AutoDome Junior HD

VJR Series

use-IP
www.use-ip.co.uk
01304 827609

BOSCH

en Installation Manual

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1 Safety

1.1 Important Safety Instructions

Read, follow, and retain for future reference all of the following safety instructions. Heed all warnings on the unit and in the operating instructions before operating the unit.

1. **Cleaning -** Unplug the unit from the outlet before cleaning. Follow any instructions provided with the unit. It is generally sufficient to use a dry cloth for cleaning, but a moist lint-free cloth or leather shammy may also be used. Do not use liquid cleaners or aerosol cleaners.
2. **Heat sources -** Do not install the unit near any heat sources such as radiators, heaters, stoves, or other devices (including amplifiers) that produce heat.
3. **Ventilation -** Any openings in the unit housing are provided for ventilation to prevent overheating and ensure reliable operation. Do not block or cover these openings. Do not place the unit in an enclosure unless proper ventilation is provided, or the manufacturer's instructions have been adhered to.
4. **Water -** Do not use this unit near water, for example near a bathtub, washbowl, sink, laundry basket, in a damp or wet basement, near a swimming pool, or in any area classified as a wet location. To reduce the risk of fire or electrical shock, do not expose this unit to rain or moisture.
5. **Object and liquid entry -** Never push objects of any kind into this unit through openings, as they may touch dangerous voltage points or short out parts, which could result in a fire or electrical shock. Never spill liquid of any kind on the unit. Do not place objects filled with liquids, such as vases or cups, on the unit.
6. **Lightning -** For added protection during a lightning storm, or when leaving this unit unattended and unused for long periods, unplug the unit from the wall outlet and disconnect the cable system. This will prevent damage to the unit from lightning and power line surges.

7. **Control adjustment -** Adjust only those controls specified in the operating instructions. Improper adjustment of other controls may cause damage to the unit. Use of controls or adjustments, or performance of procedures other than those specified, may result in hazardous radiation exposure.
8. **Overloading -** Do not overload outlets and extension cords. This can cause fire or electrical shock.
9. **Power disconnect -** Units with or without ON/OFF switches have power supplied whenever the power cord is inserted into the power source; however, the unit is operational only when the ON/OFF switch is in the ON position. The power cord is the main power disconnect device for switching off the voltage for all units.
10. **Power sources -** Operate the unit only via the type of power source indicated on the label. Before proceeding, be sure to disconnect the power from the cable being connected to the unit.
    - For battery powered units, refer to the operating instructions.
    - For units supplied by an external power source, use only the recommended or approved power supplies.
    - For limited power source units, this power source must comply with *EN60950*. Substitutions may damage the unit or cause fire or shock.
    - For 24 VAC units, the VG4-A-PSUxx Power Supply is recommended to comply with EN 50130-4 Main Supply Voltage Dips and Short Interruption requirement and voltage applied to the unit's power input should not exceed +/- 10% or 21.6-26.4 VAC. User-supplied wiring must comply with local electrical codes (Class 2 power levels). Do not ground the supply at the terminals or at the unit's power supply terminals.
    - If unsure of the type of power supply to use, contact your dealer or local power company.

11. **Servicing -** Do not attempt to service this unit yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
12. **Damage requiring service -** Unplug the unit from the main AC power source and refer servicing to qualified service personnel when any damage to the equipment has occurred, for example if:
    - the power supply cord or plug is damaged
    - exposure to moisture, water, and/or inclement weather (rain, snow etc.)
    - liquid has been spilled in or on the equipment
    - an object has fallen into the unit
    - the unit has been dropped or the unit cabinet is damaged
    - the unit exhibits a distinct change in performance
    - the unit does not operate normally when the user correctly follows the operating instructions.
13. **Replacement parts -** Be sure the service technician uses replacement parts specified by the manufacturer, or that they have the same characteristics as the original parts. Unauthorized substitutions may cause fire, electrical shock, or other hazards.
14. **Safety check -** Safety checks should be performed on completion of service or repairs to the unit, to ensure that the unit is in proper operating condition.
15. **Installation -** Install in accordance with the manufacturer's instructions and in accordance with applicable local codes.
16. **Attachments, changes, or modifications -** Only use attachments/accessories specified by the manufacturer. Any change to or modification of the equipment not expressly approved by Bosch could void the warranty or, in the case of an authorization agreement, authority to operate the equipment.

1.2 Safety Precautions

DANGER!
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!
Indicates a potentially hazardous situation. If not avoided, this may result in minor or moderate injury. Alerts the user to important instructions accompanying the unit.

CAUTION!
Indicates a potentially hazardous situation. If not avoided, this may result in damage to property 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.

1.3 Important Notices

Accessories - Do not place this unit on an unstable stand, tripod, bracket, or mount. The unit may fall, causing serious injury to persons and/or severe damage to the unit. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer. When a cart is used, exercise caution and care when moving the cart/apparatus combination to avoid tipping it over, which could result in injury. Quick stops, excessive force, or uneven surfaces may cause the cart/unit combination to overturn. Mount the unit in line with the manufacturer's instructions.

All-pole power switch - Incorporate an all-pole power switch, with a contact separation of at least 3 mm in each pole, into the electrical installation of the building. If it is needed to open the housing for servicing and/or other activities, use this all-pole

switch as the main disconnect device for switching off the voltage to the unit.

Camera grounding - When mounting the camera in potentially damp environments, ensure the system is grounded through the metal housing of the unit (see section: Connecting the Power).

Camera signal - Protect the cable with a primary protector if the camera signal is over 140 feet, in accordance with *NEC800 (CEC Section 60)*.

Coax grounding:

- Ground the cable system if connecting an outside cable system to the unit.
- Connect equipment to the unit's inputs only after this unit has had its grounding plug connected to a grounded outlet or its ground terminal is properly connected to a ground source.
- Disconnect the unit's input connectors from equipment before disconnecting the grounding plug or grounding terminal.
- Follow proper safety precautions, such as grounding, for any 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, grounding of the coax to a discharge unit, size of grounding conductors, location of discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

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 that have reached the end of their service 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, in line with *European Directive 2002/96/EC*.

Environmental statement - Bosch has a strong commitment to the environment. This unit has been designed to respect the environment as much as possible.

Electrostatic-sensitive device - Take proper CMOS/MOS-FET handling precautions to avoid electrostatic discharge.

NOTE: You must wear grounded wrist straps and observe proper ESD safety precautions when handling the electrostatic-sensitive printed circuit boards.

Fuse rating - For security protection of the device, the branch circuit protection must be secured with a maximum fuse rating of 16 A. This must be in accordance with *NEC800 (CEC Section 60)*.

Grounding and polarization - This unit may be fitted with a polarized alternating current line plug (a plug with one blade wider than the other blade). This safety feature allows the plug to fit into the power outlet in only one way. If unable to insert the plug fully into the outlet, contact a locally certified electrician to replace the obsolete outlet. Do not defeat the safety purpose of the polarized plug.

Alternatively, this unit may be fitted with a 3-pole grounding plug (a plug with a third pin for earth grounding). This safety feature allows the plug to fit into a grounded power outlet only. If unable to insert the plug into the outlet, contact a locally certified electrician to replace the obsolete outlet. Do not defeat the safety purpose of the grounding plug.

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)*.

Moving - Disconnect the power before moving the unit. Move the unit with care.

PoE - Never supply power via the Ethernet connection (PoE) when power is already supplied via the power connector.

Permanently connected equipment - Incorporate a readily accessible disconnect device in the building installation wiring. Pluggable equipment - Install the socket outlet near the equipment so it is easily accessible.

Power disconnect - Units have power supplied whenever the power cord is inserted into the power source. The power cord is the main power disconnect for all units.

Power lines - Do not locate the camera near overhead power lines, power circuits, electrical lights, or anywhere where it might come into contact with power lines, circuits, or lights.

SELV

All the input/output ports are Safety Extra Low Voltage (SELV) circuits. SELV circuits should only be connected to other SELV circuits.

Because the ISDN circuits are treated like telephone-network voltage, avoid connecting the SELV circuit to the Telephone Network Voltage (TNV) circuits.

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 lost digital information, Bosch Security Systems recommends multiple, redundant recording systems, and a procedure to back up all analog and digital information.

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.

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.

INFORMATIONS FCC ET ICES

(modèles utilisés aux États-Unis et au Canada uniquement)

Ce produit est conforme aux normes FCC partie 15. La mise en service est soumises aux deux conditions suivantes:

- cet appareil ne peut pas provoquer d'interférence nuisible et
- cet appareil doit pouvoir tolérer toutes les interférences auxquelles il est soumit, y compris les interférences qui pourraient influer sur son bon fonctionnement.

AVERTISSEMENT: Suite à différents tests, cet appareil s'est révélé conforme aux exigences imposées aux appareils numériques de Classe A en vertu de la section 15 du règlement de la Commission fédérale des communications des États-Unis (FCC). Ces contraintes sont destinées à fournir une protection raisonnable contre les interférences nuisibles quand l'appareil est utilisé dans une installation commerciale. Cette appareil génère, utilise et émet de l'energie de fréquence radio, et peut, en cas d'installation ou d'utilisation non conforme aux instructions, générer des interférences nuisibles aux communications radio. L'utilisation de ce produit dans une zone résidentielle peut provoquer des interférences nuisibles. Le cas échéant, l'utilisateur devra remédier à ces interférences à ses propres frais.

Au besoin, l'utilisateur consultera son revendeur ou un technicien qualifié en radio/télévision, qui procédera à une opération corrective. La brochure suivante, publiée par la Commission fédérale des communications (FCC), peut s'avérer utile : « How to Identify and Resolve Radio-TV Interference Problems » (Comment identifier et résoudre les problèmes d'interférences de radio et de télévision). Cette brochure est disponible auprès du U.S. Government Printing Office, Washington, DC 20402, États-Unis, sous la référence n° 004-000-00345-4.

AVERTISSEMENT: Ce produit est un appareil de Classe A. Son utilisation dans une zone résidentielle risque de provoquer des interférences. Le cas échéant, l'utilisateur devra prendre les mesures nécessaires pour y remédier.

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 UL's *Standard(s) for Safety for Information Technology Equipment, UL/IEC 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.

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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.

NOTICE!

This user guide 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. The ongoing development of the products may mean that the content of the user guide can change without notice. Bosch Security Systems accepts no liability for damage resulting directly or indirectly from faults, incompleteness or discrepancies between the user guide and the product described.

1.4 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

Repair Center

Telephone: 800-566-2283

Fax: 800-366-1329

E-mail: repair@us.bosch.com

Customer Service

Telephone: 888-289-0096

Fax: 585-223-9180

E-mail: security.sales@us.bosch.com

Technical Support

Telephone: 800-326-1450

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

E-mail: technical.support@us.bosch.com

Canada

Telephone: 514-738-2434

Fax: 514-738-8480

Europe, Middle East, Africa Region

Repair Center

Telephone: 31 (0) 76-5721500

Fax: 31 (0) 76-5721413

E-mail: RMADesk.STService@nl.bosch.com

Asia Region

Repair Center

Telephone: 65 63522776

Fax: 65 63521776

E-mail: rmahelpdesk@sg.bosch.com

Warranty and additional information

For additional information and warranty queries, please contact your Bosch Security Systems representative or visit our website at www.boschsecurity.com.

2 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 the parts listed in the Parts List are included. If any items are missing, notify your Bosch Security Systems Sales or Customer Service Representative. 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

The AutoDome Junior HD includes the following components:

- One (1) PTZ or Fixed Dome camera
- One (1) accessory kit including
  - One (1) 2-wire camera power cable, red and black wires
  - One (1) 2-wire heater power cable, white/red and white/black wires (outdoor models only)
  - One (1) 4-wire alarm in/out cable
- One (1) mounting plate
- One (1) outdoor installation kit (outdoor models only)
- One (1) user manual

2.2 Safety Rules

To ensure safety, the following warnings are specified:

- The device must be installed and maintained by skilled technical personnel.
- Connect the device to a power source corresponding to the indications given on the marking label.
- Use only the attachments/accessories specified by the manufacturer.
- Unplug the device during lightning storms or when unused for long periods of time.
- Do not use the device near water (indoor models only).
- Do not use the device in the presence of flammable substances.
- Do not allow children or unauthorized personnel to use the device.
- Do not block any ventilation openings.
- Keep this manual for future reference.

2.3 Installation Notes

- This manual contains instructions for installing an AutoDome Junior HD in indoor and outdoor applications.
- Installations in an outdoor environment require an Outdoor AutoDome Junior HD PTZ camera and the outdoor installation kit.
- The AutoDome Junior HD Fixed camera is not suitable for an outdoor installation.

3 Description

The AutoDome Junior is part of a larger building block for any surveillance/security system. By using multiple keyboard controllers and multiple dome cameras, no place is too large for monitoring. Extensible and flexible architecture facilities remote control functions for a variety of external switching devices such as multiplexers and DVRs (see the figure below).

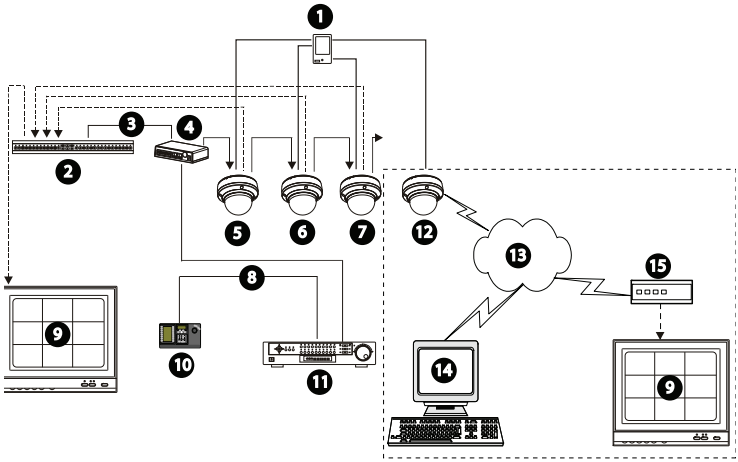


Figure 3.1 System Configuration

1	Alarm Input (sensor)		12	AutoDome Junior HD
2	Multiplexer		13	Network
3	RS-485 Cable		14	Computer
4	Junction Box		15	Encoder/Decoder
5	AutoDome Junior			
6	AutoDome Junior			
7	AutoDome Junior			
8	RS-485 Cable			
9	Monitor			
10	Keyboard			
11	DVR			

Refer to *Section 11 Using the IP Interface, page 88* for software and infrastructure requirements for an AutoDome Junior HD installation.

This installation should be made by qualified service personnel and conform to the National Electrical Code and applicable local codes.

NOTICE!
A grounded conduit is required in order to meet the EMC Regulation Requirements.

4 Installing a Surface Mount

4.1 Description

This chapter details how to mount the AutoDome Junior to a hard surface. The AutoDome Junior is also suitable for wall (*Section 5 Installing a Wall Mount, page 34*), recess (*Section 6 Installing a Recessed Mount, page 46*), and pipe mounting (*Section 7 Installing a Pipe Mount, page 66*). For specific directions on mounting the unit, see the manual that came with your mount.

For an outdoor installation you must obtain the Surface Mount Adapter (VEZ-A2-JC or VEZ-A2-JW) and the gaskets and O-rings supplied with an AutoDome Junior Outdoor Camera to ensure a water-tight environment inside the unit and to maintain an IP Environmental Protection Rating. Refer to *Section 4.1.3 Preparing the Surface Mount for an Outdoor Installation, page 26*, to start an outdoor installation.

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.

4.1.1 Additional Tools Required

- Appropriate straight slot screwdrivers
- No. 2 Phillips screwdriver
- Appropriate tool for cutting a hole in drywall or ceiling tile (if applicable)
- 4 in. x 4 in. Junction box with 90 mm (3.54 in.) mount holes (indoor installation)
- One (1) ground
- T-10 Torx wrench
- Four (4) M4 or #10 pan head screws of an appropriate length to screw deep enough into the surface, required for an outdoor installation
- VEZ-A2-JW or VEZ-A2-JC Surface Mount Adapter, required for an outdoor installation
- AutoDome Junior Outdoor Camera, required for an outdoor installation

4.1.2 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.

1. Determine a secure location for the surface mount dome.

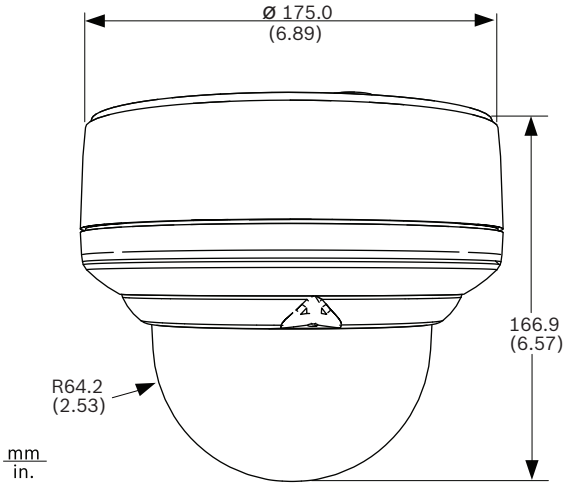


Figure 4.1 Indoor Surface Mount Dimensions

2. 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).

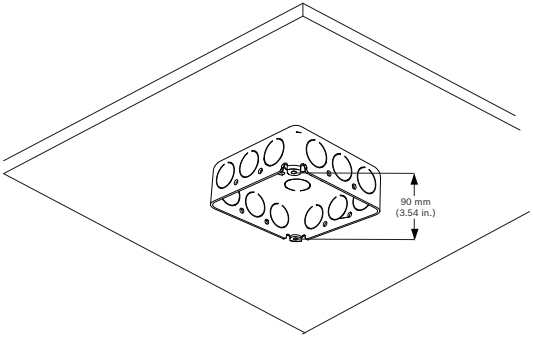


Figure 4.2 Install User-supplied Junction Box

3. Secure the mounting plate to the junction box with the user supplied hardware (see *Figure 4.3*).

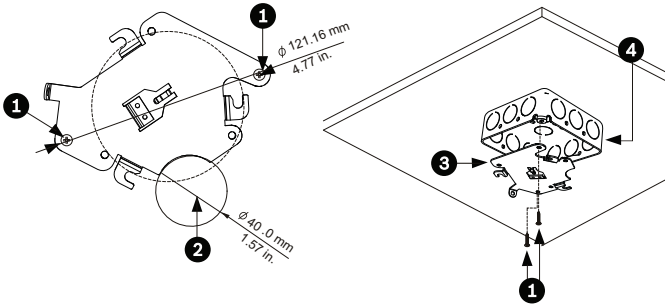


Figure 4.3 Install the Mounting Plate

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

4. Skip to *Section 4.1.4 Installing the Camera to the Mounting Plate, page 30*, to continue the installation.

4.1.3 Preparing the Surface Mount for an Outdoor Installation

The following instructions detail the preparation necessary to prepare the surface and the steps to install the Surface Mount Adapter for an outdoor application.

1. Determine a secure location for the surface mount adapter and the dome. The illustration below shows the placement of the surface mount adapter (item 1, below) and the dome (item 2).

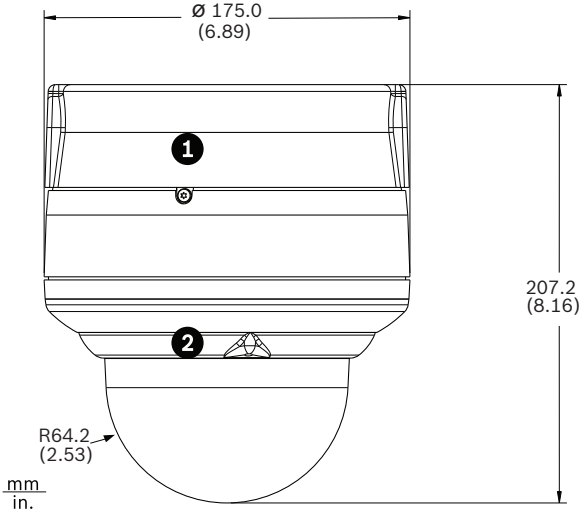


Figure 4.4 Outdoor Surface Mount with AutoDome Easy HD

2. Use the VEZ-A2-JC or VEZ-A2-JW Surface Mount Adapter as a template to mark the location of the four (4) M4 or #10 pan head screws (Item 1, below).

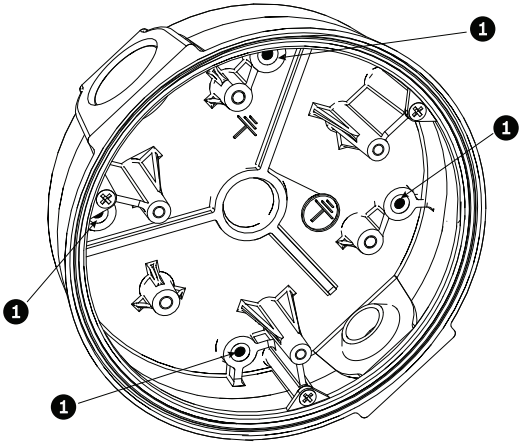
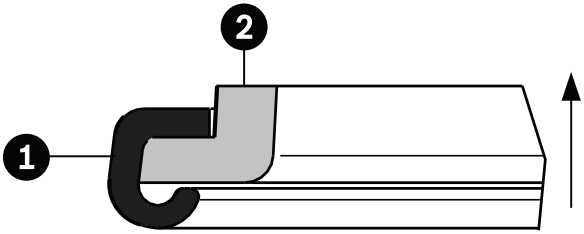


Figure 4.5 Location of M4 or #10 pan head screws

3. Drill the four (4) holes in the installation location. Use a minimum screw length of 10 mm (.39 in.).
4. Prepare the surface so that it can support a maximum load of 11.33 kg (25 lbs).
5. Thread the four (4) 3.97 mm I.D. by Ø1.78 mm O-rings (Item 3, *Figure 4.6*) onto the four (4) M4 or #10 user-supplied pan head screws. The O-rings are supplied with the AutoDome Junior Outdoor Camera.
6. Ensure that the gasket is attached to the retaining ring. If the gasket and the retaining ring are separate:
   a. Locate the flat side of the gasket and the recessed side of the retaining ring.

b. Thread the flat side of the gasket (item 1, below) onto the recessed side of the retaining ring (item 2). The illustration below shows a cross-section of the gasket on the retaining ring.



CAUTION!
You must ensure that the gasket is attached to the retaining ring as shown above to ensure an environmentally tight seal.

7. Attach the retaining ring with gasket (item 2, below) to the Surface Mount Adapter. These parts are supplied with the AutoDome Junior Outdoor Camera. Ensure that the side of the retaining ring with the counter-sunk screw holes is facing you.

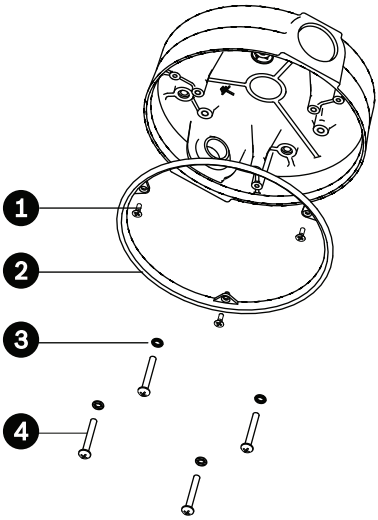


Figure 4.6 O-ring and retaining ring placement for outdoor installation

1	M3 – .5 x 6 Phillips flat head machine screws (supplied with AutoDome Junior Outdoor Camera)
2	Retaining ring with gasket (supplied with AutoDome Junior Outdoor Camera)
3	O-ring, 3.97 mm I.D. by Ø1.78 mm (supplied with AutoDome Junior Outdoor Camera)
4	User-supplied M4 or #10 pan head screws

8. Determine the side of the Surface Mount Adapter in which the external wires are to be routed and remove the plug from the knockout.
9. Apply a 1/2-inch (15-mm) NPS fitting to the chosen knockout. Ensure a water-tight fitting to maintain the IP Environmental Protection Rating for the unit.
10. Attach the Surface Mount Adapter to the surface using four (4) user-supplied M4 or #10 pan head screws (screws not supplied). Use a minimum screw length of 10 mm (.39 in.). Note: For an outdoor installation ensure that the four (4) 3.97 mm I.D. by Ø1.78 mm O-rings are threaded onto the four (4) M4 or #10 user-supplied pan head screws. Refer to step 5.

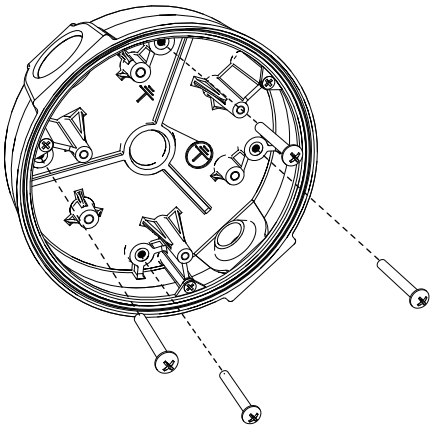


Figure 4.7 Attach surface mount to ceiling

11. Route the external wires through the conduit and into the Surface Mount Adapter.

CAUTION!
All wires for installation applications must be routed through a grounded conduit.

12. Secure the mounting plate to the Surface Mount Adapter with the three (3) M4 – .7 x 8 Phillips pan head machine screws.

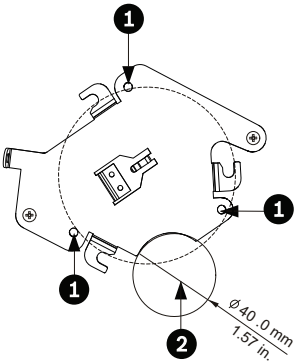


Figure 4.8 Install the Mounting Plate

1	Junction Box Holes
2	Cable Hole (40 mm maximum); Crescent Shape

13. Skip to *Section 4.1.4 Installing the Camera to the Mounting Plate, page 30*, to continue the installation.

4.1.4 Installing the Camera to the Mounting Plate

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

1. Route wires on side of mounting plate with crescent shaped cut-out (Ref. #2 *Figure 4.3*).
2. Attach grounding wire from unit to junction box.
3. Attach user supplied ground to junction box.
4. Connect the mating connectors with the flying leads to the user supplied wiring (see *Section 8 Preparing the Wiring, page 77* for wiring information).

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

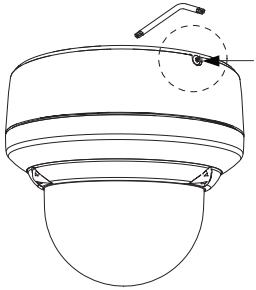


Figure 4.9 Unlock Safety Locking Screw

6. Plug the matching connectors from the camera into the mating connectors from the ceiling.

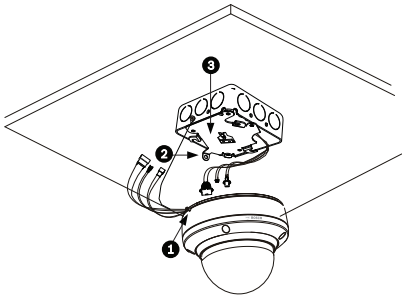


Figure 4.10 Connect Cables

1	Locking Screw
2	Vertical Tab
3	Mounting Plate

7. Align wires on side of mounting plate with crescent shaped cut-out.

8. 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.

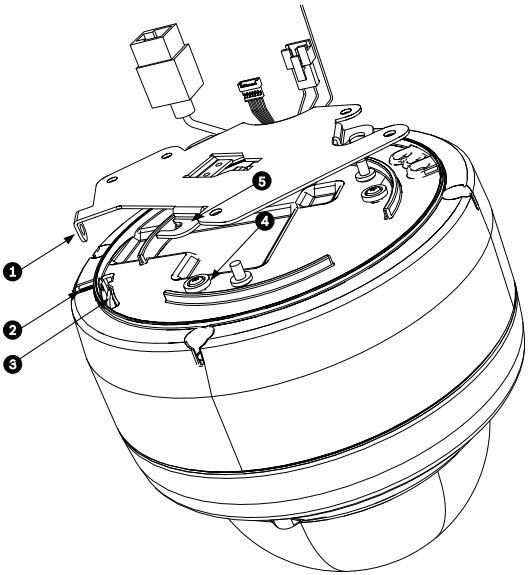


Figure 4.11 Tab/Slot Alignment Detail

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)

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

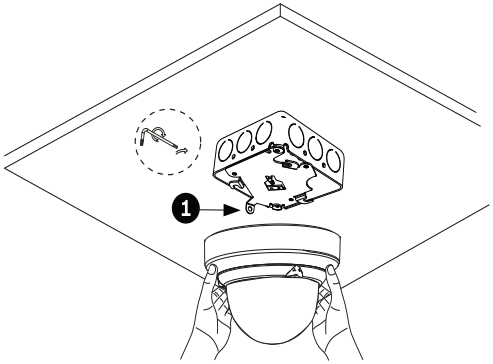


Figure 4.12 Attach Dome to Mounting Plate

1	Vertical tab

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

5 Installing a Wall Mount

5.1 Description

This chapter details how to mount the AutoDome Junior to a wall. The AutoDome Junior is also suitable for surface (*Section 4 Installing a Surface Mount, page 23*), recess (*Section 6 Installing a Recessed Mount, page 46*), and pipe mounting (*Section 7 Installing a Pipe Mount, page 66*). For specific directions on mounting the unit, see the manual that came with your mount.

For an outdoor installation you must obtain the gaskets and O-rings supplied with an AutoDome Junior Outdoor Camera to ensure a water-tight environment inside the unit and to maintain an IP Environmental Protection Rating. Refer to *Section 5.1.3 Preparing the Wall Mount for an Outdoor Installation, page 38*, to start an outdoor installation.

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.

5.1.1 Additional Tools Required

- Appropriate straight slot screwdrivers
- No. 2 Phillips screwdriver
- T-10 Torx wrench
- AutoDome Junior Outdoor Camera, required for an outdoor installation

5.1.2 Preparing the Wall Mount for an Indoor or Installation

Use the following instructions to mount to an indoor wall.

1. Determine a secure location for the wall mount (supplied separately).

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

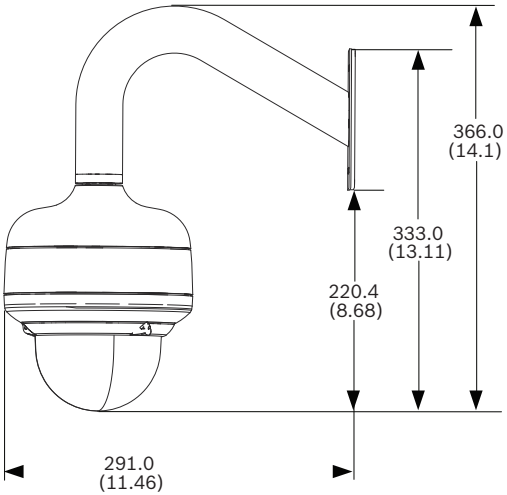


Figure 5.1 Wall Mount Dimensions

2. Fit a user-provided metal single-gang junction box to the wall.

3. Attach a grounded metal conduit to the junction box clamp.

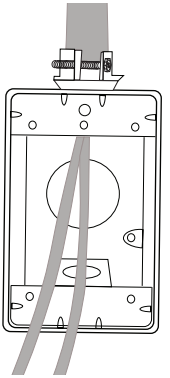


Figure 5.2 Metal Conduit

4. Feed the wires through the conduit.
5. Feed all wires from the metal junction box through the arm.
6. Attach the mounting cap to the arm.
7. Fit the arm to a metal single-gang junction box.

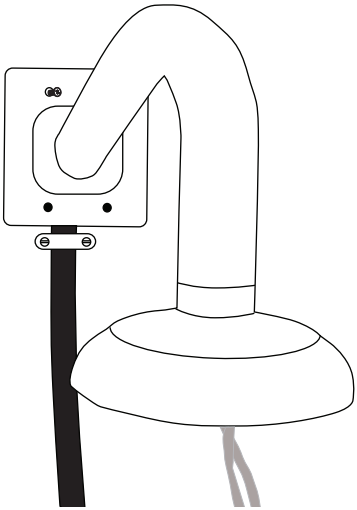


Figure 5.3 Fit to Gang Junction Box

8. Secure with the appropriate user-provided SEMS screws that have an integral lock washer to dig through the paint and ensure an electrical ground connection to the arm housing or ground lug.

NOTICE!
The metal junction box and mounting surface must be capable of supporting a maximum load of 11.33 kg (25 pounds).

9. Skip to *Section 5.1.4 Installing the Camera to the Mounting Plate, page 41*, to continue the installation.

5.1.3 Preparing the Wall Mount for an Outdoor Installation

The following instructions detail the surface preparations and the steps to install the Wall Mount for an outdoor application.

1. Determine a secure location for the wall mount (supplied separately).

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

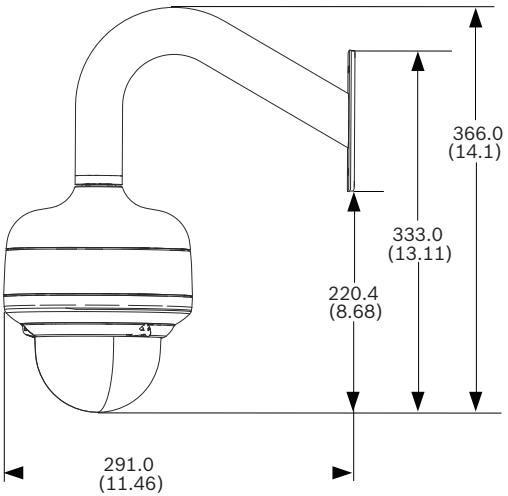
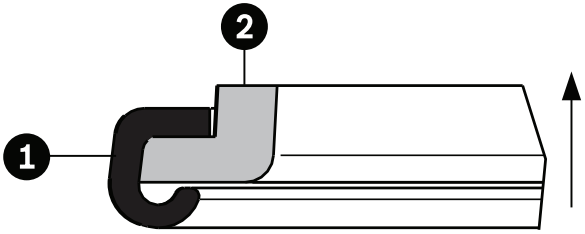


Figure 5.4 Wall Mount Dimensions

2. Use the four (4) holes at the end of the Wall Mount as a template to mark the position where the holes should be drilled to secure the mount.
3. Drill the four (4) holes in the installation location, screws not supplied. Use a minimum screw length of 10 mm (.39 in.).
4. Drill a fifth hole (maximum of 20 mm) in the center of the four-hole pattern used to mount the arm.
5. Ensure that the gasket is attached to the retaining ring. If the gasket and the retaining ring are separate:

a. Locate the flat side of the gasket and the recessed side of the retaining ring.
b. Thread the flat side of the gasket (item 1, below) onto the recessed side of the retaining ring (item 2). The illustration below shows a cross-section of the gasket on the retaining ring.



CAUTION!
You must ensure that the gasket is attached to the retaining ring as shown above to ensure an environmentally tight seal.

6. Attach the mounting cap to the arm. Using the AutoDome Junior Outdoor Installation Kit, apply the following O-ring and the retaining ring to the locations specified below:

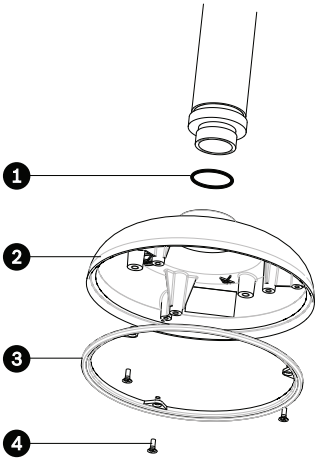


Figure 5.5 O-ring and retaining ring placement for outdoor installation

1	O-ring; 21.82 mm I.D. by Ø3.00 mm
2	Retaining ring with gasket
3	M3 – .5 x 6 Phillips flat head machine screws

   a. Thread the 21.82 mm I.D. by Ø3.00 mm O-ring (item 1, above) onto the lower arm threads.
   b. Secure the retaining ring gasket (item 2, above) to the dome cap with the three (3) M3 – .5 x 6 Phillips flat head machine screws. Ensure that the side of the retaining ring with the counter-sunk screw holes is facing you.
   c. Attach the dome cap to the arm mount.
7. Feed the wires through the hole in the surface, through the wall mount flat gasket (item 1, *Figure 5.6*) and then through the arm.

CAUTION!
All wires for installation applications must be routed through a grounded conduit.

8. Place the Wall Mount flat gasket (item 1, below), between the surface and Wall Mount; then secure the mount using four (4) appropriate user-provided fasteners such as Moly or Toggle bolts. The flat gasket is supplied with the AutoDome Junior Outdoor Camera.

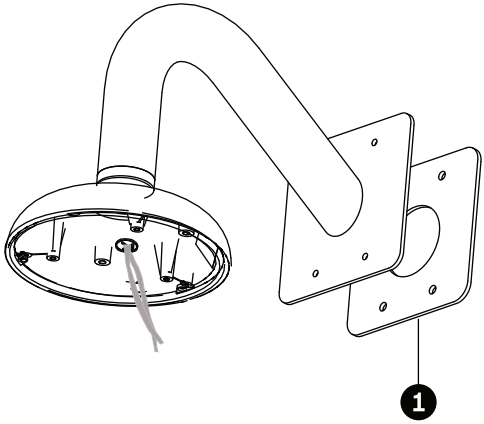


Figure 5.6 Secure arm to wall with flat gasket

9. Skip to *Section 5.1.4 Installing the Camera to the Mounting Plate, page 41*, to continue the installation.

5.1.4 Installing the Camera to the Mounting Plate

To install the camera to the mounting plate, do the following:

1. Attach the mounting plate (supplied with dome) to the dome mounting cap with the three (3) screws supplied.

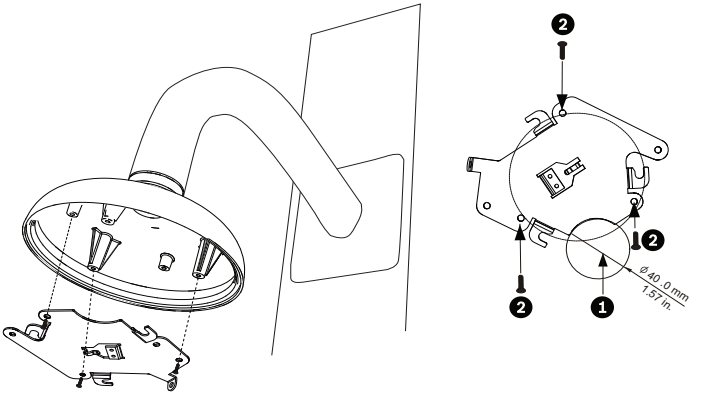


Figure 5.7 Attach Mounting Plate to Dome Cap

1	Cable Hole (40 mm maximum; crescent shape)
2	Mounting Screws for Dome Cap

2. Route wires on side of mounting plate with crescent shaped cut-out (Ref. #2 *Figure 5.7*).
3. Attach grounding wire from unit to the mounting cap.
4. Attach user supplied ground to junction box.
5. Connect the mating connectors with the flying leads to the user supplied wiring (see the *Section 8 Preparing the Wiring, page 77* for wiring information).

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

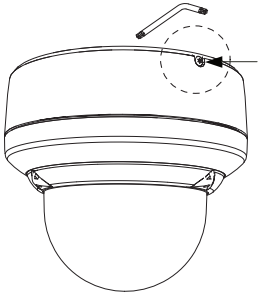


Figure 5.8 Unlock Safety Locking Screw

7. Plug the matching connectors from the camera into the mating connectors from the ceiling.

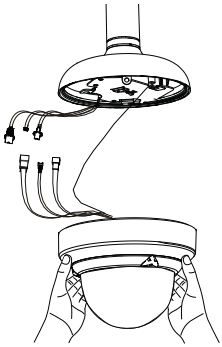


Figure 5.9 Connect Cables

8. Align wires on side of mounting plate with crescent shaped cut-out.

9. 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.

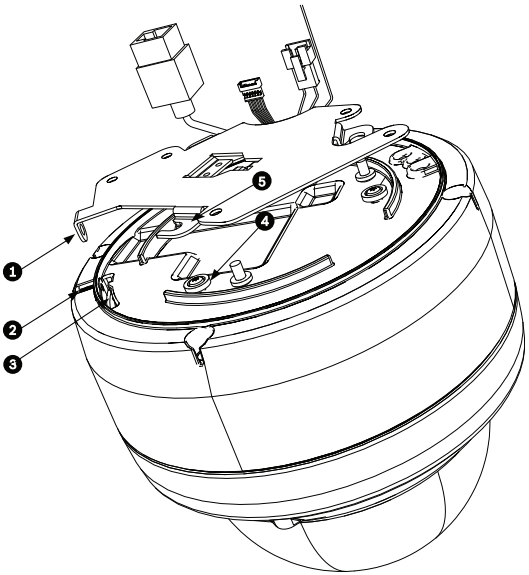


Figure 5.10 Tab/Slot Alignment Detail

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)

10. Rotate the camera approximately 15 degrees in a clockwise direction to lock firmly into place, as shown in the next illustration. Note: Do not loosen brass mounting buttons.

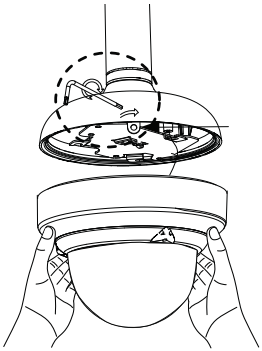


Figure 5.11 Attach Dome to Mounting Plate

11. Secure the safety locking screw with the user supplied locking torx wrench (T-10).
12. Pull excess wire back into the mount tube.
13. Confirm that the housing is electrically grounded.

6 Installing a Recessed Mount

6.1 Description

This chapter details how to install an AutoDome Junior into an indoor ceiling space or into an outdoor soffit. You must use the VJR-A3-IC54 AutoDome Junior IP54-rated In-ceiling mount kit (sold separately) if your indoor application must be plenum rated or rated to the IP54 standard. All outdoor recessed applications must use the VJR-A3-IC54 kit.
The AutoDome Junior is also suitable for surface (*Section 4 Installing a Surface Mount, page 23*), wall (*Section 5 Installing a Wall Mount, page 34*), and pipe mounting (*Section 7 Installing a Pipe Mount, page 66*). 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 Indoor Recessed Installation

NOTICE!

This section provides instructions for installing an AutoDome Junior into an indoor ceiling space that does not require an IP54 or a plenum rating. Refer to *Section 6.3 Outdoor and IP54 Recessed Installation, page 55*, for an indoor installation that requires these certifications.

This section details the steps to install an AutoDome Junior into an indoor ceiling space using the VJR-A3-IC AutoDome Junior HD Indoor In-ceiling Mount.

6.2.1 Additional Requirements

- Appropriate straight slot screwdrivers
- No. 2 Phillips screwdriver
- Appropriate tool for cutting a hole in drywall or ceiling tile (if applicable)
- 4 in. x 4 in. junction box (optional)
- T-10 Torx wrench
- VJR-A3-IC AutoDome Junior In-ceiling mount kit (required accessory, sold separately)
- VJR-A3-SP, support kit for VJR-A3-IC mounting kit, if mounting to a drop ceiling (optional accessory)

6.2.2 Preparing the Ceiling for Installation

To mount to a recess mount, do the following:

1. Determine a secure location for the recessed mount (supplied separately).

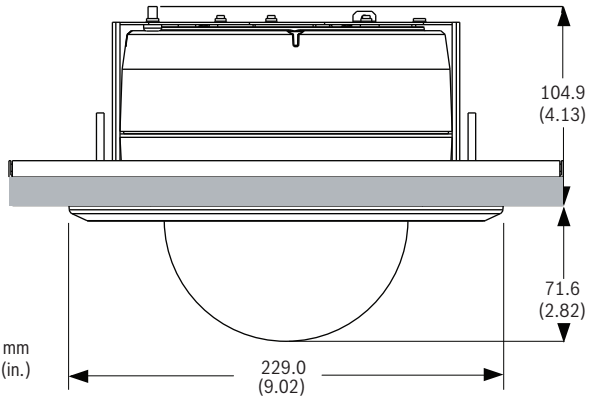
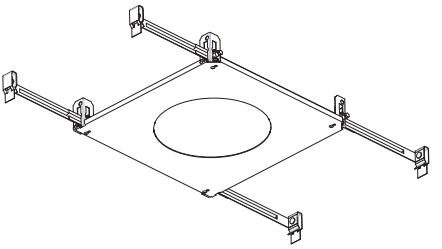


Figure 6.1 Recess Mount Dimensions

2. Drill or cut a 200 mm hole with a tolerance of 2.2 mm (7.9 in. ± 1/8).
3. Optional: if installing the AutoDome Junior HD to a suspended ceiling tile or any other surface where additional support is required, the VJR-A3-SP mounting kit is recommended (supplied separately).



4. Align holes of mounting plate (supplied with dome) with mounting bracket and attach with screws. Ensure that both the crescent shape of the mounting plate and the crescent shape of the mounting bracket are aligned.

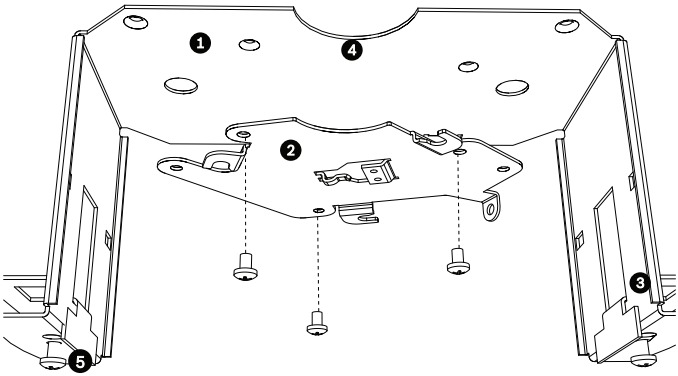


Figure 6.2 Attach Mounting Plate to Mounting Bracket

1	Mounting Bracket
2	Mounting Plate
3	Clamping Plate
4	Crescent Shape
5	Clamp Drive Screw

5. Loosen the two clamp drive screws (item 5, above) so that the clamping plates move freely.

6. Insert mount through the hole in the ceiling. Slide clamps out and down so that the ceiling/drywall is captured in between the clamps and the bracket flange. The ceiling/ drywall must have a maximum thickness of 41.7 mm (1.64 in.) and an minimum thickness of 12.7 mm (0.50 in.).

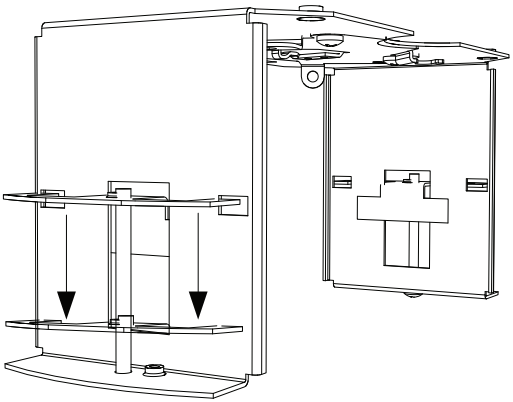


Figure 6.3 Attach Recess Mount to Ceiling

7. Tighten both clamps using the clamp drive screws (installed on the assembly) and a #2 Phillips screwdriver.

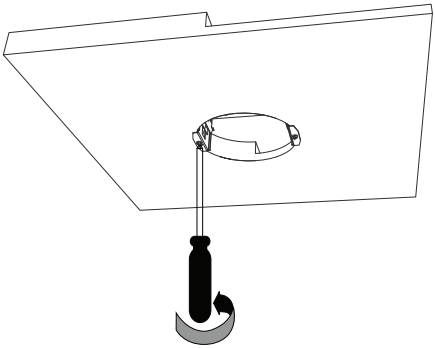


Figure 6.4 Tighten Mounting Clamps

NOTICE!

Over-torquing the ceiling clamps can damage the clamp or ceiling. Only tighten the clamp until it contacts the ceiling and you start to feel some resistance. If using a power screwdriver, set the torque level to the lowest setting.

NOTICE!
If you need to install the VJR-A3-SP Support Bracket, refer to the guide included with the bracket. Once the bracket is installed, continue with the next section.

6.2.3 Installing the Camera to the Mounting Plate

To install the base to a surface or suspended ceiling using the supplied mounting plate, do the following:

1. Loosen the single safety locking screw on the base of the unit using the user-supplied T-10 Torx wrench.

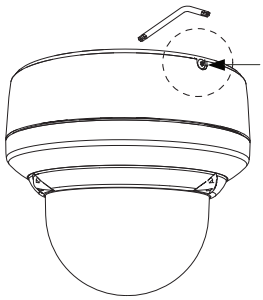


Figure 6.5 Unlock Safety Locking Screw

CAUTION!
All wires for installation applications must be routed through a grounded conduit.

2. Remove the screw from the Earth ground (⏚)on the top of the mounting bracket.
3. Attach a user-supplied ground wire to the Earth ground (⏚) screw hole on the mounting bracket and secure with the screw.
4. Attach the green grounding wire from the unit to the grounded (⏚) screw hole on the mounting bracket using the attached captive screw washer.
5. Route wires on the side of mounting plate with the crescent shaped cut-out.

6. Connect the mating connectors (supplied in the accessory kit) with the flying leads to the user supplied wiring (see the *Section 8 Preparing the Wiring, page 77* for wiring information).
7. Plug the matching connectors from the camera into the mating connectors from the ceiling.

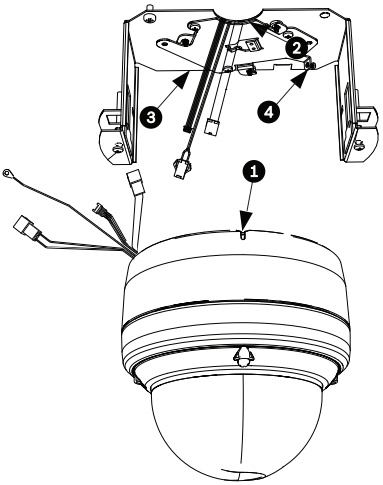


Figure 6.6 Match Connectors

1	Locking Screw
2	Crescent Shape
3	Mounting Plate
4	Vertical Tab

8. 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.

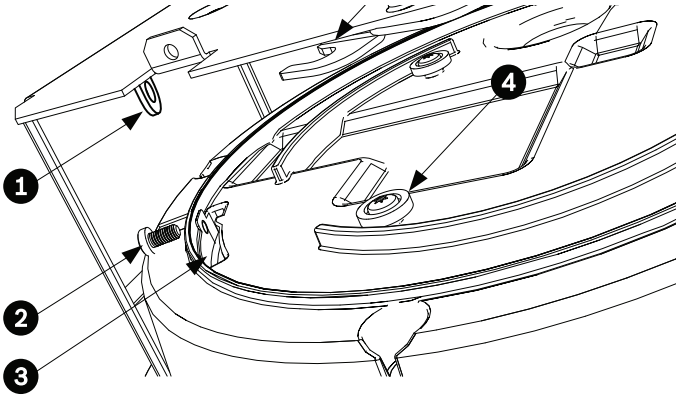


Figure 6.7 Tab/Slot Alignment Detail

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)

9. Rotate the camera approximately 15 degrees in the clockwise direction. Then, lock firmly into place, as shown in the next illustration.

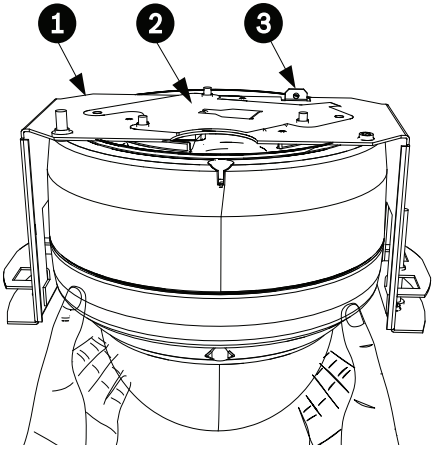


Figure 6.8 Attach Dome to Mounting Plate

1	Recess Mounting Bracket
2	Mounting Plate
3	Mounting Bracket Tether Point

10. Ensure unit is centered.

NOTICE!
The recessed mounting bracket is provided with an additional safety tether point. To prevent injury, attach a safety wire from a secure anchor point above the ceiling to this tether point.

11. Align trim ring so the four alignment posts (item 1, below) align with the recesses in the camera housing (item 2) and so the two safety screws align with the off center holes (item 3) on the locking clamps.
    Note: The two (2) sets of raised stand-off tabs (item 4) on each side of the trim ring align with the locking clamps.

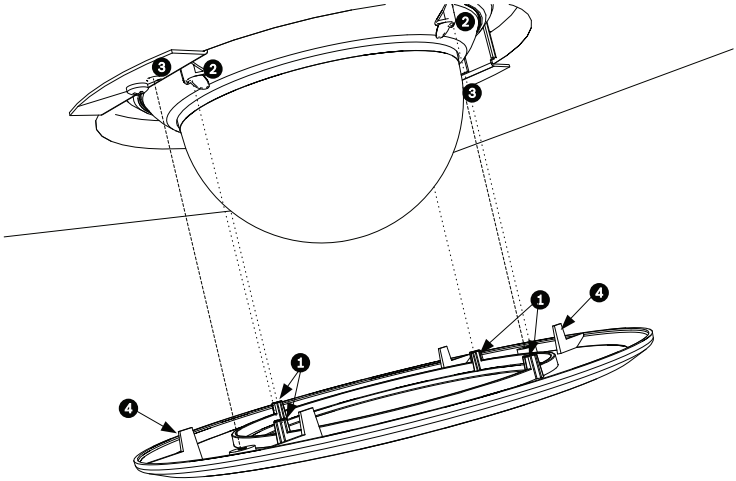


Figure 6.9 Align Trim Ring

1	Alignment Tabs (four)
2	Align tabs to the recessed areas on the housing
3	Align safety locking screws to these connections
4	Stand-off Tabs (two)

12. Snap trim ring into place. Ensure snaps are secure by attempting to lightly turn unit. Note: Unit should not turn.
13. Use a T-10 Torx wrench to secure the trim ring's two (2) safety locking screws to the mounting bracket.

6.3 Outdoor and IP54 Recessed Installation

This section details the steps to install an AutoDome Junior into an indoor ceiling space that requires IP54 or a plenum rating or into an outdoor soffit. This installation requires the use of the VJR-A3-IC54 AutoDome Junior IP54-rated In-ceiling mount kit (sold separately).

CAUTION!

The combined weight of the camera and ceiling mount is approximately 3.76 kg (7 lb). Check that the ceiling or soffit material is strong enough to support this weight.
The ceiling must have a maximum thickness of 41.7 mm (1.64 in.) and a minimum thickness of 12.7 mm (0.50 in.).

Mounting Assembly

The following illustrations shows the components of the recess mount:

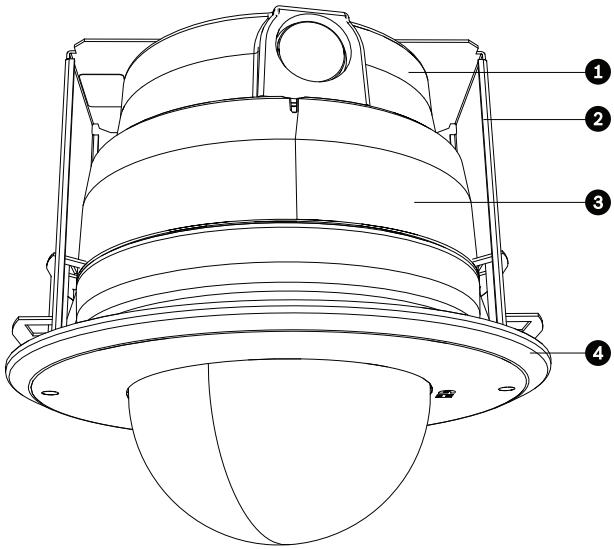


Figure 6.10 AutoDome Junior with IP54-rated In-ceiling Mount

1	VJR-A3-JW Junction Box
2	Mounting Bracket
3	AutoDome Junior Camera
4	Trim Skirt

6.3.1 Installation Requirements

- Appropriate straight slot screwdrivers
- No. 2 Phillips screwdriver
- Appropriate tool for cutting a hole in drywall, ceiling tile, or other materials used in outdoor soffits (if applicable)
- T-10 Torx wrench
- Retaining ring with gasket
  (supplied with AutoDome Junior camera kit)
- Three (3) M3 – .5 x 6 Phillips flat head machine screws for use with the retaining ring
  (supplied with AutoDome Junior camera kit)
- VJR-A3-IC54 AutoDome Junior IP54-rated In-ceiling mount kit (required accessory, sold separately)
- VJR-A3-SP, support kit for VJR-A3-IC54 mounting kit, if mounting to a drop ceiling (optional accessory)

6.3.2 Preparing the Ceiling for Installation

To mount to a recess mount, do the following:

1. Determine a secure location for the recessed mount.

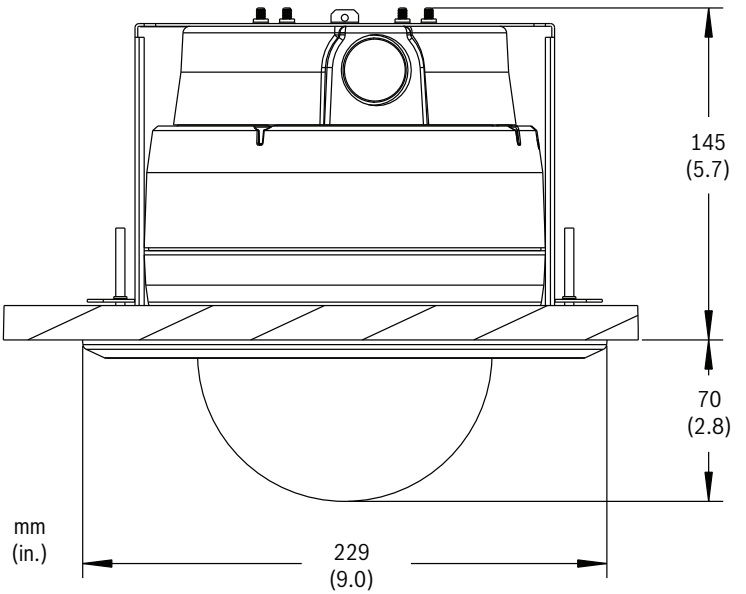
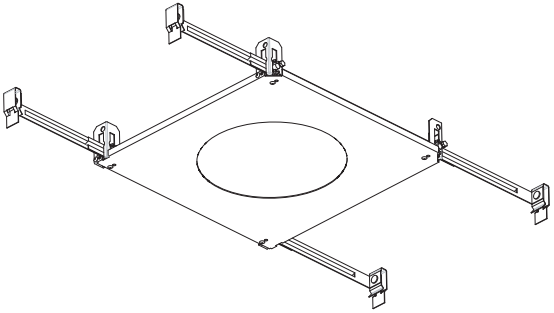
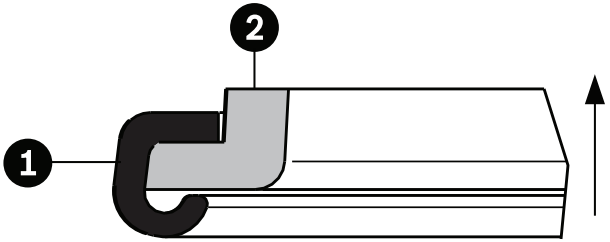


Figure 6.11 Recess Mount Dimensions

2. Drill or cut a 200 mm hole with a tolerance of 2.2 mm (7.9 in. ± 1/8).
3. Optional: if installing the AutoDome Junior to a suspended ceiling tile or any other surface where additional support is required, the VJR-A3-SP mounting kit is recommended (supplied separately).



4. Ensure that the gasket is attached to the retaining ring. If the gasket and the retaining ring are separate:
   a. Locate the flat side of the gasket and the recessed side of the retaining ring.
   b. Thread the flat side of the gasket (item 1, below) onto the recessed side of the retaining ring (item 2). The illustration below shows a cross-section of the gasket on the retaining ring.



CAUTION!
You must ensure that the gasket is attached to the retaining ring as shown above to ensure an environmentally tight seal.

5. Attach the retaining ring with gasket (item 2, below, supplied with the AutoDome Junior camera) to the VJR-A3-JW. Ensure that the side of the retaining ring with the counter-sunk screw holes is facing you.

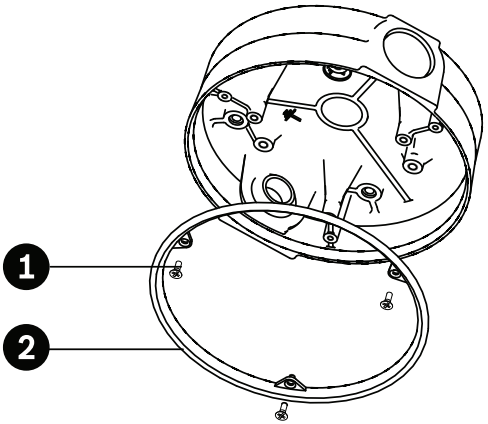


Figure 6.12 O-ring and retaining ring placement for outdoor installation

1	M3 – .5 x 6 Phillips flat head machine screws (supplied with AutoDome Junior Camera)
2	Retaining ring with gasket (supplied with AutoDome Junior Camera)

6. Determine the side of the VJR-A3-JW in which the external wires are to be routed and remove the plug from the knockout.
7. Apply a 1/2-in. (15-mm) NPS fitting to the chosen knockout. Ensure a water-tight fitting to maintain the IP Environmental Protection Rating for the unit.
8. Align the holes of the VJR-A3-JW with the mounting bracket. Note the alignment of the VJR-A3-JW relative to the bracket in *Figure 6.13* below to ensure that the VJR-A3-JW knockouts are not covered by the bracket arms.
9. Thread the four (4) 3.97 mm I.D. by Ø1.78 mm O-rings (item 1, *Figure 6.13*) onto the four (4) M4 x 16 Phillips Pan Head Machine Screws (item 2).

10. Attach the VJR-A3-JW to the mounting bracket using the four (4) M4 x 16 Phillips Pan Head Machine Screws (item 2, below).

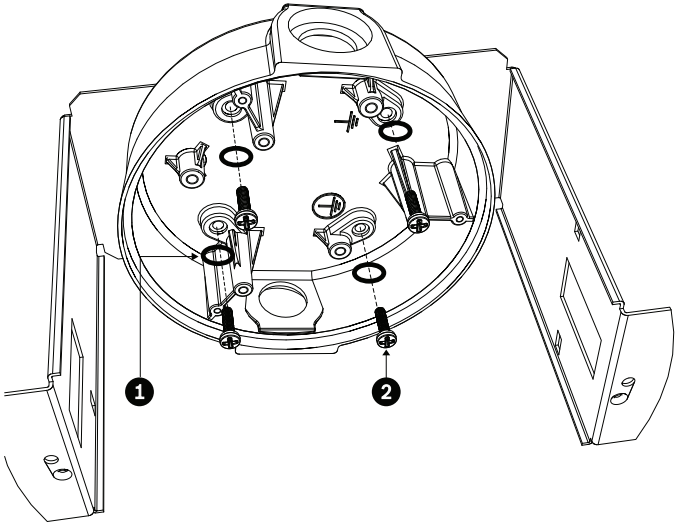


Figure 6.13 Attach VJR-A3-JW to Mounting Bracket

11. Align the holes of mounting plate with the VJR-A3-JW junction box and attach with the three (3) M4–.7 x 8 Phillips Pan Head Machine Screws. Note the alignment of the mounting plate relative to the VJR-A3-JW junction box.

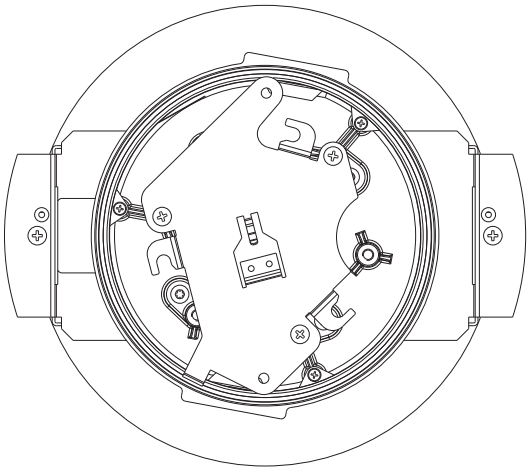


Figure 6.14 Attach Mounting Plate to VJR-A3-JW

NOTICE!
If you need to install the VJR-A3-SP Support Bracket, refer to the guide included with the bracket. Once the bracket is installed, continue with the next section.

12. Loosen the two clamp drive screws (item 1, below) so that the clamping plates (item 2) move freely.

Figure 6.15 Clamp Drive Screws and Plates

13. Insert the bracket through the hole in the ceiling. Slide clamps out and down so that the ceiling is captured in between the clamps and the bracket flange. The ceiling must have a maximum thickness of 41.7 mm (1.64 in.) and a minimum thickness of 12.7 mm (0.50 in.).

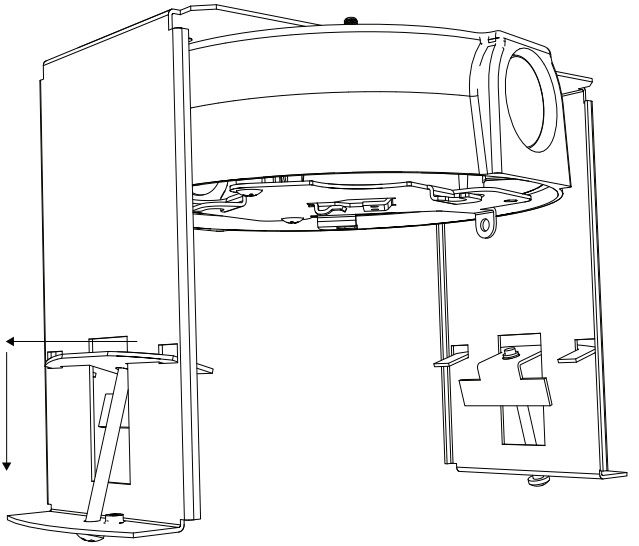


Figure 6.16 Attach Recess Mount to Ceiling

14. Tighten both clamps using the clamp drive screws (installed on the assembly) and a #2 Phillips screwdriver.

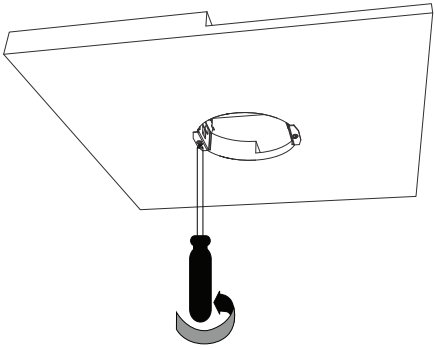


Figure 6.17 Tighten Mounting Clamps

NOTICE!

Over-torquing the ceiling clamps can damage the clamp or ceiling. Only tighten the clamp until it contacts the ceiling and you start to feel some resistance. If using a power screwdriver, set the torque level to the lowest setting.

6.3.3 Installing the Camera to the Mounting Plate

To install the base to a surface or suspended ceiling using the supplied mounting plate, do the following:

1. Loosen the single safety locking screw on the base of the unit using the user-supplied T-10 Torx wrench.

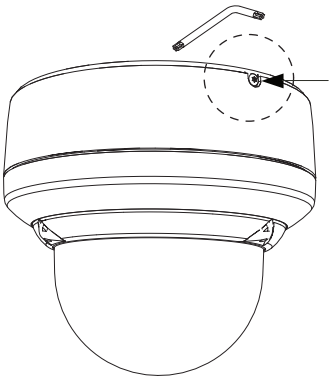


Figure 6.18 Unlock Safety Locking Screw

CAUTION!
All wires for installation applications must be routed through a grounded conduit.

2. Remove the screw from the Earth ground (⏚)on the inside of the VJR-A3-JW.
3. Attach a user-supplied ground wire to the Earth ground (⏚) screw hole on the VJR-A3-JW and secure with the screw.
4. Attach the green grounding wire from the unit to the grounded (⏚) screw hole on the VJR-A3-JW using the attached captive screw washer.
5. Route wires through the knockout on the VJR-A3-JW.
6. Connect the mating connectors (supplied in the VJR AutoDome accessory kit) with the flying leads to the user supplied wiring (see the *AutoDome Junior Installation Manual* for complete wiring information).
7. Plug the matching connectors from the camera into the mating connectors from the ceiling.

8. 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. These brass buttons engage the slotted tabs on the mounting plate.

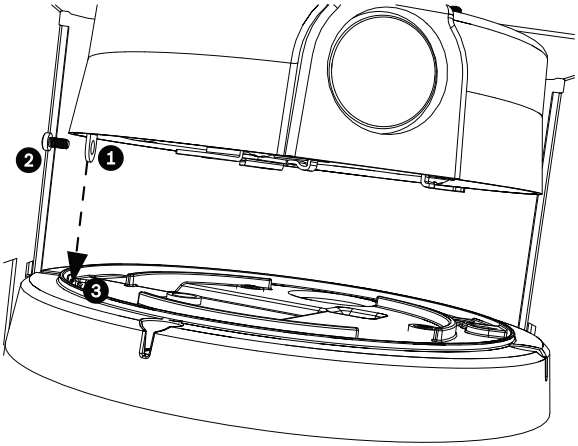


Figure 6.19 Tab/Slot Alignment Detail

1	Vertical Tab (on mounting plate)
2	Locking Screw
3	Recessed Slot (on dome housing)

9. Rotate the camera approximately 15 degrees in the clockwise direction. Then, lock firmly into place, as shown in the next illustration.

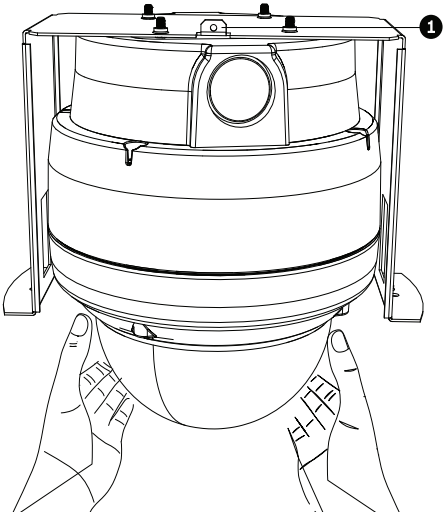


Figure 6.20 Attach Dome to Mounting Plate

10. Ensure unit is centered.

NOTICE!

The recessed mounting bracket is provided with an additional safety tether point (item 1, *Figure 6.20*). To prevent injury, attach a safety wire from a secure anchor point above the ceiling to this tether point.

11. Align trim ring so the four alignment posts (item 1, below) align with the recesses in the camera housing (item 2) and so the two safety screws align with the off center holes (item 3) on the locking clamps.
    Note: The two (2) sets of raised stand-off tabs (item 4) on each side of the trim ring align with the locking clamps.

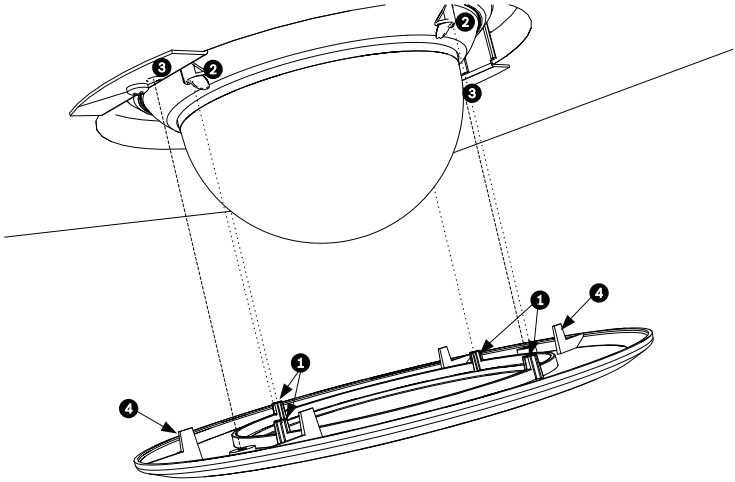


Figure 6.21 Align Trim Ring

1	Alignment Tabs (four)
2	Align tabs to the recessed areas on the housing
3	Align safety locking screws to these connections
4	Stand-off Tabs (two)

12. Snap trim ring into place. Ensure snaps are secure by attempting to lightly turn unit. Note: Unit should not turn.
13. Use a T-10 Torx wrench to secure the trim ring's two (2) safety locking screws to the mounting bracket.

7 Installing a Pipe Mount

7.1 Description

This chapter details how to mount the AutoDome Junior to a pipe. The AutoDome Junior is also suitable for surface (*Section 4 Installing a Surface Mount, page 23*), wall (*Section 5 Installing a Wall Mount, page 34*), and recess mounting (*Section 6 Installing a Recessed Mount, page 46*). For specific directions on mounting the unit, see the manual that came with your mount.

For an outdoor installation you must obtain the gaskets and O-rings supplied with an AutoDome Junior Outdoor Camera to ensure a water-tight environment inside the unit and to maintain an IP Environmental Protection Rating.

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.

7.1.1 Tools/Supplies 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
- Ground Lug (outdoor use only)
- AutoDome Junior Camera, required for an outdoor installation

7.1.2 Preparing the Ceiling for Installation

The following instructions detail the preparation necessary to prepare the surface and the steps to install a pipe mount.

Note: Certain steps contain additional information for outdoor installations.

1. Determine a secure hard surface location for the ceiling pipe mount (supplied separately).

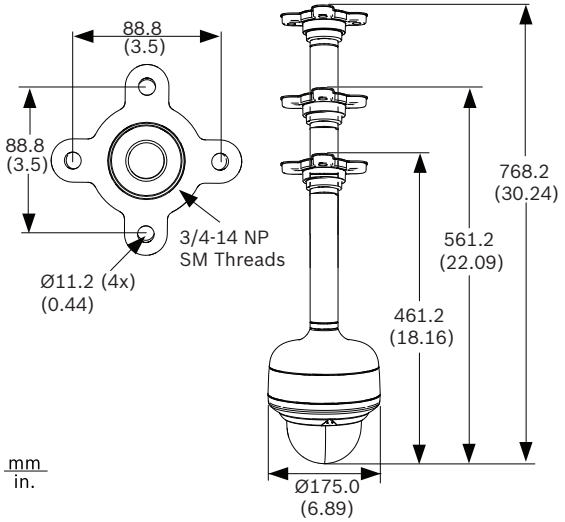


Figure 7.1 Pipe Mount Dimensions

2. Use the four (4) holes in the flange as a template to mark the position where the holes should be drilled to secure the mount.

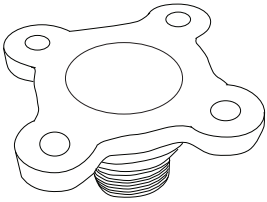


Figure 7.2 Mark Flange Holes

3. Drill the four (4) holes in the installation location, screws not supplied, use a minimum screw length of 10 mm (.39 in.).

CAUTION!
All wires for installation applications must be routed through a grounded conduit.

4. Drill a fifth hole (maximum of 20 mm [.79 in.]) in the center of the four-hole pattern used to mount the flange. Use this hole to feed the wires through the mount.
5. Fit the flange (supplied) to the pipe.
   Note: Select the pipe length of 200 mm (7.9 in.), 300 mm (11.8 in.), or combine the two (2) pipes with the integral coupler for 505 mm (20 in.).
   Outdoor Installation: Apply the following O-rings (supplied with the AutoDome Junior Outdoor Camera) to the locations specified below:

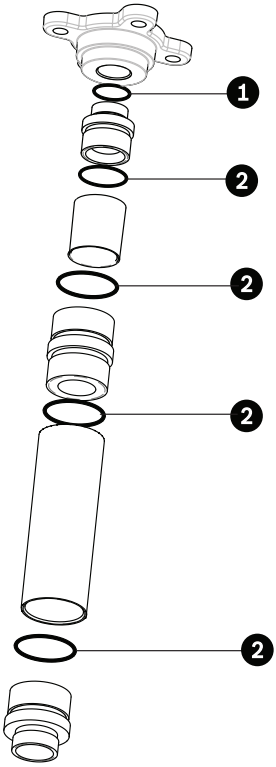


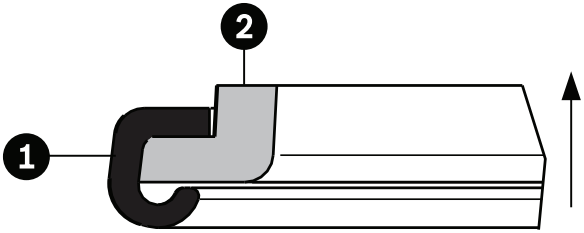
Figure 7.3 Location of O-rings for an outdoor installation

1	O-ring; 21.82 mm I.D. by Ø3.00 mm
2	O-ring; 29.74 mm I.D. by Ø3.00 mm

a. Thread a 21.82 mm I.D. by Ø3.00 mm O-ring (item 1, above) between the flange threads and the upper coupler threads.

b. Thread a 29.74 mm I.D. by Ø3.00 mm O-ring (item 2, above) between any interface between a pipe and a coupler.

6. **Outdoor Installation**: Ensure that the gasket is attached to the retaining ring. If the gasket and the retaining ring are separate:
   a. Locate the flat side of the gasket and the recessed side of the retaining ring.
   b. Thread the flat side of the gasket (item 1, below) onto the recessed side of the retaining ring (item 2). The illustration below shows a cross-section of the gasket on the retaining ring.



CAUTION!
You must ensure that the gasket is attached to the retaining ring as shown above to ensure an environmentally tight seal.

7. Fit the dome cap to the bottom of the pipe.
   Outdoor Installation: Apply the following O-ring and the retaining ring (supplied with the AutoDome Junior Outdoor Camera) to the locations specified below:

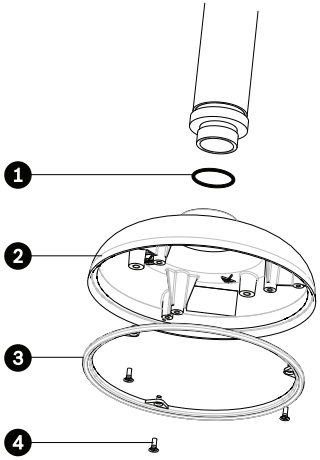


Figure 7.4 O-ring and retaining ring placement for outdoor installation

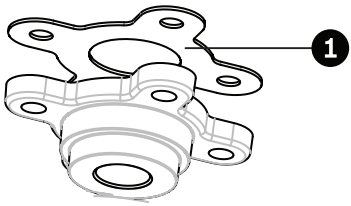
1	O-ring; 21.82 mm I.D. by Ø3.00 mm
2	Dome Cap
3	Retaining ring with gasket
4	M3 – .5 x 6 Phillips flat head machine screws

a. Thread the 21.82 mm I.D. by Ø3.00 mm O-ring (item 1, above) onto the lower pipe threads.

b. Secure the retaining ring gasket (item 2, above) to the dome cap with the three (3) M3 – .5 x 6 Phillips flat head machine screws. Ensure that the side of the retaining ring with the counter-sunk screw holes is facing you.

8. Secure the flange using four (4) appropriate user-provided fasteners such as Moly or Toggle bolts.

Outdoor Installation: Place the flat gasket (item 1, below) between the flange and the surface before securing.



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

9. Pull the wires from the pipe, starting at the flange end.

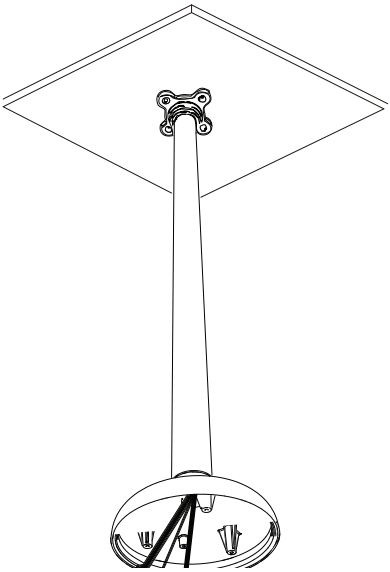


Figure 7.5 Attach Pendant Pipe Mount to Ceiling

CAUTION!
Select a rigid mounting location to prevent excessive vibration to the AutoDome Junior Camera.

10. Attach user supplied ground lug.
11. Align holes of mounting plate (supplied with dome) with dome mounting cap and attach with the three (3) screws supplied.

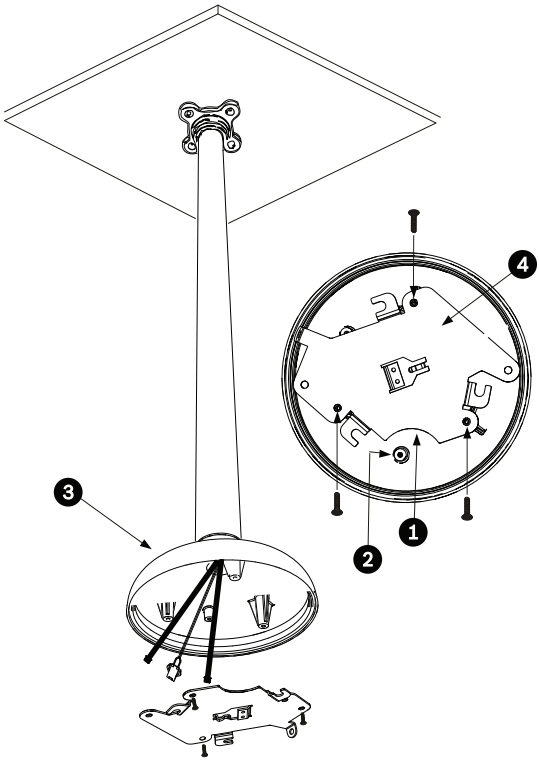


Figure 7.6 Attach Mounting Plate to Dome Cap

1	Crescent Shape
2	Ground Lug
3	Dome Cap
4	Mounting Plate

7.1.3 Installing the Camera to the Mounting Plate

To install the camera to a ceiling mount using the supplied mounting plate, do the following:

1. Route wires on side of mounting plate with crescent shaped cut-out.
2. Attach grounding wire from unit to mounting cap.
3. Attach user supplied ground to junction box.
4. Connect the mating connectors with the flying leads to the user supplied wiring (see the *Section 8 Preparing the Wiring, page 77* for wiring information).
5. Unlock the single safety locking screw on the base of the unit using the user-supplied Allen wrench.

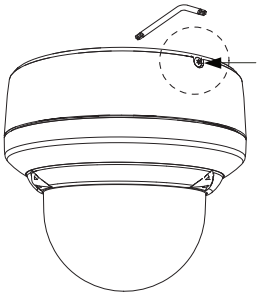


Figure 7.7 Unlock Safety Locking Screw

6. Plug the matching connectors from the camera into the mating connectors from the ceiling.
7. Align wires on side of mounting plate with crescent shaped cut-out.
8. 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 brass mounting buttons.

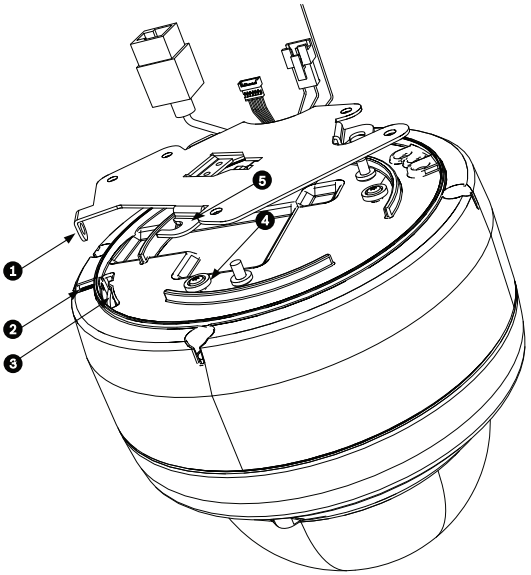


Figure 7.8 Tab/Slot Alignment Detail

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)

9. Rotate the camera approximately 15 degrees in the clockwise direction and lock firmly into place, as shown in the next illustration.

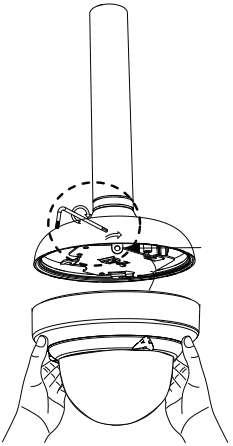


Figure 7.9 Attach Dome to Mounting Plate

10. Secure the safety locking screw with the user supplied locking torx wrench (T-10).
11. Pull excess wire back into the mount tube.
12. Confirm that the housing is electrically grounded.

8 Preparing the Wiring

All AutoDome Junior HD units provide three standard cables: an Ethernet cable, a 24 VAC power input cable for the camera, and an alarm input/output cable. An Outdoor AutoDome Junior HD unit provides an additional 24 VAC power input cable for the heater.

The Ethernet connection carries control and video information and can deliver power to the camera via the Power-over-Ethernet Plus (PoE+) standard. Refer to *Section 9 Audio, Alarms and Relay Connections, page 82*, for alarm connection information.

CAUTION!
Installation should only be performed by qualified service personnel in accordance with the National Electrical Code or applicable local codes.

CAUTION!
All wires for installation applications must be routed through a grounded conduit.

8.1 Power

The recommended power cable is a 2-conductor, 14-18 gage cable, depending on the distance.

	Watts	14 AWG (2.5 mm)	16 AWG (1.5 mm)	18 AWG (1.0 mm)
Camera, All models				
24 VAC to AutoDome Junior HD	17	670 ft (204 m)	421 ft (128 m)	265 ft (81 m)
Heater, Outdoor models only				
24 VAC to Heater	25	455 ft (139 m)	287 ft (67 m)	180 ft (55 m)

Table 8.1 Max. Wire Distance from Power Supply to AutoDome Junior HD

8.2 Connecting the Power

The AutoDome Junior HD is available as an indoor or an outdoor model. Power to the camera in all models is supplied either via a single 24 VAC isolated power connector (red and black wires) or via a Power over Ethernet + (PoE+, IEEE 802.3at, class 4) connection using the existing CAT 5E Ethernet cable. Power to the heater is supplied via a single 24 VAC isolated power connector (white/red and white/black wires).

WARNING!

The indoor or outdoor AutoDome Junior HD camera can accept power from the 24 VAC power input or from the Ethernet input. Ensure that the camera receives power from only one source. Refer to *Section 8.3 Ethernet Connection, page 81*, for more information about connecting Power over Ethernet.

NOTICE!

Use certified / Listed Class 2 power supply transformer only.

8.2.1 Power Connections to Indoor/Outdoor Cameras

WARNING!

The indoor or outdoor AutoDome Junior HD camera can accept power from the 24 VAC power input or from the Ethernet input. Ensure that the camera receives power from only one source. Refer to *Section 8.3 Ethernet Connection, page 81*, for more information about connecting Power over Ethernet.

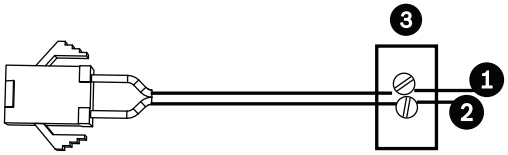


Figure 8.1 Power Cable

Ref. #	Wire	Color
1	24 VAC	Red
2	24 VAC	Black
3	User-supplied Power Supply	n/a

NOTICE!

The camera unit accepts 24 VAC, 1.2 A power only. Do not connect 120 V or 230 V to this camera.

To connect the power to indoor models:

1. Locate the cable assembly with a three (3) pin mating connector on one end and the red and black flying leads on the other end.
2. Connect one lead of the 24 VAC power source to the black wire.
3. Connect the other lead of the 24 VAC power source to the red wire.
4. Connect the green earth ground cable to a suitable grounded conduit.

8.2.2 Power Connections to Heater (all outdoor models)

The heater in an outdoor AutoDome Junior HD unit accepts power only from a single 24 VAC isolated power connector (white/red and white/black wires). The heater does not accept power via Power over Ethernet + (PoE+, IEEE 802.3at, class 4).

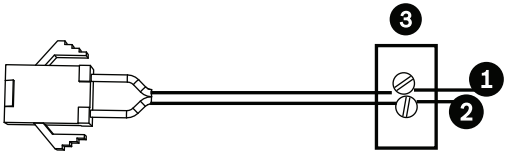


Figure 8.2 Power Cable

Ref. #	Wire	Color
1	24 VAC	White/Red
2	24 VAC	White/Black
3	User-supplied Power Supply	n/a

WARNING!

The heater unit accepts 24 VAC, 2 A power only. Do not connect 120 V or 230 V to this heater.

To connect the power to outdoor unit heaters:

1. Locate the cable assembly with a three (3) pin mating connector on one end and the white/red and white/black flying leads on the other end.
2. Connect one lead of the ground or 24 VAC power source to the white/black wire.
3. Connect one lead of the 24 VAC power source to the white/red wire.

8.3 Ethernet Connection

The AutoDome Junior HD connects to a 10 Base-T/100 Base-TX network either directly or via a switch. Both video and control are transmitted over a standard TCP/IP network using the built-in Web server. In addition, power is supplied to an AutoDome Junior HD camera via the Ethernet cable compliant with the Power-over-Ethernet + (IEEE 802.3at, class 4) standard.

NOTICE!
The heater in an outdoor AutoDome Junior HD unit accepts power only from a 24 VAC power source. The heater cannot be powered via the Power-over-Ethernet + (IEEE 802.3at, class 4) standard.

CAUTION!
Ethernet connections must be made to non-exposed (indoor) networks only.

Cable Type	CAT-5E or CAT 6 Ethernet
Maximum Distance	100 m (328 ft)
Bandwidth	10 Base-T/100 Base-TX
PoE+ (indoor models only)	IEEE 802.3at, class 4 standard
Terminal Connector	RJ45, Female

9 Audio, Alarms and Relay Connections

9.1 Alarm Input

All AutoDome Junior models provide connections for two alarm inputs, one alarm output, and one audio input. Each alarm input can be activated by dry contact devices such as pressure pads, passive infrared detectors, door contacts, and similar devices.

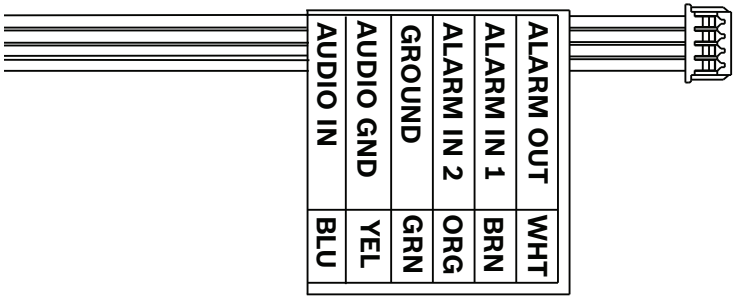


Figure 9.1 Six-wire Audio and Alarm In/Out Cable

Wire Color	Function
White	Alarm Out
Brown	Alarm In 1
Orange	Alarm In 2
Green	Ground
Yellow	Audio In
Blue	Audio Ground

The table below summarizes the size and distance wires.

Wire Size		Maximum Distance	
AWG	mm	feet	meters
22	0.644	500	152.4
18	1.024	800	243.8

Table 9.1 Alarm Wire Guide

You wire alarms either Normally Open (N.O.) or Normally Closed (N.C.), and must program the alarm inputs N.O. (the default) or N.C. through the AutoDome Junior main menu.

9.2 Connecting Alarms (inputs 1 through 2)

You can configure alarms 1 through 2 as Normally Open (N.O.) or Normally Closed (N.C.) alarms.

9.2.1 Connecting a Normally Open Alarm

1. Connect the alarm to the appropriate input (1 through 2) and ground at the AutoDome Junior.

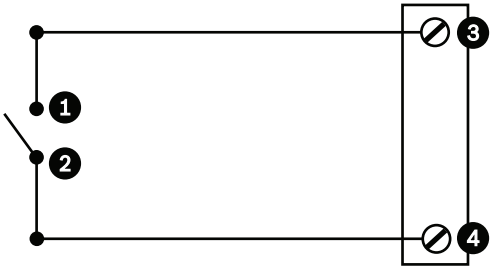


Figure 9.2 N.O. - Normally Open

Ref. #	User Contact	Dome	Color
1	Normally Open	Alarm In 1 or Alarm In 2 (Ref. #3)	Brown IN 1 or Orange IN 2
2	Common	Ground (Ref. #4)	Green

2. From the AutoDome Junior HD Settings page select Interface>Alarm Inputs. Refer to *Section 12 Configuring the AutoDome Junior HD, page 108*, for directions about accessing the Settings page.

AutoDome Junior Programmed N.O.	
Circuit	Alarm Indication
Open	Normal
Closed	Alarm

9.2.2 Connecting a Normally Closed Alarm

1. Connect the alarm to the appropriate input (1 through 2) and ground at the AutoDome Junior.

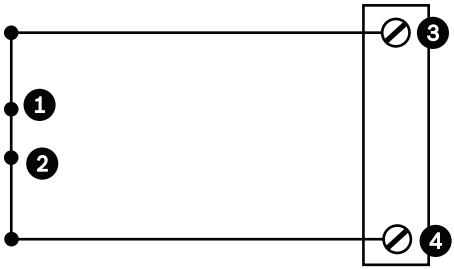


Figure 9.3 N.C. Normally Closed Connections

Ref. #	User Contact	Dome	Color
1	Normally Closed	Alarm In 1 or Alarm In 2 (Ref. #3)	Brown IN 1 or Orange IN 2
2	Common	Ground (Ref. #4)	Green

2. From the AutoDome Junior HD Settings page select Interface>Alarm Inputs. Refer to *Section 12 Configuring the AutoDome Junior HD, page 108*, for directions about accessing the Settings page.

AutoDome Junior Programmed N.C.	
Circuit	Alarm Indication
Open	Alarm
Closed	Normal

9.3 Alarm Outputs

The AutoDome Junior incorporates one (1) alarm output: an open collector output.

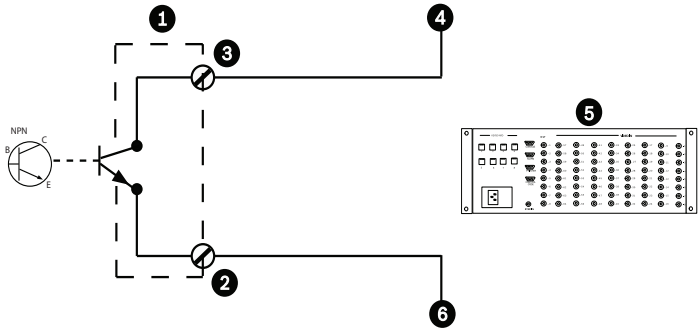


Figure 9.4 N.O. - Normally Open

Ref. #	Description	Color
1	Dome	n/a
2	Normally Open	White
3	Ground	Green
4	Alarm In	n/a
5	User Supplied Device (i.e. Allegiant or DVR)	n/a
6	Ground/Common	n/a

9.3.1 Connecting an Open Collector Output

Output 1 is an open collector. This output must be connected to a positive voltage between 5 and 32 V to complete the circuit, with a maximum voltage rating of 32 VDC @ 150 ma.

1. Connect the appropriate stripped wire to the open collector of the transistor's white wire.
2. Connect the appropriate stripped wire to the ground (GND) connector.

9.4 Audio Cables

The AutoDome Junior is capable of receiving line input audio signals and transmitting it over a network. The audio signal is transmitted one-way and in sync with the video signal.
Refer to *Section 12.5 Basic Mode: Audio, page 114*.

Audio Line Input Specifications

Max. Input Voltage	**5.5 Vpp**
Impedance	9 K Ω
Sample Rate	G.711: 8 bits @ 8 KHzL16: 16 bits @ 16 kHz PCM
Shield	Bare copper braid: 95% coverage
Internal gain level adjustment is available	

Wire Specifications

Wire Type	**Coax[3] (recommended)**
Distance	10 m (33 ft)
Gage	22 AWG
Shield	Bare copper braid: 95% coverage
Center conductor	Stranded bare copper

10 Getting Started

Once the installation is complete, the AutoDome Junior HD can be programmed. A typical system may include a keyboard, matrix switcher, monitor, appropriate wiring connections, and a PC with Internet Explorer. Please refer to the individual product manuals for complete installation and setup instructions for each of the system components.

10.1 Powering On

When you turn the AutoDome Junior power on there is a ten (10) second pause before the dome starts its homing phase. During the homing phase the camera pans left and right and tilts up and down. It also adjusts the lens focus. The entire homing phase lasts approximately 20 seconds and ends with a splash screen. Refer to *Section 11 Using the IP Interface, page 88*.

WARNING!
Before powering the dome on, remove the clear protective plastic sheet on top of the bubble.

11 Using the IP Interface

The AutoDome Junior HD transmits PTZ control commands and images over a TCP/IP network. It also allows users to configure the camera display settings, camera operating settings, and to configure the network parameters.

The HD unit incorporates a network video server in the IP module. The primary function of the server is to encode video and control data for transmission over a TCP/IP network. With its H.264 encoding, it is ideally suited for IP communication and for remote access to digital video recorders and multiplexers. The use of existing networks means that integration with CCTV systems or local networks can be achieved quickly and easily. Video images from a single camera can be simultaneously received on several receivers.

Refer to *Section 16 BVIP Firmware Updates, page 185*, for firmware upgrade instructions.

11.1 Overview of Features

The AutoDome Junior HD module includes the following functionality:

Function	Description
Video Encoding	The camera uses the H.264 compression standards and ensures that the data rate remains low even with high image quality and can also be adapted to local conditions within wide limits.
Streaming	Encodes multiple data streams simultaneously according to individually customized profiles. This feature creates data streams that can serve different purposes. For example, one (1) data stream for local recording and one (1) data stream optimized for transmission over the Local Area Network (LAN).
Multicast	Enables simultaneous, real-time transmission to multiple receivers. The network must implement the UDP and IGMP V2 protocols as a prerequisite for Multicasting.
Configuration	Allows configuration for all camera settings from a Web browser on the local network (Intranet) or on the Internet. You can also update the firmware, load device configurations, store configuration settings, and copy these settings from one camera to another.
Snapshots	Allows you to take and store individual video frames as JPEG images from the Web browser interface.
Record	Allows configuration for the recording options of the IP module. You can record video from the Livepage to a hard drive or you can opt to store up to 8 MB of video on the IP module.

11.2 System Requirements

The AutoDome Junior HD requires specific software and hardware to allow a user to view live images and to configure camera settings over a TCP/IP network. These requirements are:

- A computer with the Microsoft Windows XP, Vista, or Windows 7 operating system, network access, and the Microsoft Internet Explorer Web browser version 9.0 or later, or
- A computer with Microsoft Windows XP, Vista, or Windows 7 operating system, network access, and reception software such as the Bosch Video Client, Bosch Video Management System, or a Bosch recording solution, or
- A compatible hardware decoder from Bosch Security Systems as a receiver and a connected video monitor.

NOTICE!

The Web browser must be configured to enable Cookies to be set from the IP address of the unit.
In Windows Vista, deactivate protected mode on the Security tab under Internet Options.
You can find notes on using Microsoft Internet Explorer in the online Help in Internet Explorer.

If you choose to use a computer running Microsoft Internet Explorer or any of the Bosch software, the computer must conform to the following minimum requirements:

- Operating System: Windows XP (Service Pack 3), Windows Vista or Windows 7 (32 or 64 bits)
- Processor: Intel Pentium Quad Core, 3.0 GHz or comparable
- RAM: 2048 MB
- Free Hard Disk Space: 10 GB
- Video system: NVIDIA GeForce 8600 or higher display with a minimum of 16-bit color
- Network interface: 100/1000-BaseT

- Software:
  - Microsoft Internet Explorer, version 9.0 or higher
  - Bosch Video Client (BVC)
  - DirectX 9.0c
  - MPEG-ActiveX 5.20.0045 or newer
  - Oracle Java Virtual Machine 1.6.0_26

NOTICE!
Ensure the graphics card is set to 16-bit or 32-bit color. If you need further assistance, contact your PC system administrator.

11.3 Connecting the AutoDome Junior HD to the PC

1. Install the AutoDome Junior HD according to the instructions in the *AutoDome Junior HD User Manual*.
2. Connect an Ethernet cable from the AutoDome Junior HD RJ45 connector to a dedicated network switch to bypass the Local Area Network (LAN).
3. Connect the dedicated network switch to the RJ45 connector on the PC (see option A below).

NOTICE!
The AutoDome Junior HD can also be connected directly to a PC using an Ethernet crossover cable with RJ45 connectors (see option B below).

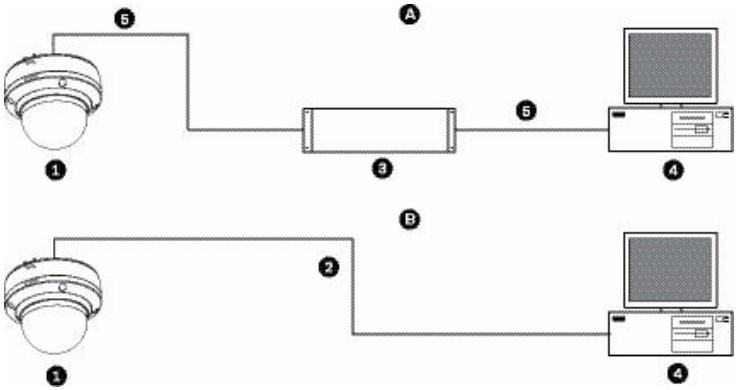


Figure 11.1 AutoDome Junior HD System Configuration

1	AutoDome Junior HD
2	IP Connection
3	Network Switch
4	Computer

NOTICE!

You can also use the Bosch Configuration Manager utility to configure the network settings for an AutoDome Junior IP or HD camera. Go to www.boschsecurity.com to download the Configuration Manager software and Operating Manual.

11.4 Configuring the AutoDome Junior HD Camera

To operate the camera in your network you must assign it a valid network IP address. The default IP address is 192.168.0.1, but you may have to change this address if it conflicts with another device on your network. Refer to *Section 12.3 Basic Mode: Network, page 111* for more information.

To properly configure the camera for your network, you need the following information:

- Unit IP address: An identifier for the camera on a TCP/IP network. For example, 140.10.2.110 is a valid syntax for an IP address.
- Subnet mask: A mask used to determine what subnet an IP address belongs to.
- Gateway IP address: A node on a network that serves as an entrance to another network.
- Port: An endpoint to a logical connection in TCP/IP and UDP networks. The port number identifies the use of the port for use through a firewall connection.

NOTICE!

Ensure that the network parameters of your cameras are available before you begin configuration.

The AutoDome Junior HD defaults are as follows:

– IP Address: 192.168.0.1
– Subnet Mask: 255.255.255.0
– Gateway IP Address: 0.0.0.0

The following sections provide instructions about installing the software necessary to view images over an IP connection, configuring the IP network settings and accessing the AutoDome Junior IP images from a Web browser.

11.4.1 Changing the Network Settings

The AutoDome Junior HD has a default IP address of 192.168.0.1. To change the IP address or any network settings, you can use the Configuration Manager software or the AutoDome Junior IP server.

NOTICE!
Contact your local network administrator for a valid IP address, Subnet Mask, and a Gateway IP Address.

Using the Configuration Manager

Configuration Manager is an optional network utility provided on the Bosch Security Systems Web site. Use the Configuration Manager Manual to make any configuration changes.

NOTICE!
Depending on the PC network security settings, the user may have to add the new IP address to the browser's **trusted sites** list for the AutoDome Junior HD controls to operate.

Using the AutoDome Junior HD Web Server

To configure the camera using the AutoDome Junior HD server, do the following:

1. Set the IP address on the PC to `192.168.0.10` to ensure that the PC and the IP AutoDome are on the same Subnet.
2. Launch Microsoft Internet Explorer and navigate to the following URL: http://192.168.0.1
   The Web browser opens the LivePage for the AutoDome Junior HD; a security warning message is displayed.

3. Check the `Always Trust` box, then click `YES`.
4. Click the Settings link, located at the top of the LivePage.
5. Click the Service Settings link, located in the left pane of the Settings window.
6. Click the Network link to open the Network Settings page.

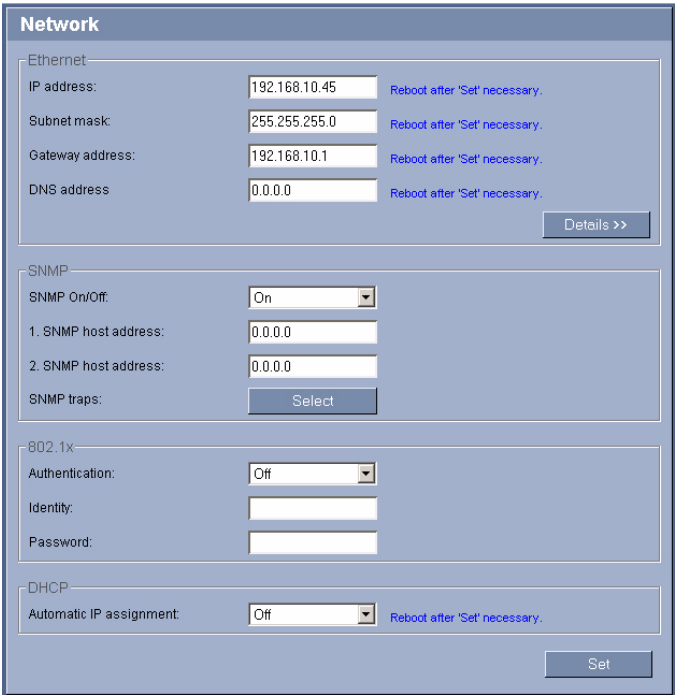


Figure 11.2 Network Settings Page

7. Configure the settings on this page based on the addresses provided by your local network administrator.

NOTICE!
Click the **Help on this page?** link if you need more information.

8. Click the Set button to save the settings.
9. Launch another instance of Microsoft Internet Explorer.
10. Type the original IP address followed by /reset (for example, http://192.168.0.1/reset) in the address bar and click Go to restart the AutoDome Junior IP. Once you restart the AutoDome Junior IP, use the new IP Address to access the LivePage.
11. Disconnect the AutoDome Junior IP Ethernet cable from the dedicated network switch and reconnect the Ethernet cable to the local area network (LAN).

11.5 The Livepage

Once the connection is established, the Web browser displays the **Livepage**. It shows the live video image on the right of the browser window. Depending on the configuration, various text overlays may be visible on the live video image.
Other information may be shown next to live video image on the **Livepage.** The display depends on the settings on the **Livepage Configuration** page (see the AutoDome Junior IP online help).

Display Stamping

Various overlays or “stamps” in the video image provide important status information. The overlays provide the following information:

Decoding error. The frame might show artefacts due to decoding errors. If subsequent frames reference this corrupted frame, they might also show decoding errors as well but won’t be marked with the “decoding error” icon.

Alarm flag set on media item

Communication error. Any kind of communication error is visualized by this icon. Cause can be a connection failure to the storage medium, a protocol violation with a sub component or simply a timeout. An automatic reconnection procedure is started in the background in order to recover from this error.

Gap; no video recorded

Watermarking not valid

Watermarking flag set on media item

Motion flag set on media item

Discovery of storage not completed. If the information about recorded video is not cached, a discovery procedure is started in order find all recorded video. During this time, the “discovery” symbol is shown. While discovery is executed, gaps might be shown in places which the discovery has not yet reached. The gap will automatically be replaced by the true video, as soon as the correct information is available.

Maximum Number of Connections

If you do not connect, the unit may have reached its maximum number of connections. Depending on the unit and network configuration, each AutoDome Junior IP can have up to 25 Web browser connections or up to 50 connections via the Bosch Video Management System.

Protected AutoDome Junior IP

If the AutoDome Junior HD is password protected against unauthorized access, the Web browser displays a corresponding message and prompts you to enter the password when you attempt to access protected areas.

NOTICE!

An AutoDome Junior IP offers the option to limit the extent of access using various authorization levels (see the AutoDome Junior IP online help).

1. Enter the user name and associated password in the corresponding text fields.
2. Click **OK**. If the password is entered correctly, the Web browser displays the page that was called up.

Protected Network

If a RADIUS server is employed in the network for managing access rights (802.1x authentication), the AutoDome Junior HD must be configured accordingly, otherwise no communication is possible.

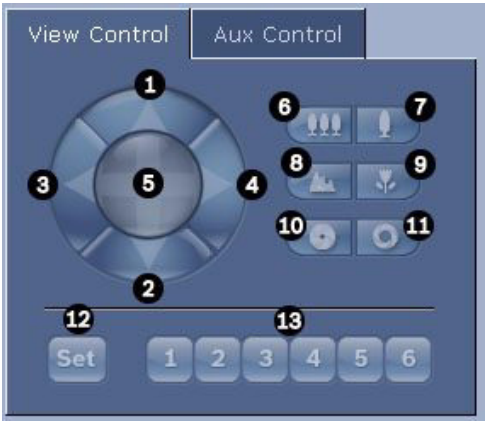
Image Selection

You can view the image of the camera in different displays.

▶ Click one of the tabs **Stream 1**, **Stream 2**, or **M-JPEG** below the video image to toggle between the different displays of the camera image.

View Control

The View Control tab allows you to control camera functions (pan, tilt, zoom, focus, and iris), navigate through on-screen menus and to view preset shots. (Not applicable with the AutoDome Junior HD Fixed camera)



Reference #	Description	Reference #	Description
1	Tilts the camera up	8	Focus far[2]
2	Tilts the camera down	9	Focus near[2]
3	Pans the camera to the left	10	Iris close[2]
4	Pans the camera to the right	11	Iris open[2]
5	Pans and tilts the camera in all directions	12	Sets the PTZ speed for controls 1, 2, 3, 4, 5, 6, and 7
6	Zoom out[1]	13	Moves the camera to pre-set shot numbers 1, 2, 3, 4, 5, and 6
7	Zoom in[1]		
1. This function is also accessible by using the mouse scroll wheel while in the Live video frame.			
2. This button is also used as the "Enter" button to select menu items from the AUX tab.			

1. To control a peripheral, click the appropriate controls.
2. Move the mouse cursor over the video image. Additional options for controlling peripherals are displayed with the mouse cursor.

3. To manually pan throughout the image area, move your cursor over any part of the live video. The image area displays a directional arrow (↙↗↘↑↓→←, then click and hold the right mouse key to pan the camera.

Digital I/O

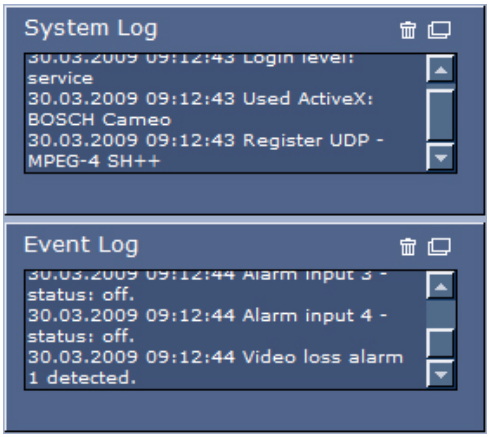
The alarm icon is for information purposes and indicates the status of an alarm input: When an alarm is triggered, the icon lights up blue. The device's configuration determines whether the alarm is displayed, as well as additional details (see the AutoDome Junior HD online help).

Triggering Relay

You can switch connected units using the relays in the AutoDome Junior HD (for example lights or door openers).

▶ To activate this, click the icon for the relay next to the video image. The icon will be red when the relay is activated.

System Log / Event Log



The **System Log** field contains information about the operating status of the AutoDome Junior IP and the connection. You can save these messages automatically in a file (see the AutoDome Junior online help).

Events such as the triggering or end of alarms are shown in the **Event Log** field. You can save these messages automatically in a file (see the AutoDome Junior online help).

1. If you want to delete the entries, click the delete icon in the top right-hand corner of the relevant field.
2. If you want to view a detailed log, click the icon in the top right-hand corner of the relevant field. A new window will open.

11.5.1 Entering a Keyboard Control Command

The Aux Control tab is used to enter keyboard control commands. These commands are composed of a command number plus the appropriate function key (Show Shot, Set Shot Aux On or Aux Off). A valid combination either issues a command to the camera or displays an on-screen menu.

Aux Control Tab

The Aux Control tab is used to enter pre-programmed keyboard control commands.

To access the Aux Control tab, navigate to the Livepage and click the Aux Control tab (see *Figure 11.3* below).

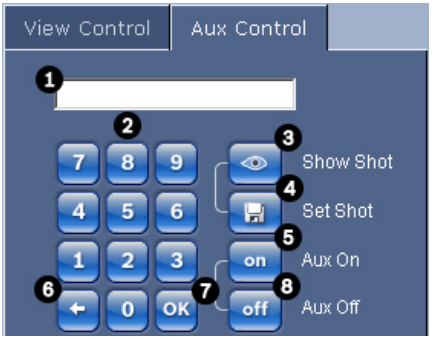


Figure 11.3 Aux Control Tab

1	Command number field
2	Keypad (numbers 0-9)
3	Show a preset shot
4	Set a preset shot
5	Initiates a command
6	Deletes a number in the Command Number field
7	Used to select a menu item
8	Stops a command

To Enter a Keyboard Control Command:

1. Place the cursor in the Command Number field.
2. Click the desired command number via the on-screen keypad.
3. Click either the Aux On or the Aux Off button to initiate or stop the command.
4. If the command initiates a menu, use the Up/Down arrows on the View Control to navigate the menu. Click the Focus or Iris button to select a menu item.

To Set a Preset Shot:

Preset shots (or scenes) are camera positions that are saved in memory for future use.

1. Move your cursor over the live image and wait for the area to display a directional arrow.
2. Click and hold a mouse button to pan to the desired position you want to save.
3. Click any number combination from 1-64 from the on-screen keypad to identify the scene number.
4. Click the Set Shot button. The image area displays a message that indicates which shot number was saved.

To View a Preset Shot:

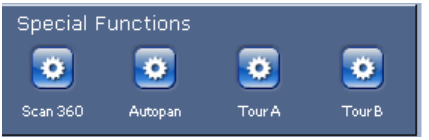
1. Click the number of the scene you want to view using the on-screen keypad.
2. Click the Show Shot button.

NOTICE!

For more information about the AutoDome Junior HD settings and controls, click the **Help on this page?** link to open the AutoDome Junior online help.

11.5.2 Using Special Functions

The AutoDome offers several special command buttons on the Livepage.



Scan 360

Click this button to start a continuous 360° pan. To stop the continuos pan, click a directional control in the View Control tab.

Autopan

Click this button to pan the AutoDome between user-defined limits. To set the left and right pan limits, refer to *Section 12.22 PTZ Settings, page 137*, so set the Autopan limits. To stop the continuos pan, click a directional control in the View Control tab.

Tour A / Tour B

Click one of these buttons to start the playback of a recorded (guard) tour. A Recorded Tour saves all manual camera movements made during the recording, including its rate of pan, tilt and zoom speeds and other lens setting changes. Refer to *Section 12.22 PTZ Settings, page 137*, to program a recorded tour. To stop a tour, click a directional control in the View Control tab.

11.6 Commissioning the AutoDome Junior Fixed Camera

The remote commissioning feature simplifies installation by allowing operators to position and zoom the camera via a remote head-end unit.

This section provides instructions for setting the position and the zoom level for an AutoDome Junior HD Fixed camera (VJR-F801 Series).

Using the Built-in Web Server:

1. Launch Microsoft Internet Explorer and navigate to the IP Address for the AutoDome Junior HD Fixed camera.
   The Web browser opens the Livepage.
2. Type the password for the **Service** level user.
3. Click the **SETTINGS** link in the upper section of the window.
   The Web browser opens a new page with the configuration menu.
4. Click the **Advanced** Link; then click the **Camera** link, located in the left pane of the Settings window.
5. Click the **Installer Menu**, located under the Camera link.
6. Click the **Open** button to the right of View Control to open the View Control window.
   Note: The View Control window is disabled 15 minutes after you open the window. If the View Control window is disabled, you must close the window then re-open to resume setting the camera position and zoom level.
7. Use the View Control arrow keys and the zoom keys to establish the desired view.
   Note: The AutoDome Junior HD fixed camera pans, tilts, and zooms at a much slower rate compared to a Pan/Tilt/Zoom dome camera.
8. Close the View Control window to set the camera's position and the zoom level.
9. Click the **LIVEPAGE** link, in the upper section of the window.
10. To reset the position and zoom level, repeat these steps.

11.7 Saving Snapshots

You can save individual images from the video sequence currently shown on the **Livepage** in JPEG format on your computer's hard drive. The icon for recording single images is only visible if the unit is configured to enable this process.

▶ Click the icon. The storage location depends on the configuration of the AutoDome Junior HD.

11.8 Recording Video Sequences

You can save sections of the video sequence currently shown on the **Livepage** on your computer's hard drive. The icon for recording video sequences is only visible if the unit is configured to enable this process.

1. Click the icon to start recording. The storage location depends on the configuration of the AutoDome Junior HD. A red dot in the icon indicates that recording is in progress.

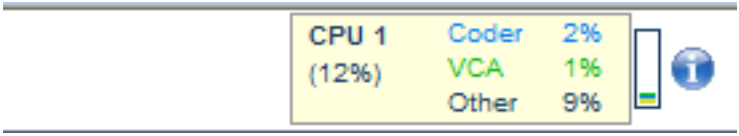
2. Click the icon again to stop recording.
3. To change the storage location for the recorded video, navigate to the Livepage settings on the Settings page.

NOTICE!
You can play back saved video sequences using the Player from Bosch Security Systems, which can be installed from the product CD supplied.

Image Resolution
Sequences are saved at the resolution that has been preset in the configuration for the encoder (see *Section 12.3 Basic Mode: Network, page 111*).

11.9 Processor Load

If the AutoDome Junior IP is accessed via the Web browser, you will see the processor load indicator in the top left of the window next to the manufacturer's logo.



You can obtain additional information to help when you troubleshoot or fine-tune the unit. The values indicate the proportions of the individual functions on the encoder load, shown as percentages.

▶ Move the cursor over the graphic indicator. Some additional numerical values are also displayed.

11.10 The PLAYBACK Page

The RECORDINGS page for playing back recorded video sequences can be accessed from the **LIVEPAGE** and from the **SETTINGS** menu.

The **PLAYBACK** link is only visible if a storage medium has been selected.

▶ Click the **PLAYBACK** link in the navigation bar in the upper section of the window. The playback page appears.

Selecting Recordings

All sequences that are saved are displayed in the list. A running number (track) is assigned to each sequence. Start time and stop time, recording duration, number of alarms, and recording type are displayed.

1. Click a list entry. The playback for the selected sequence starts immediately in the video window.
2. Use the arrow buttons below the list to browse the list.
3. Select the number of entries that are displayed simultaneously.

Controlling a Playback

You will see a time bar below the video image for quick orientation. A green arrow above the bar indicates the position of the image currently being played back within the sequence. The time bar offers various options for navigation.
Red bars indicate the points in time where alarms were triggered. Drag the green arrow to navigate to these points quickly.

1. You can change the time interval by clicking the zoom keys (magnifying glass icons). The display can span a range from two months to a few seconds.
2. Drag the green arrow to the point in time at which playback should begin. The date and time display below the bar provides orientation to the second.

Buttons

You can control playback by means of the buttons below the video image. The buttons have the following functions:

Start or pause playback

Leap to the start of the active video sequence or to the previous sequence

Leap to the start of the next video sequence

Slide Control

You can use the slide control to control playback speed.

Bookmarks

In addition, you can set markers in the sequences, so-called bookmarks, and leap directly to these. These bookmarks are indicated as small yellow arrows above the time interval. Use the bookmarks as follows:

Jump to the previous bookmark

Set bookmark

Jump to the following bookmark

NOTICE!

Bookmarks are only valid while you are in the PLAYBACK page; they are not saved with the sequences. As soon as you leave the page all bookmarks are deleted.

12 Configuring the AutoDome Junior HD

The **SETTINGS** page provides access to the configuration menu, which contains all the unit's parameters arranged in groups. You can view the current settings by opening one of the configuration screens. You can change the settings by entering new values or by selecting a predefined value from a list field. There are two options for configuring the unit or checking the current settings:

– Basic mode
– Advanced mode

In **Basic Mode** the most important parameters are arranged in seven groups. This allows you to change the basic settings with just a few entries and then put the device into operation.
Advanced Mode is recommended for expert users or system support personnel. You can access all unit parameters in this mode. Settings that affect the fundamental functionality of the unit (such as firmware updates) can only be altered in the advanced mode.
All parameter groups are described in this chapter in the order in which they are listed in the configuration menu, from the top of the screen to the bottom.

CAUTION!
The settings in the advanced mode should only be processed or modified by expert users or system support personnel.

All settings are backed up in the AutoDome Junior HD memory so they are not lost even if the power fails.

Starting Configuration

▶ Click the **SETTINGS** link in the upper section of the window. The Web browser opens a new page with the configuration menu.

Navigation

1. Click one of the menu items in the left window margin. The corresponding submenu is displayed.

2. Click one of the entries in the submenu. The Web browser opens the corresponding page.

Making Changes

Each configuration screen shows the current settings. You can change the settings by entering new values or by selecting a predefined value from a list field.

▶ After each change, click **Set** to save the change.

CAUTION!

Save each change with the associated **Set** button.
Clicking the **Set** button saves the settings only in the current field. Changes in any other fields are ignored.

12.1 Basic Mode: Device Access

Camera name

You can give the AutoDome Junior HD a name to make it easier to identify. The name makes the task of administering multiple units in larger video monitoring systems easier, for example using the Bosch Video Management System programs.
The device name is used for the remote identification of a unit, in the event of an alarm for example. For this reason, enter a name that makes it as easy as possible to quickly identify the location.

CAUTION!

Do not use any special characters, for example **&**, in the name. Special characters are not supported by the system's internal recording management and may therefore result in the Player or Archive Player being unable to play back the recording.

Password

An AutoDome Junior HD is generally protected by a password to prevent unauthorized access to the unit. You can use different authorization levels to limit access.
The AutoDome Junior HD operates with three authorization levels: **service**, **user** and **live**.

The highest authorization level is **service**. After entering the correct password, you can access all the functions of the AutoDome Junior HD and change all configuration settings.
With the **user** authorization level, you can operate the unit and also control cameras, for example, but you cannot change the configuration.
The lowest authorization level is **live**. It can only be used to view the live video image and switch between the different live image displays.
You can define and change a password for each authorization level if you are logged in as **service** or if the unit is not password protected.
Enter the password for the appropriate authorization level here. The maximum text length is 19characters.

NOTICE!

Proper password protection is only guaranteed when all higher authorization levels are also protected with a password. If a **live** password is assigned, for example, a **service** and a **user** password must also be set. When assigning passwords, you should therefore always start from the highest authorization level, **service**, and use different passwords.

Confirm password

In each case, enter the new password a second time to eliminate typing mistakes.

NOTICE!

A new password is only saved when you click the **Set** button. You should therefore click the **Set** button immediately after entering and confirming a password.

12.2 Basic Mode: Date/Time

Device date/Device time/Device time zone

If there are multiple devices operating in your system or network, it is important to synchronize their internal clocks. For example, it is only possible to identify and correctly evaluate simultaneous recordings when all units are operating on the same time. If necessary, you can synchronize the unit with your computer's system settings.

▶ Click the **Sync to PC** button to copy your computer's system time to the AutoDome Junior HD.

Time server IP address

The AutoDome Junior HD can receive the time signal from a time server using various time server protocols, and then use it to set the internal clock. The unit polls the time signal automatically once every minute.

▶ Enter the IP address of a time server here.

Time server type

Select the protocol that is supported by the selected time server. Preferably, you should select the **SNTP server** as the protocol. This supports a high level of accuracy and is required for special applications and subsequent function extensions. Select **Time server** for a time server that works with the protocol RFC 868.

12.3 Basic Mode: Network

The settings on this page are used to integrate the AutoDome Junior HD into an existing network.

Some changes only take effect after the unit is rebooted. In this case, the **Set** button changes to **Set and Reboot**.

1. Make the desired changes.
2. Click the **Set and Reboot** button. The AutoDome Junior HD is rebooted and the changed settings are activated.

CAUTION!
If you change the IP address, subnet mask or gateway address, the AutoDome Junior HD is only available under the new addresses after the reboot.

DHCP
If a DHCP server is employed in the network for the dynamic assignment of IP addresses, you can activate acceptance of IP addresses automatically assigned to the AutoDome Junior HD. Certain applications (VIDOS, Bosch Video Management System, Archive Player, Configuration Manager) use the IP address for the unique assignment of the unit. If you use these applications, the DHCP server must support the fixed assignment between IP address and MAC address, and must be appropriately set up so that, once an IP address is assigned, it is retained each time the system is rebooted.

IP address
Enter the desired IP address for the AutoDome Junior HD in this field. The IP address must be valid for the network.

Subnet mask
Enter the appropriate subnet mask for the selected IP address here.

Gateway address
If you want the unit to establish a connection to a remote location in a different subnet, enter the IP address of the gateway here. Otherwise leave the box blank (**0.0.0.0**).

12.4 Basic Mode: Encoder

Default profile

You can select a profile for encoding the video signal.
You can use this to adapt the video data transmission to the operating environment (for example network structure, bandwidth, data load).
Pre-programmed profiles are available, each giving priority to different perspectives. When selecting a profile, details are displayed in the list field.

- **HD High high quality / low latency**
  Target bit rate: 5000 kbps
  Maximum bit rate: 10000 kbps
  Encoding interval: 30.00 ips
- **High Resolution 2**
  Target bit rate: 1500 kbps
  Maximum bit rate: 3000 kbps
  Encoding interval: 30.00 ips
- **Low Bandwidth**
  Target bit rate: 700 kbps
  Maximum bit rate: 1500 kbps
  Encoding interval: 30.00 ips
- **DSL**
  Target bit rate: 400 kbps
  Maximum bit rate: 500 kbps
  Encoding interval: 30.00 ips
- **ISDN (2B)**
  Target bit rate: 80 kbps
  Maximum bit rate: 100 kbps
  Encoding interval: 30.00 ips
- **ISDN (1B**)
  Target bit rate: 40 kbps
  Maximum bit rate: 50 kbps
  Encoding interval: 30.00 ips

– **Modem**
  Target bit rate: 20 kbps
  Maximum bit rate: 22 kbps
  Encoding interval: 15.00 ips
– **GSM**
  Target bit rate: 7 kbps
  Maximum bit rate: 8 kbps
  Encoding interval: 7.50 ips

12.5 Basic Mode: Audio

You can set the gain of the audio signals to suit your specific requirements. The current video image is shown in the small window next to the slide controls to help you check the audio source and improve assignments. Your changes are effective immediately.
If you connect via Web browser, you must activate the audio transmission on the **Livepage Functions** page (see *Section 11.5 The Livepage, page 95*). For other connections, the transmission depends on the audio settings of the respective system.

Audio
The audio signals are sent in a separate data stream parallel to the video data, and so increase the network load. The audio data are encoded according to G.711 and require an additional bandwidth of approx. 80 kbps for each connection. If you do not want any audio data to be transmitted, select Off.

Line In
You can set the line input gain. Make sure that the display does not go beyond the green zone during modulation.

12.6 Basic Mode: Recording

You can record the images from the AutoDome Junior HD on various local storage media or on an appropriately configured iSCSI system.
Here you can select a storage medium and immediately start the recording.

Storage medium

1. Select the required storage medium from the list.
2. Click the **Start** button to start the recording immediately.

12.7 Basic Mode: System Overview

The data on this page are for information purposes only and cannot be changed. Keep a record of this information in case technical assistance is required.

NOTICE!
You can select all required text on this page with the mouse and copy it to the clipboard with the [Ctrl]+[C] key combination, for example if you want to send it via e-mail.

12.8 Advanced Mode: General

12.9 Identification

Camera ID

Each AutoDome Junior HD should be assigned a unique identifier that you can enter here as an additional means of identification.

Camera Name

The camera name makes it easier to identify the remote camera location, in the event of an alarm for example. It will be displayed in the video screen if configured to do so. The camera name makes the task of administering cameras in larger video monitoring systems easier, for example using the VIDOS or Bosch Video Management System programs.

Enter a unique, unambiguous name for the camera in this field. You can use both lines for this.

CAUTION!

Do not use any special characters, for example **&**, in the name. Special characters are not supported by the system's internal recording management and may therefore result in the Player or Archive Player being unable to play back the recording.

You can use the second line for entering additional characters; these can be selected from a table.

1. Click the icon next to the second line. A new window with the character map is opened.
2. Click the required character. The character is inserted into the **Result** field.
3. In the character map, click the **<<** and **>>** icons to move between the different pages of the table, or select a page from the list field.
4. Click the **<** icon to the right of the **Result** field to delete the last character, or click the **X** icon to delete all characters.
5. Now click the **OK** button to apply the selected characters to the second line of the **Camera 1** parameters. The window will close.

Initiator extension

You can attach your own text to the initiator name of the AutoDome Junior HD to make the unit easier to identify in large iSCSI systems. This text is added to the initiator name, separated from it by a full stop. You can see the initiator name in the System Overview page.

12.10 Password

An AutoDome Junior HD is generally protected by a password to prevent unauthorized access to the unit. You can use different authorization levels to limit access.

NOTICE!

Proper password protection is only guaranteed when all higher authorization levels are also protected with a password. If a **live** password is assigned, for example, a **service** and a **user** password must also be set. When assigning passwords, you should therefore always start from the highest authorization level, **service**, and use different passwords.

Password

The AutoDome Junior HD operates with three authorization levels: **service**, **user** and **live**.

The highest authorization level is **service**. After entering the correct password, you can access all the functions of the AutoDome Junior HD and change all configuration settings.

With the **user** authorization level, you can operate the unit and also control cameras, for example, but you cannot change the configuration.

The lowest authorization level is **live**. It can only be used to view the live video image and switch between the different live image displays.

You can define and change a password for each authorization level if you are logged in as **service** or if the unit is not password protected.

Enter the password for the appropriate authorization level here. The maximum text length is 19characters.

Confirm password

In each case, enter the new password a second time to eliminate typing mistakes.

NOTICE!
A new password is only saved when you click the **Set** button. You should therefore click the **Set** button immediately after entering and confirming a password.

12.11 Date/Time

Date format
Select your required date format.

Device date/Device time
If there are multiple devices operating in your system or network, it is important to synchronize their internal clocks. For example, it is only possible to identify and correctly evaluate simultaneous recordings when all units are operating on the same time.

1. Enter the current date. Since the unit time is controlled by the internal clock, there is no need to enter the day of the week – it is added automatically.
2. Enter the current time or click the **Sync to PC** button to copy your computer's system time to the AutoDome Junior HD.

Device time zone
Select the time zone in which your system is located.

Daylight saving time
The internal clock can switch automatically between normal and daylight saving time (DST). The unit already contains the data for DST switch-overs up to the year 2018. You can use these data or create alternative time saving data if required.

NOTICE!
If you do not create a table, there will be no automatic switching. When changing and clearing individual entries, remember that two entries are usually related to each other and dependent on one another (switching to summer time and back to normal time).

1. First check whether the correct time zone is selected. If it is not correct, select the appropriate time zone for the system, and click the **Set** button.
2. Click the **Details** button. A new window will open and you will see the empty table.
3. Select the region or the city that is closest to the system's location from the list field below the table.
4. Click the **Generate** button to generate data from the database in the unit and enter it into the table.
5. Make changes by clicking an entry in the table. The entry is selected.
6. Clicking the **Delete** button will remove the entry from the table.
7. Select other values from the list fields below the table to change the entry. Changes are made immediately.
8. If there are empty lines at the bottom of the table, for example after deletions, you can add new data by marking the row and selecting required values from the list fields.
9. Now click the **OK** button to save and activate the table.

Time server IP address

The AutoDome Junior HD can receive the time signal from a time server using various time server protocols, and then use it to set the internal clock. The unit polls the time signal automatically once every minute.
Enter the IP address of a time server here.

Time server type

Select the protocol that is supported by the selected time server. Preferably, you should select the **SNTP server** as the protocol. This supports a high level of accuracy and is required for special applications and subsequent function extensions.
Select **Time server** for a time server that works with the protocol RFC 868.

12.12 Advanced Mode: Web Interface

12.13 Appearance

On this page you can adapt the appearance of the web interface and change the website language to meet your requirements. If necessary, you can replace the manufacturer's logo (top right) and the product name (top left) in the top part of the window with individual graphics.

NOTICE!

You can use either GIF or JPEG images. The file paths must correspond to the access mode (for example **C:\Images\Logo.gif** for access to local files, or **http://www.mycompany.com/images/logo.gif** for access via the Internet/Intranet).

When accessing via the Internet/Intranet, ensure that a connection is always available to display the image. The image file is not stored in the AutoDome Junior HD.

Website language

Select the language for the user interface here.

Company logo

Enter the path to a suitable graphic if you want to replace the manufacturer's logo. The image file can be stored on a local computer, in the local network or at an Internet address.

Device logo

Enter the path to a suitable graphic if you want to replace the product name. The image file can be stored on a local computer, in the local network or at an Internet address.

NOTICE!

If you want to use the original graphics again, simply delete the entries in the **Company logo** and **Device logo** fields.

JPEG interval

You can specify the interval at which the individual images should be generated for the M-JPEG image on the **Livepage**.

12.14 Livepage Functions

On this page you can adapt the**Livepage** functions to your requirements. You can choose from a variety of different options for displaying information and controls.

1. Check the box for the items that are to be made available on the **Livepage**. The selected items are indicated by a check mark.
2. Check whether the required functions are available on the **Livepage**.

Transmit Audio

You can only select this option if audio transmission is actually switched on (see *Section 12.28 Audio, page 141*).The audio signals are sent in a separate data stream parallel to the video data, and so increase the network load. The audio data are encoded according to G.711 and require an additional bandwidth of approx. 80 kbps for each connection.

Lease time (s)

The lease time in seconds determines the time beyond which a different user is authorized to control the camera after no further control signals are received from the current user. After this time interval, the camera is automatically enabled.

Show alarm inputs

The alarm inputs are displayed next to the video image as icons along with their assigned names. If an alarm is active, the corresponding icon changes color.

Show relay outputs

Relay outputs are shown next to the video image as icons, along with their assigned names. If the relay is switched, the icon changes color.

Show VCA trajectories

When video content analysis (VCA) is activated, check this item to show additional information that traces the path of objects.

Show VCA metadata

When video content analysis (VCA) is activated, additional information is displayed in the live video stream. For example, in Motion+ mode, the sensor areas for motion detection are marked.

Show event log

The event messages are displayed along with the date and time in a field next to the video image.

Show system log

The system messages are displayed along with the date and time in a field next to the video image and provide information about establishing and ending connections, for example.

Allow snapshots

Here you can specify whether the icon for saving individual images should be displayed below the live image. Individual images can only be saved if this icon is visible.

Allow local recording

Here you can specify whether the icon for saving video sequences on the local memory should be displayed below the live image. Video sequences can only be saved if this icon is visible.

Path for JPEG and Video files

1. Enter the path for the storage location of individual images and video sequences that you can save from the **Livepage**.
2. If necessary, click **Browse** to find a suitable directory.

12.15 Logging

Save event log

Check this option to save event messages in a text file on your local computer.

You can then view, edit and print this file with any text editor or the standard Office software.

File for event log

1. Enter the path for saving the event log here.
2. If necessary, click **Browse** to find a suitable directory.

Save system log

Check this option to save system messages in a text file on your local computer.

You can then view, edit and print this file with any text editor or the standard Office software.

File for system log

1. Enter the path for saving the system log here.
2. If necessary, click **Browse** to find a suitable directory.

12.16 Installer Menu

Main Frequency

Sets the frequency of the incoming power supply. This setting is made at the factory and should not be changed.

Orientation

Reverses the image 180º (ideal when mounting upside down). Set the orientation to Normal (default) or Inverted.

SC Settings

Click the Default button to restore all cameras settings to their original defaults.

SC Data

Click the default button to clear all preposition, privacy mask, and other user settings.

Reboot device

Performs a reboot of the AutoDome. There is a ten (10) second pause before the dome starts its homing phase. During the homing phase the camera pans left and right and tilts up and down. It also adjusts the lens focus. The entire homing phase lasts approximately 40 seconds.

Factory defaults

Click **Restore all defaults** to restore the factory defaults for the camera. A confirmation screen appears. Allow 5 seconds for the camera to optimize the picture after a mode reset.

View Control

Click the Enable button to access the View Control window. Use the View Control arrow keys and the zoom keys to establish the desired view.

NOTICE!

The View Control window is disabled 15 minutes after you open the window. If the View Control window is disabled, you must close the window then re-open to resume setting the camera position and zoom level.

12.17 Encoder Profile

For the video signal encoding, you can select a code algorithm and you can change the presets for the profiles.
You can adapt the video data transmission to the operating environment (for example network structure, bandwidth, data load). To this end, the AutoDome Junior HD simultaneously generates two data streams (Dual Streaming), which compression settings you can select individually, for example one setting for transmissions to the Internet and one for LAN connections.
Pre-programmed profiles are available, each giving priority to different perspectives.

- **HD High high quality / low latency**
  Target bit rate: 5000 kbps
  Maximum bit rate: 10000 kbps
  Encoding interval: 30.00 ips
- **High Resolution 2**
  Target bit rate: 1500 kbps
  Maximum bit rate: 3000 kbps
  Encoding interval: 30.00 ips
- **Low Bandwidth**
  Target bit rate: 700 kbps
  Maximum bit rate: 1500 kbps
  Encoding interval: 30.00 ips
- **DSL**
  Target bit rate: 400 kbps
  Maximum bit rate: 500 kbps
  Encoding interval: 30.00 ips
- **ISDN (2B)**
  Target bit rate: 80 kbps
  Maximum bit rate: 100 kbps
  Encoding interval: 30.00 ips
- **ISDN (1B)**
  Target bit rate: 40 kbps
  Maximum bit rate: 50 kbps
  Encoding interval: 30.00 ips
- **Modem**
  Target bit rate: 20 kbps
  Maximum bit rate: 22 kbps
  Encoding interval: 15.00 ips
- **GSM**
  Target bit rate: 7 kbps
  Maximum bit rate: 8 kbps
  Encoding interval: 7.50 ips

You can change individual parameter values of a profile and you can also change the name. You can switch between profiles by clicking the appropriate tabs.

CAUTION!

The profiles are rather complex. They include a large number of parameters that interact with one another, so it is generally best to use the default profiles.
Change the profiles only once you are fully familiar with all the configuration options.
In the default setting, Stream 2 is transmitted for alarm connections and automatic connections. Bear this fact in mind when assigning the profile.

NOTICE!

All parameters combine to make up a profile and are dependent on one another. If you enter a setting that is outside the permitted range for a particular parameter, the nearest permitted value will be substituted when the settings are saved.

Profile name

You can enter a new name for the profile here. The name is then displayed in the list of available profiles in the **Profile name** field.

Target data rate

You can limit the data rate for the AutoDome Junior HD to optimize utilization of the bandwidth in your network. The target data rate should be set according to the desired picture quality for typical scenes with no excessive motion.
For complex images or frequent changes of image content due to frequent movements, this limit can be temporarily exceeded up to the value you enter in the **Maximum data rate** field.

Maximum data rate

This maximum data rate is not exceeded under any circumstances. Depending on the video quality settings for the I- and P-frames, this fact can result in individual images being skipped.

The value entered here must be at least 10% higher than the value entered in the **Target data rate** field. If the value entered here is too low, it will automatically be adjusted.

Video resolution

Here you can select the desired resolution for the video image. The following resolutions are available:

- **SD/240p (WQVGA)**
  432×240 pixels
- **SD/480p (WVGA**)
  854 x 480 pixels
- **720p**
  1280×720 pixels
- **1080p**
  1920×1080 pixels

Encoding Interval

The figure selected here determines the interval at which images are encoded and transmitted. The image rate in ips (images per second) is displayed next to the text field.

Use the slide bar to select a frame rate from 30.00 ips to 1 ips.

Expert Settings

Use the expert settings to adapt the I-frame quality and the P-frame quality to specific requirements, if necessary. The setting is based on the H.264 quantization parameter (QP).

GOP Structure

Select the structure you require for the Group of Pictures here. Depending on whether you place greater priority on having the lowest possible delay (IP frames only) or using as little bandwidth possible, you can choose between IP, IBP, and IBBP.

I-frame Distance

This parameter allows you to set the intervals in which the I-frames will be coded. 0 means auto mode, whereby the video server inserts I-frames as necessary. An entry of 1 indicates that I-frames are continuously generated. An entry of 2 indicates that only every second image is an I-frame, and 3 only every third image etc.; the frames in between are coded as P-frames.

I-frame Quality

This setting allows you to adjust the image quality of the I-frames. The basic setting Auto automatically adjusts the quality to the settings for the P-frame video quality. Alternatively, you can use the slide control to set a value between 9and51. The value 9 represents the best image quality with, if necessary, a lower frame refresh rate depending on the settings for the maximum data rate. A value of 51 results in a very high refresh rate and lower image quality.

P-frame Quality

This setting allows you to adjust the maximum image quality of the P-frames. The basic setting Auto automatically adjusts to the optimum combination of movement and image definition (focus). Alternatively, you can use the slide control to set a value between 9and51. The value 9 represents the best image quality with, if necessary, a lower frame refresh rate depending on the settings for the maximum data rate. A value of 51 results in a very high refresh rate and lower image quality.

Default

Click **Default** to return the profile to the factory default values.

12.18 Encoder Streams

Select the property and default profile for each H.264 stream and set the parameters for the M-JPEG stream.
The choices for Stream 1 depend on the resolution setting in the Installer Menu page (*Section 12.16 Installer Menu, page 123*).
For the first H.264 stream you can select from these options:

HD stream options:

– H.264 MP 720p25/30 Fixed
– H.264 MP 720p30/60 Fixed
– H.264 MP 1080p Fixed

SD stream options (use these options if a second H.264 stream is allowed):

– **H.264 BP+ bit-rate-limited**
  Select this setting when using hardware decoders or the Divar XF digital video recorder. The bit rate is limited to 1.2 Mbps.
  CABAC: off
  CAVLC: on
  GOP structure: IP
  I-frame distance: 15
  Deblocking filter: on
– **H.264 MP SD**
  Select this setting when using software decoders, PTZ and for rapid movements in the images.
  CABAC: on
  CAVLC: off
  GOP structure: IP
  I-frame distance: 30
  Deblocking filter: on

To select the stream options:

1. Select the required encoder properties and one of the encoder profiles for each data stream.
2. Click the **Preview** button. The preview screens for both data streams are shown.
3. Click the **1:1 Live View** button below the preview screen to open a new window with the original data stream and to check the image quality and the transmission rate.

Property

Select one of the H.264 standards for each stream.

NOTICE!

If you select H.264 MP 720p30/60 Fixed or H.264 MP 1080p Fixed as the first stream, you can select only Copy of Stream 1 as an option for stream 2.

Default profile

Select one of the following profiles for each stream:

- HD high quality / low latency
- High resolution 2
- Low bandwidth
- DSL
- ISDN (2B)
- ISDN (1B)
- Modem
- GSM

Refer to *Section 12.17 Encoder Profile, page 124*, for more details about each stream.

Preview

Click the **Preview** button to open a small static preview window for each stream. To enlarge the preview and view live video, click the **1:1 Live View** button.

JPEG stream

Select the resolution, frame rate, and image quality parameters for the M-JPEG stream.

- **Resoltuion**: Select either 4CIF/D1 or CIF.
- **Frame rate**: Select one of the following frame rates: 5, 10, 15, 20, 25, or 30 ips.
- **Picture quality**: his setting allows you to adjust the image quality. Use the slide bar to choose a quality between Low and High.

12.19 Privacy Masks

Privacy Masking is used to block out a specific area of a scene from being viewed. Masks can be configured as a gray area with four corners. You may define a total of 24 privacy masks.

NOTICE!

- The AutoDome disables the Privacy Mask feature if the orientation of the camera is set to Inverted. Refer to *Section 12.16 Installer Menu, page 123*, for orientation settings.
- You cannot apply a privacy mask 70° (tilt direction) below the horizon.

To add a privacy mask to a scene:

1. Navigate to the scene in which you want to apply a privacy mask.
   a. Click the View Control link.
   b. Use the PTZ controls to view the scene.
2. Select the privacy mask number to apply to the scene. The preview window displays a gray rectangle in the scene.
3. Click the Enable check box to activate the privacy mask. The privacy mask in the preview window changes to orange to indicate that the mask will appear in the video streams on the Livepage.
4. Select a mask color from the Pattern list box.
5. Place the cursor inside the privacy mask area in the preview window; then click and drag to move the privacy mask.
6. Place the cursor on a corner or on a side of the mask rectangle; then click and drag to expand or shrink the privacy mask area.

NOTICE!

Draw the mask 10% larger than the object to ensure that the mask completely covers the object as the AutoDome zooms in and out.

7. Click Set to save the privacy mask size and position.
   An image window displays the privacy mask.
8. To hide an individual mask, select the mask number and clear the Enable check box.
9. To hide all masks from an image view, click the Hide Masks check box.
   Note: If you choose to hide all masks, you must enable each enable each individual mask to show the mask in the scene.

12.20 Camera Settings

White Balance

Adjusts the color settings to maintain the quality of the white areas of the image.

- **ATW**: allows the camera to continuously adjust color reproduction.
- **Indoor**: white balance tracking for indoor use.
- **Outdoor**: white balance tracking for outdoor use.
- **AWB Hold**: places the ATW on hold and saves the color settings.
- **Extended ATW** (default): allows the camera to constantly adjust for optimal color reproduction.
- **Manual**: Red and Blue gain can be manually set to a desired position.

Red Gain

The red gain adjustment offsets the factory white point alignment (reducing red introduces more cyan).

Blue Gain

The blue gain adjustment offsets the factory white point alignment (reducing blue introduces more yellow). It is only necessary to change the white point offset for special scene conditions.

Gain Control

Adjusts the automatic gain control (AGC). Automatically sets the gain to the lowest possible value needed to maintain a good picture.

- **AGC** (default): electronically brightens dark scenes, which may cause graininess in low light scenes.
- **Fixed**: no enhancement. This setting disables the Max. Gain Level option.

  If you select this option, the AutoDome Junior HD makes the following changes automatically:
  - **Night Mode**: switches to Color
  - **Auto Iris**: switches to Constant

Max. Gain Level

Controls the maximum value the gain can have during AGC operation. To set the maximum gain level, choose from:

- **Normal**
- **Medium**
- **High**

Sharpness

Adjusts the sharpness of the picture. To set the sharpness, type a value between 1 and 15 inclusive. The default setting is 12.

Shutter Mode

- **Off**: turns the Auto SensUP Off.
- **AutoSensUp**: increases camera sensitivity by increasing the integration time on the CCD. This is accomplished by integrating the signal from a number of consecutive video frames to reduce signal noise.

  If you select this option, the AutoDome Junior HD makes the following change automatically:
  - **Auto Iris**: switches to Constant

Shutter

Adjusts the electronic shutter speed (AES). Controls the time period for which light is gathered by the collecting device. The default setting is 1x (60 Hz: 1/30, 50 Hz: 1/25).

Auto SensUp Maximum

Sets the Auto SensUp minimum value for the AutoDome. The Auto SensUp Min. value is the factor by which the sensitivity of the camera is increased. The default setting is 15x.

Backlight Compensation

Optimizes the video level for the selected area of the image. Parts outside this area may be underexposed or overexposed. Select On to optimize the video level for the central area of the image. The default setting is Off.

Stabilization

Turns on video stabilization.

Night Mode

Selects night mode (B/W) to enhance lighting in low light scenes. Select from the following options:

- **Monochrome**: Forces the camera to stay in Nigh Mode and transmit monochrome images.
- **Color**: The camera does not switch to Night Mode regardless of ambient light conditions.
- **Auto**: The camera switches out of Night Mode after the ambient light level reaches a pre-defined threshold.

Night Mode Threshold

Adjusts the level of light at which the camera automatically switches out of night mode (B/W) operation. Select a value between 10 and 55 (in increments of 5), where 10 is earlier and 55 is later.

12.21 Lens Settings

Auto Focus

Continuously adjusts the lens automatically to the correct focus for the sharpest picture.

- **One Push** (default): activates the Auto Focus feature after the camera stops moving. Once focused, Auto Focus is inactive until the camera is moved again.
- **Auto Focus**: Auto Focus is always active.
- **Manual**: Auto Focus is inactive.

Focus Polarity

- **Normal** (default): focus controls operate normally.
- **Reverse**: focus controls are reversed.

Focus Speed

Controls how fast the Auto focus will readjust when the focus becomes blurred. Select from the following options:

- **Super Slow**
- **Slow**
- **Medium**
- **Fast**

Auto Iris

Automatically adjusts the lens to allow the correct illumination of the camera sensor. This type of lens is recommended for use where there are low light or changing light conditions.

- **Constant** (default): camera constantly adjusts to varying light conditions (default).
  If you select this option, the AutoDome Junior HD makes the following changes automatically:
  - **Gain Control**: switches to AGC
  - S**hutter Mode**: switches to Normal
- **Manual**: camera must be manually adjusted to compensate for varying light conditions.

Iris Polarity

Capability to reverse the operation of the iris button on the controller.

- **Normal** (default): iris controls operate normally.
- **Reverse**: iris controls are reversed.

Auto Iris Level

Increases or decreases brightness according to the amount of light. Type a value between 1 and 15, inclusive. The default setting is 8.

Iris Speed

Controls how fast the Iris will adjust the opening according to the illumination of the scene. Type a value between 1 and 10, inclusive. The default setting is 5.

Maximum Zoom Speed

Controls the zoom speed. The default setting is Fast.

Zoom Polarity

Capability to reverse the operation of the zoom button on the controller.

- **Normal** (default): zoom controls operate normally.
- **Reverse**: zoom controls are reversed.

Digital Zoom

Digital zoom is a method of decreasing (narrowing) the apparent angle of view of a digital video image. It is accomplished electronically, without any adjustment of the camera's optics, and no optical resolution is gained in the process. Select Off to disable or On to enable this feature. The default setting is On.

12.22 PTZ Settings

Auto Pan Speed
Continuously pans the camera at a speed between right and left limit settings. Type a value between 1 and 60 (expressed in degrees), inclusive. The default setting is 30.

Inactivity
Selects the time period the dome must be not controlled until the inactivity event will be executed.

- **Off** (default): camera remains on a current scene indefinitely.
- **Scene 1**: camera returns to Preset 1.
- **Previous Aux**: camera returns to the previous activity.

Inactivity Period
Determines the behavior of the dome when the control for dome is inactive. Select a time period from the pull-down list (3 sec. - 10 min.). The default setting is 2 minutes.

Auto Pivot
The Auto Pivot tilts the camera through the vertical position as the camera is rotated to maintain the correct orientation of the image. Set the Auto Pivot to On (default) to automatically rotate the camera 180º when following a subject traveling directly beneath the camera. To disable this feature, click Off.

Freeze Frame
Select On (default) to freeze the image while the AutoDome moves to a predetermined scene position.

Autopan Left Limit
Sets the left Auto Pan limit of the camera. Use the preview window to move the camera to the left pan limit and click the button. The camera will not move past this limit when in Auto Pan Between Limits mode (AUX 2 ON).

Autopan Right Limit
Sets the right Auto Pan limit of the camera. Use the preview window to move the camera to the right pan limit and click the

button. The camera will not move past this limit when in Auto Pan Between Limits mode (AUX 2 ON).

Tilt Up Limit
Sets the upper tilt limit of the camera.

Tilt Limits
Click the Reset button to clear the upper tilt limit.

Tour A / Tour B
Starts and stops the recording of a recorded (guard) tour. The AutoDome can make up to two (2) recorded tours. A Recorded Tour saves all manual camera movements made during the recording, including its rate of pan, tilt and zoom speeds and other lens setting changes.
Note: You can save a total of 15 minutes of recorded actions between the two tours.
To record a tour:

1. Click the Start Recording button. The system prompts you to overwrite the existing tour.
2. Click Yes to overwrite the existing tour movements.
3. Click the View Control link, under the image cameo, to access the directional and zoom controls.
4. Use the View Control dialog box to make the necessary camera movements.
5. Click the Stop Recording button to save all actions.

12.23 Diagnostics

Accesses the Built-in Self Test (BIST). Click the BIST button to display the number of times the AutoDome Junior HD:

- performed homing event (AutoDome Junior HD PTZ only).
- failed to home properly (AutoDome Junior HD PTZ only).
- restarted.
- lost video.

12.24 Preposition and Tours

The AutoDome Junior HD can store up to 99 preset scenes and this section allows you to define the individual scenes and a preposition tour comprised of the defined scenes.
You define individual preposition scenes, then use these scenes to define the preposition tour. The tour starts from the lowest scene number in the tour and progresses sequentially to the highest scene number in the tour. The tour displays each scene for a specified dwell time before advancing to the next scene. By default, all scenes are part of the preposition tour unless removed.

To define and edit an individual scene:

1. Navigate to the scene that you want to define as a preposition.
   a. Click the View Control link.
   b. Use the PTZ controls to move the camera into position.
2. Click the Add scene (“+”) button to define the preposition.
3. Select a number for the scene, from 1 to 64.
4. Type an optional name for the scene, up to 20 characters long.
5. Click OK to save the scene to the Preposition list.
   The asterisk (*) to the left of the scene name indicates the scene is part of the preposition tour.
6. To delete a scene from the list, select the scene and click the Delete scene (“X”) button.
7. To overwrite an existing scene:
   a. Click the View Control link to access the PTZ controls.
   b. Use the PTZ controls to navigate to the new scene.
   c. Click the scene in the Preposition list you want to overwrite.
   d. Click the Overwrite scene button to apply the new scene to the existing preposition.
   e. To change the name of the scene, double-click the scene in the list. Then, change the name in the Edit Scene dialog box and click OK.

8. To view a scene in the preview window, select the scene in the list and click the Show scene button.
9. To view a scene from the Livepage:
   a. Click a scene number below the PTZ controls on the View Control tab.
   b. Use the keypad and the Show Shot button on the Aux Control tab.

To define a preposition tour:

1. Create the individual scenes.
   By default, all scenes in the Preposition list are in the preposition tour.
2. To remove a scene from the tour, select the scene in the list and uncheck the Include in standard tour box.
3. Select a dwell time from the Standard preposition tour drop-down list.
4. To start the preposition tour:
   a. Return to the Livepage.
   b. Click the Aux Control tab.
   c. Type `8` in the input box and click the Aux On button.
5. To stop the tour, type `8` and click the Aux Off button.

12.25 Sectors

Sector

The AutoDome Junior HD pan capability is 360° and is divided into eight equal sectors. This section allows you to apply a title for each sector and to designate any sectors as a Blanked Sector.

To define a title for sectors:

1. Place the cursor in the input box to the right of the sector number.
2. Type a title for the sector, up to 20 characters long.
3. To blank the sector, click the check box to the right of the sector title.

12.26 Miscellaneous

Address

Allows the appropriate dome to be operated via the numerical address in the control system. Type a number between 0000 and 9999, inclusive, to identify the camera.

12.27 Logs

To save the log file information:

1. Click Download to obtain the log information.
2. Click Save.
3. Navigate to the directory in which you want to store the log information.
4. Type a name for the log file and click Save.

12.28 Audio

You can set the gain of the audio signals to suit your specific requirements. The current video image is shown in the small window next to the slide controls to help you check the audio source and improve assignments. Your changes are effective immediately.

If you connect via Web browser, you must activate the audio transmission on the **Livepage Functions** page (see *Section 11.5 The Livepage, page 95*). For other connections, the transmission depends on the audio settings of the respective system.

Audio

The audio signals are sent in a separate data stream parallel to the video data, and so increase the network load. The audio data are encoded according to G.711 and require an additional bandwidth of approx. 80 kbps for each connection. If you do not want any audio data to be transmitted, select **Off**.

Line In

You can set the line input gain. Make sure that the display does not go beyond the green zone during modulation.

Record Format

Select a format for audio recording. The default value is G.711. Select L16 if you want better audio quality with higher sampling rates. This requires approx. eight times the G.711 bandwidth.

12.29 Pixel Counter

Counts the number of pixels in a defined image area. The pixel counter allows the installer to easily verify that the camera installation fulfills any regulatory or specific customer requirements, for example, calculating the pixel resolution of the face of a person passing a doorway monitored by the camera.

12.30 Advanced Mode: Recording

12.31 Storage Management

You can record the images from the AutoDome Junior HD on various local storage media or on an appropriately configured iSCSI system.
For long-term, authoritative images in stationary operation, it is essential that you use an appropriately sized iSCSI system.
It is also possible to let the VRM Video Recording Manager control all recording when accessing an iSCSI system. This is an external program for configuring recording tasks for video servers. For further information please contact your local customer service at Bosch Security Systems, Inc.

Device manager

If you activate the **VRM** option in this screen, the VRM Video Recording Manager will manage all recording and you will not be able to configure any further settings here.

CAUTION!

Activating or deactivating VRM causes the current settings to be lost; they can only be restored through reconfiguration.

Recording media

Select the required recording media here so that you can then activate them and configure the recording parameters.

iSCSI Media

If you want to use an **iSCSI system** as a recording medium, you must set up a connection to the required iSCSI system and set the configuration parameters.

NOTICE!

The iSCSI storage system selected must be available on the network and completely set up. Amongst other things, it must have an IP address and be divided into logical drives (LUN).

1. Enter the IP address of the required iSCSI destination in the **iSCSI IP address** field.
2. If the iSCSI destination is password protected, enter this into the **Password** field.
3. Click the **Read** button. The connection to the IP address will be established. In the **Storage overview** field, you can see the corresponding logical drives.

Local Media

The supported local recording media are displayed in the Storage overview field.

Activating and Configuring Storage Media

The storage overview displays the available storage media. You can select individual media or iSCSI drives and transfer these to the **Managed storage media** list. You can activate the storage media in this list and configure them for storage.

CAUTION!

Each storage medium can only be associated with one user. If a storage medium is already being used by another user, you can decouple the user and connect the drive with the AutoDome Junior HD. Before decoupling, make absolutely sure that the previous user no longer needs the storage medium.

1. In the **Recording media** section, click the **iSCSI Media** and **Local Media** tabs to display the applicable storage media in the overview.
2. In the **Storage overview** section, double-click the required storage medium, an iSCSI LUN or one of the other available drives. The medium is then added to the **Managed storage media** list. In the **Status** column, newly added media are indicated by the status **Not active**.
3. Click the **Set** button to activate all media in the **Managed storage media** list. In the **Status** column, these are indicated by the status **Online**.
4. Check the box in the **Rec. 1** or **Rec. 2** to specify which data stream should be recorded on the storage media selected. **Rec. 1** stores Stream 1, **Rec. 2** stores Stream 2. This means that you can record the standard data stream on a hard drive and record alarm images on the mobile CF card, for example.
5. Check the boxes for the **Overwrite older recordings** option to specify which older recordings can be overwritten once the available memory capacity has been used. **Recording 1** corresponds to Stream 1, **Recording 2** corresponds to Stream 2.

CAUTION!

If older recordings are not allowed to be overwritten when the available memory capacity has been used, the recording in question will be stopped. You can specify limitations for overwriting old recordings by configuring the retention time (see *Section 12.33 Retention Time, page 148*).

Formatting Storage Media

You can delete all recordings on a storage medium at any time.

CAUTION!

Check the recordings before deleting and back up important sequences on the computer's hard drive.

1. Click a storage medium in the **Managed storage media** list to select it.
2. Click the **Edit** button below the list. A new window will open.
3. Click the **Formatting** button to delete all recordings in the storage medium.
4. Click **OK** to close the window.

Deactivating Storage Media

You can deactivate any storage medium from the **Managed storage media** list. It is then no longer used for recordings.

1. Click a storage medium in the **Managed storage media** list to select it.
2. Click the **Remove** button below the list. The storage medium is deactivated and removed from the list.

12.32 Recording Profiles

You can define up to ten different recording profiles. You will then use these recording profiles in the recording scheduler, where they are linked with the individual days and times (see *Section 12.34 Recording Schedule, page 148*).

NOTICE!

You can change or add to the recording profile description on the tabs on the **Recording Scheduler** page (see *Page 148*).

1. Click one of the tabs to edit the corresponding profile.
2. If necessary, click the **Default** button to return all settings to their default values.
3. Click the **Copy Settings** button if you want to copy the currently visible settings to other profiles. A new window will open and you can select the profiles in which you want to copy the settings.
4. For each profile, click the **Set** button to save the settings in the unit.

Standard recording

Here you can select the mode for standard recordings.
f you select Continuous, the recording proceeds continuously. If the maximum memory capacity is reached, older recordings will automatically be overwritten. If you select the **Pre-alarm** option, the device uses a special recording mode for optimal usage of storage capacity: as soon as a time gap for alarm recording begins, a recording is continuously made on one segment, which is the size of a complete alarm sequence (pre- and post-alarm time).
This segment functions in a similar manner to a ring buffer and is overwritten until an alarm is actually triggered. Then, recording occurs on the segment only for the duration of the preset post-alarm time and a new segment is subsequently used in the same manner.
If you select **Off**, no automatic recording takes place.

CAUTION!
You can specify limitations for overwriting older recordings in **Continuous** mode by configuring the retention time (see *Section 12.33 Retention Time, page 148*).

Standard profile
From this field, you can select the encoder profile to be used for recording (see *Section 12.17 Encoder Profile, page 124*).

NOTICE!
The recording profile can deviate from the standard setting **Active profile** and is only used during an active recording.

Pre-alarm Time
You can select the required pre-alarm time from the list field.

Post-alarm Time
You can select the required post-alarm time from the list field.

Post-alarm profile
You can select the encoder profile to be used for recording during the post-alarm time (see *Section 12.17 Encoder Profile, page 124*).
The **Standard profile** option adopts the selection at the top of the page.

Export to FTP
Select this parameter if you want to use the Export to FTP function on the RECORDINGS page (see Section6.8The RECORDINGS Page, page103). Make sure to have inserted all relevant data for FTP posting (see Section5.41Advanced Mode: FTP Posting, page88).

Alarm input / Motion alarm / Video loss alarm
Here you can select the alarm sensor that is to trigger a recording.

Virtual alarm
Here you can select the virtual alarm sensors that are to trigger a recording, via RCP+ commands or alarm scripts, for example.

NOTICE!
For more information, please see the **Alarm Task Script Language** document and the RCP+ documentation. These documents can be found on the product CD supplied.

Recording includes

You can specify whether, in addition to video data and metadata (for example alarms, VCA data and serial data) should also be recorded. Including metadata could make subsequent searches of recordings easier but it requires additional memory capacity.

CAUTION!

Without metadata, it is not possible to include video content analysis in recordings.

12.33 Retention Time

You can specify the retention times for recordings. If the available memory capacity of a medium has been used, older recordings are only overwritten if the retention time entered here has expired.

NOTICE!

Make sure that the retention time corresponds with the available memory capacity. A rule of thumb for the memory requirement is as follows: 1 GB per hour retention time with 4CIF for complete frame rate and high image quality.

Retention time

Enter the required retention time in hours or days for each recording. **Recording 1** corresponds to Stream 1, **Recording 2** corresponds to Stream 2.

12.34 Recording Schedule

The recording scheduler allows you to link the created recording profiles with the days and times at which the camera's images are to be recorded in the event of an alarm. You can link any number of 15-minute intervals with the recording profiles for each day of the week. Moving the mouse cursor over the table displays the time below it. This aids orientation.

In addition to the normal weekdays, you can define holidays that are not in the standard weekly schedule on which recordings are to apply. This allows you to apply a schedule for Sundays to other days with dates that fall on varying weekdays.

1. Click the profile you want to link in the **Time periods** field.
2. Click in a field in the table, hold down the mouse button and drag the cursor over all the periods to be assigned to the selected profile.
3. Use the right mouse button to deselect any of the intervals.
4. Click the **Select All** button to link all time intervals to the selected profile.
5. Click the **Clear All** button to deselect all of the intervals.
6. When you are finished, click the **Set** button to save the settings in the unit.

Holidays

You can define holidays that are not in the standard weekly schedule on which recordings are to apply. This allows you to apply a schedule for Sundays to other days with dates that fall on varying weekdays.

1. Click the **Holidays** tab. Any days that have already been selected will be shown in the table.
2. Click the **Add** button. A new window will open.
3. Select the desired date from the calendar. You can select several consecutive calendar days by holding down the mouse button. These will later be displayed as a single entry in the table.
4. Click **OK** to accept the selection. The window will close.
5. Assign the individual holidays to the recording profiles, as described above.

Deleting Holidays

You can delete holidays you have defined yourself at any time.

1. Click the **Delete** button. A new window will open.
2. Click the date you wish to delete.
3. Click **OK**. The item will be deleted from the table and the window will close.
4. The process must be repeated for deleting additional days.

Time periods

You can change the names of the recording profiles.

1. Click a profile and then the **Rename** button.
2. Enter your chosen name and then click the **Rename** button again.

Activating the Recording

After completing configuration you must activate the recording scheduler and start the recording. The configuration can be modified at any time.

You can stop the recording activity at any time and modify the settings.

1. Click the **Start** button to activate the recording scheduler.
2. Click the **Stop** button to deactivate the recording scheduler. Running recordings are interrupted.

Recording status

The graphic indicates the recording activity of the AutoDome Junior HD. You will see an animated graphic while recording is taking place.

12.35 Recording Status

Certain details on the recording status are displayed here for information purposes. You cannot change any of these settings.

12.36 Advanced Mode: Alarm

12.37 Alarm Connections

You can select how the AutoDome Junior HD responds to an alarm. In the event of an alarm, the unit can automatically connect to a pre-defined IP address. You can enter up to ten IP addresses to which the AutoDome Junior HD will connect in sequence in the event of an alarm, until a connection is made.

Connect on alarm

Select **On** so that the AutoDome Junior HD automatically connects to a predefined IP address in the event of an alarm.

By setting **Follows input 1** the unit maintains the connection that has been automatically established for as long as an alarm exists on alarm input 1.

NOTICE!
In the default setting, Stream 2 is transmitted for alarm connections. Bear this fact in mind when assigning the profile (see *Section 12.17 Encoder Profile, page 124*).

Number of destination IP address
Specify the numbers of the IP addresses to be contacted in the event of an alarm. The unit contacts the remote stations one after the other in the numbered sequence until a connection is made.

Destination IP address
For each number, enter the corresponding IP address for the desired remote station.

Destination password
If the remote station is password protected, enter the password here.
In this page, you can save a maximum of ten destination IP addresses and hence up to ten passwords for connecting to remote stations. If connections to more than ten remote stations are to be possible, for example when initiating connections via higher-ranking systems such as VIDOS or Bosch Video Management System, you can store a general password here. The AutoDome Junior HD can use this general password to connect to all remote stations protected with the same password. In this case, proceed as follows:

1. Select **10** from the **Number of destination IP address** list field.
2. Enter the address **0.0.0.0** in the **Destination IP address** field.
3. Enter your chosen password in the **Destination password** field.
4. Define this password as the **user** password for all remote stations to which a connection is to be possible.

NOTICE!

If you enter the destination IP address 0.0.0.0 for destination 10, this address will no longer be used for the tenth attempt at automatic connection in the event of an alarm. The parameter is then used only to save the general password.

Video transmission

If the unit is operated behind a firewall, **TCP (HTTP port)** should be selected as the transfer protocol. For use in a local network, select **UDP**.

CAUTION!

Please note that in some circumstances, a larger bandwidth must be available on the network for additional video images in the event of an alarm, in case Multicast operation is not possible. To enable Multicast operation, select the **UDP** option for the **Video transmission** parameter here and on the **Network** page (see *Page 165*).

Stream

Select the stream for transmission in case of an alarm.

Remote port

Depending on the network configuration, select a browser port here. The ports for HTTPS connections will be available only if the **On** option is selected in the **SSL encryption** parameter.

Video output

If you know which unit is being used as the receiver, you can select the analog video output to which the signal should be switched. If the destination unit is unknown, it is advisable to select the **First available** option. In this case, the image is placed on the first free video output. This is an output on which there is no signal. The connected monitor only displays images when an alarm is triggered. If you select a particular video output and a split image is set for this output on the receiver, you can also select from **Decoder** the decoder in the receiver that is to be used to display the alarm image.

NOTICE!
Refer to the destination unit documentation concerning image display options and available video outputs.

Decoder
Select a decoder of the receiver to display the alarm image. The decoder selected has an impact on the position of the image in a split screen. For example, you can specify via a VIP XD that the upper-right quadrant should be used to display the alarm image by selecting decoder 2.

SSL encryption
The data for the connection, for example the password, can be securely transmitted with SSL encryption. If you have selected the **On** option, only encrypted ports are offered in the **Remote port** parameter.

NOTICE!
Please note that the SSL encryption must be activated and configured at both ends of a connection. This requires the appropriate certificates to be uploaded onto the AutoDome Junior HD.

You can activate and configure encryption of the media data (video and metadata) on the **Encryption** page (see *Section 12.47 Advanced, Page 170*).

Auto-connect
Select the **On** option to automatically re-establish a connection to one of the previously specified IP addresses after each reboot, after a connection breakdown or after a network failure.

NOTICE!
In the default setting, Stream 2 is transmitted for automatic connections. Bear this fact in mind when assigning the profile (see *Section 12.17 Encoder Profile, page 124*).

12.38 VCA

The AutoDome Junior HD contains an integrated video content analysis (VCA), which can detect and analyze changes in the signal on the basis of image processing. Such changes can be due to movements in the camera's field of view.
You can select various VCA configurations and adapt these to your application as required. The **Silent MOTION+** configuration is active by default. In this configuration, metadata is created to facilitate searches of recordings; however, no alarm is triggered.

1. Select a VCA configuration and make the required settings.
2. If necessary, click the **Default** button to return all settings to their default values.

VCA Profiles

You can configure two profiles with different VCA configurations. You can save profiles on your computer's hard drive and load saved profiles from there. This can be useful if you want to test a number of different configurations. Save a functioning configuration and test new settings. You can use the saved configuration to restore the original settings at any time.

1. Select a VCA profile and enter the required settings.
2. If necessary, click the **Default** button to return all settings to their default values.
3. Click the **Save...** button to save the profile settings to another file. A new window is opened, in which you can specify where you want to save the file and what name you want to save it under.
4. Click the **Load...** button to load a saved profile. A new window opens in which you can select the profile file and specify where to save the file.

VCA configuration

Select one of the profiles here to activate it or edit it.
You can rename the profile.

CAUTION!

Do not use any special characters, for example **&**, in the name. Special characters are not supported by the system's internal recording management and may therefore result in the Player or Archive Player being unable to play back the recording.

1. To rename the file, click the icon to the right of the list field and enter the new profile name in the field.
2. Click the icon again. The new profile name is saved.

Alarm status

The alarm status is displayed here for information purposes. This means you can check the effects of your settings immediately.

Analysis type

Select the required analysis algorithm. By default, only **MOTION+** is available – this offers a motion detector and essential recognition of tampering.

NOTICE!

Additional analysis algorithms with comprehensive functions such as IVMD and IVA are available from Bosch Security Systems, inc.
If you select one of these algorithms, you can set the corresponding parameters here directly. You can find information on this in the relevant documents on the product CD supplied.

Metadata is always created for a video content analysis, unless this was explicitly excluded. Depending on the analysis type selected and the relevant configuration, additional information overlays the video image in the preview window next to the parameter settings. With the **MOTION+** analysis type, for example, the sensor fields in which motion is recorded will be marked with rectangles.

NOTICE!
On the **Livepage Functions** page, you can also enable additional information overlays for the **Livepage** (see *Section 12.14 Livepage Functions, page 121*).

Motion detector (MOTION+ only)
For the detector to function, the following conditions must be met:
- Analysis must be activated.
- At least one sensor field must be activated.
- The individual parameters must be configured to suit the operating environment and the desired responses.
- The sensitivity must be set to a value greater than zero.

CAUTION!
Reflections of light (off glass surfaces, etc.), switching lights on or off or changes in the light level caused by cloud movement on a sunny day can trigger unintended responses from the motion detector and generate false alarms. Run a series of tests at different times of the day and night to ensure that the video sensor is operating as intended.
For indoor surveillance, ensure constant lighting of the areas during the day and at night.

Sensitivity (MOTION+ only)
The basic sensitivity of the motion detector can be adjusted for the environmental conditions to which the camera is subject. The sensor reacts to variations in the brightness of the video image. The darker the observation area, the higher the value that must be selected.

Minimum object size (MOTION+ only)
You can specify the number of sensor fields that a moving object must cover to generate an alarm. This is to prevent objects that are too small from triggering an alarm.
A minimum value of **4** is recommended. This value corresponds to four sensor fields.

Select Area (MOTION+ only)

The areas of the image to be monitored by the motion detector can be selected. The video image is subdivided into 858 square fields. Each of these fields can be activated or deactivated individually. If you wish to exclude particular regions of the camera's field of view from monitoring due to continuous movement (by a tree in the wind, etc.), the relevant fields can be deactivated.

1. Click **Select Area** to configure the sensor fields. A new window will open.
2. If necessary, click **Clear All** first to clear the current selection (fields marked yellow).
3. Left-click the fields to be activated. Activated fields are marked yellow.
4. If necessary, click **Select All** to select the entire video frame for monitoring.
5. Right-click any fields you wish to deactivate.
6. Click **OK** to save the configuration.
7. Click the close button **X** in the window title bar to close the window without saving the changes.

Tamper detection

You can reveal the tampering of cameras and video cables by means of various options. Run a series of tests at different times of the day and night to ensure that the video sensor is operating as intended.

NOTICE!

The options for tamper detection can only be set for fixed cameras. Dome cameras or other motorized cameras cannot be protected in this manner as the movement of the camera itself causes changes in the video image that are too great.

Sensitivity

NOTICE!
This and the following parameter are only accessible if the reference check is activated.

The basic sensitivity of the tamper detection can be adjusted for the environmental conditions to which the camera is subject.
The algorithm reacts to the differences between the reference image and the current video image. The darker the observation area, the higher the value that must be selected.

Trigger delay (s)
You can set delayed alarm triggering. The alarm is only triggered after a set time interval in seconds has elapsed and then only if the triggering condition still exists. If the original condition has been restored before this time interval elapses, the alarm is not triggered. This allows you to avoid false alarms triggered by short-term changes, for example cleaning activities in the direct field of vision of the camera.

Global change
You can set how large the global change in the video image must be for an alarm to be triggered. This setting is independent of the sensor fields selected under **Select Area**. Set a high value if fewer sensor fields need to change to trigger an alarm. With a low value, it is necessary for changes to occur simultaneously in a large number of sensor fields to trigger an alarm.
This option allows you to detect, independently of motion alarms, manipulation of the orientation or location of a camera resulting from turning the camera mount bracket, for instance.

Global change
Activate this function if the global change, as set with the **Global change** slide control, should trigger an alarm.

Scene too bright

Activate this function if tampering associated with exposure to extreme light (for instance, shining a flashlight directly on the lens) should trigger an alarm. The average brightness of the scene provides a basis for recognition.

Scene too dark

Activate this function if tampering associated with covering the lens (for instance, by spraying paint on it) should trigger an alarm. The average brightness of the scene provides a basis for recognition.

Scene too noisy

Activate this function if tampering associated with EMC interference (noisy scene as the result of a strong interference signal in the vicinity of the video lines), as an example, should trigger an alarm.

Select Area

You can select the image areas in the reference image that are to be monitored. The video image is subdivided into 858 square fields. Each of these fields can be activated or deactivated individually.

NOTICE!

Select only those areas for reference monitoring in which no movement takes place and that are always evenly lit, as false alarms could otherwise be triggered.

1. Click **Select Area** to configure the sensor fields. A new window will open.
2. If necessary, click **Clear All** first to clear the current selection (fields marked yellow).
3. Left-click the fields to be activated. Activated fields are marked yellow.
4. If necessary, click **Select All** to select the entire video frame for monitoring.
5. Right-click any fields you wish to deactivate.
6. Click **OK** to save the configuration.
7. Click the close button **X** in the window title bar to close the window without saving the changes.

12.39 Alarm E-Mail

As an alternative to automatic connecting, alarm states can also be documented by e-mail. In this way it is possible to notify a recipient who does not have a video receiver. In this case, the AutoDome Junior HD automatically sends an e-mail to a previously defined e-mail address.

Send alarm e-mail
Select **On** if you want the unit to automatically send an alarm e-mail in the event of an alarm.

Mail server IP address
Enter the IP address of a mail server that operates on the SMTP standard (Simple Mail Transfer Protocol). Outgoing e-mails are sent to the mail server via the address you entered. Otherwise leave the box blank (**0.0.0.0**).

SMTP user name
Enter a registered user name for the chosen mailserver here.

SMTP password
Enter the required password for the registered user name here.

Format
You can select the data format of the alarm message.

- **Standard (with JPEG)**
  E-mail with attached JPEG image file.
- **SMS**
  E-mail in SMS format to an e-mail-to-SMS gateway (for example to send an alarm by cellphone) without an image attachment.

CAUTION!
When a cellphone is used as the receiver, make sure to activate the e-mail or SMS function, depending on the format, so that these messages can be received.
You can obtain information on operating your cellphone from your cellphone provider.

Attach JPEG from camera

Click the checkbox to specify that JPEG images are sent from the camera. An enabled video input is indicated by a check mark.

Destination address

Enter the e-mail address for alarm e-mails here. The maximum address length is 49 characters.

Sender name

Enter a unique name for the e-mail sender, for example the location of the unit. This will make it easier to identify the origin of the e-mail.

Test e-mail

You can test the e-mail function by clicking the **Send Now** button. An alarm e-mail is immediately created and sent.

12.40 Alarm Task Editor

CAUTION!

Editing scripts on this page overwrites all settings and entries on the other alarm pages. This procedure cannot be reversed. In order to edit this page, you must have programming knowledge and be familiar with the information in the **Alarm Task Script Language** document.

As an alternative to the alarm settings on the various alarm pages, you can enter your desired alarm functions in script form here. This will overwrite all settings and entries on the other alarm pages.

1. Click the **Examples** link under the **Alarm Task Editor** field to see some script examples. A new window will open.
2. Enter new scripts in the **Alarm Task Editor** field or change existing scripts in line with your requirements.
3. When you are finished, click the **Set** button to transmit the scripts to the unit. If the transfer was successful, the message **Script successfully parsed** is displayed over the text field. If it was not successful, an error message will be displayed with further information.

12.41 Alarm Rules

The AutoDome Junior HD features an alarm rule engine. In its simplest form, an alarm rule can define which input(s) activate which output(s). Basically, an alarm rule allows you to customize an AutoDome Junior HD to automatically respond to different alarm inputs.
To configure an alarm rule specify one input from either a physical connection, a motion detection trigger, or from a connection to the camera's Livepage. The physical input connection can be activated by dry contact devices such as pressure pads, door contacts and similar devices.
Next, specify up to two (2) rule outputs, or the camera's response to the input. Outputs include a physical alarm relay, an AUX command, or a preposition scene.

1. Click the Enabled check box to activate the alarm.
2. Choose one of the following alarm inputs:
   - Local Input 1: a physical alarm connection.
   - Local Input 2: a physical alarm connection.
   - IVA/MOTION+: an alarm when IVA or motion detection is activated.
   - Connection: an alarm when an attempt is made to access the camera's IP address.

3. Choose one of the following output commands for both Output 1 and Output 2 settings:
   - None: no defined command.
   - Aux On: defines a standard or custom keyboard ON command.
     Refer to *Section 13 Keyboard Commands by Number, page 179*, for a list of valid commands.
     Note: Only commands 1, 2, 8, 18, 20, 43, 60, 80, 86 are supported. Support for the remaining commands is scheduled for a future release.
   - Aux Off: defines a standard or custom keyboard OFF command.
     Refer to *Section 13 Keyboard Commands by Number, page 179*, for a list of valid commands.
     Note: Only commands 1, 2, 8, 18, 20, 43, 60, 80, 86 are supported. Support for the remaining commands is scheduled for a future release.
   - Shot: defines a preset scene from shot 1-64.
4. Click Set to save and to activate the alarm rules.

12.42 Advanced Mode: Interfaces

12.43 Alarm Inputs

Select the type of input for each physical alarm. Select from either **N.O.** (Normally Open) or **N.C.** (Normally Closed) and provide an optional name for each input.

Alarm Input
Select N.O. if the alarm is to be triggered when the contact closes. Select N.C. if the alarm is to be triggered when the contact opens.

Name

You can enter a name for each alarm input, which is then displayed below the icon for the alarm input on the **Livepage** if configured correctly (see *Section 12.14 Livepage Functions, page 121*). Furthermore, in the Forensic Search program, you can use the name as a filter option for quick search through the recordings.

CAUTION!

Do not use any special characters, for example **&**, in the name. Special characters are not supported by the system's internal recording management and may therefore result in the Player or Archive Player programs being unable to play back the recording.

12.44 Relay

You can configure the switching behavior of the relay outputs. For each relay, you can specify an open switch relay (normally closed contact) or a closed switch relay (normally open contact).

You can also specify whether an output should operate as a bistable or monostable relay. In bistable mode, the triggered state of the relay is maintained. In monostable mode, you can set the time after which the relay will return to the idle state.

You can select different events that automatically activate an output. It is possible, for example, to turn on a floodlight by triggering a motion alarm and then turning the light off again when the alarm has stopped.

Idle State

Select **Open** if you want the relay to operate as an NO contact, or select **Closed** if the relay is to operate as an NC contact.

Operations Mode

Select an operating mode for the relay.

For example, if you want an alarm-activated lamp to stay on after the alarm ends, select **Bistable**. If you wish an alarm-activated siren to sound for ten seconds, for example, select **10s**.

Relay Name

You can assign a name for the relay here. The name is shown on the button next to **Trigger relay.** The Livepage can also be configured to display the name under the relay icon. Furthermore, in the Forensic Search program, you can use the name as a filter option for quick search through the recordings.

CAUTION!

Do not use any special characters, for example **&**, in the name. Special characters are not supported by the system's internal recording management and may therefore result in the Player or Archive Player programs being unable to play back the recording.

Trigger Relay

Click the button to trigger the relay manually (for testing or to operate a door opener, for example).

12.45 Advanced Mode: Network

12.46 Network Access

The settings on this page are used to integrate the AutoDome 800 Series into an existing network.

Some changes only take effect after the unit is rebooted. In this case, the **Set** button changes to **Set and Reboot**.

1. Make the desired changes.
2. Click the **Set and Reboot** button. The AutoDome 800 Series is rebooted and the changed settings are activated.

CAUTION!
If you change the IP address, subnet mask or gateway address, the AutoDome 800 Series is only available under the new addresses after the reboot.

Automatic IP assignment
If a DHCP server is employed in the network for the dynamic assignment of IP addresses, you can activate acceptance of IP addresses automatically assigned to the AutoDome 800 Series. Certain applications (VIDOS, Bosch Video Management System, Archive Player, Configuration Manager) use the IP address for the unique assignment of the unit. If you use these applications, the DHCP server must support the fixed assignment between IP address and MAC address, and must be appropriately set up so that, once an IP address is assigned, it is retained each time the system is rebooted.

12.46.1 IPv4

IP address
Enter the desired IP address for the AutoDome 800 Series in this field. The IP address must be valid for the network.

Subnet mask
Enter the appropriate subnet mask for the selected IP address here.

Gateway address
If you want the unit to establish a connection to a remote location in a different subnet, enter the IP address of the gateway here. Otherwise leave the box blank (**0.0.0.0**).

12.46.2 IPv6

Consult with the network administrator before making changes to the this section.

IP Address

Enter the desired IP address for the AutoDome 800 Series in this field. The IP address must be valid for the network. A typical IPv6 address may resemble the following example:

`2001:db8 : : 52:1:1`

Consult the network administrator for valid IPv6 address construction.

Prefix Length

A typical IPv6 node address consists of a prefix and an interface identifier (total 128 bits). The prefix is the part of the address where the bits have fixed values or are the bits that define a subnet.

Gateway Address

If you want the unit to establish a connection to a remote location in a different subnet, enter the IP address of the gateway here. Otherwise leave the box blank (**0.0.0.0**).

12.46.3 Detailed Settings

DNS server address

The AutoDome 800 Series is easier to access if the unit is listed on a DNS server. If you wish, for example, to establish an Internet connection to the AutoDome 800 Series, it is sufficient to enter the name given to the unit on the DNS server as a URL in the browser. Enter the IP address of the DNS server here. Servers are supported for secure and dynamic DNS.

Video Transmission

If the unit is operated behind a firewall, **TCP (HTTP port)** should be selected as the transfer protocol. For use in a local network, select **UDP**.

CAUTION!

Multicast operation is only possible with the UDP protocol. The TCP protocol does not support multicast connections.
The MTU value in UDP mode is 1,514 bytes.

HTTP browser port

Select a different HTTP browser port from the list if required. The default HTTP port is 80. If you want to allow only secure connections via HTTPS, you must deactivate the HTTP port. In this case, select **Off**.

HTTPS browser port

If you wish to allow browser access on the network via a secure connection, select an HTTPS browser port from the list if necessary. The default HTTPS port is 443. Select the **Off** option to deactivate HTTPS ports; only unsecured connections will now be possible.
The AutoDome 800 Series uses the TLS 1.0 encryption protocol. You may have to activate this protocol via your browser configuration. You must also activate the protocol for the Java applications (via the Java control panel in the Windows control panel).

NOTICE!

If you want to allow only secure connections with SSL encryption, you must select the **Off** option for each of the parameters **HTTP browser port**, **RCP+ port 1756** and **Telnet support**. This deactivates all unsecured connections. Connections will then only be possible via the HTTPS port.

You can activate and configure encryption of the media data (video and metadata) on the Encryption page (see *Section 12.47 Advanced, Page 170*).

RCP+ port 1756

To exchange connection data, you can activate the unsecured RCP+ port 1756. If you want connection data to be transmitted only when encrypted, select the **Off** option to deactivate the port.

Telnet support

If you want to allow only secure connections with encrypted data transmission, you must select the **Off** option to deactivate

Telnet support. The unit will then no longer be accessible using the Telnet protocol.

Interface mode ETH
If necessary, select the Ethernet link type for the **ETH** interface. Depending on the unit connected, it may be necessary to select a special operation type.

Network MSS (Byte)
You can set the maximum segment size for the IP packet's user data. This gives you the option to adjust the size of the data packets to the network environment and to optimize data transmission. Please comply with the MTU value of 1,514 bytes in UDP mode.

iSCSI MSS (Byte)
You can specify a higher MSS value for a connection to the iSCSI system than for the other data traffic via the network. The potential value depends on the network structure. A higher value is only useful if the iSCSI system is located in the same subnet as the AutoDome 800 Series.

Enable DynDNS
DynDNS.org is a DNS hosting service that stores IP addresses in a database ready for use. It allows you to select the AutoDome 800 Series via the Internet using a host name, without having to know the current IP address of the unit. You can enable this service here. To do this, you must have an account with DynDNS.org and you must have registered the required host name for the unit on that site.

NOTICE!
Information about the service, registration process and available host names can be found at DynDNS.org.

Host name
Enter the host name registered on DynDNS.org for the AutoDome 800 Series here.

User name
Enter the user name you registered at DynDNS.org here.

Password
Enter the password you registered at DynDNS.org here.

Force registration now
You can force the registration by transferring the IP address to the DynDNS server. Entries that change frequently are not provided in the Domain Name System. It is a good idea to force the registration when you are setting up the device for the first time. Only use this function when necessary and no more than once a day, to avoid the possibility of being blocked by the service provider. To transfer the IP address of the AutoDome 800 Series, click the **Register** button.

Status
The status of the DynDNS function is displayed here for information purposes. You cannot change any of these settings.

12.47 Advanced

The settings on this page are used to implement advanced settings for the network.
Some changes only take effect after the unit is rebooted. In this case, the **Set** button changes to **Set and Reboot**.

1. Make the desired changes.
2. Click the **Set and Reboot** button. The AutoDome Junior HD is rebooted and the changed settings are activated.

SNMP
The AutoDome Junior HD supports the SNMP V2 (Simple Network Management Protocol) for managing and monitoring network components, and can send SNMP messages (traps) to IP addresses. The unit supports SNMP MIB II in the unified code. If you wish to send SNMP traps, enter the IP addresses of one or two required target devices here.
If you select **On** for the **SNMP** parameter and do not enter an SNMP host address, the AutoDome Junior HD does not send

them automatically, but only replies to SNMP requests. If you enter one or two SNMP host addresses, SNMP traps are sent automatically. Select **Off** to deactivate the SNMP function.

1. SNMP host address / 2. SNMP host address

If you wish to send SNMP traps automatically, enter the IP addresses of one or two required target units here.

SNMP traps

You can select which traps are to be sent.

1. Click **Select**. A list is opened.
2. Click the checkboxes to select the required traps. All the checked traps will be sent.
3. Click **Set** to accept the selection.

Authentication

If a RADIUS server is employed in the network for managing access rights, authentication must be activated here to allow communication with the unit. The RADIUS server must also contain the corresponding data.

To configure the unit, you must connect the AutoDome Junior HD directly to a computer using a network cable. This is because communication via the network is not enabled until the **Identity** and **Password** parameters have been set and successfully authenticated.

Identity

Enter the name that the RADIUS server is to use for identifying the AutoDome Junior HD.

Password

Enter the password that is stored in the RADIUS server.

RTSP port

If necessary, select a different port for the exchange of the RTSP data from the list. The standard RTSP port is 554. Select **Off** to deactivate the RTSP function.

UPnP

You can activate the universal plug and play function (UPnP). When activated the camera reacts on requests from the network and will be registered automatically as a new network device on the inquiring computers. The access to the camera is then possible via the Windows file explorer, and without knowledge of the camera's IP address.

NOTICE!

In order to use the UPnP function on a computer with Windows XP or Windows Vista, the Universal Plug and Play Device Host and the SSDP Discovery services must be activated.

This function should not be used in large installations due to the large number of registration notifications.

TCP Metadata Input

The device can receive data from an external TCP sender, for example an ATM or POS device, and store it as metadata. Select the port for TCP communication. Select Off to deactivate the TCP metadata function.

Sender IP Address

Enter the IP address of the TCP metadata sender here.

NTCIP

Specifies a set of rules and protocols for organizing, describing and exchanging transportation management information between transportation management applications and transportation equipment such that they interoperate with each other.

Select a port for **NTCIP** and the **Address** from the appropriate drop-down lists.

12.48 Multicast

In addition to a 1:1 connection between an encoder and a single receiver (unicast), the AutoDome Junior HD can enable multiple receivers to receive the video signal from an encoder simultaneously. The device either duplicates the data stream

itself and then distributes it to multiple receivers (Multi-unicast) or it sends a single data stream to the network, where the data stream is simultaneously distributed to multiple receivers in a defined group (Multicast). You can enter a dedicated multicast address and port for each stream. You can switch between the streams by clicking the appropriate tabs.

NOTICE!
Multicast operation requires a multicast-enabled network that uses the UDP and the Internet Group Management IGMP protocols. Other group management protocols are not supported. The TCP protocol does not support multicast connections.

A special IP address (class D address) must be configured for multicast operation in a multicast-enabled network.
The network must support group IP addresses and the Internet Group Management Protocol (IGMP V2). The address range is from 225.0.0.0 to 239.255.255.255.
The multicast address can be the same for multiple streams. However, it will be necessary to use a different port in each case so that multiple data streams are not sent simultaneously using the same port and multicast address.

NOTICE!
The settings must be made individually for each stream.

Enable
To enable simultaneous data reception on several receivers you need to activate the multicast function. To do this, check the box. You can then enter the multicast address.

Multicast Address
Enter a valid multicast address for each stream to be operated in multicast mode (duplication of the data streams in the network).
With the setting **0.0.0.0** the encoder for the relevant stream operates in multi-unicast mode (copying of data streams in the

unit). The AutoDome Junior HD supports multi-unicast connections for up to five simultaneously connected receivers.

NOTICE!
Duplication of data places a heavy demand on the unit and can lead to impairment of the image quality under certain circumstances.

Port
Assign a different port to each data stream if there are simultaneous data streams at the same multicast address. Enter the port address of the required stream here.

Streaming
Click the checkbox to activate multicast streaming mode for the relevant stream. An enabled stream is indicated by a check mark. The device even streams multicast data if no connection is active.

Multicast packet TTL
You can enter a value to specify how long the multicast data packets are active on the network. This value must be greater than one if multicast is to be run via a router.

12.49 FTP Posting

You can save individual JPEG images on an FTP server at specific intervals. You can then retrieve these images at a later date to reconstruct alarm events if required.

File name
You can select how file names will be created for the individual images that are transmitted.

- **Overwrite**
  The same file name is always used and any existing file will be overwritten with the current file.
- **Increment**
  A number from 000 to 255 is added to the file name and automatically incremented by 1. When it reaches 255 it starts again from 000.

– **Date/time suffix**
The date and time are automatically added to the file name. When setting this parameter, ensure that the unit's date and time are always correctly set. Example: the file snap011005_114530.jpg was stored on October 1, 2005 at 11:45 and 30 seconds.

Posting interval
Enter the interval in seconds at which the images will be sent to an FTP server. Enter zero if you do not want any images to be sent.

FTP server IP address
Enter the IP address of the FTP server on which you wish to save the JPEG images.

FTP server login
Enter your login name for the FTP server.

FTP server password
Enter the password that gives you access to the FTP server.

Path on FTP server
Enter the exact path on which you wish to post the images on the FTP server.

Max. Bit Rate
You can limit the bit rate for FTP posting.

12.50 IPv4 Filter

Use this setting to configure a filter that allows or blocks network traffic that matches a specified address or protocol.

IP Address 1 / 2
Enter the IPv4 address that you want to allow or block

Mask 1 / 2
Enter the subnet mask for the appropriate IPv4 address.

12.51 Advanced Mode: Service

12.52 Maintenance

Firmware

The AutoDome Junior HD is designed in such a way that its functions and parameters can be updated with firmware. To do this, transfer the current firmware package to the unit via the selected network. It will then be automatically installed there. In this way, an AutoDome Junior HD can be serviced and updated remotely without a technician having to change the installation on site.

Refer to *Section 16 BVIP Firmware Updates, page 185*, for firmware upgrade instructions.

CAUTION!

Before launching the firmware upload make sure that you have selected the correct upload file. Uploading the wrong files can result in the unit no longer being addressable, in which case you must replace the unit.

You should never interrupt the installation of firmware. An interruption can lead to the flash-EPROM being incorrectly programmed. This in turn can result in the unit no longer being addressable, in which case it will have to be replaced. Even changing to another page or closing the browser window leads to an interruption.

Refer to *Section 16 BVIP Firmware Updates, page 185*, for firmware upgrade instructions.

Configuration

You can save configuration data for the AutoDome Junior HD on a computer and then load saved configuration data from a computer to the unit.

Upload

1. Enter the full path of the file to upload or click **Browse** to select the required file.
2. Make certain that the file to be loaded comes from the same unit type as the unit you want to configure.
3. Next, click **Upload** to begin transferring the file to the unit. The progress bar allows you to monitor the transfer.

Once the upload is complete, the new configuration is activated. The time remaining is shown by the message **going to reset Reconnecting in ... seconds**. The unit reboots automatically once the upload has successfully completed.

Download

1. Click the **Download** button. A dialog box opens.
2. Follow the on-screen instructions to save the current settings.

SSL certificate

To be able to work with an SSL encrypted data connection, both ends of a connection must hold the relevant certificates. You can upload the SSL certificate, comprising one or multiple files, onto the AutoDome Junior HD.

If you wish to upload multiple files onto the AutoDome Junior HD, you must select them consecutively.

1. Enter the full path of the file to upload or click **Browse** to select the required file.
2. Next, click **Upload** to begin transferring the file to the unit.
3. Once all files have been successfully uploaded, the unit must be rebooted. In the address bar of your browser, enter **/reset** after the IP address of the AutoDome Junior HD (for example **192.168.0.10/reset**).

The new SSL certificate is valid.

Maintenance log

You can download an internal maintenance log from the unit to send it to Customer Service for support purposes. To do so, you have to make sure that **HTTPS browser port** is not set to **Off** and TLS 1.0 support is activated for your browser. Click **Download** and select a storage location for the file.

12.53 Licenses

You can enter the activation key to release additional functions or software modules.

NOTICE!

The activation key cannot be deactivated again and is not transferable to other units.

12.54 System Overview

The data on this page are for information purposes only and cannot be changed. Keep a record of this information in case technical assistance is required.

NOTICE!

You can select all required text on this page with the mouse and copy it to the clipboard with the [Ctrl]+[C] key combination, for example if you want to send it via e-mail.

13 Keyboard Commands by Number

Alarm Rule Output	Function Key	Comm No.	Command	Description
Y	On/Off	1	Scan 360°	Autopan without limits
Y	On/Off	2	Autopan	Autopan between limits
Y	On/Off	8	Play Pre-position Tour	Activate/Deactivate standard tour
Y	On/Off	18	AutoPivot Enable	Enables/disables AutoPivot
Y	On/Off	20	Backlight Comp	Toggles Backlight Compensation
	On/Off	40	Restore Camera Settings	Restores all setting to their original defaults
Y	On/Off	43	Auto Gain Control	Toggles AGC
Y	On/Off	50	Playback Tour A	Activate/Deactivate
Y	On/Off	52	Playback Tour B	Activate/Deactivate
Y	On/Off	60	On Screen Display	On–enable Off–disable
Y	On/Off	80	Digital Zoom Lock	Turns digital zoom on and off
Y	On/Off	86	Sector Blanking	Enables/Disables Sector Blanking
	On/Off	100	Record Tour A	On– start recording Off – stop recording
	On/Off	101	Record Tour B	On– start recording Off – stop recording

Alarm Rule Output	Function Key	Comm No.	Command	Description
	On/Off	601	Vivid Color	Toggles the vivid color option on or off.
	On/Off	602	Flickerless	Toggles the flickerless mode on or off. This mode reduces the flicker of video when the camera is installed into a different frequency.

14 Preventive Maintenance

The following preventive maintenance schedule allows detection and correction of minor faults before they become serious and cause equipment failure. Periodically perform the following:

- Inspect all connecting cables for deterioration or other damage.
- Wipe housing with a clean damp cloth.
- Clean the dome/windows with an approved P.C (LEXAN) Cleaner (Novus LEXAN cleaner-plastic polish).
- Verify that all the mounting hardware is secure.

When cleaning the dome bubble heed these warning:

- Do not use alcohol-based solutions to clean the bubble. This will cause the bubble to cloud and over time cause stress aging, which makes the bubble brittle.
- 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.
- Do not clean bubbles in direct sunlight or on very hot days.

15 Troubleshooting

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

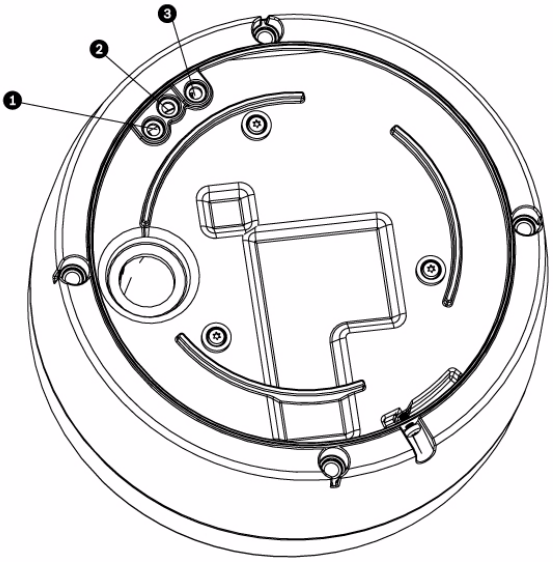
Problem	Check
Need to remove trim ring.	Use a slotted screw driver and push the clips outward while gently pulling down on the edge of the trim ring.
Nothing appears on the screen.	Are the power cord and line connection between the camera and monitor made properly?
The image on the screen is dim.	Is 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 flickers.	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.
The image on the screen is distorted.	Does the camera face directly into the sun or fluorescent lighting? If so, reposition camera.

15.1 AutoDome Junior Operation and Control

Problem	Solution
No Network Connection	– Check all network connections – Ensure that the maximum distance between any two Ethernet connections is 100 m (328 ft) or less. **If O.K., then:** – If you are behind a firewall, ensure that the Video Transmission mode is set to UDP. a. Access the Settings Web page for the IP-enabled device. b. Expand the Service Settings link, then click Network. c. Select UDP from the Video Transmission drop-down list. Then click Set.
Video is distorted (AutoDome Junior HD)	– Navigate to the SETTINGS page. – Click the Advanced Link; then click the Camera link, located in the left pane of the Settings window. – Click the Installer Menu, located under the Camera link. – Select either 50 or 60 Hz from the Frequency pull-down list.

15.2 LED Diagnostics

Use the following illustration to identify the LEDs (note the position of the three screws to align your camera):



LED	LED Color	Function	State	Description
1	Green	Network Activity	On	Network receiving and transmitting data
			Off	No network activity
2	Red	Network Link	On	Link is active
			Off	Link failure
3	Bi-color LED Green/Red	Power/IP Board	Green On	IP board is running
			Red On	IP board is booting
			Off	No power to the IP board
			Green Flashing	IP board is transmitting video
			Red Flashing	IP board is resetting

16 BVIP Firmware Updates

The AutoDome Junior HD incorporates a network video server in the IP module. The primary function of the server is to encode video and control data for transmission over a TCP/IP network. The AutoDome Junior IP and HD also allows an operator to update the BVIP firmware via the TCP/IP network. The latest BVIP firmware is available on the Bosch Security Systems Web site. To download the service pack from the Web, navigate to www.boschsecurity.us, click the CCTV link, then click Cameras, PTZ and navigate to the product page for the AutoDome Junior HD. Then click the Software tab on the product page.

16.1 Upgrading the AutoDome Junior IP or HD

The preferred method to update an AutoDome Junior IP or HD is through a direct connection between the camera and a PC. This method entails connecting the Ethernet cable from the camera directly to the Ethernet port of a PC.
If the direct-connect method is not practical you can also update the AutoDome Junior IP through a Local Area Network (LAN). You cannot, however, update the AutoDome Junior IP or HD through a Wide Area Network (WAN) or via the Internet.

16.2 Beginning the Firmware Update Process

Use this procedure to connect to your AutoDome Junior HD and to navigate to the Firmware Update page.

1. Launch Internet Explorer and type the IP address for the AutoDome Junior HD in the Address bar and click Go. Internet Explorer opens the Livepage view.
2. Click the SETTINGS link, located at the top of the page.
3. Click the Service link in the left pane.
4. Click the Maintenance link below the Service link.
5. Click the Search button and navigate to the firmware file (*.fw). Then, click OK.
6. Click the Upload button.
7. Click OK to the warning message to continue the firmware upload, or Cancel to stop the upload.
   The page displays a progress bar as the firmware is uploaded.
   Note: Once the progress bar reaches 100% the system opens the reset page. Allow the reset page to complete its action.
8. Once the reset is complete the upgrade is complete.

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Bosch Security Systems, Inc.
850 Greenfield Road
Lancaster, PA 17601
U.S.A.
www.boschsecurity.com
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