps - Video > Bosch Project Assistant app. Select the appropriate operating system, and then click the appropriate button to download and install the app.
- From Google Play Store (play.google.com), search for Bosch Project Assistant. Select the app from the list. Click the Install button.
- From Apple Store (itunes.apple.com), search for Bosch Project Assistant. Select the app from the list. Click the appropriate button to download and install the app.

3 Product Description

Keep your security in focus with the many features of the AUTODOME IP starlight 5100i IR camera. The camera is carefully tuned to deliver detailed, 4MP ultra HD images during the day as well as full details in low-light or no-light conditions. The integrated, intelligent IR illuminator automatically adjusts the IR intensity according to zoom factor and field of view to ensure that the scene is illuminated uniformly.

4 Preparing Wiring

- Prepare and install all wiring for 24 VAC, PoE (Cat5e or better), alarms, and audio as necessary. For 24 VAC, follow the recommendations for maximum cable distance and wire gage.

Maximum cable distance in meters (feet) per minimum cable diameter

The following table identifies the recommended transmission distance (maximum) in meters (feet), based on the specified wattage, per the minimum cable diameter (in mm^2), when the cable diameter is fixed and the maximum permitted power consumption for 24 VAC is 10%. For example, for a device of 20 W and a minimum cable diameter of 1.0 mm^2, the recommended transmission distance is 42 m (141 feet) from the transformer.

Models	Watts	1.0 mm^2	1.5 mm^2	2.5 mm^2	4.0 mm^2
Indoor (ceiling)	20	42 m (141 ft)	68 m (225 ft)	109 m (358 ft)	275 m (905 ft)
Outdoor	30	28 m (94 ft)	45 m (150 ft)	72 m (238 ft)	183 m (603 ft)

Wire Gage

Note: Metric wire sizes are standard DIN sizes, ISO6722, mm^2.

Wire diameter (mm^2)	AWG
1.0	18
1.5	16
2.5	14
4.0	12

5 (Optional) Configuration Programming on a Temporary Table-top Stand

5.1 Installation Overview

Caution!
Risk of damage to camera
Please remove the tape from the top of the camera. The camera head must be free to rotate.

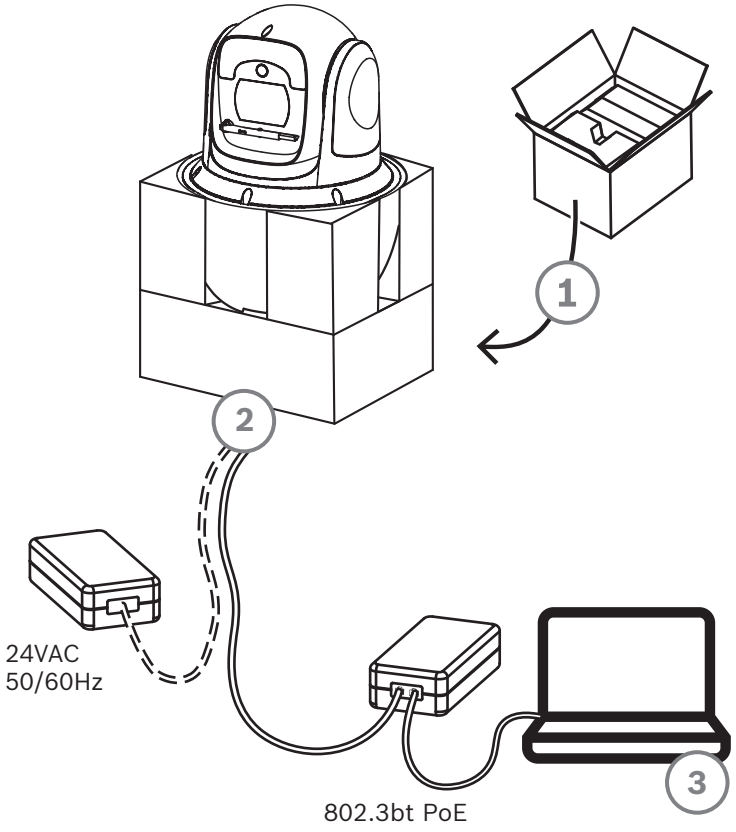
Caution!
ELECTRIC SHOCK HAZARD
To reduce the risk of electric shock, disconnect power to the camera and/or to the power supply unit before moving the camera, before installing any accessories, and before mounting the camera.

Caution!
Type and source of hazard
Take extra care lifting or moving cameras because of their weight.

5.2 Configuration Programming on a Temporary Table-top Stand

The camera packaging with a PE form as a base plate allows installers to configure the camera.

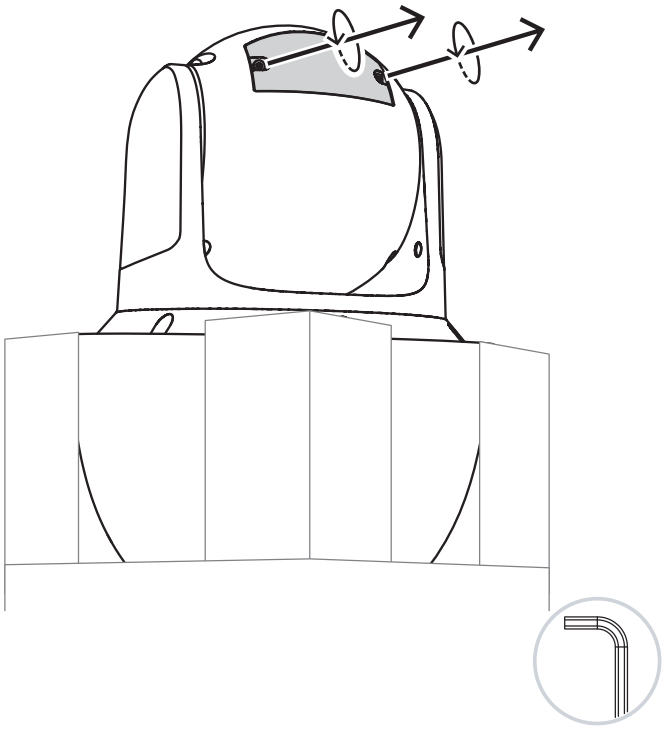
1. Remove the foam covering the head of the camera.
2. Remove the camera from the box.
3. Change the camera orientation to inverted.
4. Put the PE foam on a flat, horizontal surface.
5. Put the camera upright in the PE foam as a base plate.
6. Supply power to the camera and Connect the camera to the computer. Note that the wiper moves one to three times across the camera window, and then returns to parked position.



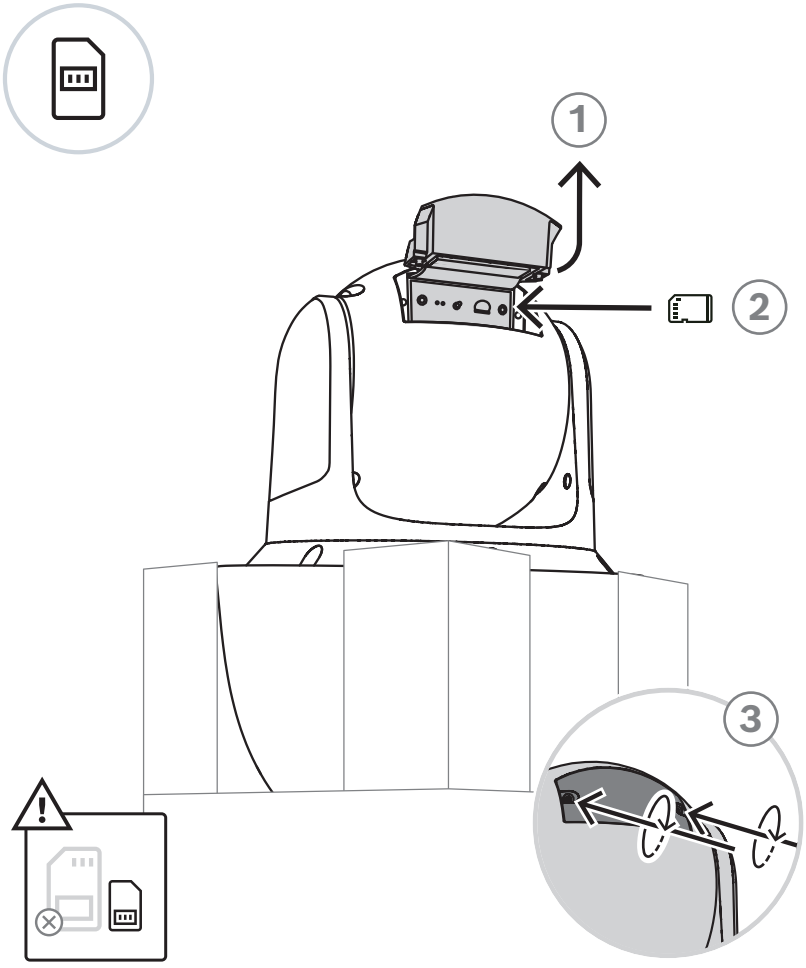
7. Configure the camera. Refer to the separate User Manual for details.
8. Disconnect the wires/cables from the connectors in the base of the camera.

6 (Optional) Installing a microSD card

1. Loosen the 2 Hex screws in the back of the camera housing.

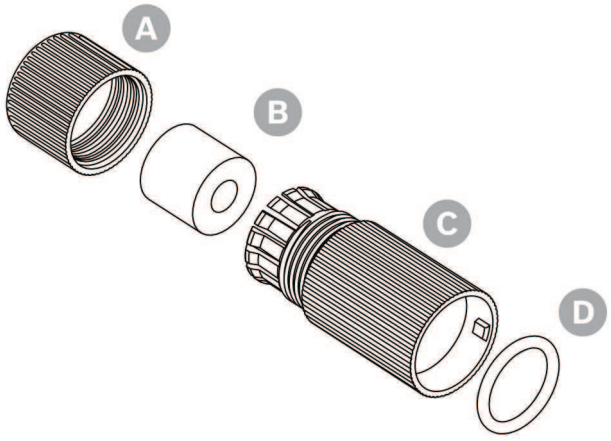


2. Pull up the cover of the SD card slot as illustrated in the graphic that follows.
3. Insert the card into the slot.
4. Push down the cover of the SD card slot and put the screws into their slots.
5. Tighten the screws on the cover.


1
2
3

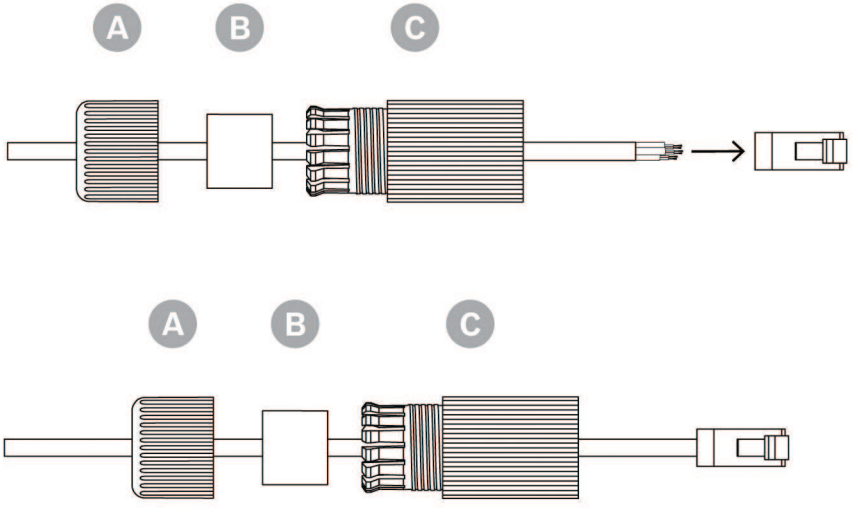
7 Installing the IP66 kit

The camera box includes the IP66 accessory kit. To ensure a waterproof seal on the camera connectors, assemble the IP66 kit on the Ethernet cable (Cat5e or better) before you finish camera installation.
The figure that follows shows the components of the kit.

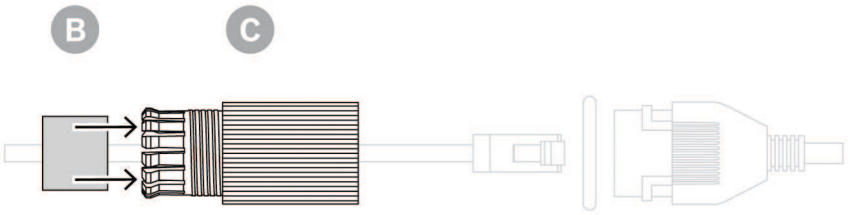


Quantity	Component	Component in figure
1	Cap	A
1	Waterproof plug	B
1	Outer casing	C
1	Grommet	D

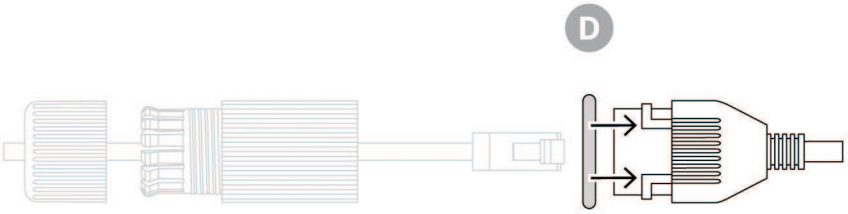
1. Before making the RJ45 plug, put the cap (A), the waterproof plug (B), and the outer casing (C) through the Ethernet bulk cable in the correct sequence.
2. Make the RJ45 plug.



1. Insert the waterproof plug into the outer casing.

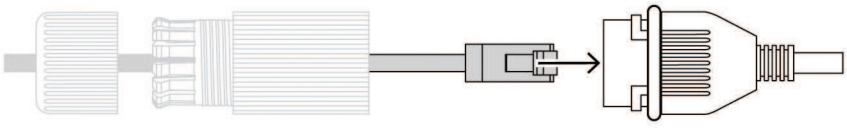


2. Put the grommet on the RJ45 socket on the camera cable on the camera.

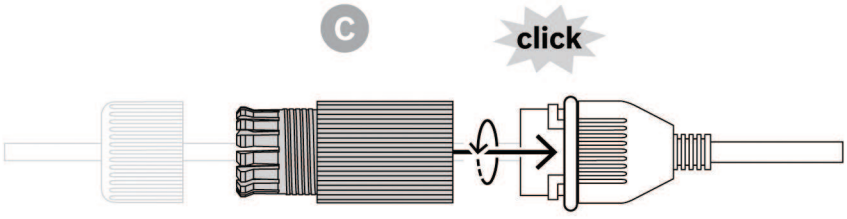


Note: Do not complete the steps that follow until you are ready to complete step 7 of the subchapter **Attaching the Mounting Cap and the Camera**. This subchapter is in the installation chapter of every mount for the camera.

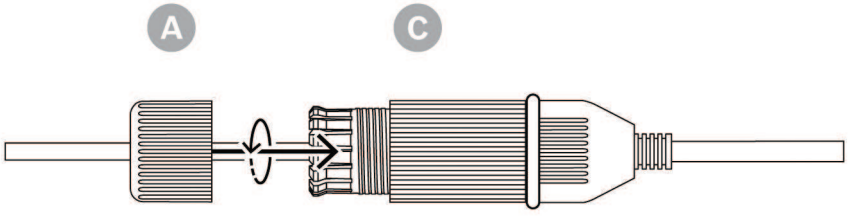
1. Connect the RJ45 plug and the RJ45 socket on the camera cable.



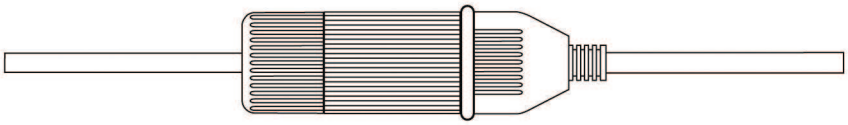
2. Connect the IP66 waterproof kit on the camera cable. It will make a click if inset successfully. Use the outer casing cover the side on camera.



3. Screw the cap on the outer casing tightly.



4. Finish the assembly of the kit.



8 (Optional) Installing the Surveillance Cabinet

The surveillance cabinet can attach directly to a wall mount, to a corner mount, to a pipe mount, or to a pole mount.

To install the cabinet (power supply box), follow the instructions in the Surveillance Cabinet Installation Manual.

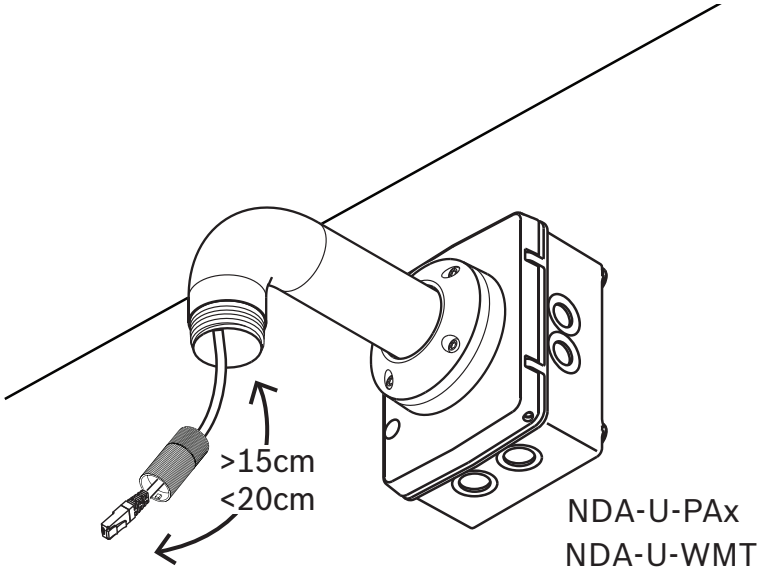
1. Thread the cables through the wall and the mounts.

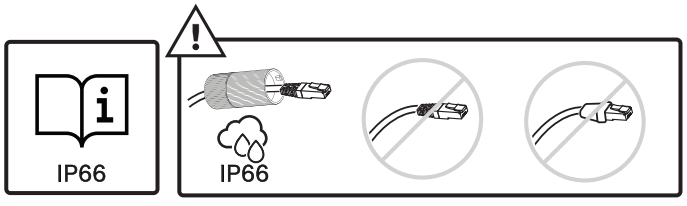
Ensure that the cables are long enough to reach through the mount and the camera's mounting cap to the connections from the camera.

9 Installing a Pendant Wall Mount and Camera

9.1 Installing a Pendant Wall Mount (with the Surveillance Cabinet)

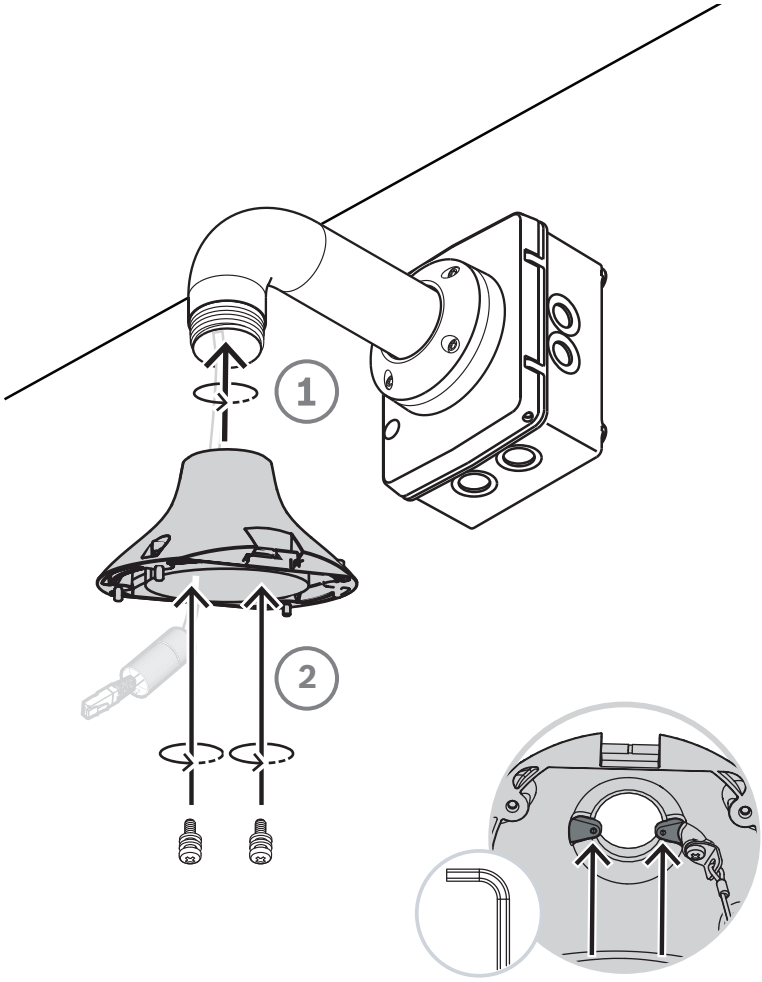
1. Slide the mounting flange over the wall mount.
2. Attach the wall mount to the mounting flange and fix them on the front door of the Wall-mount Surveillance Cabinet by using four M5 screws.
3. Make sure that the total length of cable is between 150 mm and 200 mm (0.49 ft and 0.66 ft).



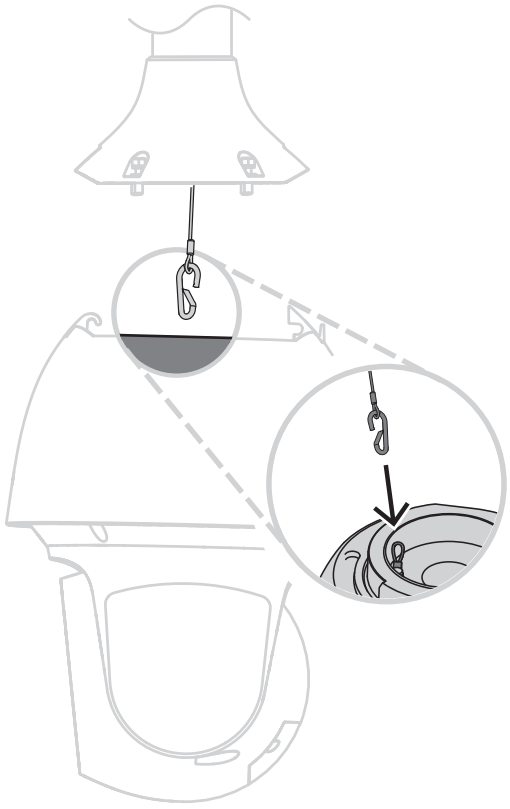


9.2 Attaching the Mounting Cap and the Camera

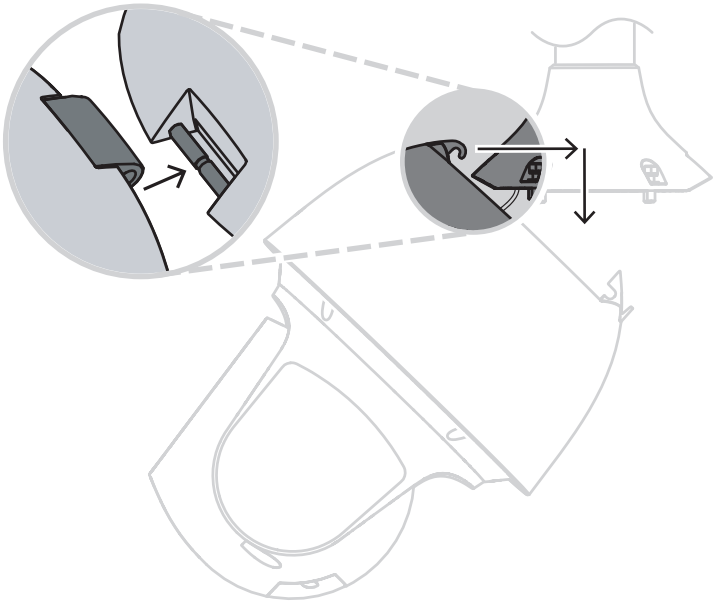
1. To ensure a watertight seal, wrap Teflon tape (user-supplied) four times around the threads at the end of the mount.
2. Attach the mounting cap to the mount.
3. Secure the locking screw with the T15 Torx screwdriver.



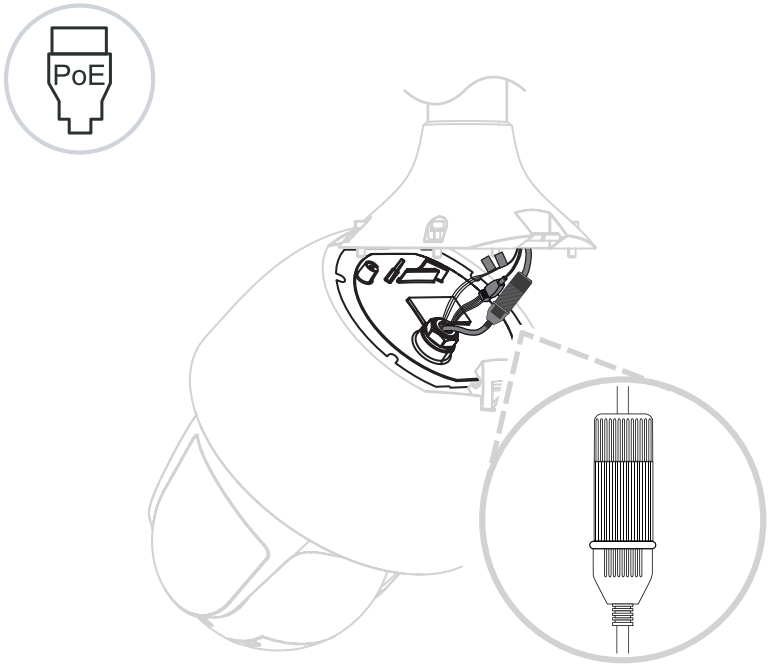
4. Thread all connection cables through the mounting cap.
5. Attach the hook at the end of the Safety Tether to the loop attached to the top of the camera.

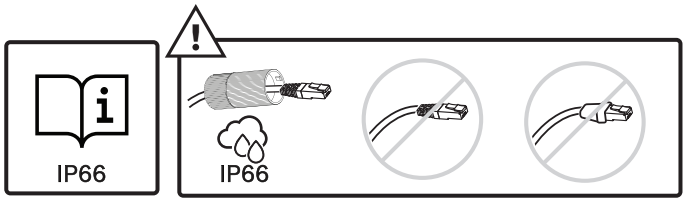


6. Put the camera at approximately 45 degrees. Install the camera in the mounting cap with the hook.

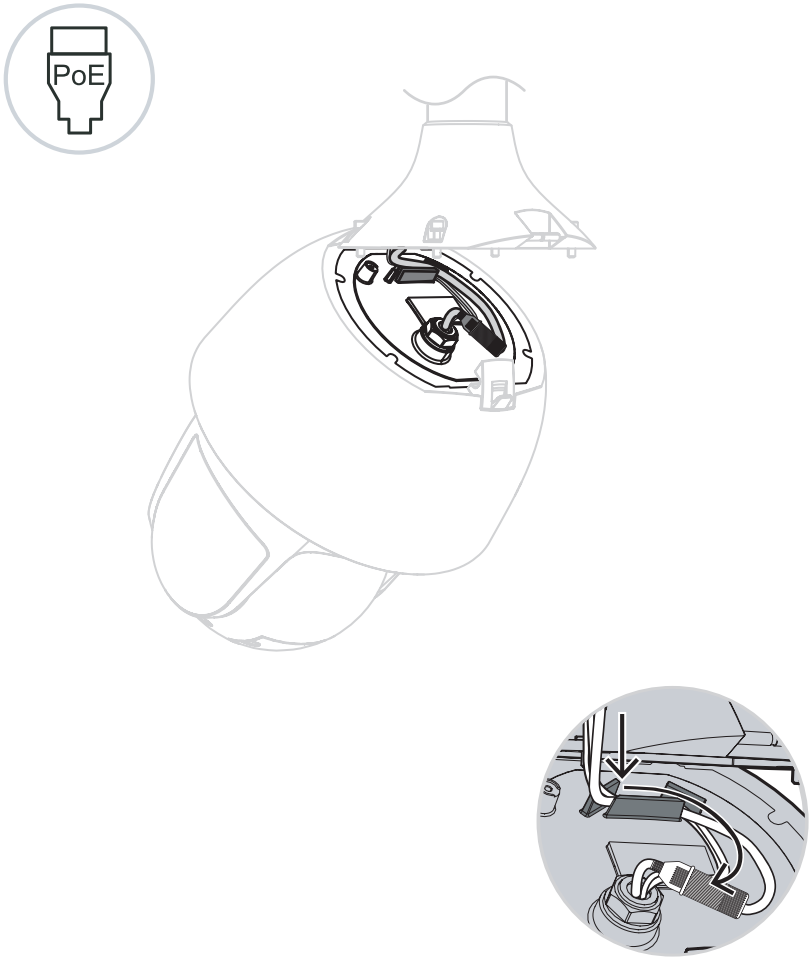


7. Connect the RJ45 plug and the RJ45 socket on the camera cable and assemble the IP66 accessory kit to ensure a waterproof seal.
8. Connect the mating connectors on the user-supplied cables to the matching connectors on the camera. Refer to the chapter Connection for more information.

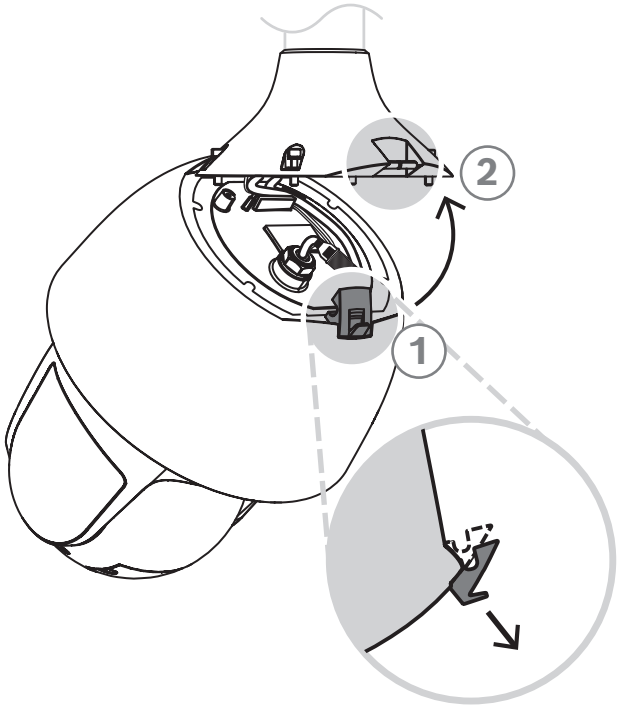




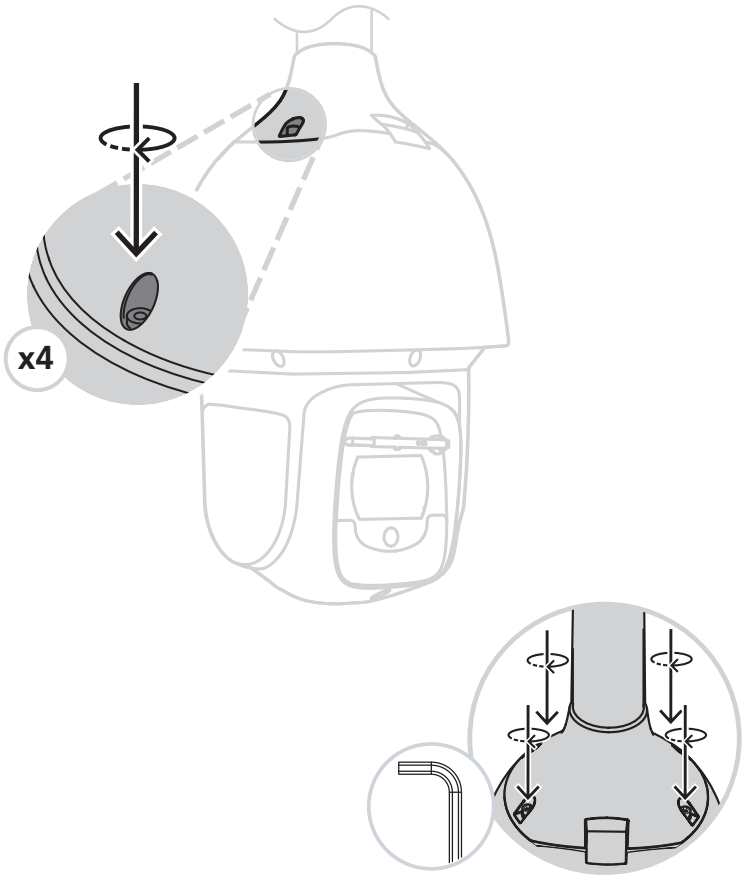
9. Place the line through the base on the camera.



10. Match the miter lock of the cap and the camera.



11. Secure the 4 safety locking screws with the T15 Torx screwdriver.


x4

10 Installing a Parapet Roof Mount and Camera

10.1 Installing the Roof Mount

1. Determine the wall location on the roof for the camera and use the pendant parapet mount bracket as a template to mark the hole locations.

Notice!
Allow enough room below the mount bracket to route the video, control, and alarm wires up through the parapet arm. In certain installations, you may need to lift the parapet arm for the camera to clear the top of the wall when it is swung into position. Provide enough slack in the wires to rotate the pipe arm over the roof and back when camera maintenance is required.

2. Prepare the mounting surface for the type of fastener by drilling holes for the mounting anchors as required.

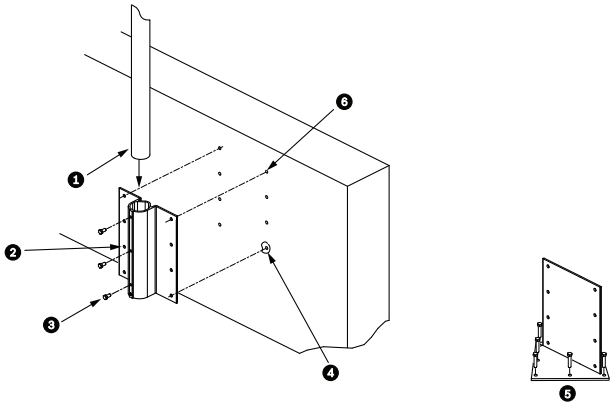


Figure 10.1: Pendant parapet mount bracket and Roof mount plate

1	Pipe arm	4	Apply sealant around each fastener hole
2	Pendant parapet mount bracket	5	Roof mount plate
3	3/8-16 SS Hex Head Bolt (supplied)	6	Use a minimum of six (6) fasteners (not supplied). Eight (8) fastener holes shown.

Notice!
Fasteners are not supplied with the Roof Parapet Mount Kit because the appropriate fasteners depend on the material to which the mount is attached. The material must accommodate a minimum pull-out strength of 275 kg (600 lb) (for example, 19 mm (3/4 in.) minimum for plywood). Fasteners can include bolts, studs, or lag bolts. All fasteners must be made of corrosion-resistant stainless steel with a diameter of 10 mm (3/8 in.).
All bolts must fully extend through the mounting surface and be secured with a flat washer, a lock washer, and a nut. All studs must be anchored to concrete or welded to a steel backing plate. Anchor bolts can be used for blind structures where there is no access to the rear.

3. Apply a weatherproof sealant around each fastener hole at the mounting surface.
4. Attach the pendant parapet mount bracket using at least six (6) stainless steel fasteners, three (3) on each side. (The bracket has eight (8) holes.) Be careful not to overtighten the fasteners because it may strip the threads. If attaching the parapet mount to a flat roof, attach the optional LTC 9230/01 Roof Mount Plate to the roof and then attach the pendant parapet mount bracket to the Roof Mount Plate.
5. Insert the Parapet Pipe Arm into the mounting bracket until it bottoms in the bracket.

6. Remove the End Cap from the front of the arm. Feed the video, control, and power wires up through the bottom of the pipe arm and out the front end.

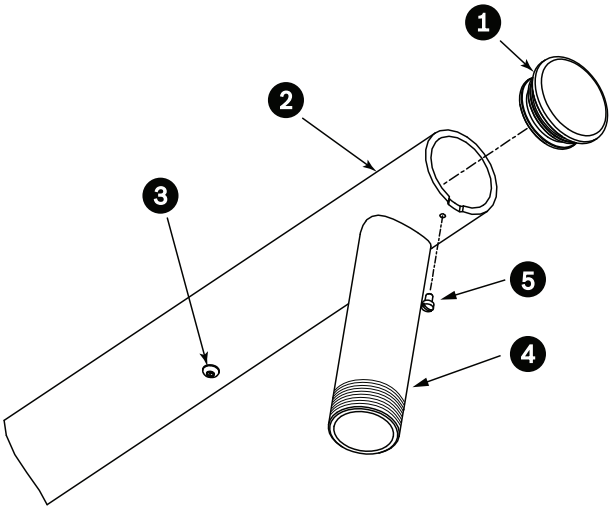


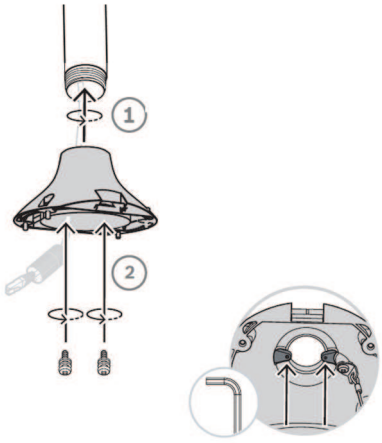
Figure 10.2: NDA-U-RMT

1	End Cap with O-ring
2	Parapet Pipe Arm
3	1/4-20 SS Cap Screw
4	Down Pipe
5	10-24 SS Pan Head Screw

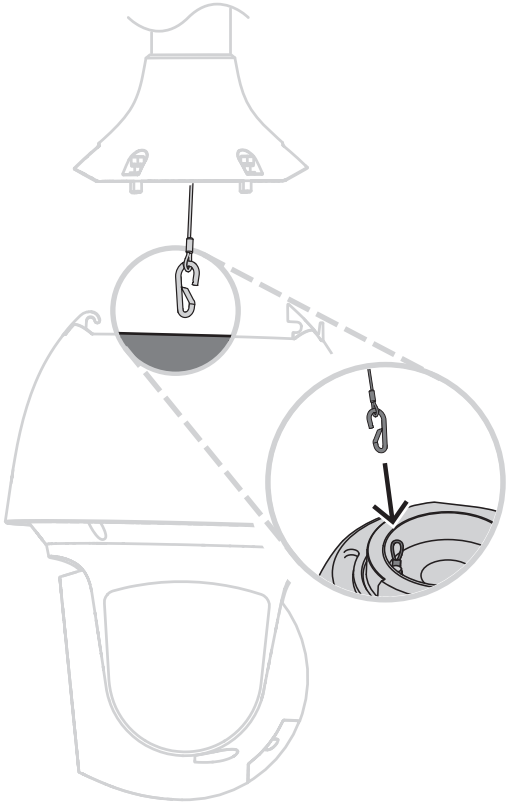
7. Fold back the video, control, and power wires at the front end of the arm and route them down and out through the Down Pipe. Replace the End Cap.
8. Wrap at least five layers of Teflon tape around the Down Pipe threads.

10.2 Attaching the Mounting Cap and the Camera

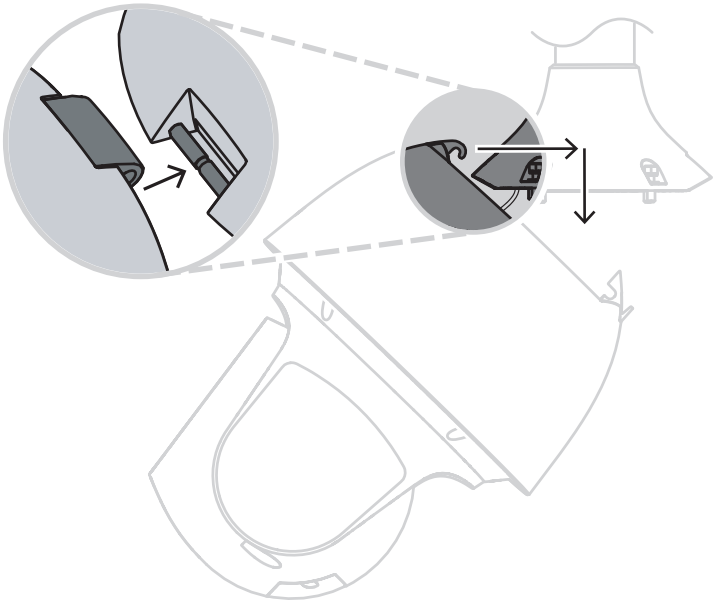
1. To ensure a watertight seal, wrap Teflon tape (user-supplied) four times around the threads at the end of the mount.
2. Attach the mounting cap to the mount.
3. Secure the locking screw with the T15 Torx screwdriver.



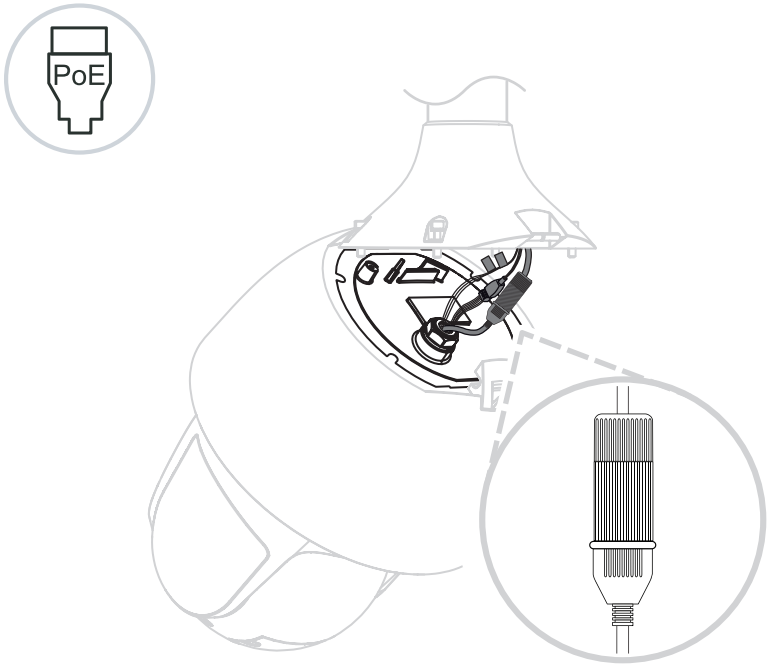
4. Thread all connection cables through the mounting cap.
5. Attach the hook at the end of the Safety Tether to the loop attached to the top of the camera.

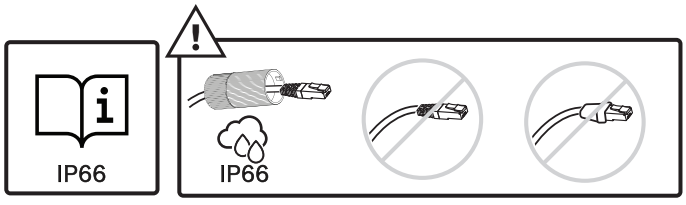


6. Put the camera at approximately 45 degrees. Install the camera in the mounting cap with the hook.

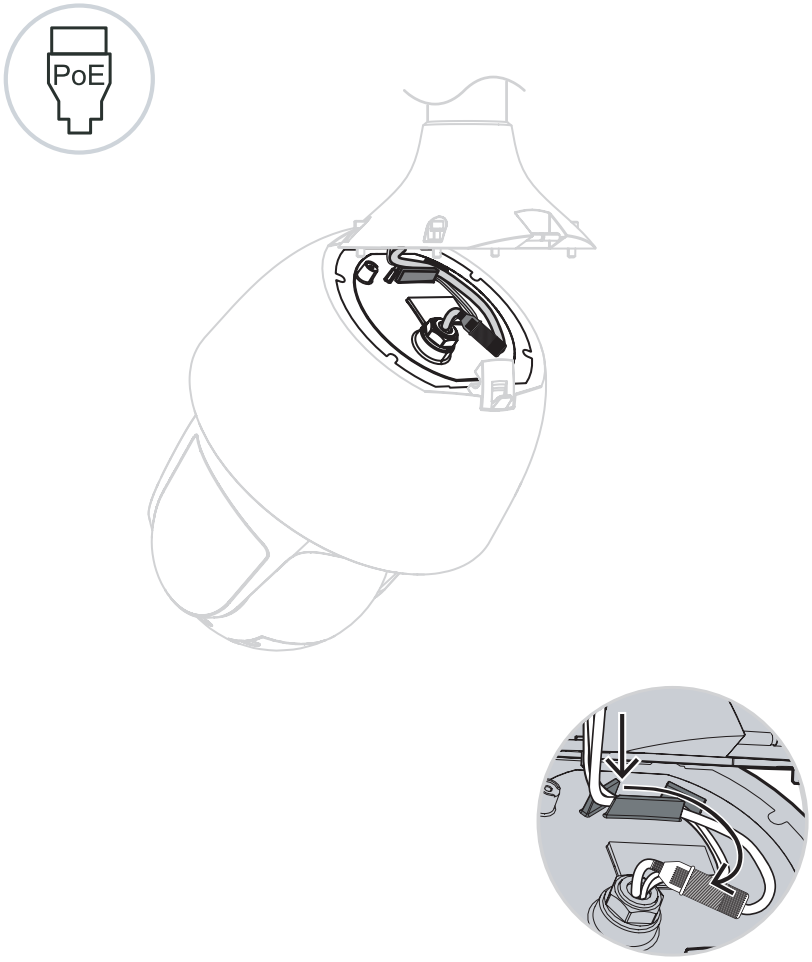


7. Connect the RJ45 plug and the RJ45 socket on the camera cable and assemble the IP66 accessory kit to ensure a waterproof seal.
8. Connect the mating connectors on the user-supplied cables to the matching connectors on the camera. Refer to the chapter Connection for more information.

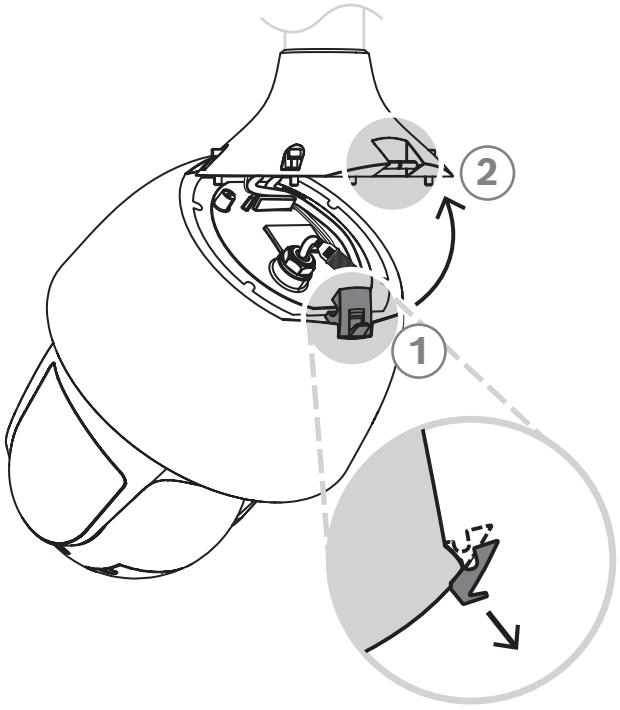




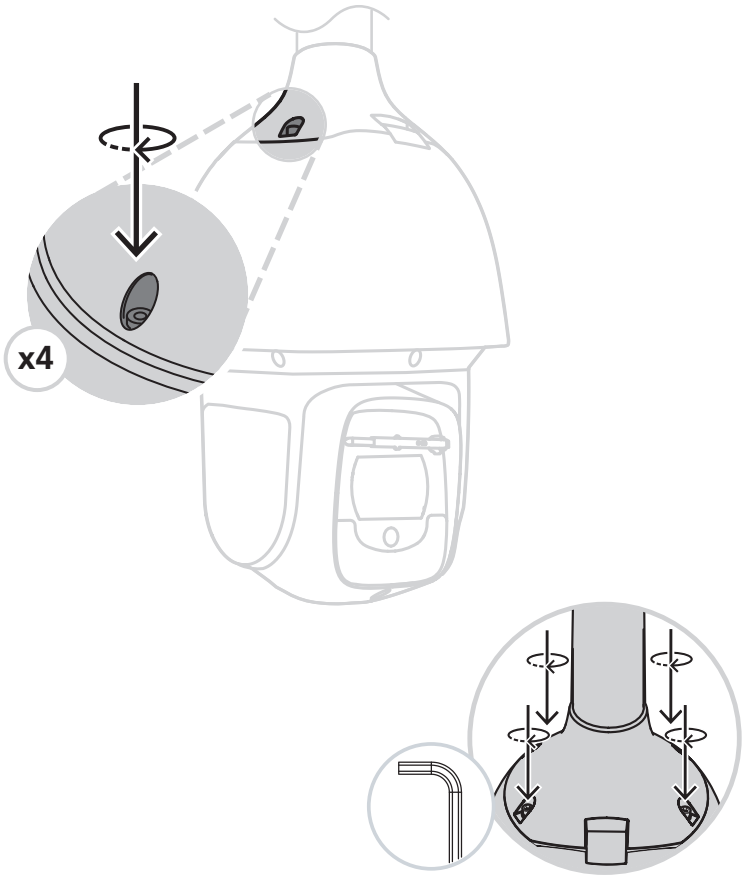
9. Place the line through the base on the camera.



10. Match the miter lock of the cap and the camera.



11. Secure the 4 safety locking screws with the T15 Torx screwdriver.


x4

11 Installing a Pipe Mount and Camera

11.1 Preparing the Ceiling for Installation

1. Determine a secure location for the pipe mount. Ensure there is an adequate opening in the ceiling or mounting structure for the cables to pass through.

Caution!
Select a rigid mounting location to prevent excessive vibration to the camera.

Notice!
The fasteners and mounting surface must be capable of supporting a maximum load of 11.33 kg (25 pounds).

2. Use the direct connect plate as a template to mark the location to drill holes for the four mounting screws (and anchors (user-supplied) if necessary), and to cut the hole for the cables.
3. Drill the holes for the mounting screws.
4. Drill a hole (maximum of 20 mm [.79 in.]) in the center of the mounting location to feed the cables through the mount.
5. Insert the wall anchors (user-supplied), if necessary, into the ceiling at the locations marked in step 2.

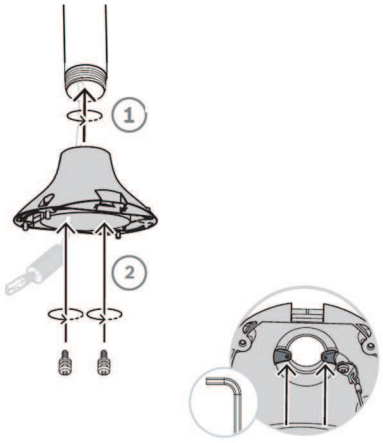
11.2 Installing the Pipe Mount

Ensure that the cables are long enough to reach through the mount and the camera's mounting cap to the connections from the camera.

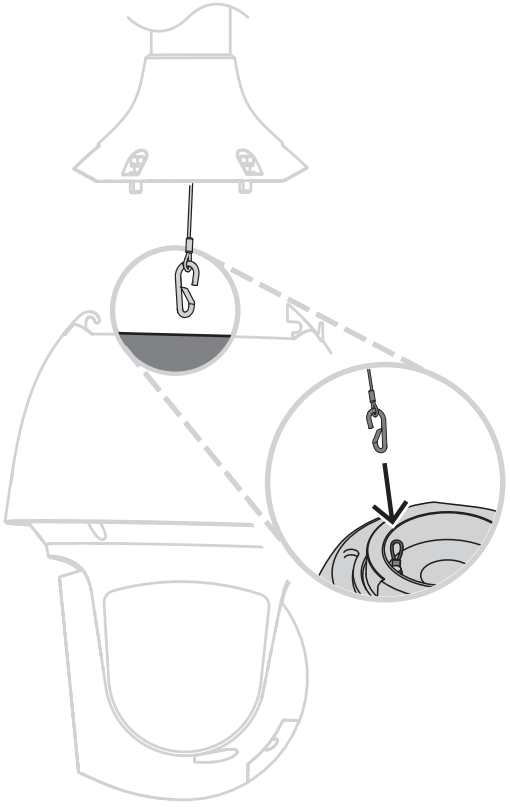
1. Attach the mounting flange and (adapter) to the direct connect plate using four M5 screws.
2. Thread the cables through the pipe mount.
3. Attach the pipe mount to the mounting flange and (adapter).
4. If you choose to install the pipe mount extension, thread the cables through the extension. Attach the pipe extension to the open end of the pipe mount.
5. Attach the hook at the end of the Safety Tether to the loop attached to the top of the camera.
6. Connect the mating connectors from the user-supplied cables from the pipe to the matching connectors from the camera. Refer to the chapter Connection for more information.

11.3 Attaching the Mounting Cap and the Camera

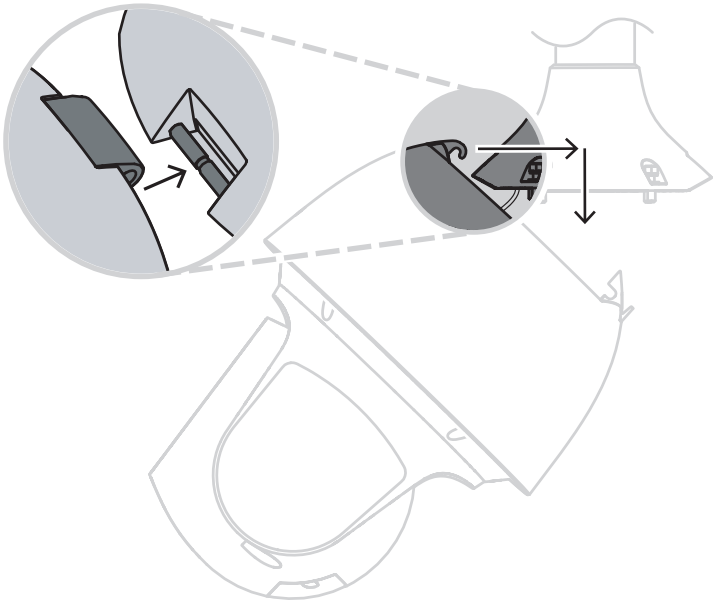
1. To ensure a watertight seal, wrap Teflon tape (user-supplied) four times around the threads at the end of the mount.
2. Attach the mounting cap to the mount.
3. Secure the locking screw with the T15 Torx screwdriver.



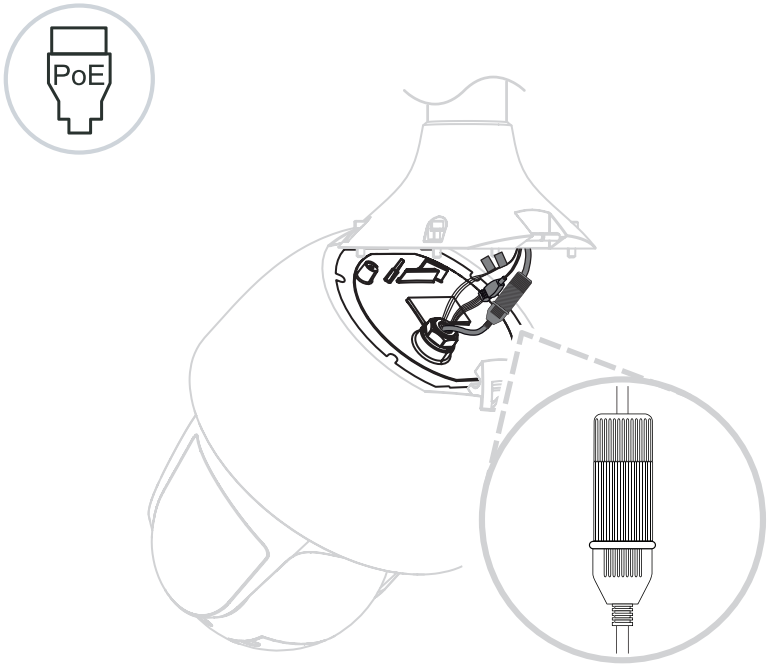
4. Thread all connection cables through the mounting cap.
5. Attach the hook at the end of the Safety Tether to the loop attached to the top of the camera.

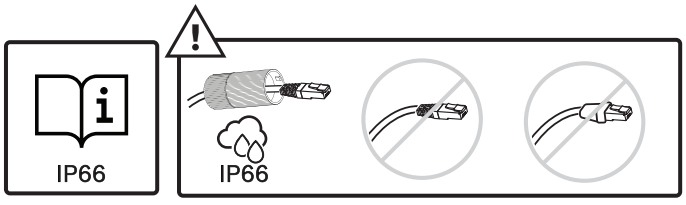


6. Put the camera at approximately 45 degrees. Install the camera in the mounting cap with the hook.

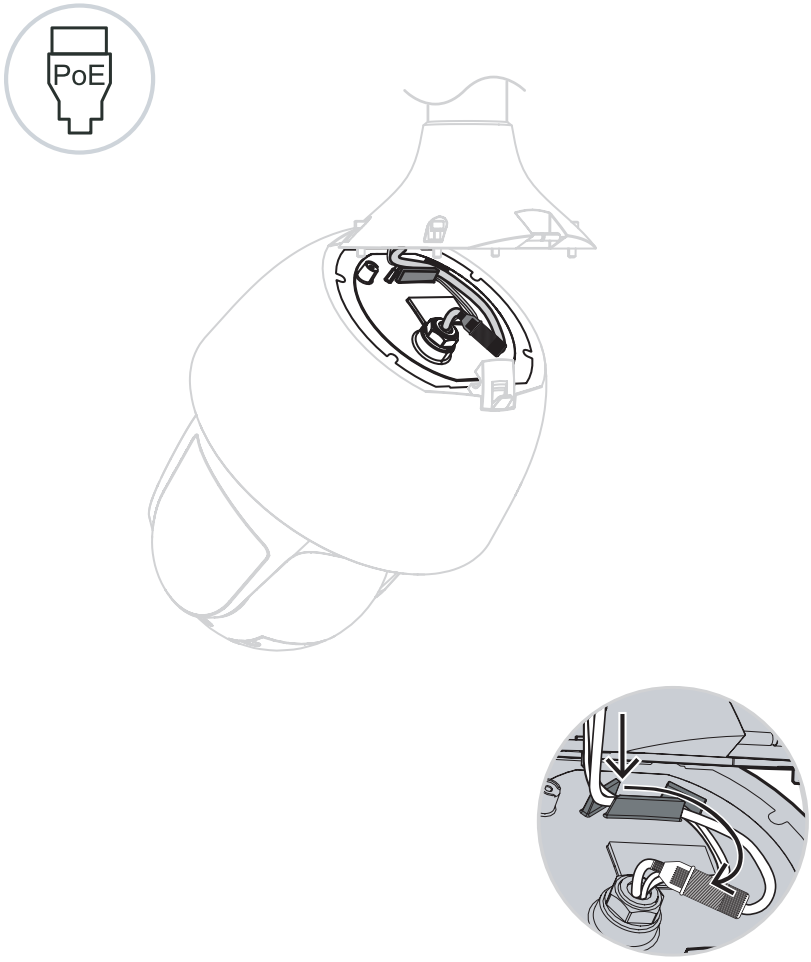


7. Connect the RJ45 plug and the RJ45 socket on the camera cable and assemble the IP66 accessory kit to ensure a waterproof seal.
8. Connect the mating connectors on the user-supplied cables to the matching connectors on the camera. Refer to the chapter Connection for more information.

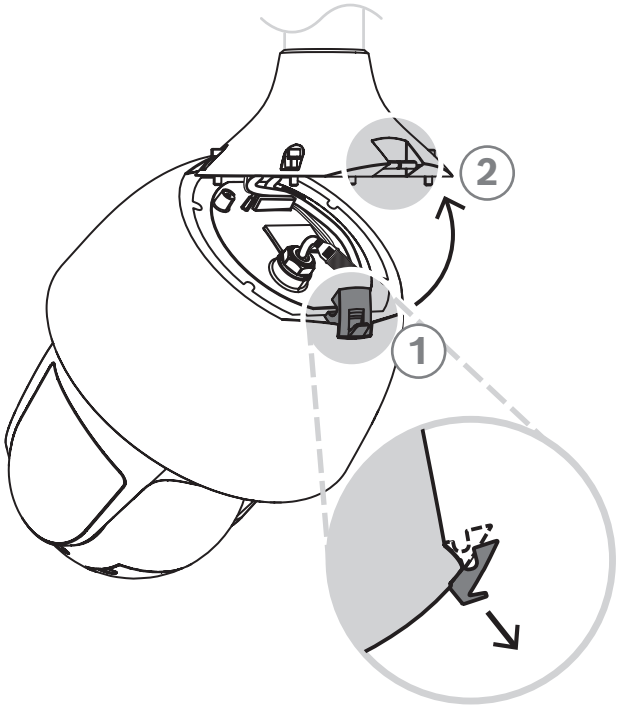




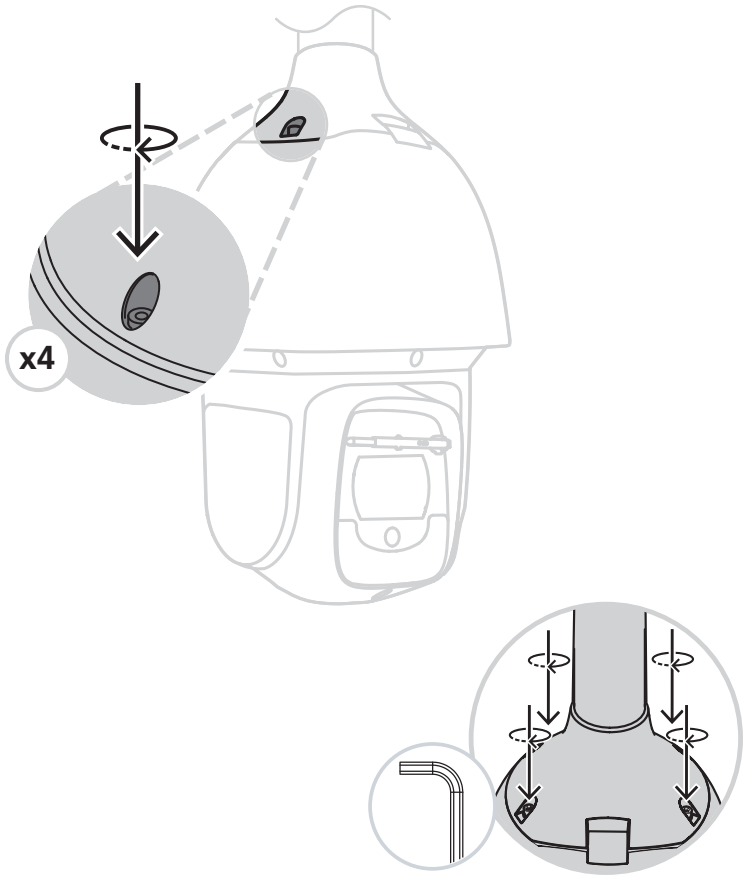
9. Place the line through the base on the camera.



10. Match the miter lock of the cap and the camera.



11. Secure the 4 safety locking screws with the T15 Torx screwdriver.


x4

12 Connection

Caution!
Compliance with EN50130-4 Alarm Standard – CCTV for Security Applications
To meet the requirements of the EN50130-4 Alarm Standard, an ancillary uninterruptable power (UPS) supply is necessary. The UPS must have a **Transfer Time** between 2–6 ms and a **Backup Runtime** of greater than 5 seconds for the power level as specified on the product datasheet.

Note: Consult the National Electrical Code (NEC) or other regional standards for cable bundling requirements and limitations.

- Connect the cable to the 24 VAC wires from the camera.

Label ID	Description	Cable Wire Color
AC24V	24 VAC	Red
AC24V	24 VAC	Black
EARTH	Earth Ground	Yellow/Green

- Connect the Ethernet cable to the RJ45 connector of the camera. The following figure illustrates a typical system configuration.

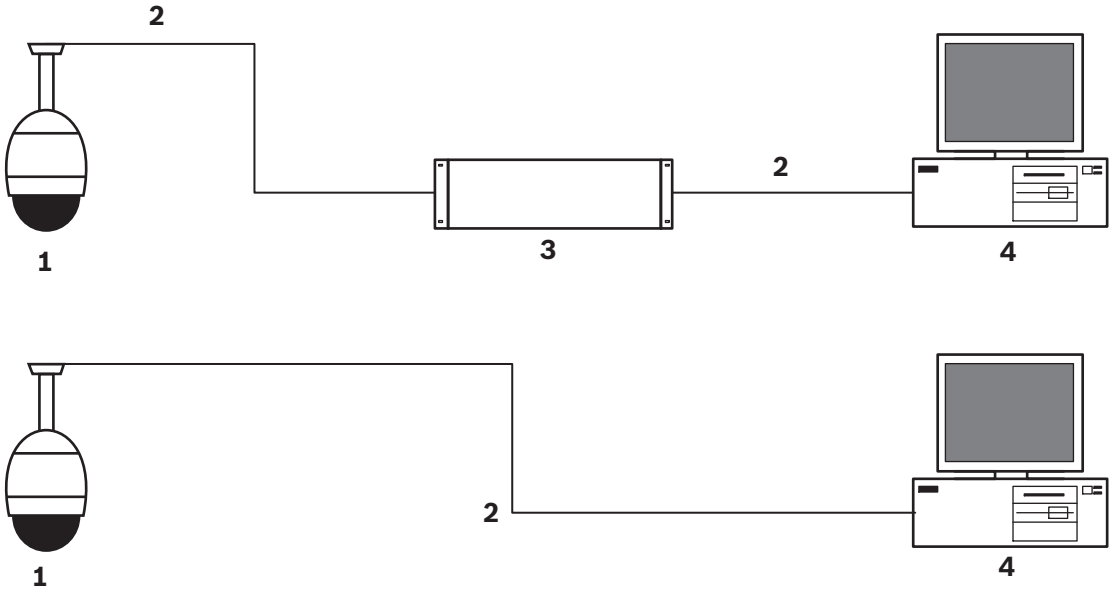


Figure 12.1: AUTODOME IP System Configuration

1	AUTODOME camera
2	IP connection (Ethernet/Cat5) (100 m maximum)
3	Network switch
4	Network device (computer with monitor, DVR/NVR, etc.)

- If desired, connect the alarm and/or audio wires as identified in the following table.

Label ID	Description	Cable Wire Color
ALARM_COM	Alarm Communications	Red
ALARM_OUT	Alarm Out	Brown

Label ID	Description	Cable Wire Color
ALARM_IN1	Alarm In 1	White
ALARM_IN2	Alarm In 2	Blue
AUDIO OUT	Audio Out	Grey
GND	Ground	Black
AUDIO GND	Audio Ground	Green
AUDIO IN	Audio In	Purple

13 Maintenance

All bubbles require special care when handling and cleaning to avoid scratches.

Notice!
To avoid excessive moisture saturation inside the housing, limit the amount of time that the bubble is disconnected from the housing. Bosch recommends that the bubble be removed from the housing for no more than five (5) minutes.

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.

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 polycarbonate bubble. This will cause the polycarbonate to cloud and over time cause stress aging, which makes the bubble brittle.

Cleaning the Bubble Exterior
The exterior of the polycarbonate bubble is hard coated for extra protection. If cleaning becomes necessary, only use cleaning solutions and cloths suitable for cleaning safety glass lenses. Dry the bubble thoroughly with a dry nonabrasive cloth to prevent water spots. Never scrub the bubble with any abrasive material or cleaners.
Bosch recommends cleaning the exterior of the bubble with NOVUS “No. 1” Plastic Clean & Shine (or equivalent), according to manufacturer’s instructions. Refer to www.novuspolish.com to order or to find a local distributor.

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.

14 Decommissioning

14.1 Transfer

The unit should only be passed on together with this installation guide.

14.2 Disposal

	Disposal - Your Bosch product was developed and manufactured with high-quality material and components that can be recycled and reused. This symbol means that electronic and electrical appliances, which have reached the end of their working life, must be collected and disposed of separately from household waste material. Separate collecting systems are usually in place for disused electronic and electrical products. Please dispose of these units at an environmentally compatible recycling facility, per European Directive 2012/19/EU.

15 Technical data

For product specifications, see the datasheet for your camera, available on the appropriate product pages of the Online Product Catalog at www.boschsecurity.com.

16 Support

Support

Access our **support services** at www.boschsecurity.com/xc/en/support/.
Bosch Security and Safety Systems offers support in these areas:

- Apps & Tools
- Building Information Modeling
- Commissioning
- Warranty
- Troubleshooting
- Repair & Exchange
- Product Security

Bosch Building Technologies Academy

Visit the Bosch Building Technologies Academy website and have access to **training courses, video tutorials** and **documents**: www.boschsecurity.com/xc/en/support/training/

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