



# AUTODOME IP 4000 HD

NEZ-4xxx-xxxxx



**BOSCH**

**en** Installation Manual



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# 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, Inc. 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 all of the following safety instructions. Heed all warnings on the unit and in the operating instructions before operation.



### 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, Inc. accepts no liability for any damages or losses caused by incorrect or improper installation.



### Warning!

#### Bosch's version of High PoE:

If supplying power to the camera by HPoE or a midspan device, you must install additional surge protection.

**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.

**Attachments** - Use only attachments/accessories specified by the manufacturer. Any change or modification of the equipment, not expressly approved by Bosch, could void the user's warranty or authorization agreement.

**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)*.

**Heat sources** - Do not install unit near any heat sources such as radiators, heaters, or other equipment (including amplifiers) that produce heat.

**High PoE or PoE+ (802.3at)** – Never supply power via the Ethernet connection (High PoE or PoE+) when power is already supplied via the power connector, unless implementing an Auxiliary Power application (described in the section Connection in Applications).

**Lightning** - Take precautions to protect the unit from lightning and power surges.

**Moving** - Disconnect the power before moving the unit. Move the unit with care. Excessive force or shock may damage the unit.

**Object and liquid entry** – Never push objects of any kind into the device through openings, as the objects may touch dangerous voltage points or short-out parts that could result in a fire or electrical shock. Never spill or pour liquid of any kind on or into the device. Do not place objects filled with liquids, such as vases or cups, on the device.

**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** - Units have power supplied whenever the power cord is inserted into the power source, or when High Power-over-Ethernet (High PoE) power is provided over the Ethernet CAT 5E/6 cable. The power cord is the main power disconnect device for switching off the voltage for all units. When High PoE or PoE+ (802.3at) is used to power the unit, the power is provided over the Ethernet cable, which is then the main power disconnect device for switching off the voltage for all units.

**Power lines** - Do not locate the camera near overhead power lines, power circuits, or electrical lights, nor where it may contact such power lines, circuits, or lights.

**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.

**Servicing** - Do not attempt to service this device yourself. Refer all servicing to qualified service personnel.

## 1.5 Connection in Applications

**24 VAC power source:** This unit is intended to operate with a limited power source. The 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+ 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 auxiliary input and shuts off PoE+.

For in-ceiling or indoor pendant applications that don't require heater power, standard PoE+ (802.3at) midspans or switches can be used to power the camera.

## 1.6 Important Notices

**Indoor use only** - The product shall only be used indoors. Ethernet network should be connected to a network environment, which must comply with the following conditions:

1.1 The function of the ITE being investigated to IEC 60950-1 is considered not likely to require connection to an Ethernet network with outside plant routing, including a campus environment.

1.2 The ITE is to be connected only to PoE networks without routing to the outside plant.

**Notice!**

This device is intended for use in public areas only.

U.S. federal law strictly prohibits surreptitious recording of oral communications.

**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 60950-1 . 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.

**Notice!**

This is a **class B** 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 equipment has been tested and found to comply with the limits for a **Class B** 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 **residential installation**. 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. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

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.

The user may find the following booklet, prepared by the Federal Communications Commission, helpful: How to Identify and Resolve Radio-TV Interference Problems. This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.





## 1.7 Customer Support and Service

If this unit needs service, contact the nearest Bosch Security Systems Service Center for authorization to return and shipping instructions.

### Service Centers

#### USA

Telephone: 800-366-2283 or 585-340-4162

Fax: 800-366-1329

Email: [cctv.repair@us.bosch.com](mailto:cctv.repair@us.bosch.com)

#### Customer Service

Telephone: 888-289-0096

Fax: 585-223-9180

Email: [security.sales@us.bosch.com](mailto:security.sales@us.bosch.com)

#### Technical Support

Telephone: 800-326-1450

Fax: 585-223-3508 or 717-735-6560

Email: [technical.support@us.bosch.com](mailto:technical.support@us.bosch.com)

#### Repair Center

Telephone: 585-421-4220

Fax: 585-223-9180 or 717-735-6561

Email: [security.repair@us.bosch.com](mailto:security.repair@us.bosch.com)

#### Canada

Telephone: 514-738-2434

Fax: 514-738-8480

#### Europe, Middle East & Africa Region

Please contact your local distributor or Bosch sales office. Use this link:

<http://www.boschsecurity.com/startpage/html/europe.htm>

#### Asia Pacific Region

Please contact your local distributor or Bosch sales office. Use this link:

[http://www.boschsecurity.com/startpage/html/asia\\_pacific.htm](http://www.boschsecurity.com/startpage/html/asia_pacific.htm)

#### More Information

For more information please contact the nearest Bosch Security Systems location or visit [www.boschsecurity.com](http://www.boschsecurity.com)

## 2 Unpacking

- 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 Bosch Security Systems Sales or Customer Service Representative.
- 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 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

1	AUTODOME IP 4000 HD camera
1	Camera mounting plate (pendant models only)
1	Mounting template (in-ceiling model only)
1	Screwdriver, T10 Torx
1	Screwdriver, T15 Torx
4	MAC address labels
1	Quick Installation Guide

## 3 Product Description

### **AUTODOME IP 4000 HD**

The AUTODOME IP 4000 HD is a compact, indoor PTZ dome camera with a high-resolution 720p25/30 (1MP) or 1080p25/30 (2MP) HD sensor and a powerful 12x optical zoom that allows operators to monitor wide scenes without losing any details. The camera's aesthetic design and flexible mounting options allow unobtrusive surveillance of large halls, reception areas, or waiting areas that would otherwise require multiple cameras for effective surveillance.

## 4 Mounting Accessories

The following mounting accessories are available (and are supplied with separate mounting instructions) for AUTODOME IP 4000 HD cameras.

<b>Model Number</b>	<b>Description</b>	<b>Application</b>
VEZ-A2-WW1	Wall mount kit	Indoor/outdoor vertical walls
VEZ-A2-PW1	Pipe mount kit	Indoor/outdoor high ceilings
NEZ-A4-SMB	Surface mount kit	Indoor hard-ceiling

## 5 Installation Overview



### 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, Inc. accepts no liability for any damages or losses caused by incorrect or improper installation.

### 1. Select the mounting location.

Select a secure installation location and mounting position for the device. Ideally, this is a location where the device cannot be interfered with either intentionally or accidentally.

- ▶ Ensure that the selected mounting surface is capable of supporting the combined weight of the camera and mounting hardware (sold separately) under all expected conditions of load, vibration, and temperature.

## 5.1 Prepare Wiring

- ▶ Prepare and install all wiring for 24 VAC, PoE+ (Cat5e/Cat6), 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), 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 0.8000 mm, the recommended transmission distance is 42 m (141 feet) from the transformer.

Models	Watts	0.8000	1.000	1.250	2.000
Indoor (ceiling)	20	42 (141)	68 (225)	109 (358)	275 (905)
Outdoor	30	28 (94)	45 (150)	72 (238)	183 (603)

### Wire Gage

Bare wire diameter (mm)	AWG
1.000	18
1.250	16
1.500	15
2.000	12

The PoE+ cable can be:

- an Ethernet cable (Cat5e/Cat6) from the RJ45 connector of the camera to a network switch attached to the Local Area Network (LAN), or to a midspan. (Connect the dedicated network switch to the RJ45 connector on the computer.)
- an Ethernet crossover cable from the RJ45 connector of the camera directly to a networking device such as a computer, a DVR/NVR, etc.

## 6 Installing a Surface Mount

### 6.1 Description

This chapter details how to mount the AutoDome Junior to a hard surface. The AutoDome Junior is also suitable for wall (Installing a Wall Mount), recess (Installing a Recessed Mount), and pipe mounting (Installing a Pipe Mount). For specific directions on mounting the unit, see the manual that came with your mount.

#### Notice!

The image sensors in modern cameras are highly sensitive and require special care for proper performance and extended lifetime. Follow the guidelines for optimum results with your camera:



Do not expose to direct sunlight or bright spotlights in operating and nonoperating conditions.

Avoid bright lights in the field of view of the camera. Bright lights cause a “smearing” effect, which is visible as white lines above and below the highlight. Prolonged exposure to bright lights may cause bleaching of the sensor's color filters. This will be visible as colored spots in the picture and is irreversible.

### 6.2 Additional Tools Required

- Appropriate straight slot screwdrivers
- No. 2 Phillips screwdriver
- Appropriate tool for cutting a hole in drywall or ceiling tile (if applicable)
- T-10 Torx wrench
- One (1) ground
- 4 in. x 4 in. Junction box with 90 mm (3.54 in.) mount holes (indoor installation)

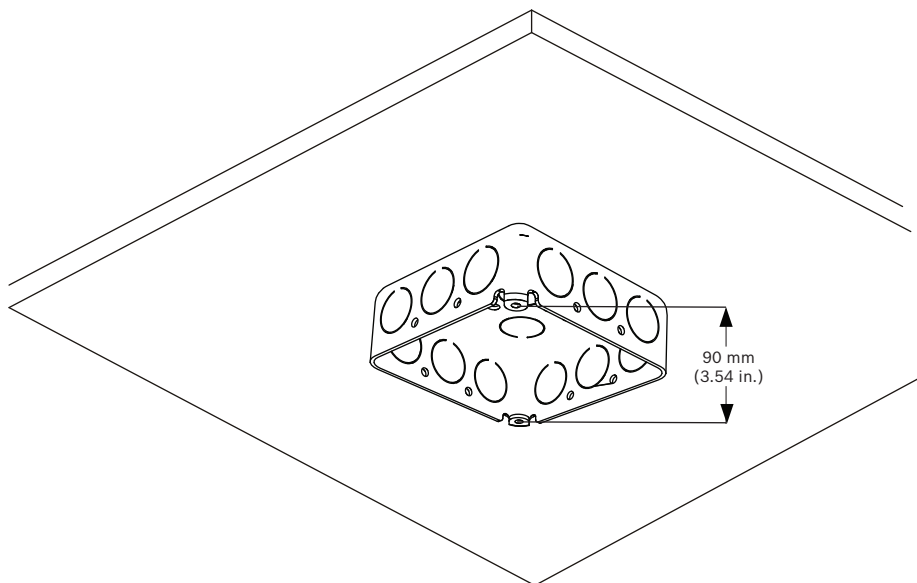
### 6.3 Preparing the Surface Mount for an Indoor Installation

The following instructions detail the preparation necessary to prepare the surface and the steps to install a Surface Mount.

- ▶ Determine a secure location for the surface mount dome.

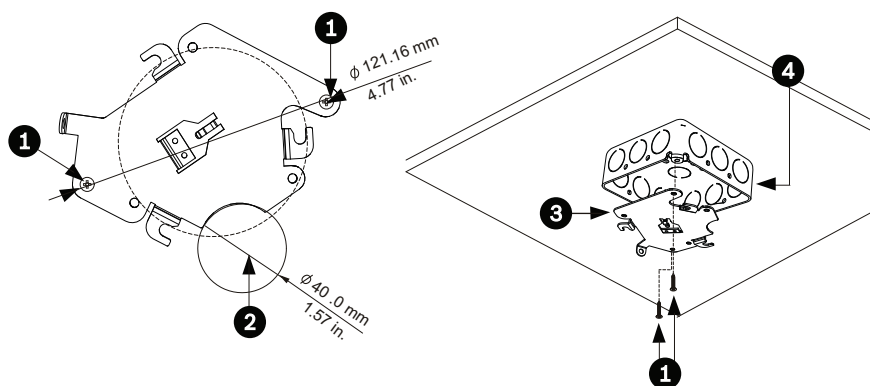
#### Install Junction Box

1. Install a 4 in. gang box or square metal junction box (not supplied). Ensure junction box and mounting screws are capable of supporting a maximum load of 11.33 kg (25 pounds).



**Figure 6.1: Install User-supplied Junction Box**

- Secure the mounting plate to the junction box with the user supplied hardware.



**Figure 6.2: Install the Mounting Plate**

1	Junction Box Holes
2	Cable Hole (40 mm maximum); Crescent Shape
3	Mounting Plate
4	Junction Box

- Skip to *Installing the Camera to the Mounting Plate*, page 16, to continue the installation.

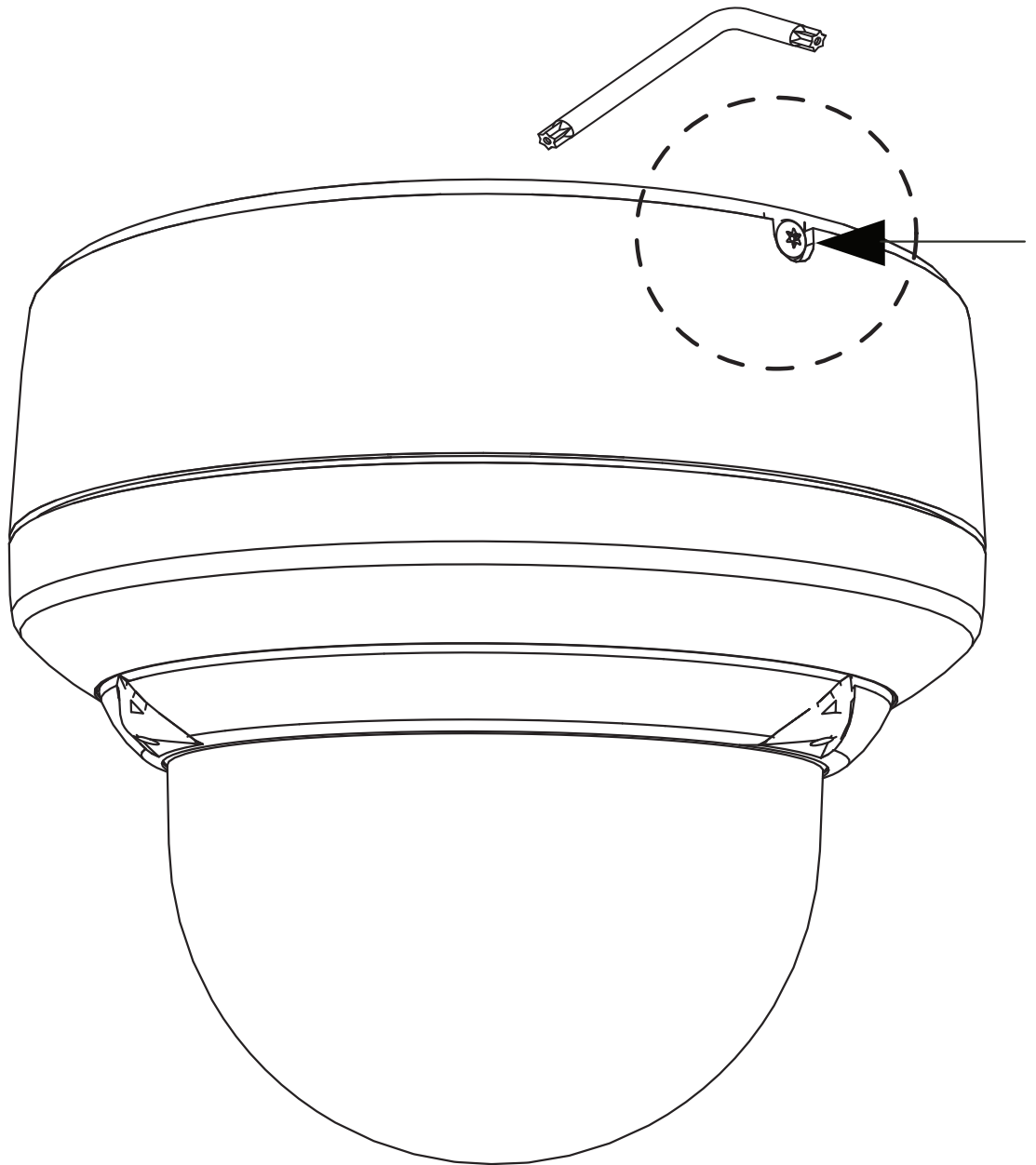
## 6.4 Installing the Camera to the Mounting Plate

To install the camera to the mounting plate for a surface or suspended ceiling, do the following:

- Route wires on side of mounting plate with crescent shaped cut-out (refer to *Preparing the Surface Mount for an Indoor Installation*, page 15).
- Attach grounding wire from unit to junction box.
- Attach user supplied ground to junction box.
- Connect the mating connectors with the flying leads to the user supplied wiring (see *Preparing the Wiring* for wiring information).

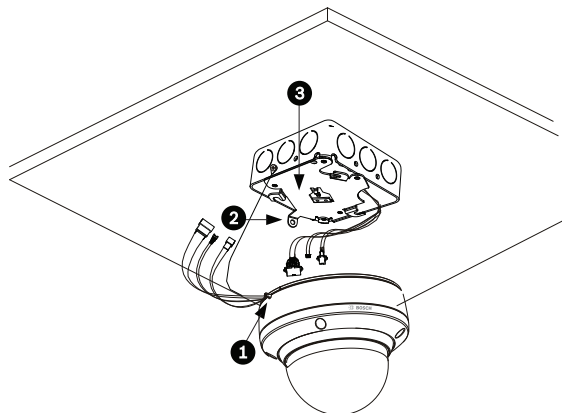


5. Unlock the single safety locking screw on the base of the unit using the user-supplied Allen wrench.



**Figure 6.3: Unlock Safety Locking Screw**

- ▶ Plug the matching connectors from the camera into the mating connectors from the ceiling.

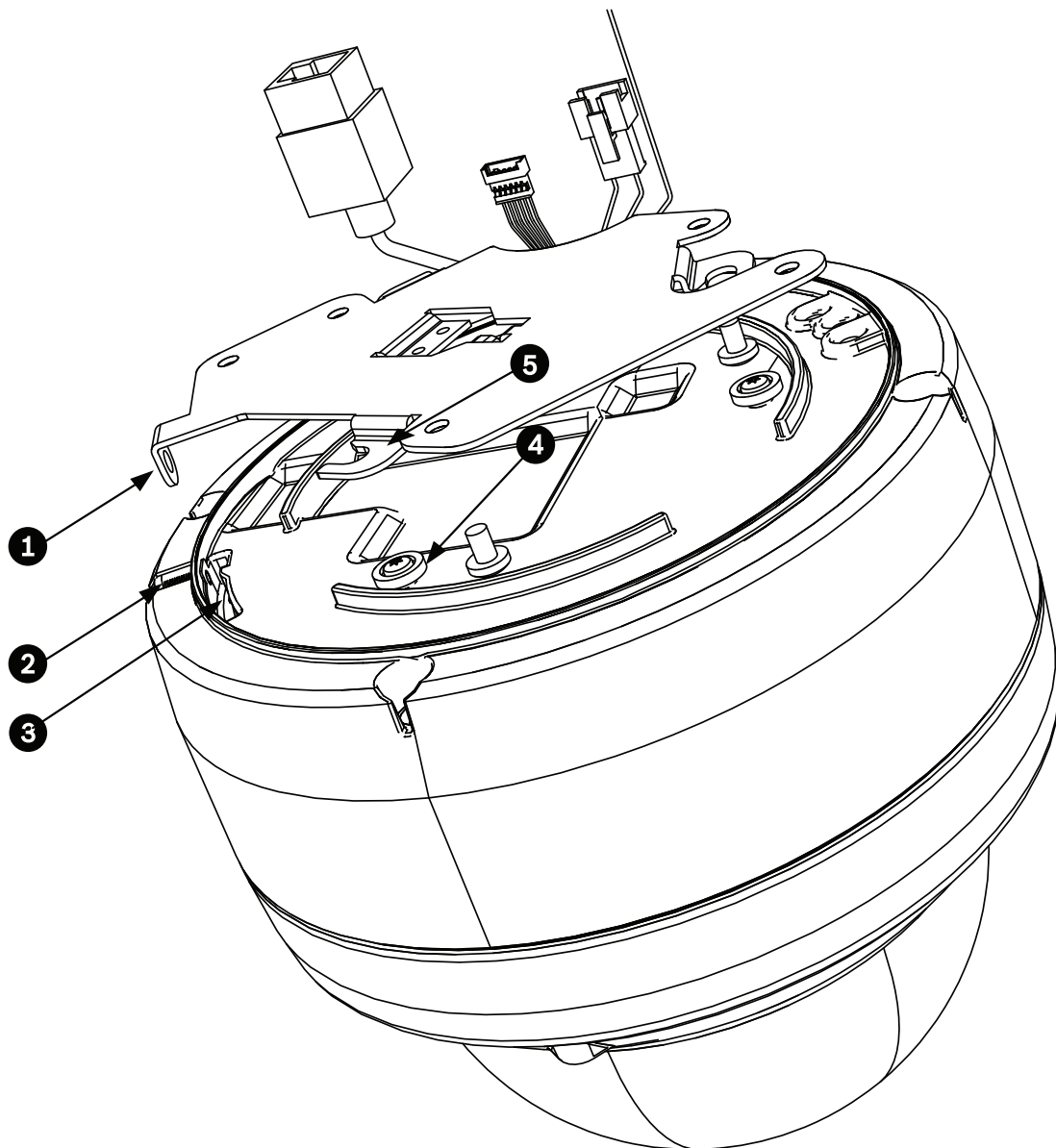


**Figure 6.4: Connect Cables**

1	Locking Screw
2	Vertical Tab
3	Mounting Plate

1. Align wires on side of mounting plate with crescent shaped cut-out.
2. Attach the camera to the mounting plate by inserting the vertical tab on the plate (item 1, below) into the recessed slot on the top of the camera dome (Item 3) to the right of the safety locking screw (item 2).

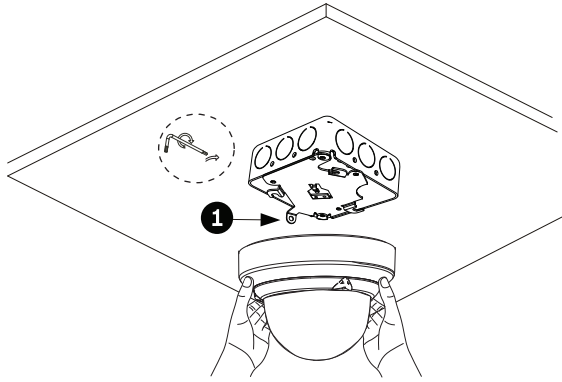
**Note:** Do not loosen the three brass buttons (item 4). These brass buttons engage the slotted tabs (item 5) on the mounting plate.



**Figure 6.5: Tab/Slot Alignment Detail**

1	Vertical Tab (on mounting plate)
2	Locking Screw
3	Recessed Slot (on dome housing)
4	Brass Button (total of three on housing)
5	Slotted Tab (total of three on mounting plate)

- ▶ Rotate the camera approximately 15 degrees in a clockwise direction to lock firmly into place, as shown in the next illustration.



**Figure 6.6: Attach Dome to Mounting Plate**

1	Vertical tab
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- ▶ Secure the safety locking screw with the user supplied locking torx wrench (T-10).

**See also**

- *Preparing the Surface Mount for an Indoor Installation, page 15*

## 7 Install a Wall Mount and Camera

### 7.1 Parts List

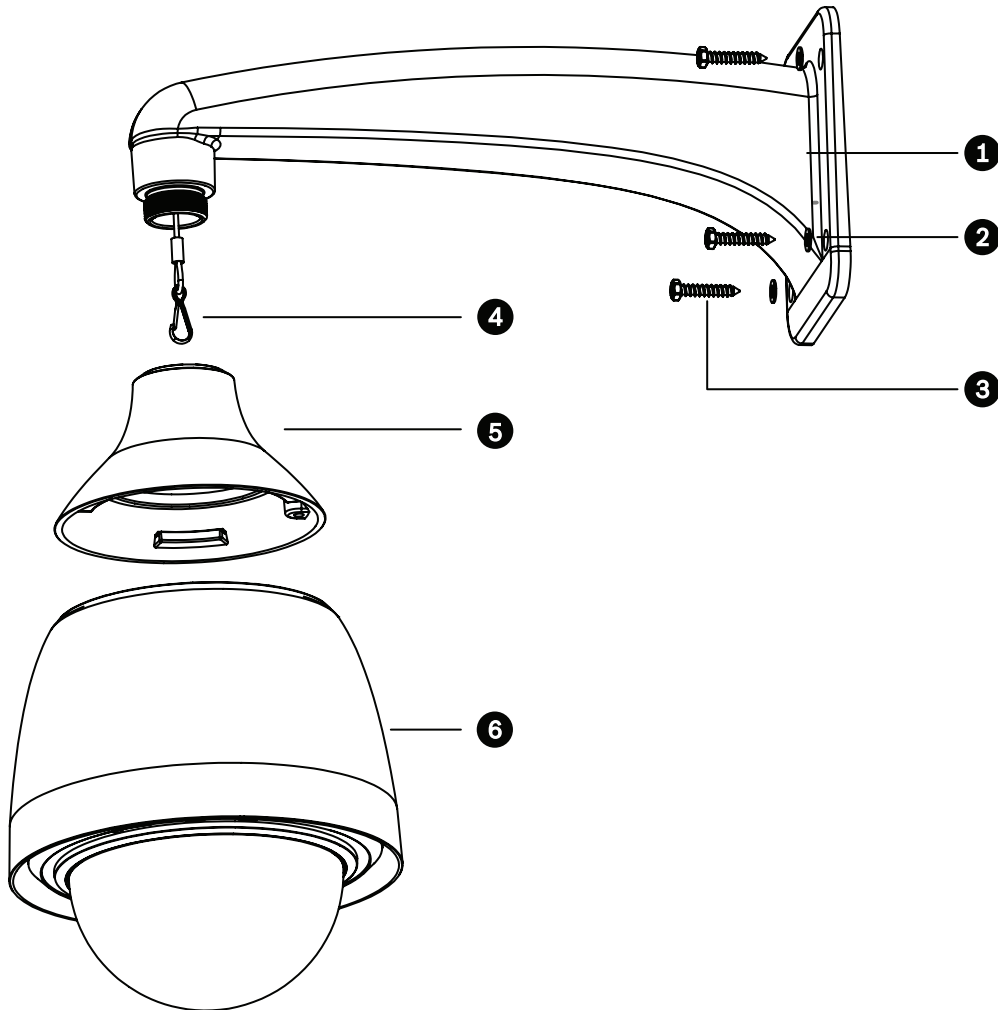
Quantity	Item
1	Wall Mount with Safety Tether
1	3/4 x 260 in. Roll Teflon Tape
1	5g Container Silicon Grease
4	M10x25L Phillips Screws
1	Rubber Gasket
1	Installation Manual
4	Wall anchors (user-supplied)

### 7.2 Installation Requirements

- The wall is thick enough to install the expansion bolt.
- The wall can sustain at least 8 times the combined weight of the camera (>4.5 Kg (>10 lb)), the bracket, and the accessories.

### 7.3 Installing the Wall Mount

The illustration below shows the required parts for the wall mount. Refer to the steps that follow for instructions.



1	Wall Mount Base	4	Safety Tether
2	Washers (4 pieces)	5	Adaptor
3	M10x25L Phillips Screws (4 pieces)	6	Camera

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**Wall Mount Installation Instructions**

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**Caution!****Strength of Mounting Surface**

The fasteners and mounting surface must be capable of supporting a maximum load of 12 kg (26.4 pounds).

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1. Locate a secure position to secure the Wall Mount Base (1). Ensure there is an adequate opening in the wall for the wires to pass through.
2. Use the Rubber Gasket as a template to mark the locations of the four wall plugs and screws.
3. Insert the wall plugs (if necessary) into the wall at the locations marked in step 2.
4. Place the rubber pad between the Wall Mount Base (1) and the wall. Secure the Wall Mount to the structure with the four (4) M10x25L screws and washers (3).
5. Apply Teflon tape to the threads on the Wall Mount Base.
6. Apply Silicon grease over the Teflon tape on the threads of the Wall Mount Base. Ensure the grease is spread evenly.
7. Fasten the Adaptor (5) to the end of the Wall Mount.
8. Thread all connection cables through the Wall Mount.
1. Attach the hook at the end of the Safety Tether (4) to the loop attached to the top of the camera (6).
2. Connect all cables to the camera back plate.
3. Place the top of the camera (6) inside the Adaptor (5) and turn clockwise until the camera latches to the adaptor.
4. Fasten the M5x8L screw using the T20 Security Torx wrench (shipped with the camera) to secure the camera to the adaptor.

## 8 Install a Pipe Mount and Camera

Use this chapter to install an indoor or an outdoor dome camera to a pipe using the Pipe Mount (VEZ-A5-PP). The Pipe Mount permits mounting of the AUTODOME 5000 camera to a high ceiling indoors or outdoors.

### 8.1 Parts List

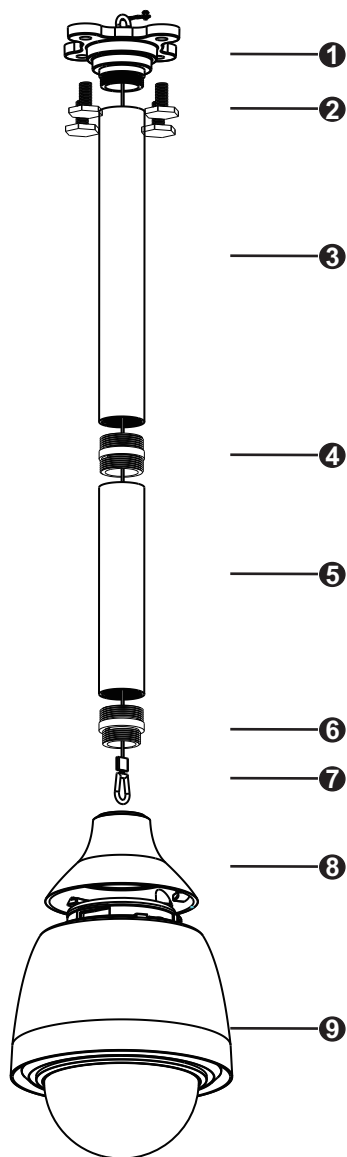
The Pipe Mount (VEZ-A5-PP) includes the following parts:

Quantity	Item
1	Pipe Mount Base with Safety Tether
1	300 mm (11.81 in.) Pipe Extension
1	200 mm (7.87 in.) Pipe Extension
1	M38 to M38 Connection Ring
1	M38 to M33 Connection Ring
1	3/4 x 260 in. Roll Teflon Tape
1	5g Container Silicon Grease
4	M10x25L Phillips Screws and Washers
1	Rubber Gasket
1	Installation Manual



## 8.2 Installing the Pipe Mount

The illustration below shows the required parts for the pipe mount. Refer to the steps that follow for instructions.



1	Pipe Mount Base	6	M38 to M33 Pipe Connector
2	M10x25L Phillips Screws (4 pieces)	7	Safety Tether
3	Pipe Extension, 300 mm (11.81 in.)	8	Adaptor
4	M38 to M38 Pipe Connector	9	Dome Camera
5	Pipe Extension, 200 mm (7.87 in.)		

## Pipe Mount Installation Instructions



### Caution!

#### Strength of Mounting Surface

The fasteners and mounting surface must be capable of supporting a maximum load of 12 kg (26.4 pounds).

1. Locate a secure position to secure the Pipe Mount Base (1). Ensure there is an adequate opening in the ceiling or mounting structure for the wires to pass through.
2. Use the Rubber Gasket as a template to mark the locations of the four ceiling plugs and screws.
3. Insert the ceiling plugs (if necessary) into the wall at the locations marked in step 2.
4. Place the rubber pad between the Pipe Mount Base (1) and the ceiling. Secure the Pipe Mount Base and the rubber pad to the ceiling or mounting structure with the four (4) M10x25L screws and washers.
5. Apply Teflon tape to the threads on the Pipe Mount Base.
6. Apply Silicon grease over the Teflon tape on the threads on Pipe Mount Base. Ensure the grease is spread evenly.
7. Determine the distance that the camera should hang from the ceiling or mounting structure (200 mm, 300 mm, or 500 mm).
  - ▶ **For the 200 mm or 300 mm option:**

Select the appropriate Pipe Extension (3 or 5).  
Fasten the Pipe Extension to the Pipe Mount Base (1).  
Apply Teflon tape to both sets of threads on the M38 to M33 Connector (6).  
Apply Silicon grease over the Teflon tape on both sets of threads on the M38 to M33 Connector (6). Ensure the grease is spread evenly.  
Fasten the M38 to M33 Connector (6) to the bottom of the Pipe Extension.
  - ▶ **For the 500 mm option:**

Fasten the 300 mm Pipe Extension (3) to the Pipe Mount Base (1).  
Apply Teflon tape to both sets of threads on the M38 to M38 Connector (4).  
Apply Silicon grease over the Teflon tape on both sets of threads on the M38 to M38 Connector (4). Ensure the grease is spread evenly.  
Fasten the M38 to M38 Connector (4) to the bottom of the 300 mm Pipe Extension. Then, fasten the 200 mm Pipe Extension (5) to the other end of the M38 to M38 Connector.  
Apply Teflon tape to both sets of threads on the M38 to M33 Connector (4).  
Apply Silicon grease over the Teflon tape on both sets of threads on the M38 to M33 Connector (4). Ensure the grease is spread evenly.  
Fasten the M38 to M33 Connector (6) to the bottom to the 200 mm Pipe Extension.



### Notice!

Ensure that the Safety Tether (7) is routed through the Pipe Extensions and that the eyelet at the end of the tether is through the M38 to M33 connector.

1. Fasten the Adaptor (8) to the bottom of the M38 to M33 connector.
2. Thread all connection cables from the top of the pipe mount base through the pipe extensions and the adaptor.
3. Attach the hook at the end of the Safety Tether (7) to the loop attached to the top of the Dome Camera (9).
4. Connect all cables to the camera back plate.

5. Place the top of the Dome Camera (9) inside the Adaptor (8) and turn clockwise until the Dome Camera latches to the Adaptor.
6. Fasten the M5x8L screw using the T20 Security Torx wrench (shipped with the camera) to secure the Dome Camera to the Adaptor.

## 9 Connection



**Warning!**

Bosch's version of PoE+

If supplying power to the camera by PoE+ or by a midspan device, you must install additional surge protection.



**Warning!**

**Bosch's version of High PoE:**

If supplying power to the camera by HPoE or a midspan device, you must install additional surge protection.



**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) 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.

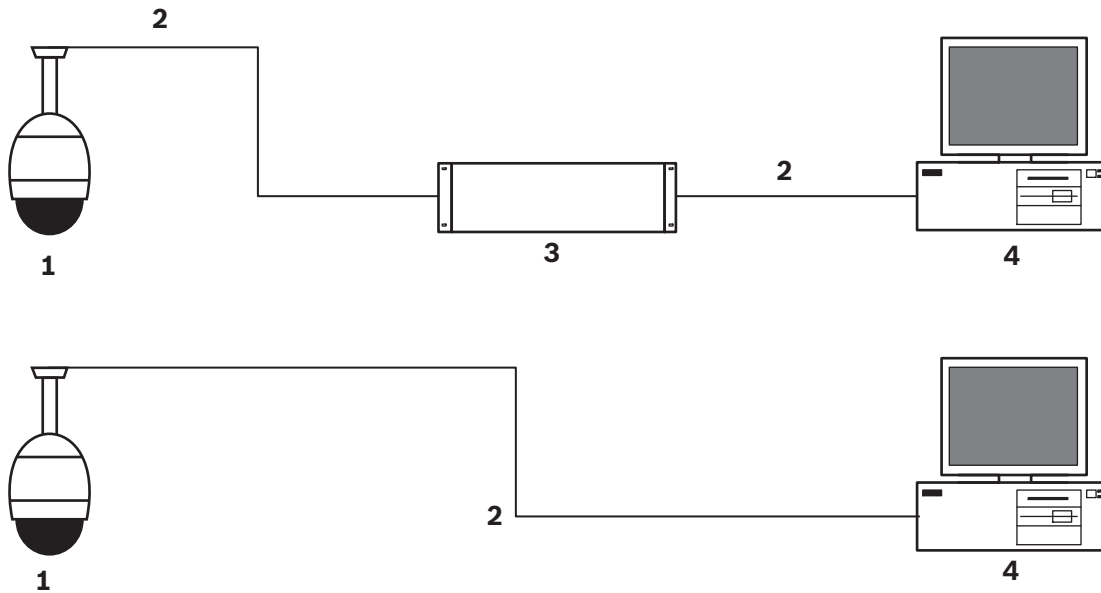


Figure 9.1: AUTODOME IP System Config

1	AUTODOME camera
2	IP connection (Ethernet/CAT5/CAT6) (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
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

## 10 Troubleshooting

If you experience difficulties operating your AUTODOME camera, refer to the following. If the guidelines do not enable you to solve the problem, contact an authorized technician.

Problem	Questions to Ask/Actions to Resolve the Problem
Need to remove trim ring.	Use a slotted screw driver and push the clips outward while gently pulling down on the edge of the trim ring.
Nothing appears on the screen.	Are the power cord and line connection between the camera and network made properly?
The image on the screen is dim.	Is the lens dirty? If so, clean the lens with a soft, clean cloth.
The contrast on the screen is too weak.	Adjust the contrast feature of the monitor. Is the camera exposed to strong light? If so, change the camera position.
The image on the screen is flickers.	Does the camera face directly into the sun or fluorescent lighting? If so, reposition camera.
The image on the screen is distorted.	Is the power frequency set properly in sync? If the power frequency is not set correctly, the line lock synchronization mode cannot be used. Set the synchronization mode to INT.NTSC Model power frequency in LL mode: 60 Hz.
No video	<ul style="list-style-type: none"> <li>– Check that the mains power to the power supply is on.</li> <li>– Check to see if you have a web page. If you do not, then you may have the wrong IP address. Use Configuration Manager to identify the correct IP address.</li> </ul> <p><b>If O.K., then:</b></p> <ul style="list-style-type: none"> <li>– Check that there is 24 V output from the transformer.</li> </ul> <p><b>If O.K., then:</b></p> <ul style="list-style-type: none"> <li>– Check the integrity of all wires and mating connectors to the camera.</li> </ul>
No camera control	<ul style="list-style-type: none"> <li>– Ensure that the LAN cable has good connection and is secured.</li> <li>– Refresh the browser and ensure that video is updated.</li> <li>– Ping the camera's IP address and try again to control the camera.</li> </ul>
Camera moves when moving other cameras	<ul style="list-style-type: none"> <li>– Check that the camera's IP address is properly set.</li> </ul> <p><b>If camera's IP address is not set, then:</b></p> <ul style="list-style-type: none"> <li>– Use Configuration Manager to confirm that two cameras do not have the same IP address. If they do, change the address of one of the cameras.</li> </ul>
Picture is dark	<ul style="list-style-type: none"> <li>– Check that the Gain Control is set to <b>High</b> via the Settings menu.</li> </ul> <p><b>If O.K., then:</b></p> <ul style="list-style-type: none"> <li>– Check that the Auto Iris Level is set to the appropriate level via the Settings menu.</li> </ul> <p><b>If O.K., then:</b></p> <ul style="list-style-type: none"> <li>– Check that the camera lens cover is removed.</li> </ul> <p><b>If O.K., then:</b></p> <ul style="list-style-type: none"> <li>– Check that the maximum Ethernet cable distance has not been exceeded.</li> </ul> <p><b>If O.K., then:</b></p> <ul style="list-style-type: none"> <li>– Restore all camera settings via the Settings menu.</li> </ul>

Problem	Questions to Ask/Actions to Resolve the Problem
Background is too bright to see subject	<ul style="list-style-type: none"> <li>- Turn on backlight compensation via the Settings menu (or by using 20 Aux ON/OFF).</li> </ul>
Video is rolling, noisy or distorted	<ul style="list-style-type: none"> <li>- Check the frequency.               <ul style="list-style-type: none"> <li>- From the <b>SETTINGS</b> page, click <b>Advanced Mode</b>.</li> <li>- Click <b>Camera</b>, and then click <b>Installer Menu</b>.</li> <li>- In the <b>Base frame rate</b> field, choose either 25 ips or 30 ips.</li> </ul> </li> <li>- Check the integrity of all connectors and splices of the Ethernet cable.</li> </ul> <p><b>If O.K., then:</b></p> <ul style="list-style-type: none"> <li>- Contact Bosch Technical Support.</li> </ul>
Loss of Privacy when using Privacy Mask	<ul style="list-style-type: none"> <li>- Web browsers, BVC or BVMS               <ul style="list-style-type: none"> <li>- Press the <b>FindHome</b> key on the Special Functions menu in order to align the mask back to the original position.</li> </ul> </li> <li>- Intuikey (when keyboard is connected to BVC or BVMS)               <ul style="list-style-type: none"> <li>- Issue a <b>SetScene 110</b> command in order to align the mask back to the original position.</li> </ul> </li> </ul>
No Network Connection	<ul style="list-style-type: none"> <li>- Check all network connections.               <ul style="list-style-type: none"> <li>- Ensure that the maximum distance between any two Ethernet connections is 100 m (328 ft) or less.</li> </ul> </li> </ul> <p><b>If O.K., then:</b></p> <ul style="list-style-type: none"> <li>- If you are behind a firewall, ensure that the Video Transmission mode is set to UDP.               <ul style="list-style-type: none"> <li>- Access the Settings Web page for the IP-enabled device.</li> <li>- Expand the Service Settings link, then click Network.</li> <li>- Select UDP from the Video Transmission drop-down list. Then click Set.</li> </ul> </li> </ul>

## 11 Maintenance

The bubble is made of Acrylic or Polycarbonate, depending on the application. Polycarbonate bubbles provide high impact resistance, and its optical clarity is comparable to glass or acrylic, although its surface is much softer. 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 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 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](http://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.

## 12 Decommissioning

### 12.1 Transfer

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

### 12.2 Disposal



#### **Old electrical and electronic appliances**

Electrical or electronic devices that are no longer serviceable must be collected separately and sent for environmentally compatible recycling (in accordance with the European Waste Electrical and Electronic Equipment Directive).

To dispose of old electrical or electronic devices, you should use the return and collection systems put in place in the country concerned.



## 13

### 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](http://www.boschsecurity.com).





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