

FortiCam Pendant Mounting Guide



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TABLE OF CONTENTS

Change Log	4
Warnings and Cautions.....	5
Introduction	6
Pendant Caps	7
Available Mounting Accessories	9
Wall mount using Pendant Arm.....	13
Wall mount using Pendant Arm	13
Wall mount using Pendant Arm and Junction box	15
Pole mount using Pendant Arm and Pole Bracket	18
Ceiling Mounting using Pendant Pipe	20
Ceiling mount using Pendant cap FCM-STH and Straight Tube FCM-ST20	20
Drop ceiling mount on COTS EMT tubing	21
Combinations using pendant cap.....	22

Change Log

Date	Change Description
2023-1-17	Initial release.

Warnings and Cautions

- **Handle the camera carefully**

Do not abuse the camera. The camera can be damaged by improper handling or storage.

- **Do not disassemble the camera**

To prevent electric shock, do not remove screws or covers. There are no user serviceable parts inside. Ask a qualified service person for servicing.

- **Do not operate the camera beyond the specified temperature, humidity, or power source ratings**

Use the camera under conditions where temperature is between -40°C ~ 50°C (-40°F ~ 122°F), and relative humidity is below 90%.

- **Do not expose the camera to rain or moisture, or try to operated it in wet conditions**

This product is designed for indoor use or locations where it is protected from rain and moisture. Turn the power off immediately if the camera is wet and ask a qualified service person for servicing. Moisture can damage the camera and also cause electric shock.

- **Do not use strong or abrasive detergents when cleaning the camera body**

Use a dry cloth to clean the camera when it is dirty. In case the dirt is hard to remove, use a mild detergent and wipe the camera gently.

- **Never face the camera toward the sun**

Do not aim the camera at bright objects. Whether the camera is in use or not, never aim it at the sun or other extremely bright objects. Otherwise, the camera may be smeared or damaged.

- **Only remove the protective wrap from the camera lens when the entire installation is completed**

The clear bubble needs to be protected to avoid damage and scratches.

- **Ensure the inside of the dome cover is free of dust and particles**

Gently wipe the inside with a clean lint free cloth or blow the dust away before installing the dome cover and removing the protective wrap.

- **Ensure no moisture gets trapped inside the camera**

Replace the dry pack found inside the camera with the fresh one from the protective pouch in the box.

- **Avoid IR light reflecting back into lens at night**

If close objects are illuminated by the IR LEDs at night, it may cause reflections in the video image. To avoid this blur, position the camera with a free view even outside the optical view cone.

Introduction

This guide covers pendant cap based mounting options for the following FortiCamera models:

FortiCamera	Pendant Cap Accessory	SKU
FCM-CD51	FortiCam-CD5-Mount-PCP	FCM-CD5-PCP-4
FCM-CD55	FortiCam-CD5-Mount-PCP	FCM-CD5-PCP-4
FCM-CD51-C	FortiCam-CD5-Mount-PCP	FCM-CD5-PCP-4
FCM-CD55-C	FortiCam-CD5-Mount-PCP	FCM-CD5-PCP-4
FCM-FD50	FortiCam-FD50-Mount-PCP	FCM-FD5-PCP-8
FCM-FE120B	FortiCam-FE120B-PCP	FCM-FE120B-PCP-4

Each camera has its own pendant cap accessory, which allows connecting it to a system of shared accessories.

For instructions on how to connect the camera to its pendant cap, see the Mounting guide for each individual camera.

Pendant Caps

FCM-CD51 / FCM-CD55 / FCM-CD51-C / FCM-CD55-C

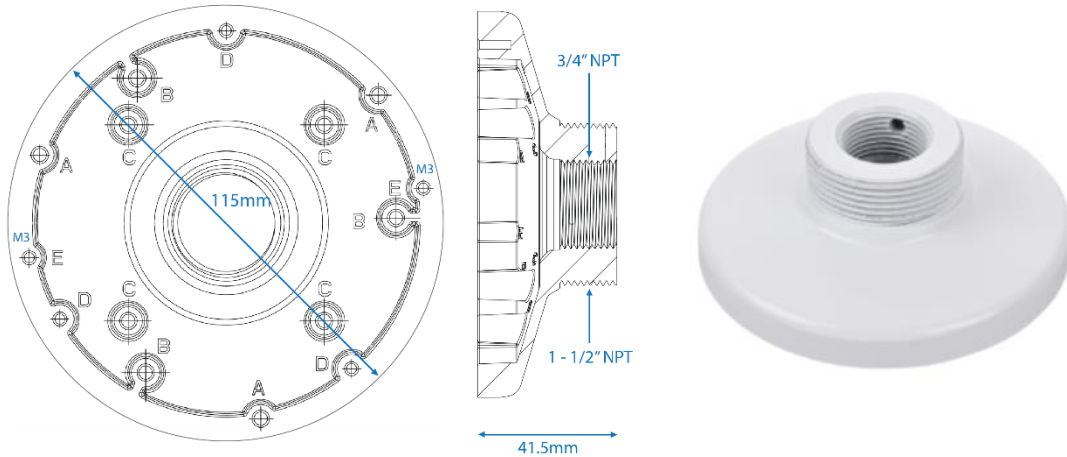
FortiCam-CD5-Mount-PCP

SKU: FCM-CD5-PCP-4

Pendant Cap Mount Kit for FCM-CD51/CD55 (set of 4)

Included: 4x M4 bolts, 3x M3 bolts, 1x M6 set screw, allen key

Note: Dimensions in the following diagram are in millimetres.



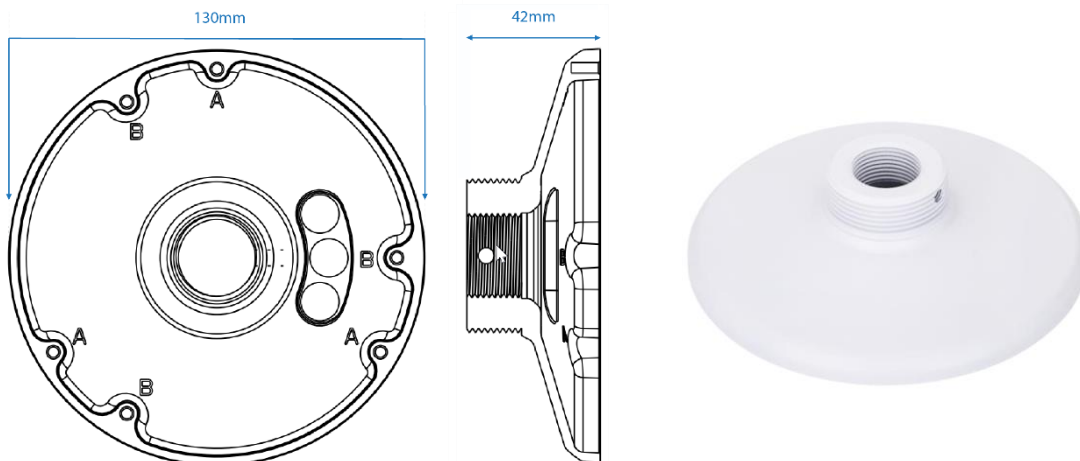
FCM-FD50

FortiCam-FD50-Mount-PCP

SKU: FCM-FD5-PCP-8

Pendant Cap Kit for FCM-FD50 (set of 8)

Included: 3x M4 bolts, 1x M6 set screw, allen key



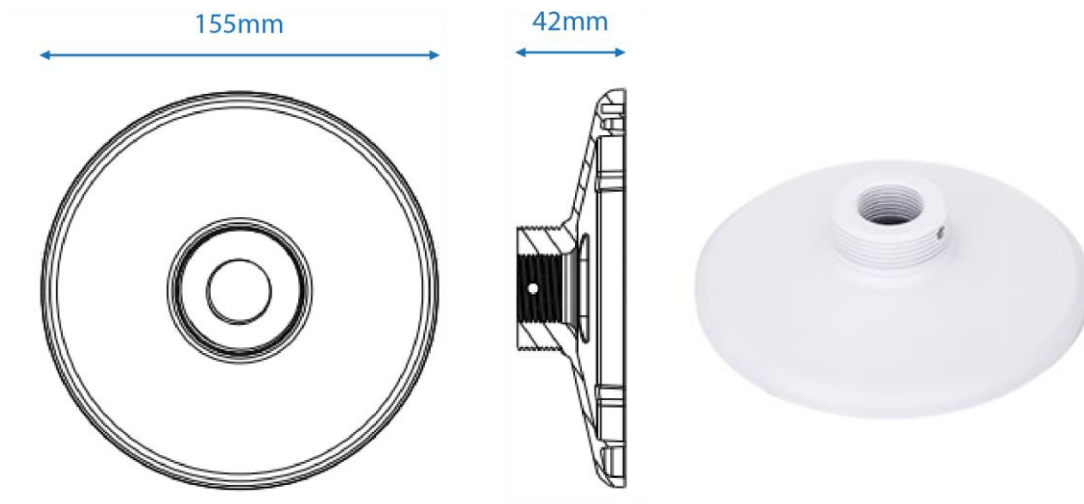
FCM-FE120B

FortiCam-FE120B-PCP

SKU: FCM-FE120B-PCP-4

Pendant Cap Mount Kit for FCM-FE120B (set of 4)

Included: 4x M4 bolts, 1x M6 set screw, allen key



Available Mounting Accessories

The following accessories are compatible with the pendant cap based system:

- | | | |
|--------------------|-------------------------|-----------------------------|
| • Pendant arm | FortiCam-FD50-Mount-PDT | FCM-FD5-PDT-8 (set of 8) |
| • Junction box | FortiCam-FB50-Mount-JBX | FCM-FB5-JBX-4 (set of 4) |
| • Pole mount kit | FortiCam-Mount-POL-2 | FCM-MOUNT-POL-2 (set of 2) |
| • Drop tube header | FortiCam-Mount-STH-2 | FCM-MOUNT-STH-2 (set of 2) |
| • Drop tube | FortiCam-Mount-ST20-4 | FCM-MOUNT-ST20-4 (set of 4) |

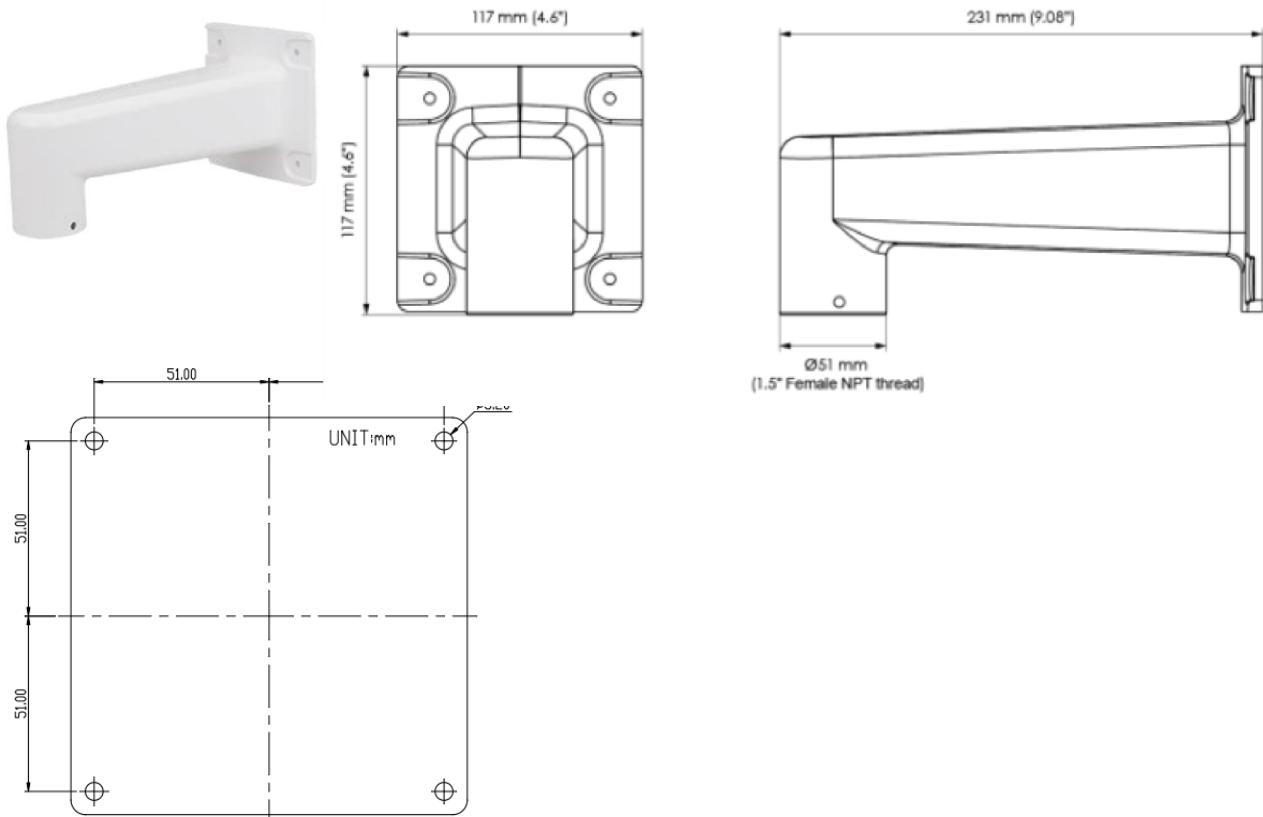
You can order any of these mounting accessories for your installation requirements. For possible combinations, see the chapter about combinations.

Pendant Arm

FortiCam-FD50-Mount-PDT

SKU: FCM-FD5-PDT-8 (set of 8)

Included: 4x screws, 4x anchors, allen key, 1x M6 set screw

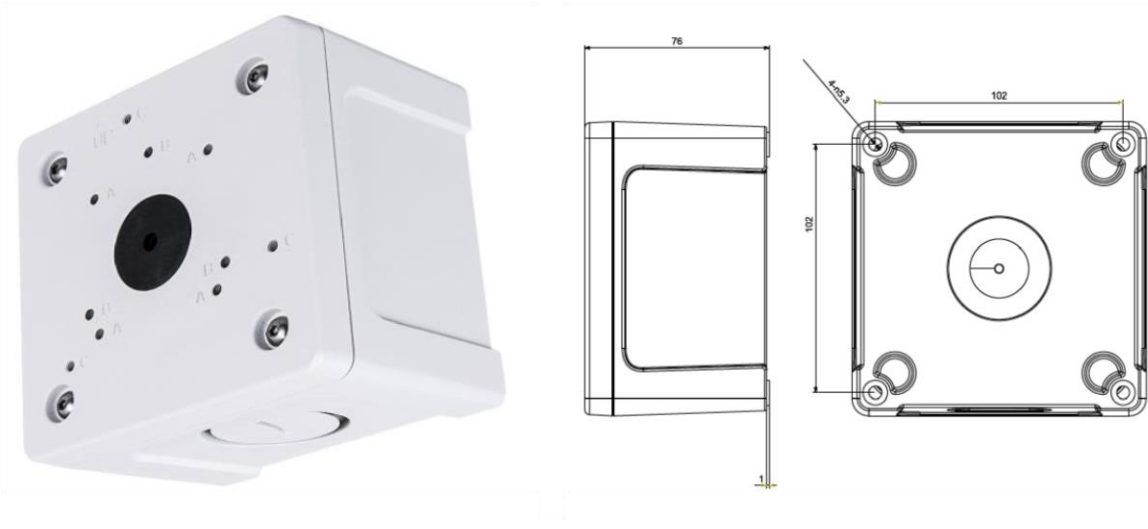


Junction Box

FortiCam-FB50-Mount-JBX

SKU: FCM-FB5-JBX-4 (set of 4)

Included: alignment sticker, 4x screws, 4x anchors, 4x M5 bolts

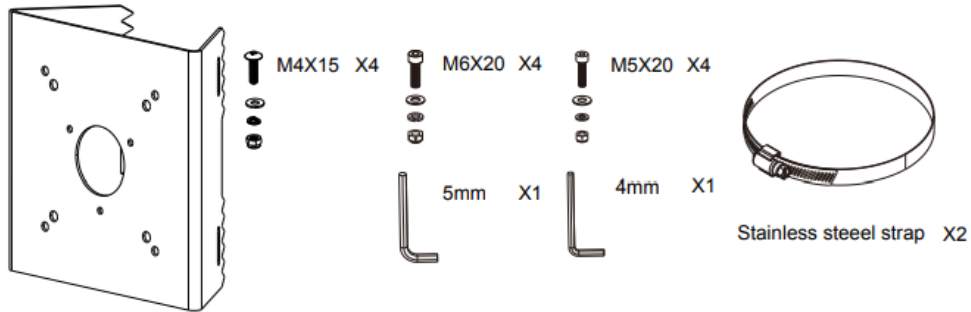


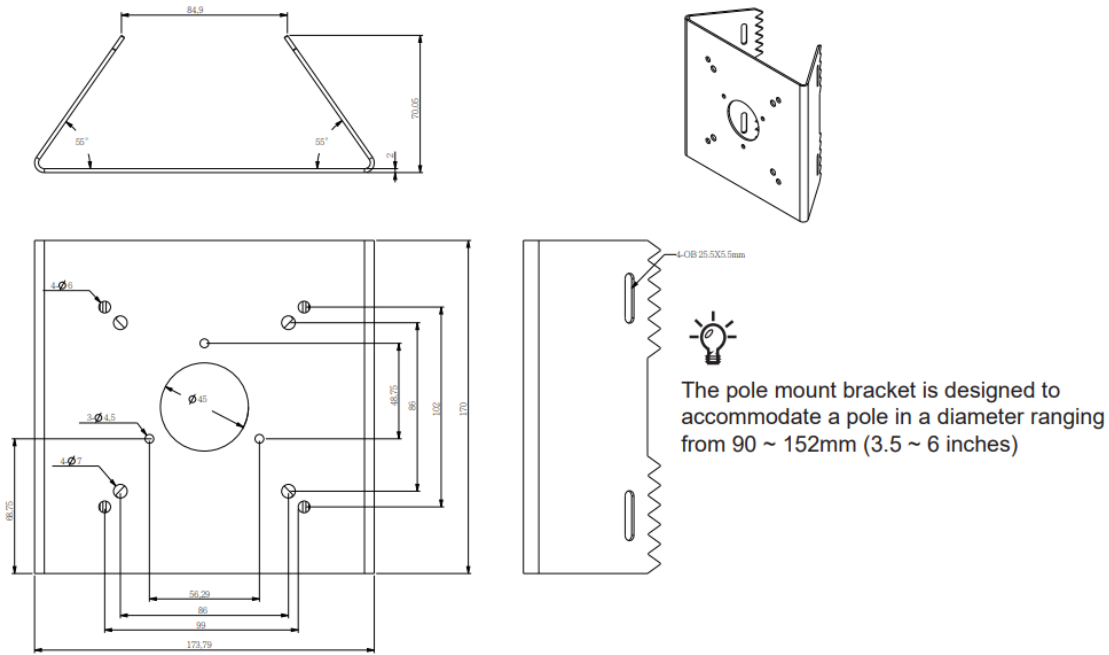
Pole mount kit

FortiCam-Mount-POL-2

SKU: FCM-MOUNT-POL-2 (set of 2)

Included: 2x Stainless strap, 4x M6X20mm screw kit, 4x M5X20mm screw kit, 4x M4x15mm screw kit, 1x allen key 5mm, 1x allen key 4mm





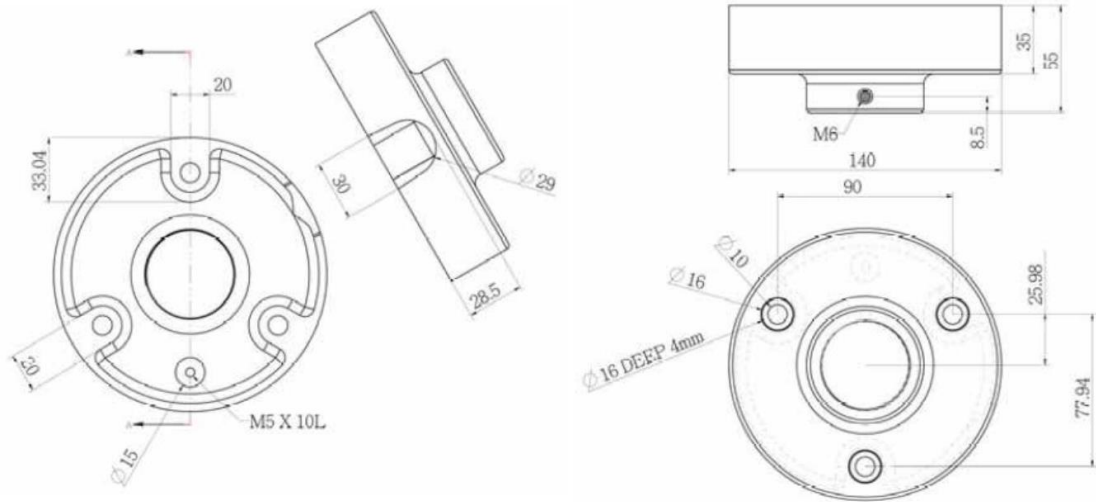
Drop tube header

FortiCam-Mount-STH-2

SKU: FCM-MOUNT-STH-2 (set of 2)

Included: 3x M6.2 x75mm screws and plugs, 1x M6 set screw, allen key

Note: Header is for indoor or protected use



Drop straight tube

FortiCam-Mount-ST20-4

SKU: FCM-MOUNT-ST20-4 (set of 4)

Included: M6 set screw, allen key

Note: The straight tubes can be stacked or replaced with COTS 1 1/2" tubing.

Note: Dimensions in the diagrams are in millimeters.

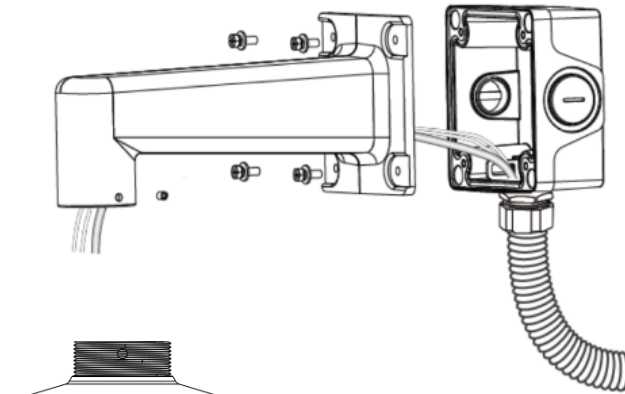


Wall mount using Pendant Arm

Options include:

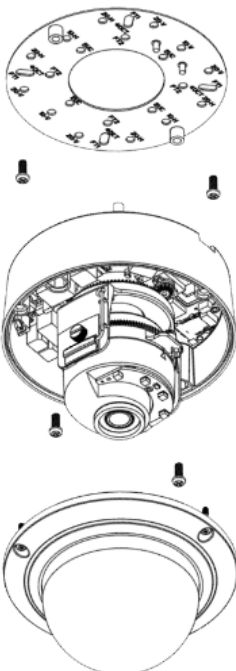
- Wall mount in combination with Pendant Arm **FCM-FD5-PDT**.
- Optionally with junction box **FCM-FB5-JBX**.

Wall mount using Pendant Arm



Note: For instructions how to connect the camera to the pendant cap, see the Mounting guide for the individual FortiCam: <https://docs.fortinet.com/product/fortirecorder/hardware>

Note: The illustration and description on this page uses FCM-CD51 as an example.

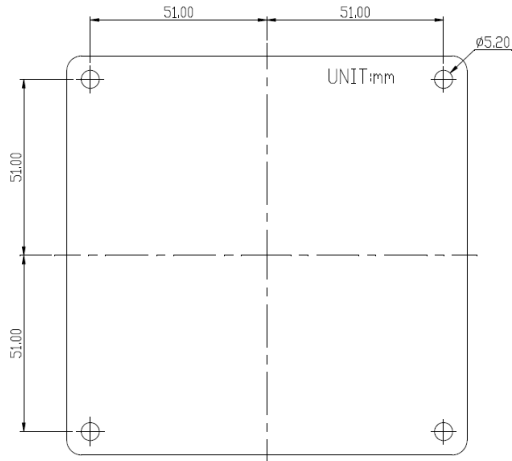


1. Screw the pendant cap into the Pendant arm and secure with a set screw. The Pendant arm can directly be mounted to a wall using the 4 screws and anchors.
2. Optionally, connect the pendant arm to the junction box using the 4x M5 bolts supplied with the junction box. The cover for the junction box is not needed, as the pendant arm fits directly into the box opening.
 - a. Secure the junction box to the wall using the 4 screws and anchors.
 - b. See the paragraph below for more details concerning the junction box option.
3. Attach the mounting plate to the pendant cap with two of the supplied machine bolts (M4 x 10mm) using opposing FT2 positions.
4. Open camera housing using the three cover screws without removing the protective wrap from the lens.
5. Connect the cable with the camera, use the waterproof connector if necessary.
6. Tug the connector into the pendant arm or junction box.
7. Place the camera on the mounting plate so that the sockets fit into the matching recesses on the camera bottom.
8. Fasten the camera to the sockets with two of the supplied machine bolts (M4 x 10mm).
9. Adjust the camera's pan, tilt, and rotation angle.
10. Replace the dry pack found inside the camera with the fresh one from the protective pouch in the box. Ensure no moisture gets trapped inside the camera.

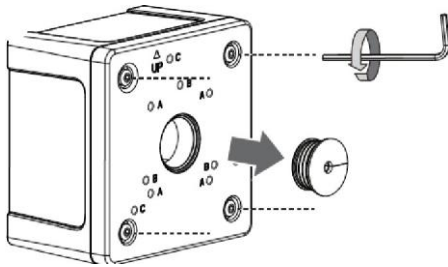
11. Wipe the inside of the dome cover with a clean cloth to remove dust and particles.
12. Install the dome cover and remove the protective wrap.

Wall mount using Pendant Arm and Junction box

1. Drill holes in the wall at the specific points indicated in the illustration. Make a 20mm hole in the center if routing cables through the wall to the back of the junction box.

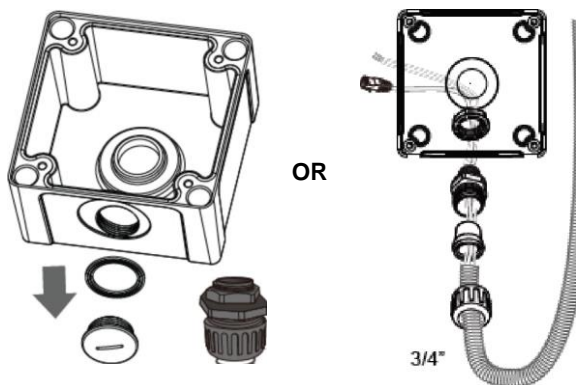


2. Remove the top cover of the junction box and unlock the tether wire. If using the bottom hole of the junction box, seal the center hole.

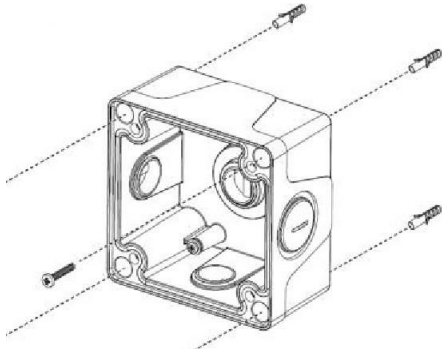


3. Install the cable gland and pass the cables through it. A 3/4" conduit is required for routing the cables with a waterproof connection.

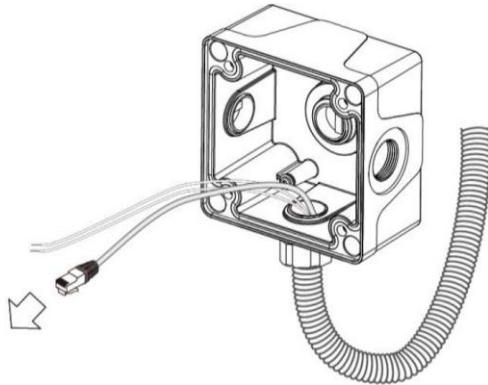
Note: The 3/4" cable glands and conduits for protecting cables are not supplied.



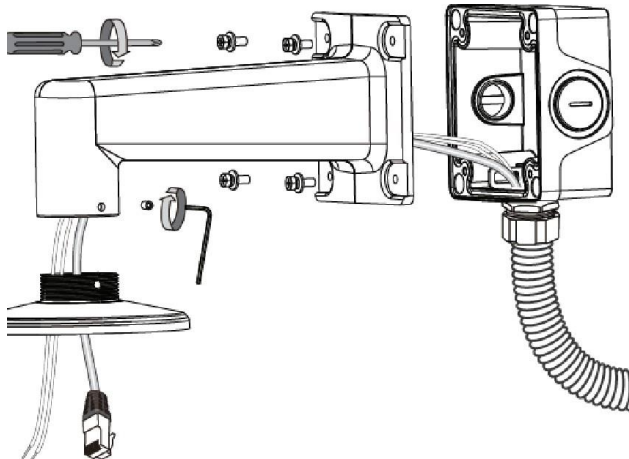
4. Install the junction box.



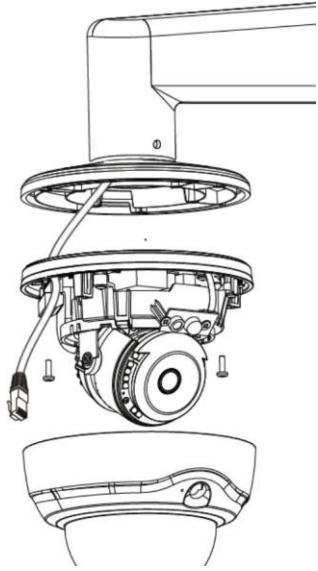
5. Thread the cables through the junction box.



6. Place the pendant arm over the junction box and route the cables through the pendant arm. The junction box cover is not used when installing the pendant arm.
7. Secure the pendant arm to the junction box using the included screws.
8. Feed the cables through the pendant cap and secure the pendant cap to the pendant arm by turning it clockwise. When tightened, fasten the hex screw to secure the connection.



9. Connect the camera to the pendant cap by securing the screws.



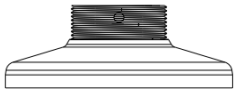
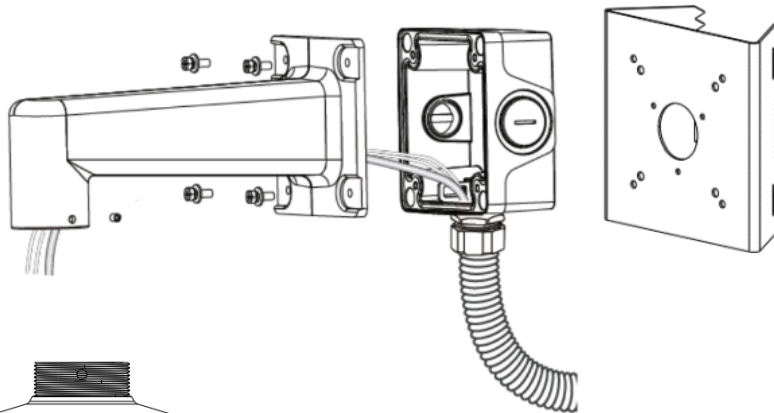
Pole mount using Pendant Arm and Pole Bracket



For mounting the camera to a pole, such as a street light or traffic sign, use the optional pole mount accessory: **FCM-MOUNT-POL**.

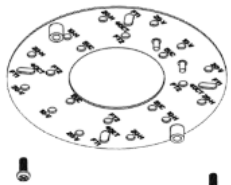
This kit contains a bracket with toothed edges, which is held against the mounting pole with steel straps.

This kit can be used directly with the pendant arm **FCM-FD5-PDT** or attached to the optional junction box **FCM-FB5-JBX**.

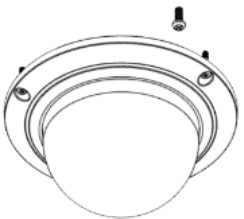
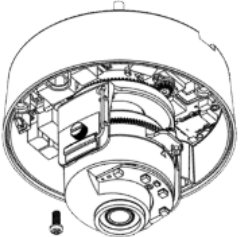


Note: The illustrations and descriptions on this page use FCM-CD51 as an example.

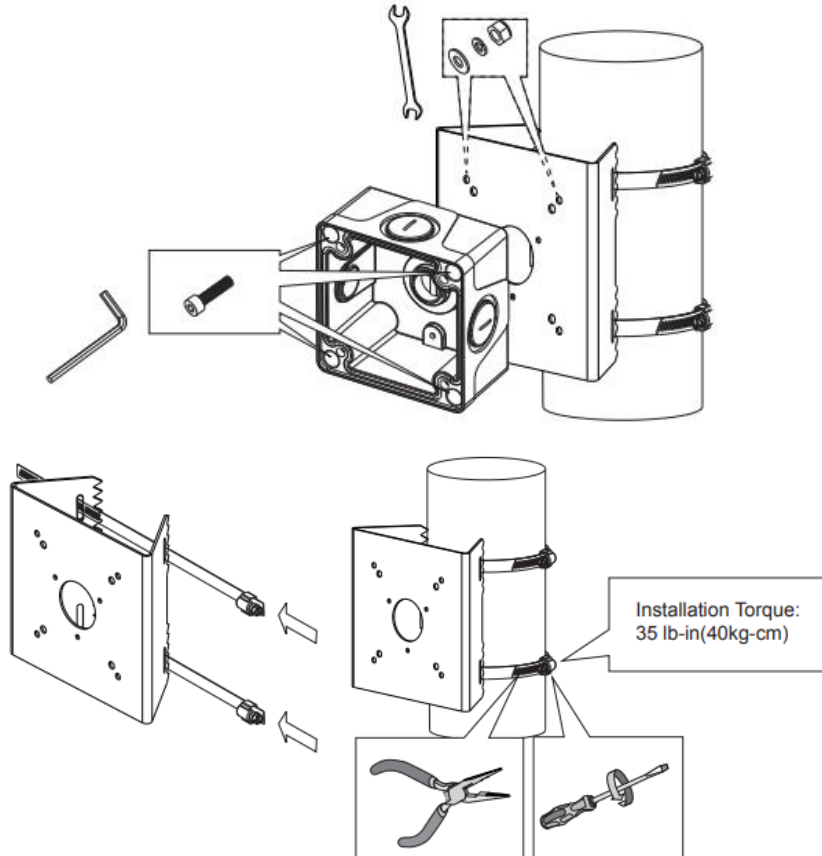
Note: For instructions on how to connect the camera to the pendant cap, see the Mounting guide for the individual FortiCam: <https://docs.fortinet.com/product/fortirecorder/hardware>



1. Screw the pendant cap into the Pendant arm and secure with a set screw.
2. Optionally, connect the Pendant arm to the junction box using the 4x M5 bolts supplied with the junction box. The cover for the junction box is not needed, as the pendant arm fits directly into the box opening.
 - a. Secure the junction box to the bracket using the 4xM5 screws, washers, and hex heads supplied with the pole mount. A hex crescent wrench is required.
3. Optionally, the Pendant arm can be directly connected to the pole mount bracket using the 4xM5 screws, washers, and hex heads supplied with the pole mount kit.
4. Pass the stainless steel straps through the bracket and around the pole.
5. Tighten the straps using pincer pliers and a flat blade screwdriver.
6. Attach the mounting plate to the pendant cap with two of the supplied machine bolts (M4 x 10mm) using opposing FT2 positions.
7. Open camera housing without removing the protective wrap from the lens, using the three cover screws.
8. Connect the cable with the camera, using the waterproof connector if desired.
9. Tug the connector into the pendant arm or junction box.
10. Place the camera on the mounting plate so that the sockets fit into the matching recesses on the camera bottom.



11. Fasten the camera with two of the supplied machine bolts (M4 x 10mm) to the sockets.
12. Adjust the camera's pan, tilt, and rotation angle.
13. Replace the dry pack found inside the camera with the fresh one from the protective pouch in the box. Ensure no moisture gets trapped inside the camera.
14. Wipe away the dust and particles with a clean lint free cloth.

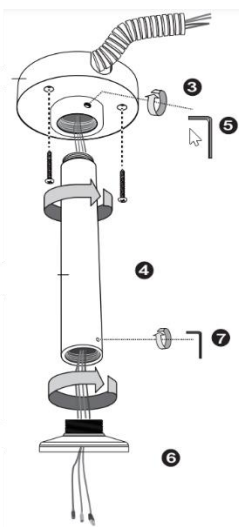


Ceiling Mounting using Pendant Pipe

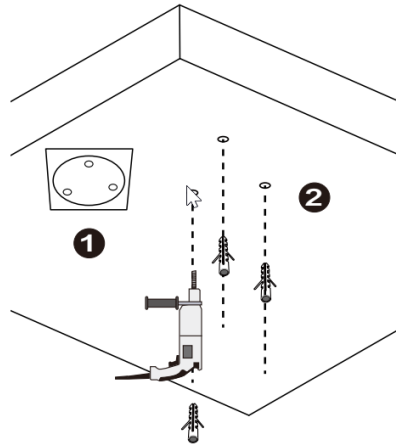
Options include:

- Ceiling mount using Pendant head **FCM-STH** and Straight Tube **FCM-ST20**
- Drop ceiling mount on COTS ¾" EMT tubing by direct attachment to pendant cap

Ceiling mount using Pendant cap **FCM-STH** and Straight Tube **FCM-ST20**



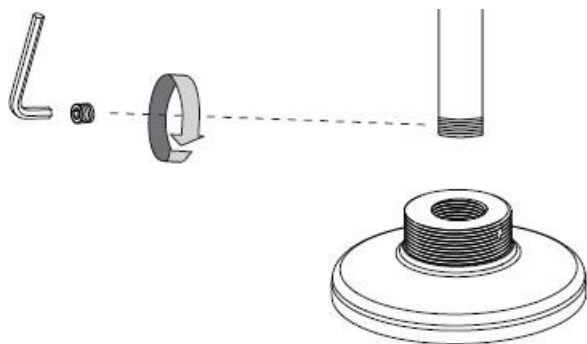
1. Mark three mounting holes on a hard surface ceiling using the included alignment sticker.



2. Hammer in the plastic anchors.
3. Secure the Pendant head using the provided screws.
4. Install the Pendant pipe into the Pendant cap.
5. Tighten the set screw using a allen key.
6. Install the Pendant cap.
7. Tighten the set screw.
8. Pull the cables through the straight tube and the camera base.
9. Install the camera using a crimping tool to connect the Ethernet wires to an RJ45 connector.

Drop ceiling mount on COTS EMT tubing

1. Connect the Pendant cap to the camera by securing the screws.
2. Screw either the 1 ½ female or the ¾ male tubing into the Pendant cap.



3. Attach the tubing to COTS junction box.
4. Attach the junction box to the ceiling.

Combinations using pendant cap

Wall mount

└ Pendant Cap + Pendant Arm

PCP + FD5-PDT

└ Pendant Cap + Pendant Arm + Junction box

PCP + FD5-PDT + FB5-JBX

Pole mount

└ Pendant Cap + Pendant Arm + Pole mount

PCP + FD5-PDT + FCM-POL

└ Pendant Cap + Pendant Arm + Junction box + Pole mount

PCP + FD5-PDT + FB5-JBX + FCM-POL

Ceiling mount

└ Drop pole

└ Pendant Cap + Straight Tube + Pendant head

PCP + FCM-ST20 + FCM-STH

└ Pendant Cap + $\frac{3}{4}$ EMT tubing

PCP



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