

IP-54 In-ceiling Mount

VJR-A3-IC54



BOSCH

en Mounting Guide

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1 Important Safety Instructions

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

1. Clean only with a dry cloth. Do not use liquid cleaners or aerosol cleaners.
2. Do not install unit near any heat sources such as radiators, heaters, stoves, or other equipment (including amplifiers) that produce heat.
3. Do not block any ventilation openings.
4. Do not use the unit near water or expose to rain or moisture. Never spill liquid of any kind on the unit.
5. Unplug the unit during lightning storms or when unused for long periods.
6. Adjust only those controls specified in the operating instructions.
7. Do not overload outlets and extension cords, as this can cause fire or electrical shock.
8. Protect the plug and power cord from foot traffic or pinching, at electrical outlets, and at its exit from the unit.
9. Operate the unit only from the type of power source indicated on the label.
10. Unless qualified, do not attempt to service a damaged unit yourself. Refer all servicing to qualified service personnel.
11. Use only replacement parts specified by the manufacturer.
12. Install in accordance with the manufacturer's instructions in accordance with applicable local codes. Use only attachments/accessories specified by the manufacturer. Equipment change or modification could void the user's guarantee or authorization agreement.

DANGER!

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

WARNING!

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

CAUTION!

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

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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 below 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.

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

2.1 Parts List

The following table lists the parts included with the VJR-A3-IC54 AutoDome Junior IP54-rated In-ceiling mount kit:

| Quantity | Part |
|----------|--|
| | VJR-A3-JW Junction Box |
| 3 | – M4-.7 x 8 Phillips Pan Head Machine Screws |
| 1 | – #10-32 x 3/8 Phillips Pan Head Machine Screw |
| | |
| | VJR-A3-IC54BK |
| 1 | – IP54-rated Mounting Bracket with Clamp Plate |
| 4 | – M4 x 16 Phillips Pan Head Machine Screws |
| 4 | – M3 x 10 Torx Screws |
| 4 | – O-rings, 3.97 mm I.D. by Ø1.78 mm |
| 1 | – White trim ring with 2 (two) M3 captive screws |
| 1 | – Black trim ring with 2 (two) M3 captive screws |
| 1 | – Mounting Guide |

3 Installing a Recessed Mount

3.1 Description

This chapter details how to recess mount the AutoDome Junior.

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.
-

Mounting Assembly

The following illustrations shows the components of the recess mount:

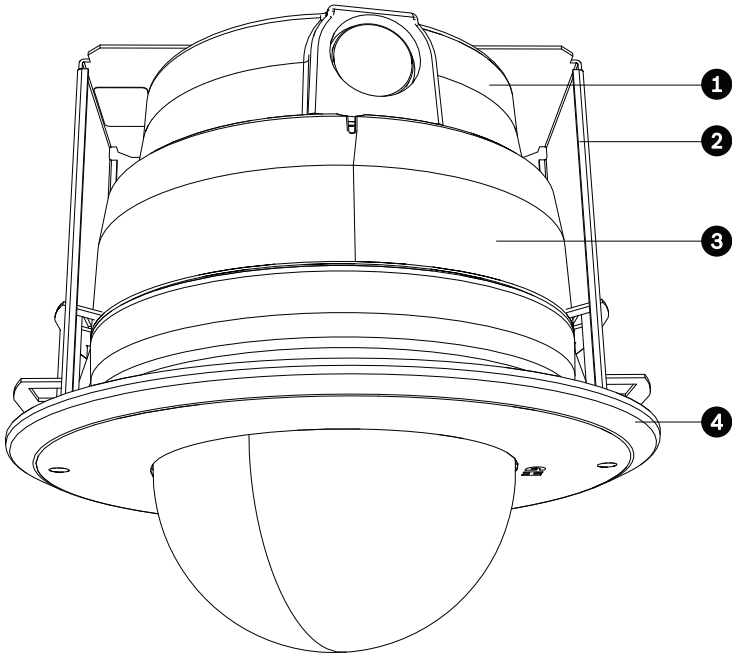


Figure 3.1 AutoDome Junior with IP54-rated In-ceiling Mount

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

3.1.1 Additional Requirements

- 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
- 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-SP, support kit for VJR-A3-IC54 mounting kit, if mounting to a drop ceiling

3.1.2 Preparing the Ceiling for Installation

To mount to a recess mount, do the following:

1. Determine a secure location for the recessed mount.

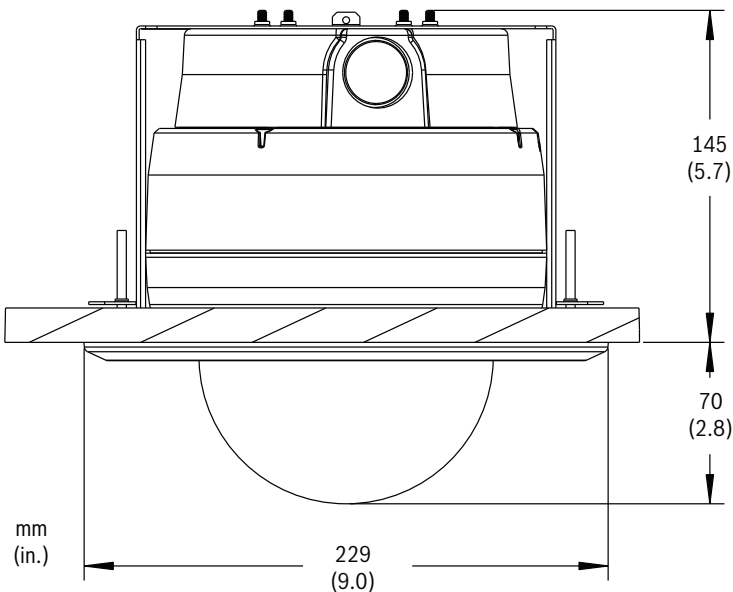
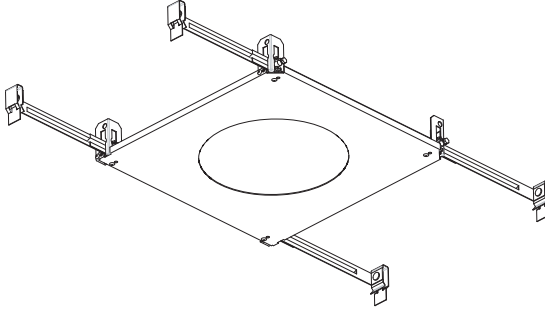
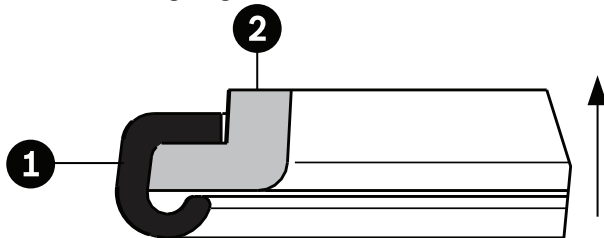


Figure 3.2 Recess Mount Dimensions

2. Drill or cut a 200 mm hole with a tolerance of 2.2 mm (7.9 in. \pm 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.

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

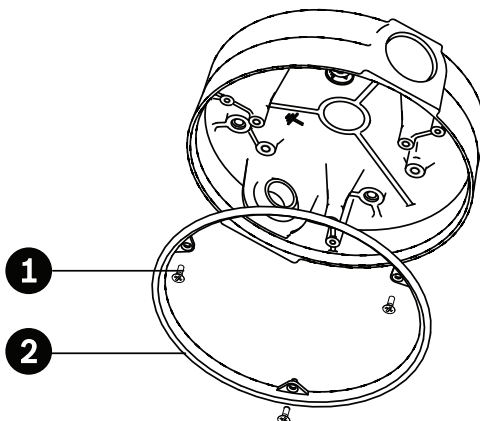


Figure 3.3 O-ring and retaining ring placement for outdoor installation

| | |
|---|---|
| 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) |

- Determine the side of the VJR-A3-JW in which the external wires are to be routed and remove the plug from the knockout.
- 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.
- Align the holes of the VJR-A3-JW with the mounting bracket. Ensure that the VJR-A3-JW knockouts are not covered by the bracket arms.
- Thread the four (4) 3.97 mm I.D. by $\varnothing 1.78$ mm O-rings (item 1, *Figure 3.4*) onto the four (4) M4 x 16 Phillips Pan Head Machine Screws.

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).

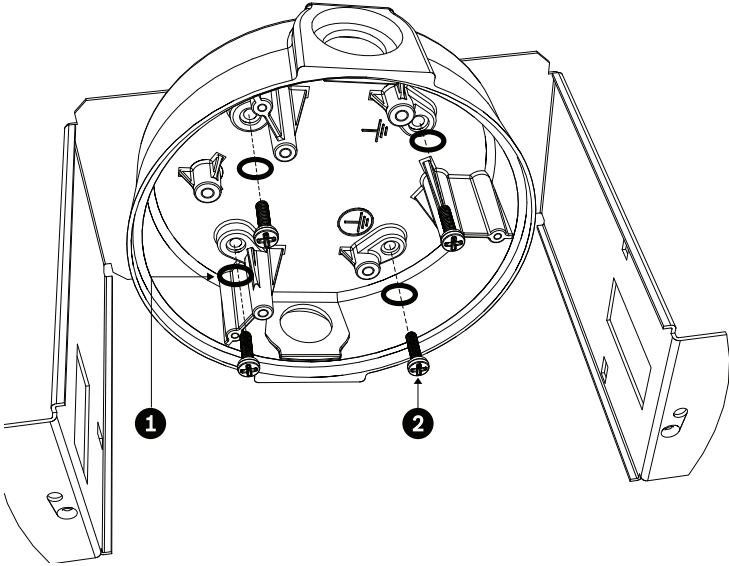


Figure 3.4 Attach VJR-A3-JW to Mounting Bracket

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.

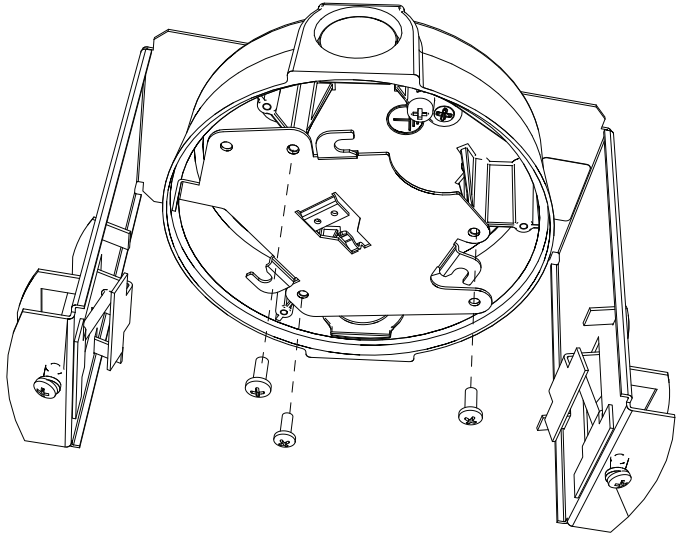


Figure 3.5 Attach Mounting Plate to VJR-A3-JW

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

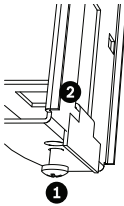


Figure 3.6 Clamp Drive Screws and Plates

13. Insert the bracket 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 a minimum thickness of 12.7 mm (0.50 in.).

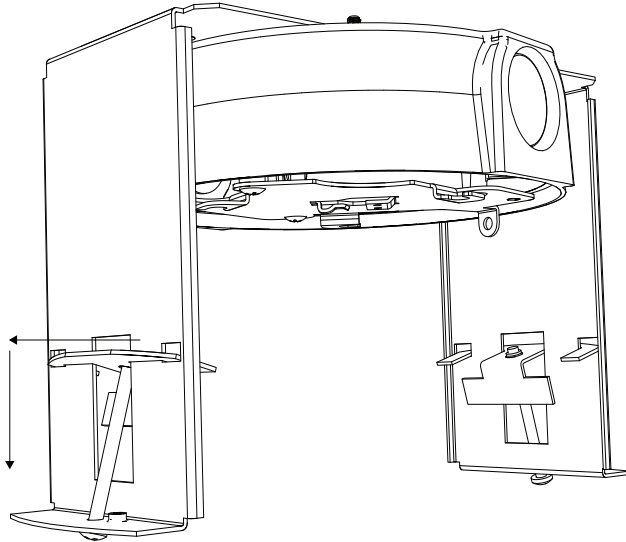


Figure 3.7 Attach Recess Mount to Ceiling

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

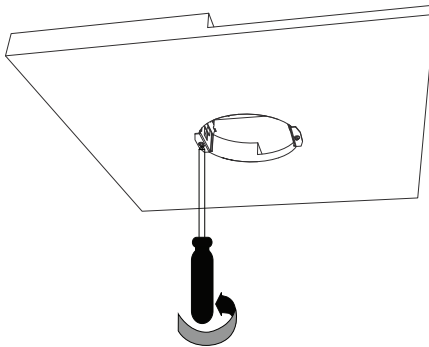


Figure 3.8 Tighten Mounting Clamps

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.

3.1.3 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.

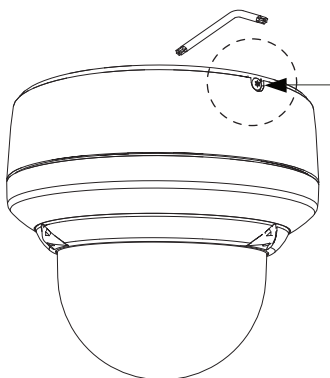


Figure 3.9 Unlock Safety Locking Screw

**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.

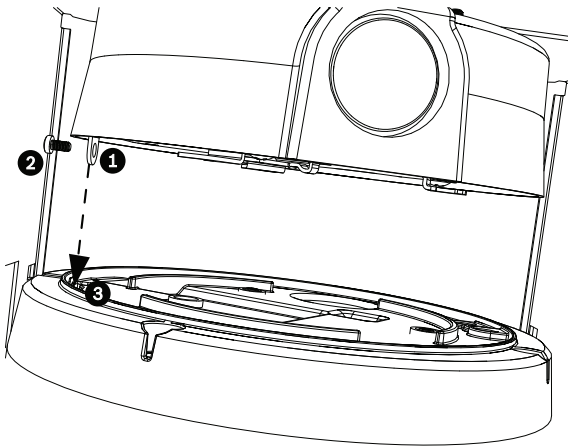


Figure 3.10 Tab/Slot Alignment Detail

| | |
|---|----------------------------------|
| 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.

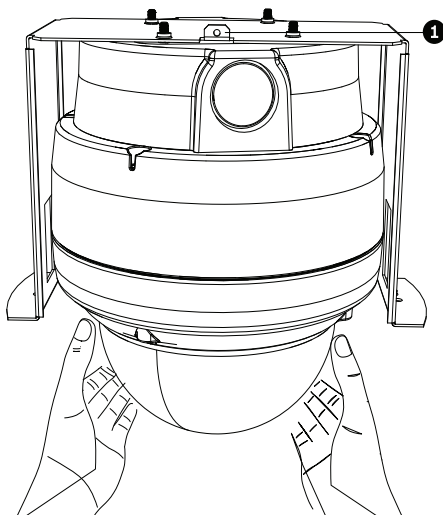


Figure 3.11 Attach Dome to Mounting Plate

10. Ensure unit is centered.



NOTICE!

The recessed mounting bracket is provided with an additional safety tether point (item 1, *Figure 3.11*). 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.

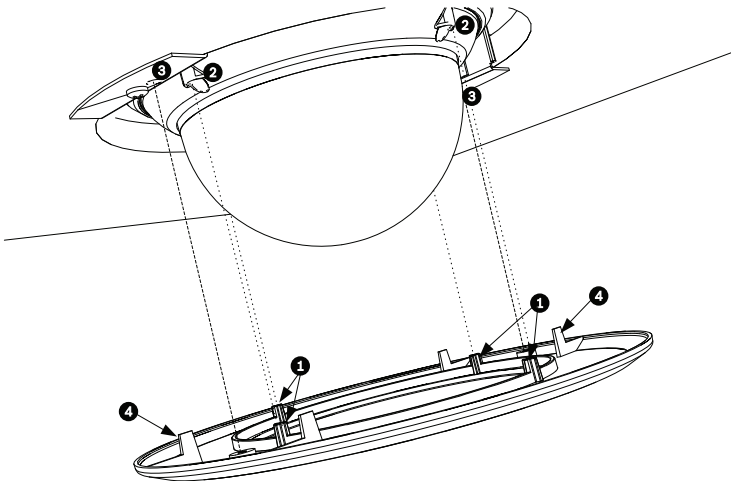


Figure 3.12 Align Trim Ring

| | |
|---|--|
| 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 the supplied T-10 Torx wrench to secure the trim ring's two (2) safety locking screws to the mounting bracket.

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