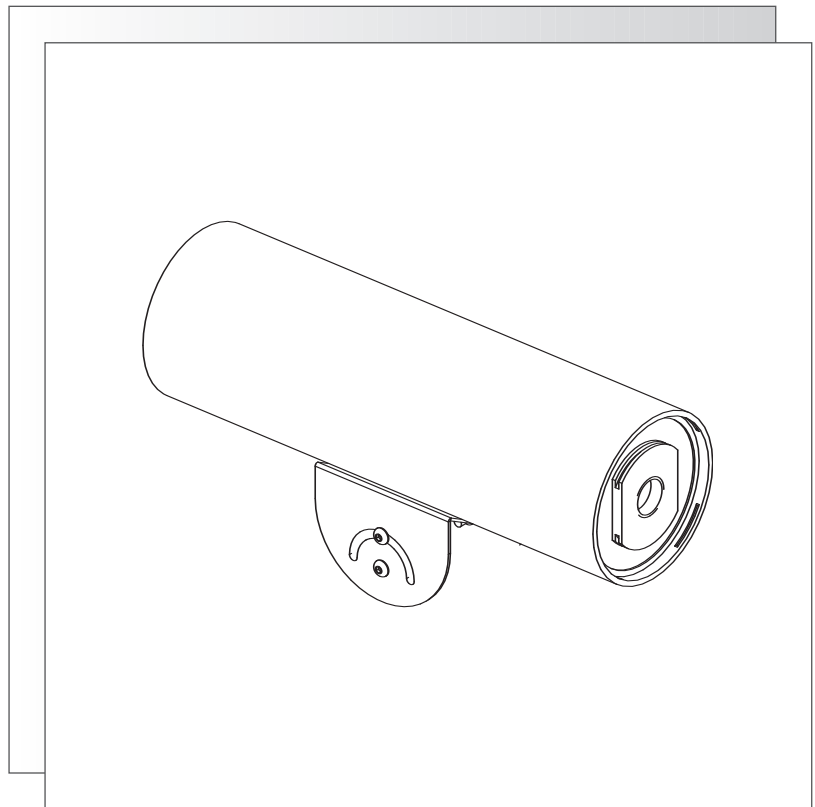


Stainless Steel Dust - Proof Housing



HS9383S SERIES

INSTALLATION AND OPERATING INSTRUCTIONS
WWW.AIGISMECH.COM

IMPORTANT SAFEGUARDS

1. Read Instructions - All the safety and operating instructions should be read before the unit is operated.
2. Retain Instructions - The safety and operating instructions should be retained for future reference.
3. Heed Warnings - All warnings on the unit and in the operating instructions should be adhered to.
4. Follow Instructions - All operating and use instructions should be followed.
5. Cleaning - Unplug the unit from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. Attachments - Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. Accessories - Do not place this unit on an unstable stand, tripod, bracket, or mount. The unit may fall, causing serious injury to a person and serious damage to the unit. Use only with a stand, tripod, bracket, or mount recommended by the manufacturer, or sold with the product. Any mounting of the unit should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.



An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

8. Ventilation - Openings in the enclosure, if any, are provided for ventilation and to ensure reliable operation of the unit and to protect it from overheating. These openings must not be blocked or covered. This unit should not be placed in a built-in installation unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
9. Power Sources - This unit should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply you plan to use, consult your appliance dealer or local power company. For units intended to operate from battery power, or other sources, refer to the operating instructions.
10. Grounding or Polarization - This unit may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
Alternately, this unit may be equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
11. Power-Cord Protection - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
12. Power Lines - An outdoor system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outdoor system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal. U.S.A. models only - refer to the National Electrical Code Article 820 regarding installation of CATV systems.
13. Overloading - Do not overload outlets and extension cords as this can result in a risk of fire or electric shock.
14. 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 that could result in a fire or electric shock. Never spill liquid of any kind on the unit.
15. Servicing - Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other

hazards. Refer all servicing to qualified service personnel.

16. Damage Requiring Service - Unplug the unit from the outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power-supply cord or plug is damaged.
 - b. If liquid has been spilled, or objects have fallen into the unit.
 - c. If the unit has been exposed to rain or water.
 - d. If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.
 - e. If the unit has been dropped or the cabinet has been damaged.
 - f. When the unit exhibits a distinct change in performance--this indicates a need for service.
17. Replacement Parts - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
18. Safety Check - Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.
19. Coax Grounding - If an outside cable system is connected to the unit, be sure the cable system is grounded. U.S.A. models only--Section 810 of the National Electrical Code, ANSI/NFPA No.70-1981, provides information with respect to 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.
20. Lightning - For added protection of this unit during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cable system. This will prevent damage to the unit due to lightning and power-line surges.

FCC & ICES INFORMATION (U.S.A. and Canadian Models Only)

WARNING - This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules and ICES-003 of Industry Canada. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Intentional or unintentional changes or modifications not expressly approved by the party responsible for compliance shall not be made. Any such changes or modifications could void the user's authority to operate the equipment.

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.

SAFETY PRECAUTIONS



CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT OPEN COVERS. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This label may appear on the bottom of the unit due to space limitations.



The lightning flash with an arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

1 UNPACKING

Unpack carefully. This is electromechanical equipment and should be handled with care.

Verify the unit model number.

Verify that parts listed as follows have been included.

Hardware Kit

Quantity	Part Description
2	1/4-20 x 1/4-inch BHCS (Button Head Cap Screw)
2	1/4-20 x 3/8-inch BHCS (Button Head Cap Screw)
2	1/4-20 x 1/2-inch BHCS (Button Head Cap Screw)
1	1/4-20 x 5/8-inch BHCS (Button Head Cap Screw)
1	1/4-20 x 3/4-inch BHCS (Button Head Cap Screw)
1	0.4 mm (0.016 in) Plastic Spacer
1	1.65mm (0.292 in) Plastic Spacer
1	3.9 mm (0.154 in) Plastic Spacer
1	7.4 mm (0.292 in) Plastic Spacer
1	9.8 mm (0.385 in) Plastic Spacer
2	5/16 Flat Washers
2	1/4 Lock Washer
1	Cable Ties
1	Bit Driver 5/32

If an item appears to have been damaged in shipment, replace it properly in its carton and notify the shipper. If any items are missing, notify an Aigis Mechtronics Sales Representative or Customer Service. The shipping carton is the safest container in which the unit may be transported. Save it for possible future use.

2 SERVICE

If the unit ever needs repair service, the customer should contact Aigis Mechtronics for return authorization and shipping instructions.

3 CARE AND MAINTENANCE

There are no moving parts in this unit. Regularly scheduled maintenance will help prolong the operation life of this unit. Clean the viewing window as needed with a mild, nonabrasive detergent in water and a soft cloth.

4 DESCRIPTION

The HS9383S Series of environmental housings are attractive stainless steel enclosures designed for CCD camera installations.

5 INSTALLATION



This installation should be made by a qualified service person and conform to all local codes.

5.1 Model Designation

Model No.	Rated Input	Range	Voltage Output
HS9383S	---	---	---
HS9383S-2H	24 VAC, 50/60 Hz	21.6 to 26.6	24 VAC, 50/60 Hz
HS9383S-5H	230VAC 50Hz	207-253	24VAC 50/60Hz
HS9383S-6H	120VAC 50/60 Hz	108 to 132	24VAC, 50/60 Hz

Power Requirements:
Heater requires 10 watts.

Do Not Exceed 30 VAC Input on 24 VAC models. Operation above 30 VAC violates low voltage operation (Class 2 Specifications). Normal operation is 24 VAC.

Maximum Camera/Lens Size:

Model Numbers HS9383S, HS9383S02H and HS9383S-5H accept cameras up to 2.5 x 2.3 in (64 W x 58 H mm), lenses up to 2.6 x 2.9 in (67 W x 75 H mm), and camera/lens combinations up to 7.0 in (178mm).

Model Numbers HS9383S-5H and HS9383S-6H accept cameras up to 2.5 x 2.3 in (64 W x 58 H mm), lenses up to 2.6 x 2.9 in (67 W x 75 H mm), and camera/lens combinations up to 9.0 in (228.6 mm).

5.2 Tools Required

Min. 3/16 x 4-inch Flat blade screwdriver
Phillips head screwdriver
5/32-inch (or 4 mm) hex wrench
5/16-inch (or 8 mm) hex wrench
1-3/4-inch open end wrench Or 10-inch Channel lock pliers
10-inch adjustable wrench
Wire cutter/stripper/crimper tool

5.3 Cable Requirements Video Transmission (Coaxial)

Cable Type:	RG-59/U (Runs < 1000 ft) RG-11/U (Runs < 2000 ft).
Cable Size:	Outside diameter between 4.6mm (0.181 in) & 7.9 mm (0.312 in).
Cable Shape:	Round.
Shield:	≥ 93% Braided Copper Shield.
Center Conductor:	Stranded Copper Center.
DC Resistance:	≥15 Ohms/1000 ft (RG-59/U) ≥ 6 Ohms/1000 ft (RG-11/U).
Cable Impedance:	75 Ohm.
Agency Rating:	UL
Environmental:	Outdoor rated.
Temperature Rating:	80 °C.
Sources:	Belden 9259 Belden 9238.

Input Power Cord - North American

Cable Type:	SJTOW-A rated.
Cable Size:	Outside diameter between 4.3 mm (0.170 in) & 11.9 mm (0.470 in).
Cable Shape:	Round.
Conductors:	3 conductor version and 2 conductor version.
Agency Rating:	UL/C.S.A., UL VW-I.
Environmental:	Outdoor rated.
Temperature Rating:	105 °C.
Voltage Rating:	300 V.
Sources:	Belden 19506 Belden 19509 Northwire 573939

Input Power Cord - European

Cable Type:	H05RN-F3G0.75 and H05RN-F3G1.00.
Cable Size:	Outside diameter between 4.3 mm (0.170 in) & 11.9 mm (0.470 in).
Cable Shape:	Round.
Conductors:	3 conductor version and 2 conductor version.
Agency Rating:	VDE.
Environmental:	Outdoor rated.
Sources:	Offlex 1600252 Offlex 1600253.

Lens Control Cable

Cable Type:	Jacketed multiconductor cable.
Cable Size:	Outside diameter between 4.3 mm (0.170 in) & 11.9 mm (0.470 in).
Cable Shape:	Round.
Shield:	Overall shielding.
Conductors:	Stranded 20 to 16 AWG wire.
No. of Conductors:	4 and 8.
Conductor Insulation:	Color coded.
Sources:	Belden 9552 Belden 9554.

5.4 Cradle Removal

1. Remove the cradle from the housing by first removing the rear retaining ring from the rear cap. Place a flat blade screwdriver underneath the relieved portion of the retaining ring and gently pry it outward. See **Figure 1**.

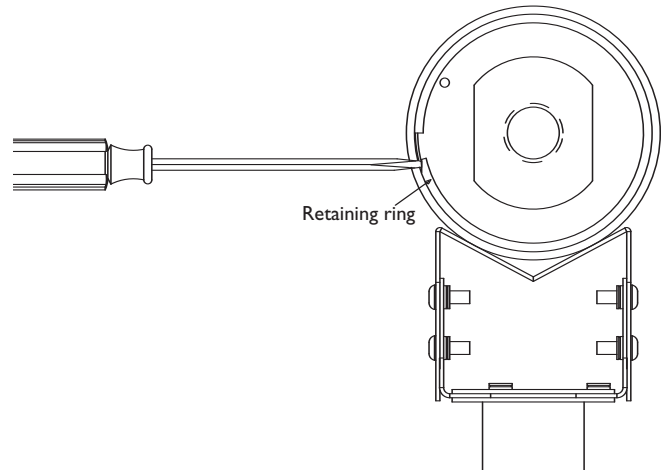


Figure 1: Removing Rear Retaining Ring

2. Place the blade of the screwdriver under the lip of the raised section in the rear cap, gently push the screwdriver against the housing. Pull the cradle from the housing. See **Figure 2**.

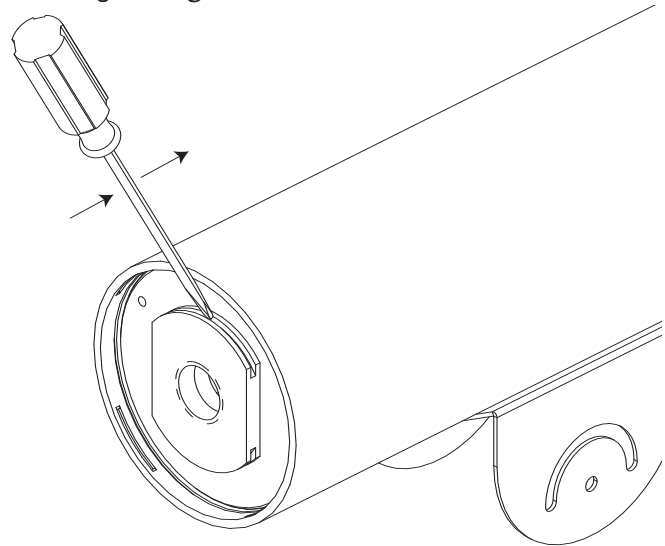


Figure 2: Removing Cradle Assembly

5.5 Camera/Lens Installation

With the cradle removed from the housing, follow all of the steps below.

1. Place the camera/lens combination into the cradle assembly.

Fixed Lens Cameras:

Position the camera/lens 1 mm (0.04 in) away from the faceplate. The camera/lens are secured to the cradle with a 1/4-20 button head cap screw (BHCS) and a combination of nylon spacers and washers. See **Figure 3**.

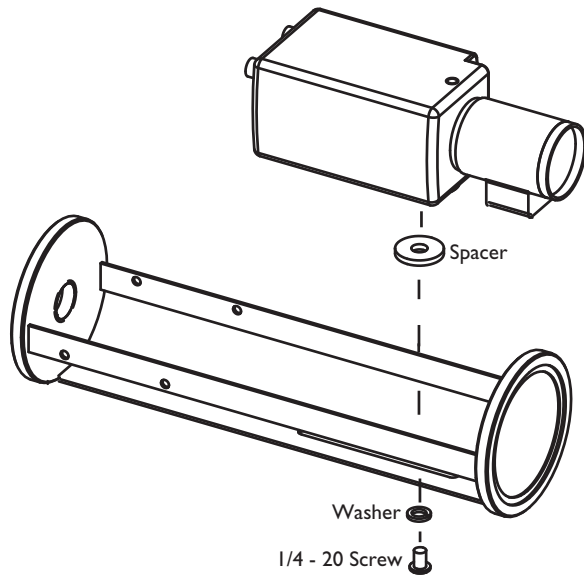


Figure 3: Mounting a Fixed Lens Camera

Zoom Lens Cameras: Allow $\frac{3}{16}$ -inch (5 mm) clearance from the front face of the lens to the front faceplate of the cradle during the camera/lens assembly. This clearance provides the necessary space for the lens to extend outward when zooming. Secure both the camera and the lens to the cradle with the $\frac{1}{4}$ -20 BHCS and appropriate plastic spacer. See **Figure 4**.

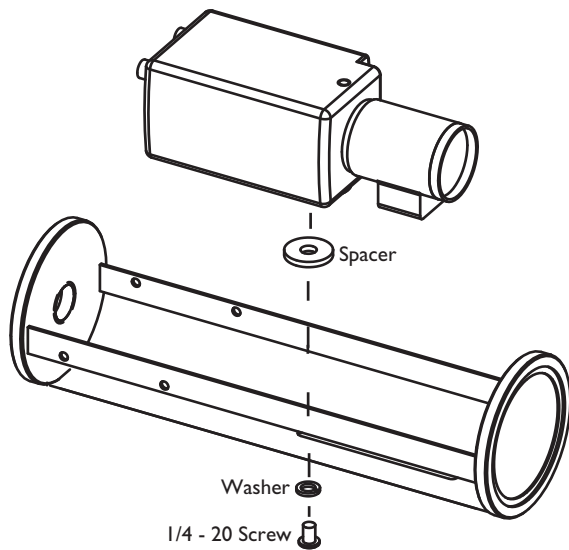


Figure 4: Mounting a Zoom Lens Camera

5.7 Video Cable Connection



WARNING: Only use the cables specified under **INSTALLATION, Cable Requirements** for wiring of all cameras and lenses.

1. Pull the video cable through the conduit fitting and make sure that the threaded section of the fitting mates up with the threads on the rear cap.

2. Pull the video cable through the threaded hole in the rear cap of the cradle.
3. Connect the video cable to the camera.
4. If using a zoom lens, pull the lens cable through the conduit fitting and attach to the zoom lens pursuant to the manual supplied with that product.

5.8 Power Connection

5.8.1 Power Connection HS9383S

1. Pull the wires through the conduit fitting and make sure that the threaded section of the fitting mates up with the threads in the rear cap.
2. Pull the wires through the threaded hole in the rear cap of the cradle.
3. A screw, nut and terminal lug are provided for the safety ground.
4. Unscrew the terminal lug and attach the ground wire. Attach the lug back to the rail of the cradle.
5. Connect the power wires to the camera per instructions provided with the camera.

5.8.2 Power Connection HS9383-2H

1. Pull the wires through the conduit fitting and make sure that the threaded section of the fitting mates up with the threads in the rear cap.
2. Pull the power wires through the threaded hole in the rear cap of the cradle.
3. A screw, nut and terminal lug are provided for the safety ground. See **Figure 5**.

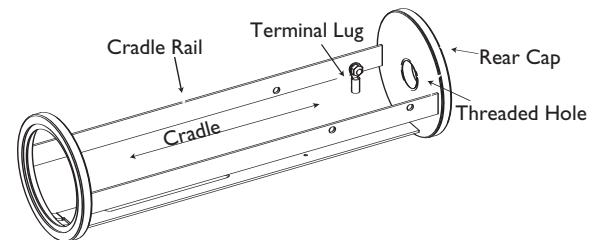


Figure 5: Power Connection

4. Unscrew the terminal lug and attach it to the ground wire. Attach the lug back to the rail of the cradle.
5. Install the power wires by using the gray connectors provided. Push and hold the side of the connector that does not have wires in it. Slide the tip of the wire into the opening of the connector until it stops then release. Repeat this same operation for the other connector. See **Figure 6**.
6. Connect the camera to the black and white wires per the instructions provided with your camera.

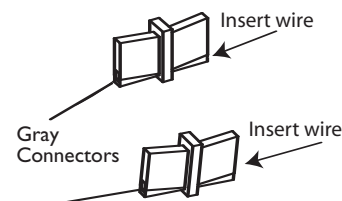
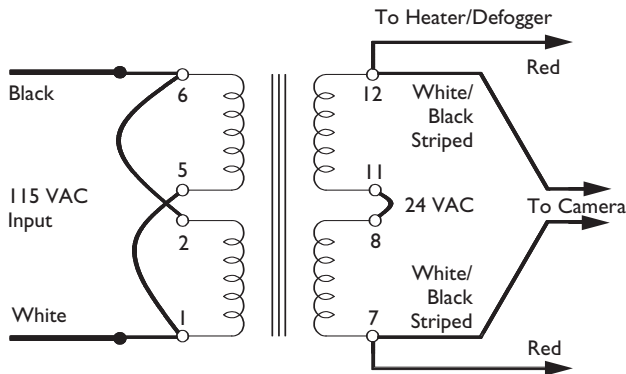


Figure 6: Wire Connectors

5.8.3 Power Connection HS9383S-6H

1. Installing a 24-volt camera into the HS9383S-6H housing utilizes the internal transformer for the camera.
2. Pull the wires through the conduit fitting and make sure that the threaded section of the fitting mates up with the threads in the rear cap.
3. Pull the wires through the threaded hole in the rear cap of the cradle.
4. A screw, nut and terminal lug are provided for the safely ground.
5. Unscrew the terminal lug and attach the ground wire. Attach the lug back to the rail of the cradle.
6. Connect the supply (115Vac) to the primary flying leads of the transformer (white wire on pin 1, black wire on pin 6). Gray connectors have been pre wired with these connections. See **Figure 6**. Push and hold the side of the connector that does not have wires in it. Slide the tip of the wires into the opening of the connector until it stops then release. Repeat these operations for the other side.
7. Connect the secondary flying leads to the camera's 24-volt input. See **Figure 7**.



**Figure 7: HS9383S-6H Transformer
Wired for 24 Volt Camera**

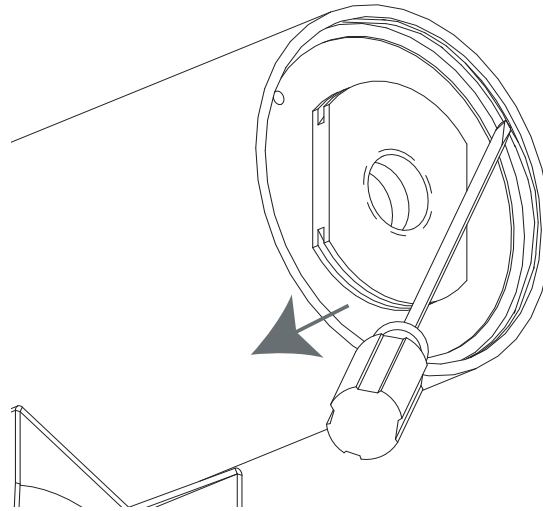


Figure 8: Inserting Cradle Assembly

3. Replace the rear retaining ring by inserting it into the housing groove. This secures the cradle assembly in the housing. If the housing needs to be tamper-resistant, the HS9380TK (purchased separately) should be installed at this time.
4. Attach the housing to the appropriate mount using instructions provided with the mount. According to the orientation of the housing, the cradle assembly may need rotating to align the camera image. To rotate the cradle assembly (while mounted), use 1-3/4" wrench or channel lock pliers to grasp the flats on the raised section of the rear cap to rotate to the desired position. This is best accomplished while viewing the image on the monitor. See **Figure 8**.

5.9 Desiccant Bag

There is one desiccant bag provided with this housing to absorb moisture. Remove the adhesive strip on the back of the desiccant bag and adhere the bag to the cradle in a location that will not interfere with the camera or sliding the cradle back into the housing.

5.10 Re-installing the Cradle Assembly

1. Place the cradle in the housing, push the front cap of the cradle past the rubber o-ring in the rear of the housing, stop pushing when the rear cap of the cradle is touching the o-ring in the rear of the housing.
2. Insert the tip of a flat head screwdriver in the slot of the housing, lay the screwdriver across the raised section of the rear cap, and push in towards the housing to close the cradle. See **Figure 8**.

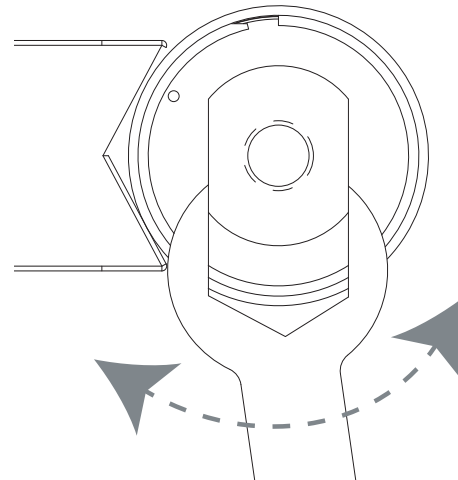



Figure 9: Rotate Cradle Assembly

5.11 Installing Conduit

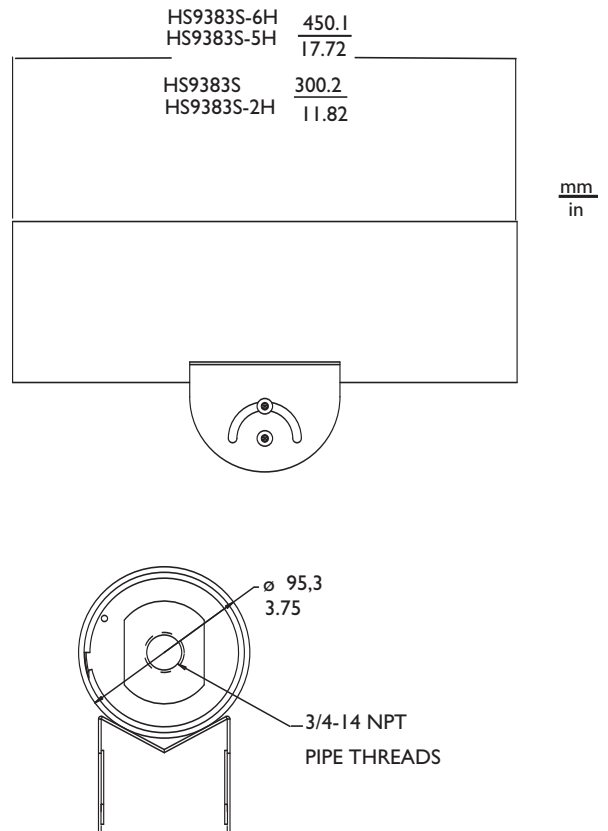
1. Apply pipe sealant or teflon tape to the threaded section of the conduit fitting.
2. Install fitting in the rear cap and tighten with an adjustable wrench.

6. MOUNTING

1. Determine a secure mounting location.
2.  **Cautions:**
 - a. For a secure installation, use four 8-mm (5/16-in) diameter fasteners (not included). Use stainless steel or zinc plated fasteners.
 - b. If bolts are used, they should extend through the mounting surface and be secured with flat washers, lock washers, and nuts on the opposite side. Each bolt must have a minimum pull-out strength of 200 kg (450 lb).
 - c. If studs are used, they should be anchored in concrete or welded to a steel backer plate. Each stud must have a minimum pull out strength of 200 kg (450 lb).
 - c. If studs are used, they should be anchored in concrete or welded to a steel backer plate. Each stud must have a minimum pull out strength of 200 kg (450 lb).
 - d. If the wall mount is attached to wood or to a blind structure (with no access to the rear), each fastener must have a minimum pull-out strength of at least 200 kg (450 lb).
3. Locate the four holes or stud locations using the flange as a template (four holes equally spaced on a 69.9-mm (2-3/4-in bolt circle).
4. Install the mount using bolts or studs at least 8-mm (5/16-in) in diameter.
5. Turn the housing into position and lock the mounting head in by using the supplied 1/8 long-arm hex wrench to tighten screws.

For more information see the MT9208SS & MT9212SS Stainless Steel Mount Instruction Booklet.

7. DIMENSIONAL OUTLINES





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