MicroDome™

INSTALLATION MANUAL

AV1455DN-S

AV2455DN-S

AV2456DN-S

AV3455DN-S

AV3456DN-S

AV5455DN-S

Made in the USA

Arecont Vision

10 Years
2003 - 2013

Celebrating 10 Years of Leading the Way in Megapixel Video

MicroDome™ Surface Mount Installation

Contents

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Package Contents

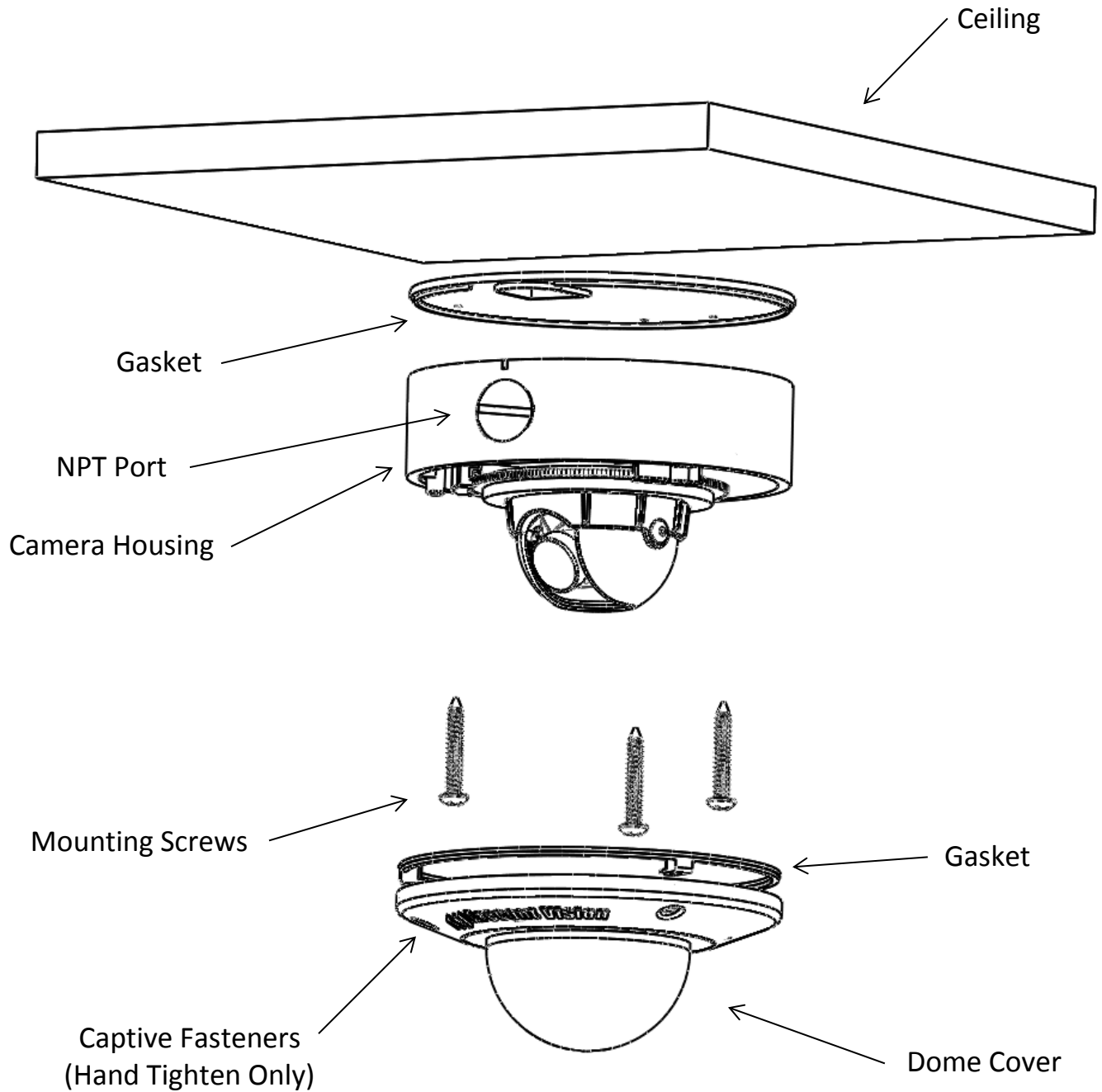| Item	Description
MegaPixel Camera	MicroDome™
Mounting Kit	Ceiling template 6x Mounting Screws (#6x1" for wood or sheet metal) 6x Mounting Anchors 3/8" NPT Male to 1/2" NPT Female Adapter Network Patch Cable 3x Security Torx Dome Cover Fasteners
Arecont Vision CD	Manual, Warranty, Installation Software

Warranty Information

3 Year Limited Warranty

ARECONT VISION warrants to Purchaser (and only Purchaser) (the "Limited Warranty"), that: (a) each Product shall be free from material defects in material and workmanship for a period of **thirty-six (36) months** from the date of shipment (the "Warranty Period"); (b) during the Warranty Period, the Products will materially conform with the specification in the applicable documentation; (c) all licensed programs accompanying the Product (the "Licensed Programs") will materially conform with applicable specifications. Notwithstanding the preceding provisions, ARECONT VISION shall have no obligation or responsibility with respect to any Product that (i) has been modified or altered without ARECONT VISION's written authorization; (ii) has not been used in accordance with applicable documentation; (iii) has been subjected to unusual stress, neglect, misuse, abuse, improper storage, testing or connection; or unauthorized repair; or (iv) is no longer covered under the Warranty Period. ARECONT VISION MAKE NO WARRANTIES OR CONDITIONS, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, OTHER THAN THE EXPRESS LIMITED WARRANTIES MADE BY ARECONT VISION ABOVE, AND ARECONT VISION HEREBY SPECIFICALLY DISCLAIMS ALL OTHER EXPRESS, STATUTORY AND IMPLIED WARRANTIES AND CONDITIONS, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT AND THE IMPLIED CONDITION OF SATISFACTORY QUALITY. ALL LICENSED PROGRAMS ARE LICENSED ON AN "AS IS" BASIS WITHOUT WARRANTY. ARECONT VISION DOES NOT WARRANT THAT (I) THE OPERATION OF THE PRODUCTS OR PARTS WILL BE UNINTERRUPTED OR ERROR FREE; (II) THE PRODUCTS OR PARTS AND DOCUMENTATION WILL MEET THE END USERS' REQUIREMENTS; (III) THE PRODUCTS OR PARTS WILL OPERATE IN COMBINATIONS AND CONFIGURATIONS SELECTED BY THE END USER; OTHER THAN COMBINATIONS AND CONFIGURATIONS WITH PARTS OR OTHER PRODUCTS AUTHORIZED BY ARECONT VISION OR (IV) THAT ALL LICENSED PROGRAM ERRORS WILL BE CORRECTED.

For RMA and Advance Replacement information visit ArecontVision.com

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Installation Overview

Ceiling

Gasket

NPT Port

Camera Housing

Mounting Screws

Gasket

Captive Fasteners
(Hand Tighten Only)

Dome Cover

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Installation

1. Wiring methods shall be in accordance with the National Electrical Code/NFPA 70/ANSI, and with all local codes and authorities having jurisdiction. Wiring should be UL Listed and/or Recognized wire suitable for the application.
2. Operating Temperature -40°C (-40°F) to +50°C (122°F)
3. Always use hardware e.g. screws, anchors, bolts, locking nuts etc. which are compatible with mounting surface and of sufficient length and construction to insure a secure mount
4. Visit http://www.arecontvision.com/ and check to ensure your camera has the most current firmware.
5. For installations in harsh environments it is recommended to use all six mounting screws supplied with your camera to create the best seal possible between your camera and the mounting surface using the supplied gasket.
6. If using the NPT port always use Teflon tape around threads to ensure proper sealing.
7. After plugging in the network cable check that the indicator LED's are indicating the desired conditions (see LED Indicator table).
8. Use Arecont Vision software AV100 or AV200 located on the CD or available for download at our website (www.arecontvision.com) for camera discovery and setup (see Instruction Manual located on CD or available on our website).
9. Adjust the pan and tilt to obtain the desired field of view (see Focusing Instructions).
10. Lens may be further secured by tightening the lens lock screw using Phillips head screwdriver.
11. Install the Dome Cover by aligning the captive fasteners with the mating threaded holes on the camera housing.
12. When mounting the Dome Cover to the Camera Housing ensure that the gasket is properly seating and not folded. Failure to do so may result in water and dust ingress.
13. When mounting the Dome Cover to the Camera Housing do not over torque the three captive fasteners as this will cause the threads to strip. Only hand tighten these screws.
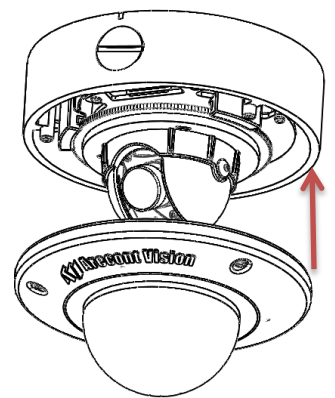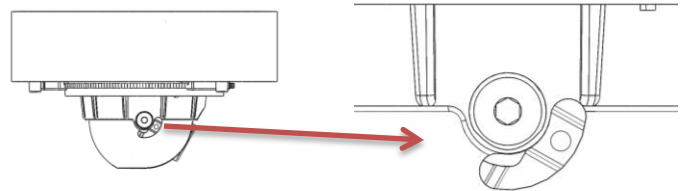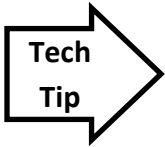
Best Practice Tips

➢ When mounting to vertical surface it is best to use the Wall Mount Accessory (MCD-WMT) which includes a junction box.
➢ For outdoor use it is always best to properly seal the product using caulk around the edges to prevent water ingress from mounting to porous or uneven surfaces.
➢ Use Teflon tape on threaded interfaces.
➢ Use all 6 supplied mounting screws for best seal when mounting outdoors.

Tech Tip

Focusing the Camera

Tech Tip

1. Open a live view of the camera from your web browser or the AV Software provided (AV100 or AV200).
2. Loosen the lens lock screw using a phillips head screwdriver (if necessary). Only do so if lens seems very tight when turning. Lock screw should be tightened enough to provide some friction against the lens to avoid focusing problems.
3. Manually rotate the lens to adjust the focus until the desired image is obtained.
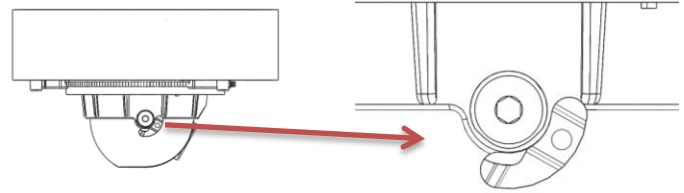
Tech Tip

4. For some lenses a focus shift will occur once the bubble is in place. Hold the bubble up to the lens when focusing to account for the focus shift or see the "Focusing Alternate Lenses" section below for further instruction.
5. Retighten the lock screw if necessary.
6. Install the Dome Cover by aligning the captive fasteners with the mating threaded holes on the camera housing.
7. When mounting the Dome Cover to the Camera Housing ensure that the gasket is properly seating and not folded. Failure to do so may result in water and dust ingress.
8. When mounting the Dome Cover to the Camera Housing do not over torque the three captive fasteners as this will cause the threads to strip. Only hand tighten these screws.
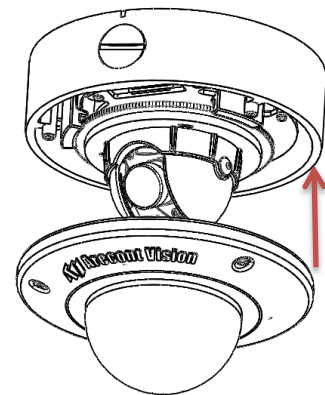
Changing the Lens

1. Remove the Dome Cover by loosening the captive fasteners.
2. Loosen the lens lock screw using a phillips head screwdriver (if necessary). Only do so if lens seems very tight when turning.
3. Manually unscrew the lens, this may take several seconds.
4. Replace lens.
5. Retighten the lock screw if necessary.
6. Reinstall Dome Cover per instructions outlined above.
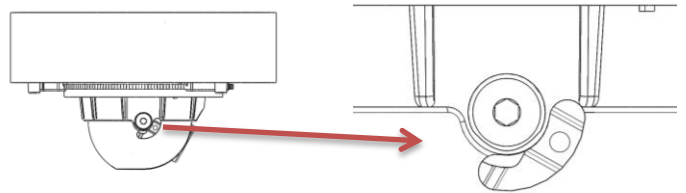
Focusing Alternate Lenses

When focusing the 6mm, 8mm, 12mm or 16mm lens options you will encounter a focus shift when using the bubble. To account for this follow these steps:
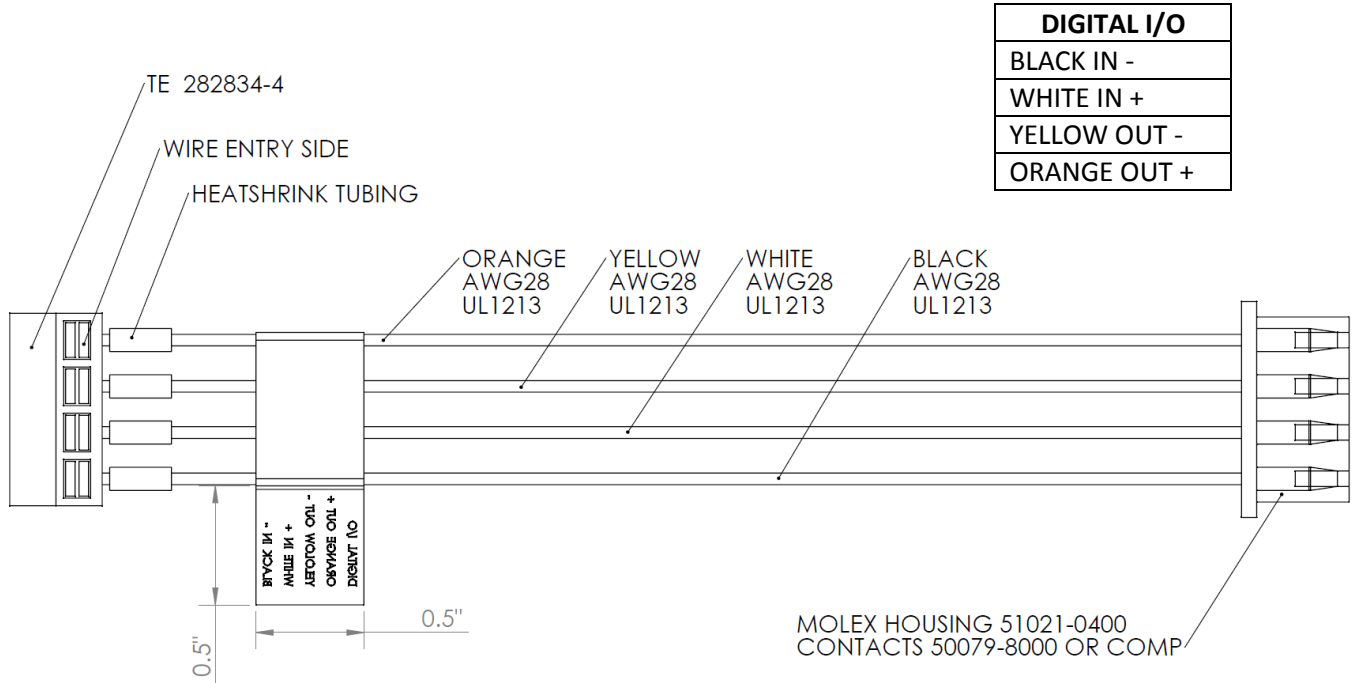
Tech Tip
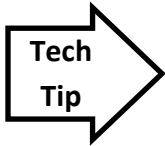
1. Focus the camera without the bubble.
2. Rotate the lens per the chart below. The rotation will account for most of the focus shift.
3. Put cover with bubble on. You should be close to being focused.
4. Remove cover and rotate a couple degrees at a time in either direction until you gain the desired image.

Lens		Rotation	
MPM16.0	16mm	<3/4 CCW	250°
MPM12.0	12mm	1/4 CCW	90°
MPM8.0	8mm	>1/8 CCW	60°
MPM6.0	6mm	1/8 CCW	45°

Example: Using a 16mm lens you will focus the lens without the bubble until you get the desired image. Rotate the lens almost ¾ of a turn (250°). Put the bubble on and view the image. It should be almost in focus. Remove the bubble and rotate a degree or two in one direction and view the image with the bubble on. Depending on the image you may need to adjust in the opposite direction or continue in the same direction until the desired image is obtained.

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Digital Input and Output

Use 4 position connector inside camera housing to interface with Digital I/O.

DIGITAL I/O
BLACK IN -
WHITE IN +
YELLOW OUT -
ORANGE OUT +

TE 282834-4

WIRE ENTRY SIDE

HEATSHRINK TUBING

ORANGE AWG28 UL1213   YELLOW AWG28 UL1213   WHITE AWG28 UL1213   BLACK AWG28 UL1213

BLACK IN -
WHITE IN +
YELLOW OUT -
ORANGE OUT +
DIGITAL I/O

0.5"

0.5"

MOLEX HOUSING 51021-0400
CONTACTS 50079-8000 OR COMP

Electrical Characteristics

		MIN	MAX
Input Voltage (V) (Measured between + and – terminals)	ON	2.9	6.3
	OFF	0	1.3
Output Current (mA) (Measured between + and – terminals) Applied Voltage Range : 0-80V	ON	-	50
	OFF	-	0.1

NOTE: Both the input and the output are electrically isolated from the rest of the camera's electrical circuitry via general-purpose photo couplers. The input is additionally protected with a serial 250 Ohm resistor and a debouncing circuit. Duration of any input signal should be at least 5ms to comply with the requirements of the debouncing circuit.

LED Indicators

LED	Status	Description
Yellow	Flashing	Link has been established.
	Solid	Normal Operation.
	None	No connection.
Green	Flashing	Camera has been accessed. Normal operation.
	Solid	N/A
	None	No Connection.

Support

1. Arecont Vision FAQ Page Located at ArecontVision.com
2. Check the following before you call:
   - ✓ Restore camera to factory default with AV100, AV200 or the camera webpage.
   - ✓ Upgrade to the latest firmware by visiting ArecontVision.com.
   - ✓ Isolate the camera on a dedicated network and test with AV100 or AV200.
   - ✓ Swap the "troubled" camera with a known good camera to see if the problem follows the camera or stays at the location.
3. Contact Arecont Vision Technical Support one of three ways:

   1. Online Portal : Support.ArecontVision.com
   2. Phone : 1.818.937.0700 (option #1)
   3. Email : support@arecontvision.com

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Installation Best Practice

Begin Installation → Wind Vinyl electrical tape on all cables → Adding Teflon thread sealing tape to all male threads

Connect ¾" NPT conduit pipe to junction box adapter

Does conduit pipe go through the wall?

No

Yes

Make sure position of conduit hole is at the lower side forming a "drip loop" below the camera using ¾" galvanized or flex conduit and appropriate fittings

Tighten all camera screws and ¾" NPT plugs

Caulk the perimeter of the mounting area

End Installation

Conduct periodic inspections of the installation. Rust on the metal parts or screws may result in damage to camera

Not Recommended!

Recommended!

Not Recommended!

Recommended!

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Camera Discovery, Setup, and Configuration
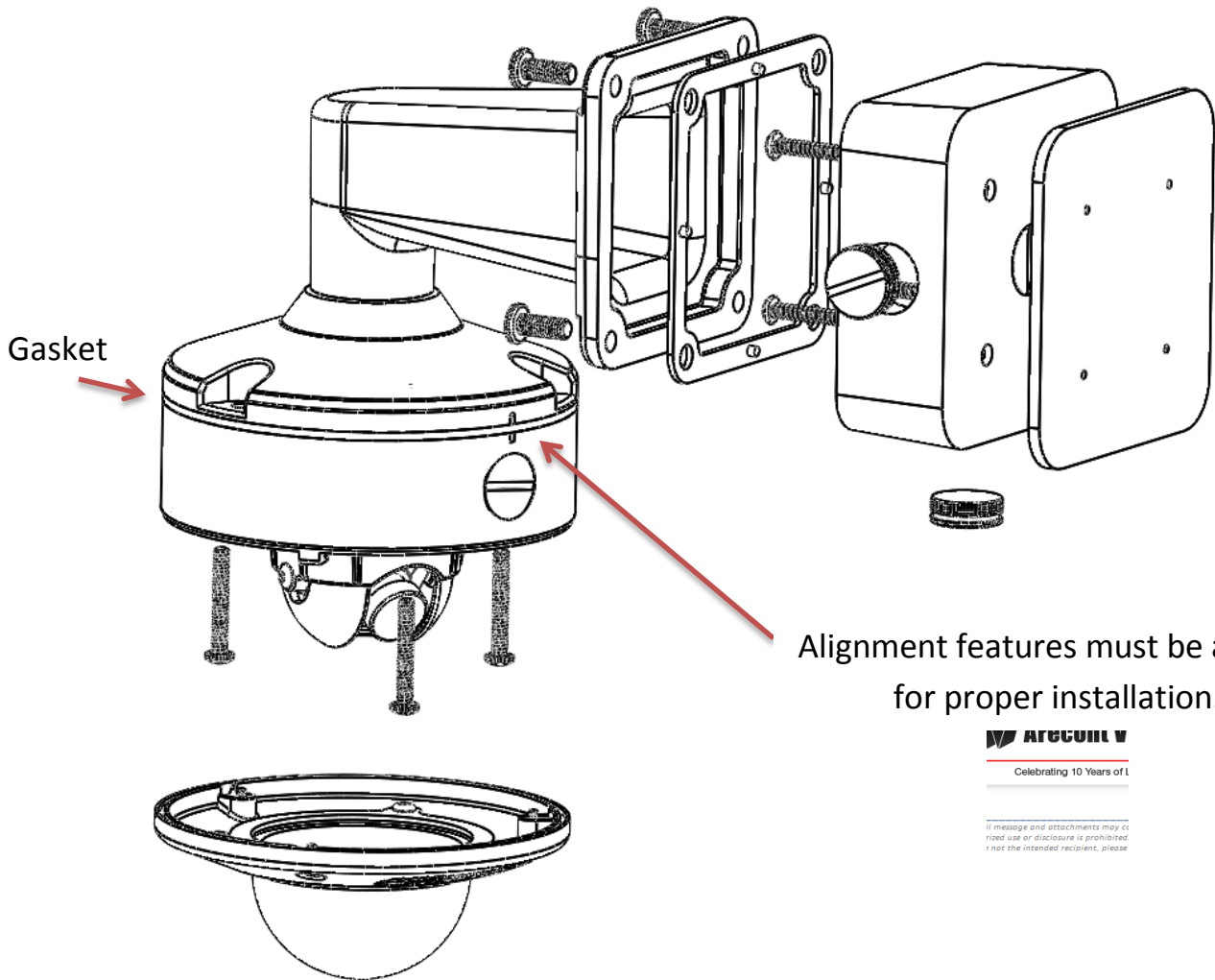
For camera discovery and setup please use Arecont Vision software AV200 which you can find on the CD included with your camera or at:

http://www.arecontvision.com/softwares.php

The user manual for the AV200 software is included on the CD and is also located on our website.

To configure the camera use either the AV200 software or the web interface utility. The web interface can be accessed by typing the camera IP address into your web browser or by clicking on the web interface button in AV200. The user manual for our web interface is included on the CD and is also located on our website.

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Wall Mount Accessory (MCD-WMT)

Gasket

Alignment features must be aligned
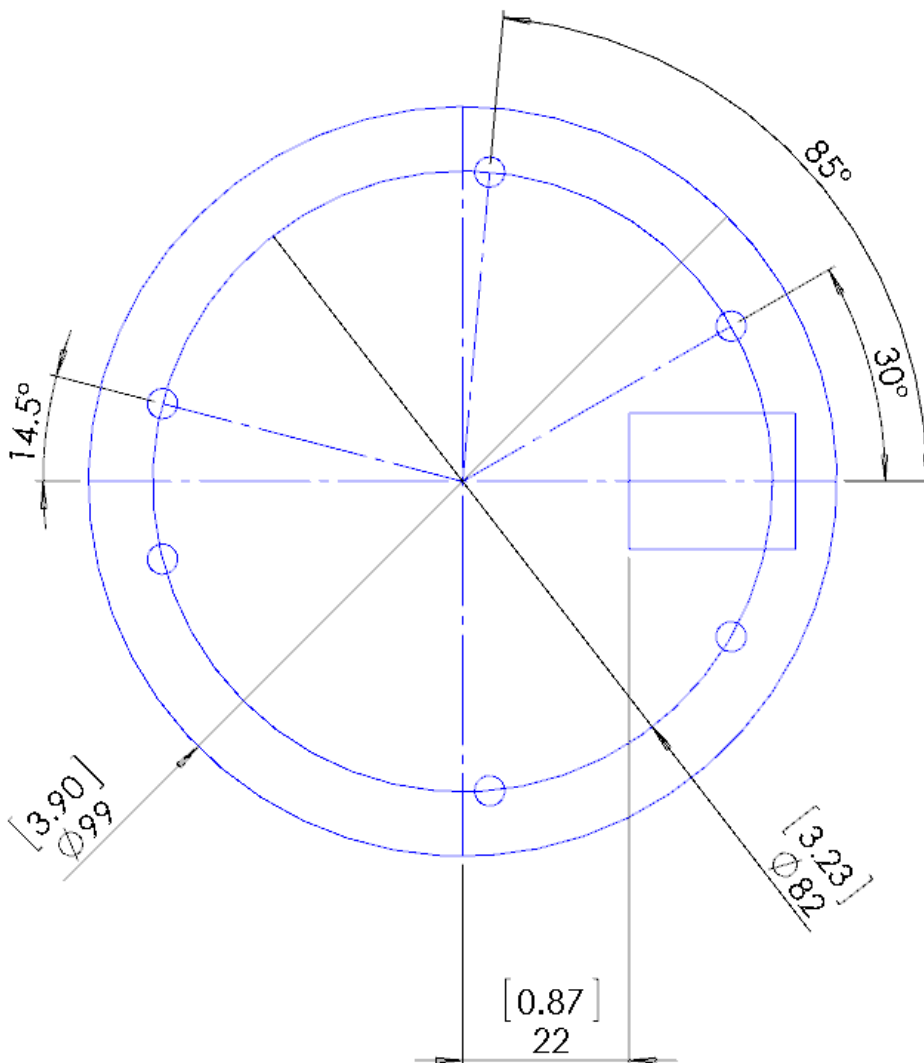for proper installation.

Installation Notes:

1. 4x mounting screws are #10x1" wood or sheet metal screws (4x mount anchors also included).
2. Always ensure gaskets are properly seated.
3. Use Teflon tape on threaded interfaces.
4. 3/8" male to 1/2" female NPT adapter included.
5. Mount holes from camera housing to flange are not symmetrical. Alignment features indicated must be properly lined up for mount hole alignment.

Pendant Mount Accessory (MCD-CMT)

Gasket

Alignment features must be aligned
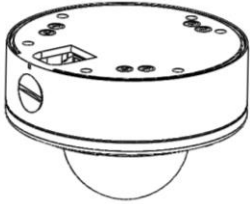for proper installation.
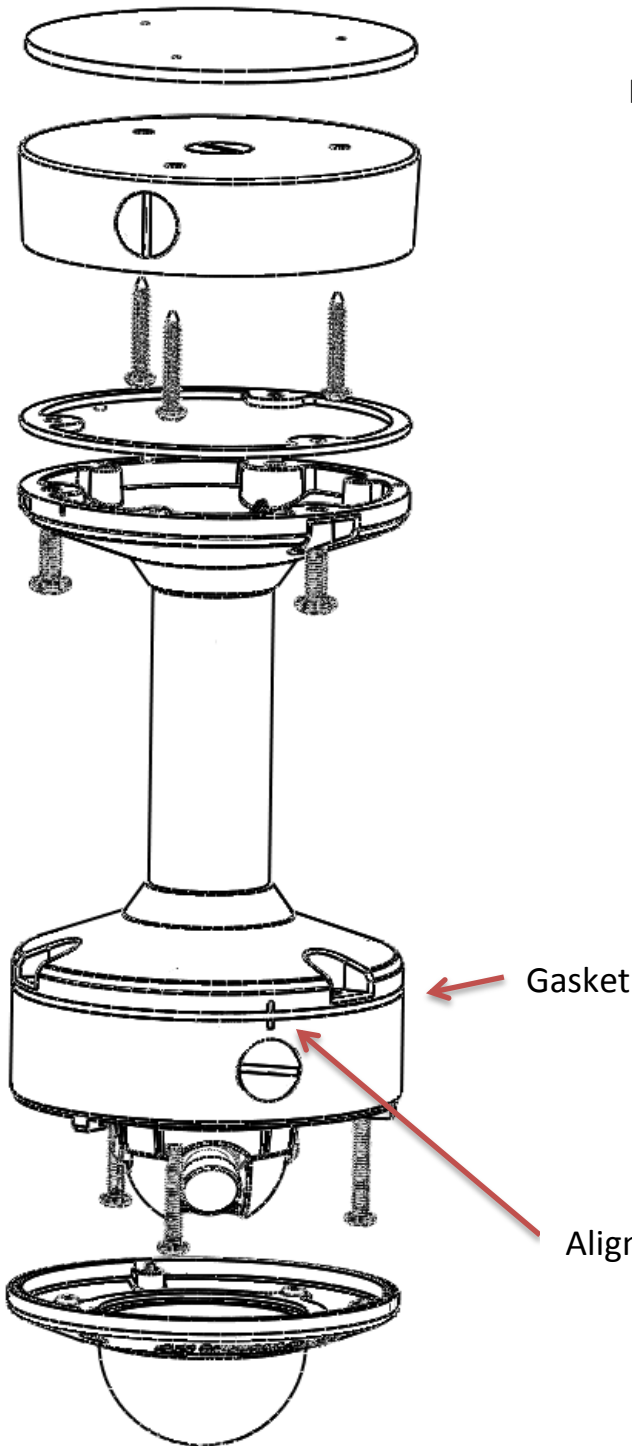
Installation Notes:

1. 3x mounting screws are #10x1"
   wood or sheet metal screws (3x
   mount anchors also included).
2. Always ensure gaskets are properly
   seated.
3. Use Teflon tape on threaded
   interfaces.
4. 3/8" male to 1/2" female NPT
   adapter included.
5. Mount holes from camera housing
   to flange are not symmetrical.
   Alignment features indicated must
   be properly lined up for mount
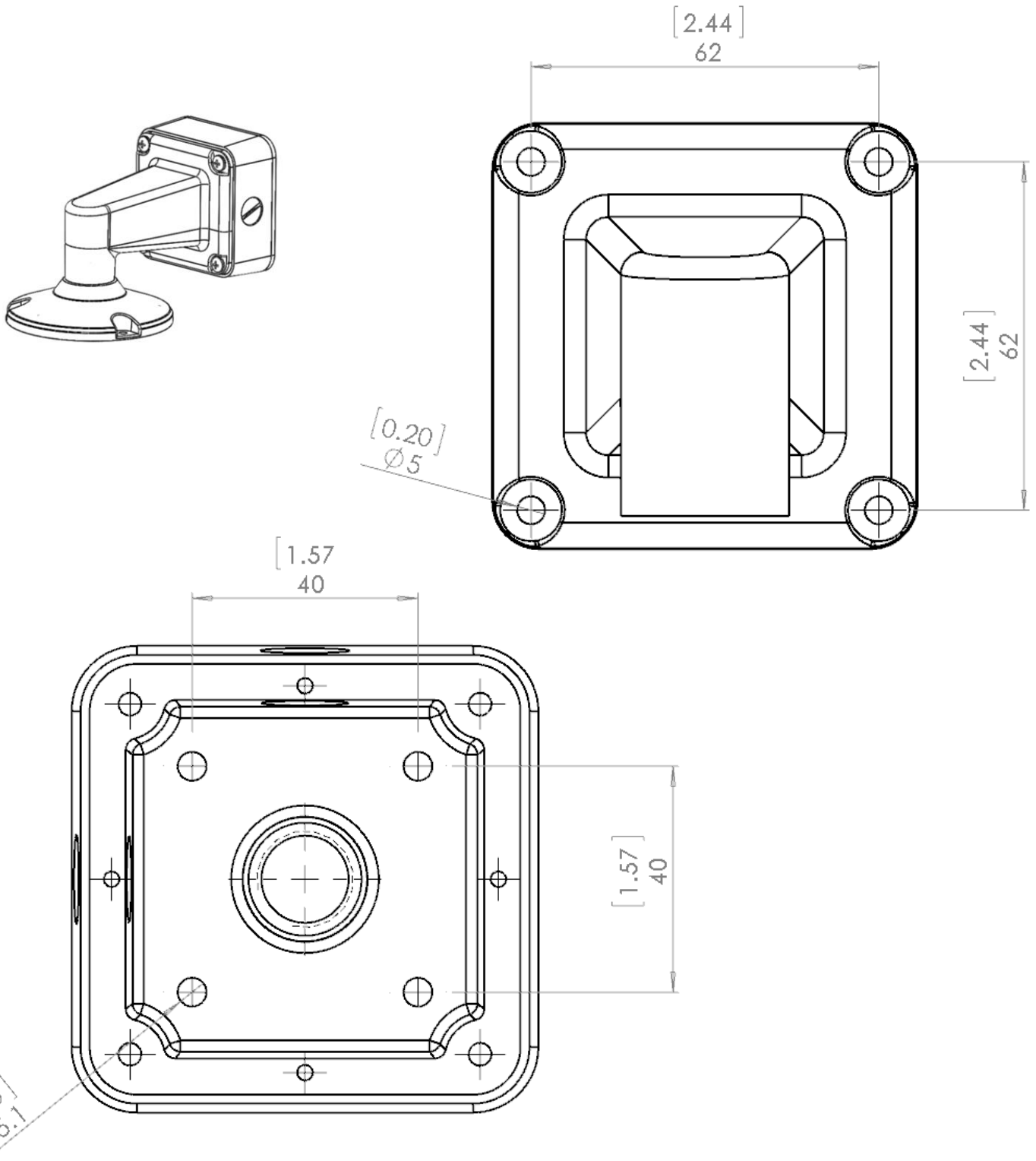   hole alignment.

Mount Template: MicroDome Camera

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Mount Template: MicroDome Wall Mount

[2.44]
62

[2.44]
62

[0.20]
Ø 5

[1.57]
40

[1.57]
40

[0.20]
Ø 5.1

Mount Template: MicroDome Pendant Mount
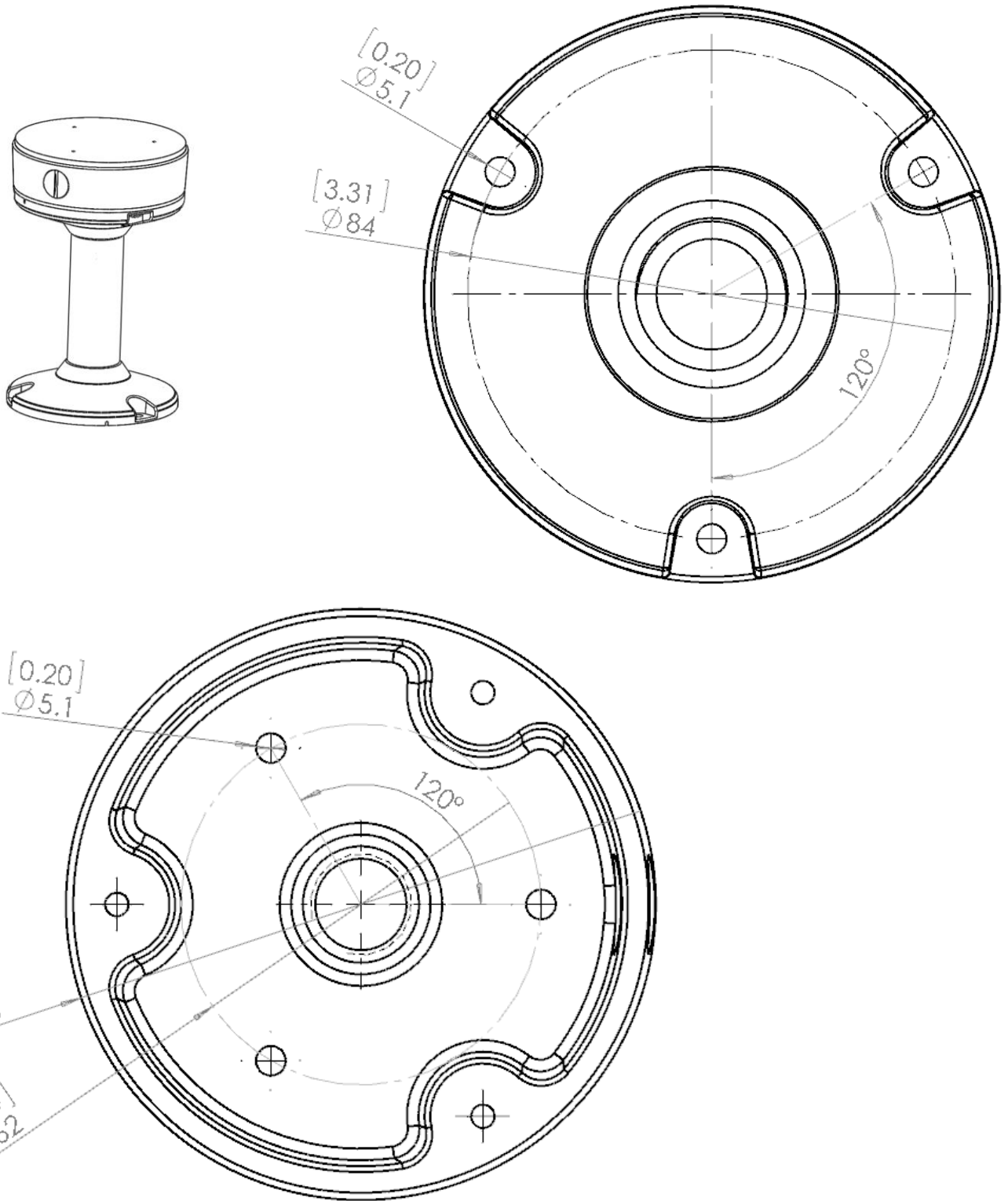
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