Quick Installation

MOBOTIX MOVE Vandal Multisensor PTZ Combo 20MP Video Analytics Camera
Mx-VMSD1A-2021-VA

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> **NOTE!**
>
> This guide is only valid for **installing and connecting** the Vandal Multisensor PTZ Combo 20MP Video Analytics Camera. For more information on the camera, please refer to the other documents (see Further Reading, p. 24).

Important Installation Notes

- This camera must be installed by qualified personnel and the installation should conform to all local codes.

- This product must not be used in locations exposed to the dangers of explosion.

- Do not use this product in a dusty environment.

- Protect this product from moisture or water entering the housing.

- Install this product as outlined in this document. A faulty installation can damage the product!

- Do not replace batteries of the camera. If a battery is replaced by an incorrect type, the battery can explode.

- This equipment is not suitable for use in locations where children are likely to be present.

- External power supplies must comply with the Limited Power Source (LPS) requirements and share the same power specifications with the camera.

- When using a power adapter, the power cord shall be connected to a socket-outlet with proper ground connection.

- Do not use this product in the following locations:
    - Locations where a chemical agent is used (e.g. swimming pools).
    - Locations subject to moisture or oil smoke (e.g. kitchens).
    - Locations with an atmosphere containing flammable substances.
    - Locations subject to high levels of magnetic or electromagnetic fields (e.g. X-rays, strong radio waves).
    - Locations near coasts with high levels of atmospheric salt or other corrosive substances (e.g. coast lines, hot springs, volcanic gases, etc.).
    - Locations subject to vibrations (e.g. vehicles, marine vessels, above production lines).
    - Locations subject to high levels of condensation (e.g. near the outdoor unit of an air conditioner).
    - Locations near rubber products containing sulfur (e.g. packaging, rubber feet, etc.).
- To comply with the requirements of EN 50130-4 regarding the power supply of alarm systems for 24/7 operation, it is highly recommended to use an uninterruptible power supply (UPS) for backing up the power supply of this product.

NOTE! Observe the MOBOTIX MOVE Installation Hints document to ensure optimum performance of the camera features.

NOTE! To ensure that the unit is not affected by vibration, twisting, etc. after adjusting the camera, properly tighten all mounting screws.

Package Contents
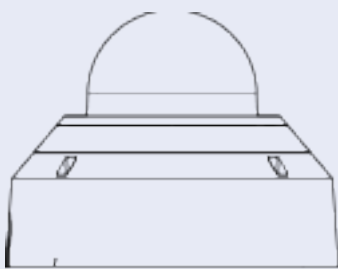
Vandal Multisensor PTZ Combo 20MP Video Analytics Camera

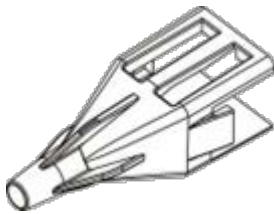Base plate (attached to camera)

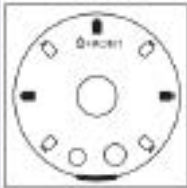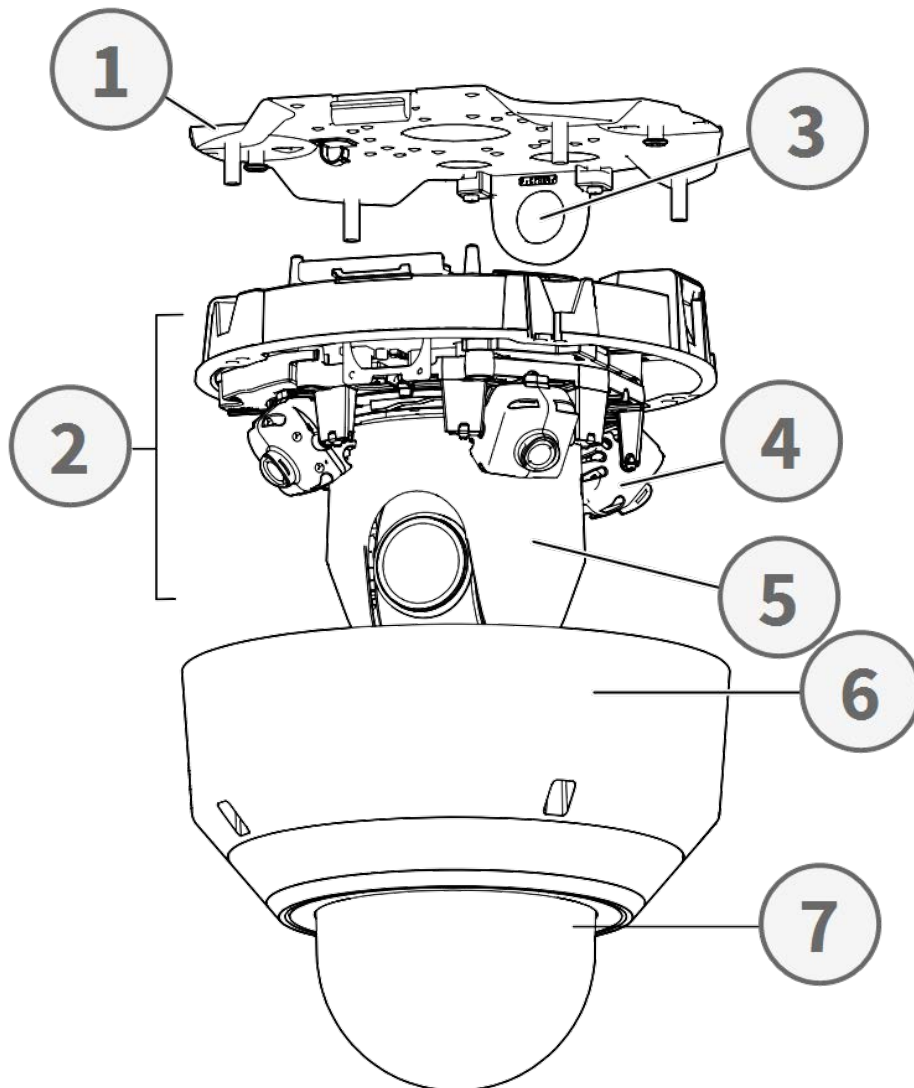|	
	Grommet for cable (2x; one to use, one spare)
	Torx TX20 drill bit
	Ethernet cable
	RJ-45 cap
	Drilling template

Camera Parts Overview

1. Base plate

2. Camera section

3. Fixing position for cable conduit (female thread compliant to ANSI NPSM (parallel pipe threads) 3/4 or ISO 228-1 (parallel pipe threads) G3/4)

4. Multisensor cameras (4x)

5. PTZ camera

6. Enclosure

7. Dome (with protective film)

Camera Connectors, LEDs, and Buttons
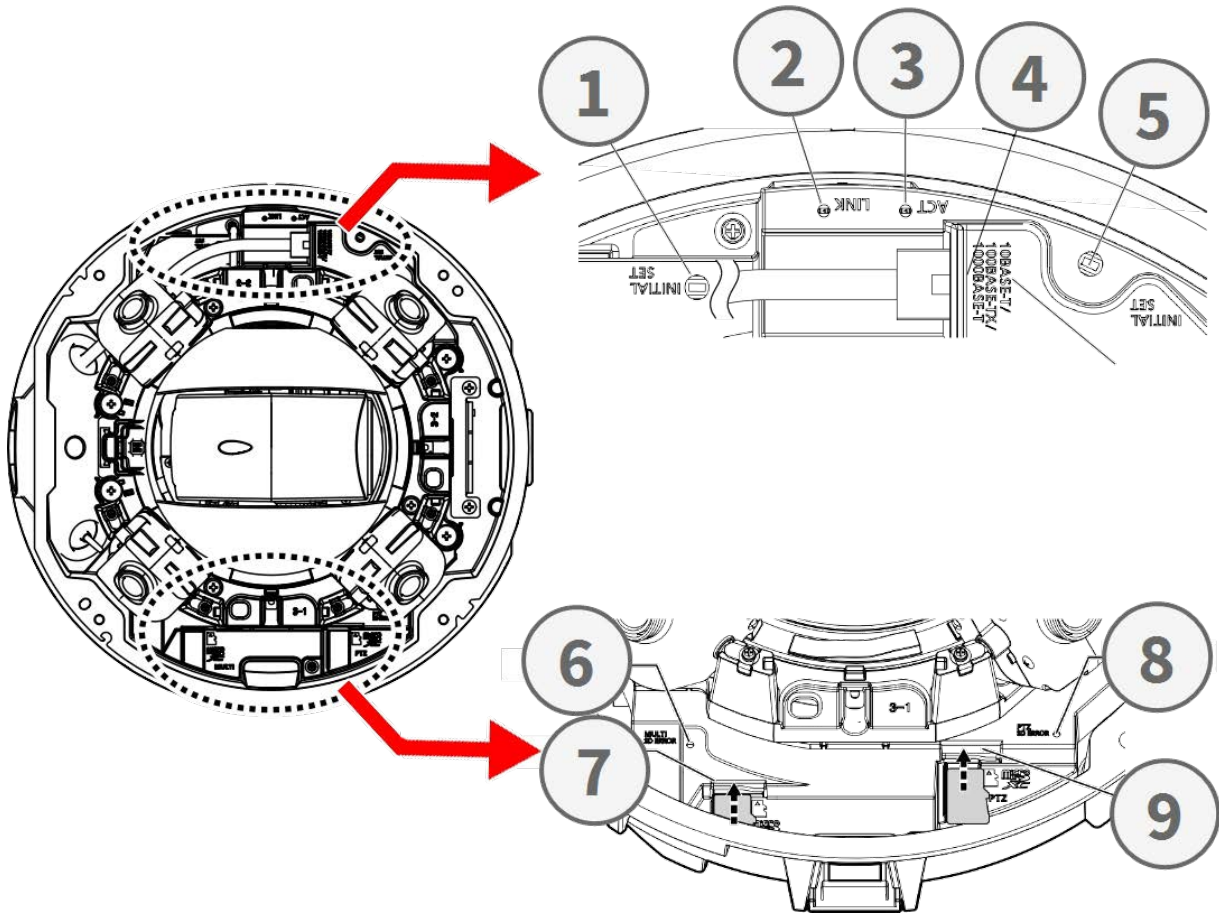
No.	Element	Definition
1	Multisensor reset button	Resets the Multisensor part of the camera to factory defaults.
2	Ethernet LINK LED	Lights up when a connection between a network switch and the RJ45 Ethernet connector has been established.
3	Ethernet ACT LED	Flashes to indicate network activity on the Ethernet cable.
4	PTZ reset button	Resets the Multisensor part of the camera to factory defaults
5	10/100/1000BASE-T RJ45 Ethernet connector	Insert a network cable with an RJ45 connector here.
6	Multisensor SD card error indicator	Flashes when the SD card of the camera's Multisensor part is faulty.
7	Multisensor SD	Insert a microSD card into the Multisensor SD card slot to

No.	Element	Definition
	card slot	store videos and snapshots. Always power off the camera before inserting or removing any storage media!
8	PTZ SD card error indicator	Flashes when the SD card of the camera's PTZ part is faulty.
9	PTZ SD card slot	Insert a microSD card into the PTZ SD card slot to store videos and snapshots. Always power off the camera before inserting or removing any storage media!

NOTE! To purchase a power adapter, please contact MOBOTIX for further information.

Internal Storage Media

microSD Card Slot

CAUTION! Always power down the camera before performing the following steps!

Insert a microSD card into the card slot to store videos and snapshots.

NOTE!

- It is not recommended to record with the microSD card for 24/7 continuously, as it may not be able to support long term continuous data read/write. Contact the manufacturer of the microSD card for information regarding the reliability and the life expectancy.

- Remember to format a new microSD card as shown in Formatting Storage Media below.

Reset Buttons

Press the reset buttons with a proper tool for at least 20 seconds to reset the system to factory defaults.

Connecting Power

Using Power over Ethernet (PoE)

Use a IEEE 802.3bt PoE switch (Class 6) and connect the Ethernet cable to the RJ-45 port of the camera.

Ethernet Cable Connection

Connect one end of the Ethernet cable to the RJ-45 connector of the camera and plug the other end of the cable into the network switch or PC.

> **NOTE!**
>
> - The length of the Ethernet cable should not exceed 100 m/300 ft.
>
> - Check the status of the link indicator and the activity indicator LEDs of the switch. If the LEDs are unlit, please check the LAN connection.
>
> - In some cases, an Ethernet crossover cable may be needed when connecting the camera directly to the PC.

Ethernet Connector LEDs

- Green **Link** LED indicates good network connection.

- Orange **Activity** LED flashes to indicate network activity.

Accessing the Camera

The Vandal Multisensor PTZ Combo 20MP Video Analytics Camera supports all current browsers without requiring any additional plug-ins or add-ons (e.g. for H.264/H.265/MJPEG support).

Camera Login

The default IP address of the camera is: 10.x.x.x. By default, the camera starts as DHCP client and automatically tries to get an IP address from a DHCP server.

1. Enter the camera's IP address in the URL bar of the web browser and hit "Enter".

2. Enter the default username (**admin**) and password (**meinsm**).

    > **NOTE!** User names and passwords are case sensitive.

3. You will be prompted to set a new admin user password.

    > **NOTE!** The password can have between 6 and 14 characters (at least one digit, no special characters allowed).

4. After setting a new password, you will be prompted to log in again. Remember to use the new password.

Browser-Based Viewer

The main page of the IP camera user interface is shown as the figure below. The function buttons vary depending on the camera model.

Formatting Storage Media

After inserting a new or replacing a used storage medium, make sure to format the medium so the camera can use it to record video streams.

1. Connect to the camera.

2. Open **System > Storage Management > <storage media type>**.

3. In the **Device Setting** section, click on **Format** to start the formatting process.

Once formatting has finished, the camera can use the storage medium for recording.

Camera Maintenance

It is recommended that you perform the following maintenance tasks at regular intervals to keep the Vandal Multisensor PTZ Combo 20MP Video Analytics Camera in good working condition:

- Clean the using plain water and a soft cloth.

  CAUTION! Do not use any detergents or alcohol to prevent damaging the coating!

- Check the mounting and make sure that all screws are properly tightened to prevent the camera from falling down.

- When opening the camera, add a silca gel dry pack to prevent condensation on the inside of the .

Preparing the Installation

CAUTION!

- To prevent scratching the dome, do not remove its protective film until the camera has been properly installed.

- Make sure the Ethernet (network) cable is not connected to a PoE Plus (802.3at-2009) switch yet. Only do this after fully completing the installation of the camera.

Step 1 – Remove Enclosure

Remove the four screws using the supplied TX20 drill bit ① . Lift the camera enclosure off of the camera body ② .
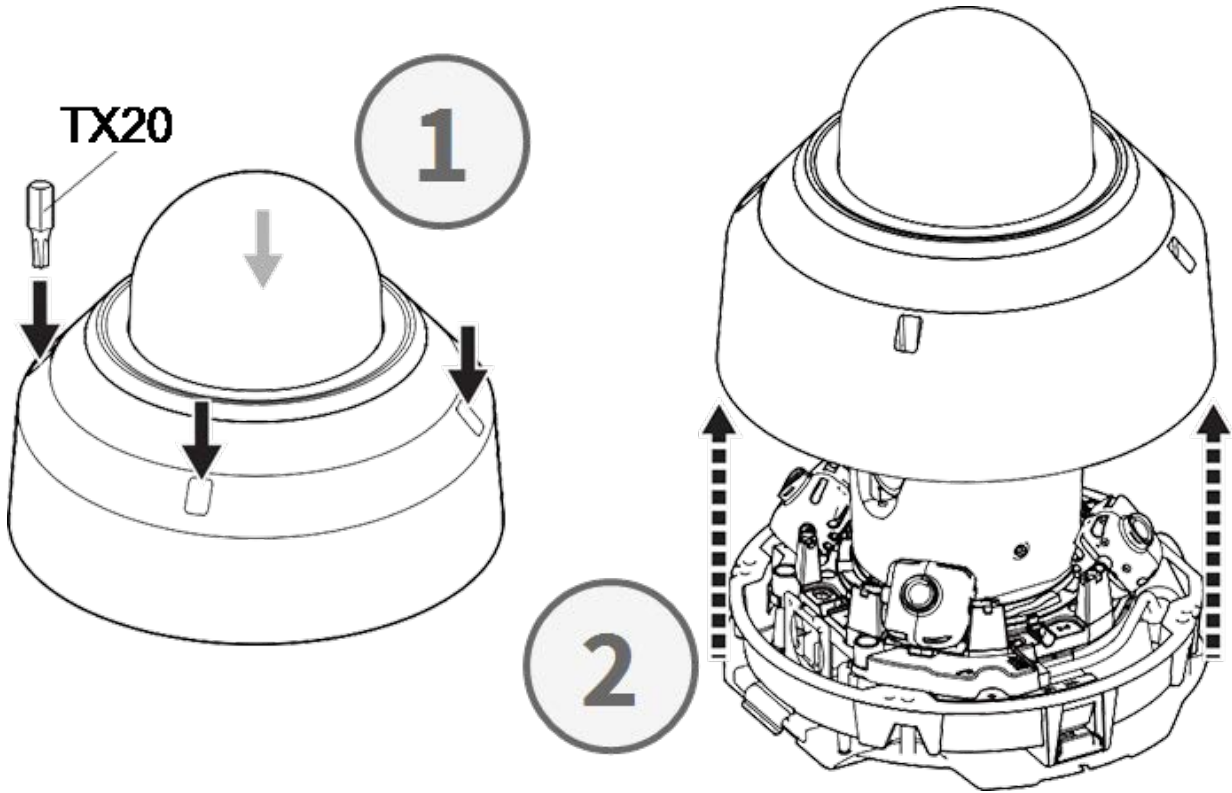
Step 2 – Remove Adhesive Tapes

Remove the adhesive tape for the plate spring that temporarily holds the enclosure in place.
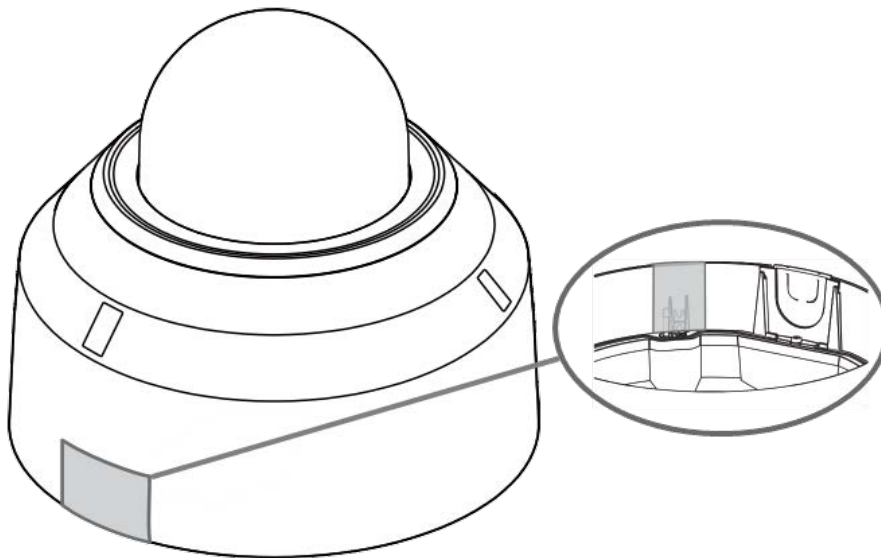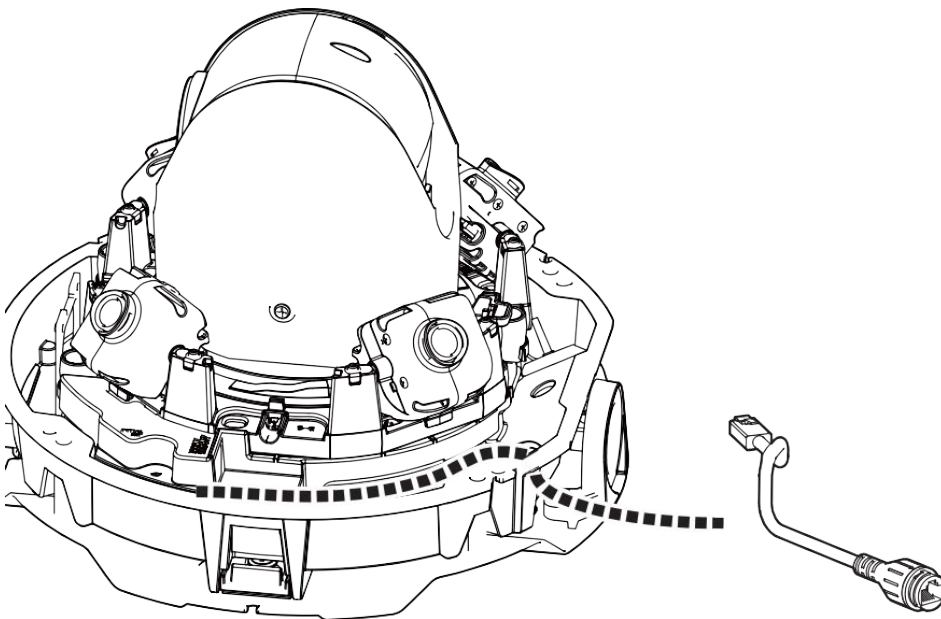
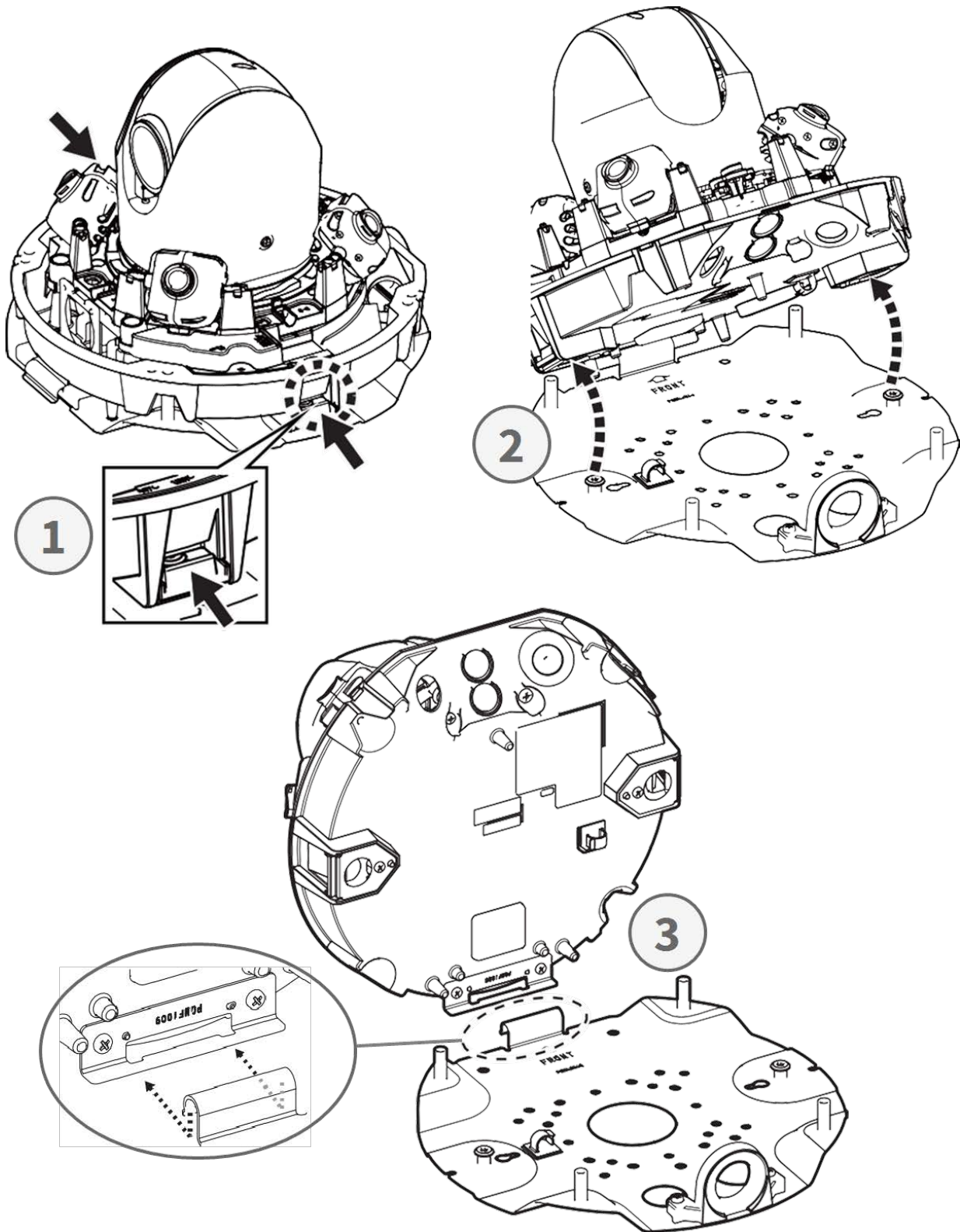Remove the label showing the position of the TILT adjustment lever.
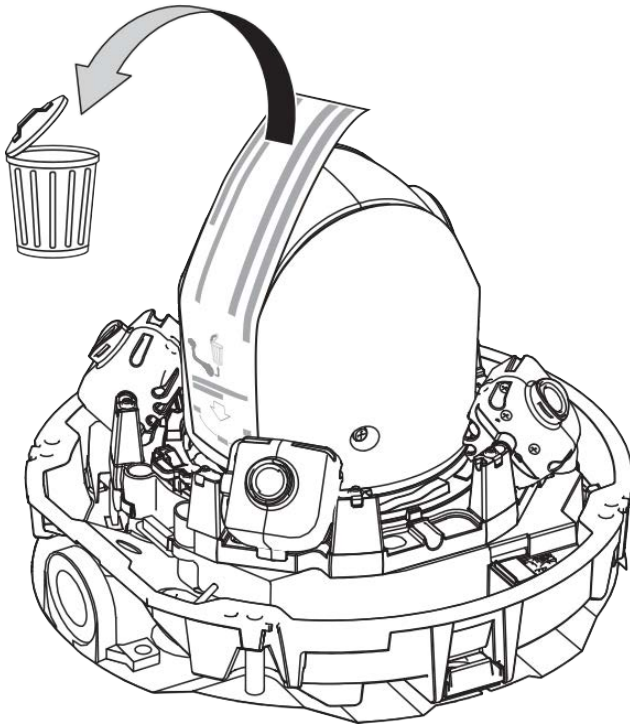
Step 3 – Remove Ethernet Cable

Remove the installed RJ45 Ethernet cable.
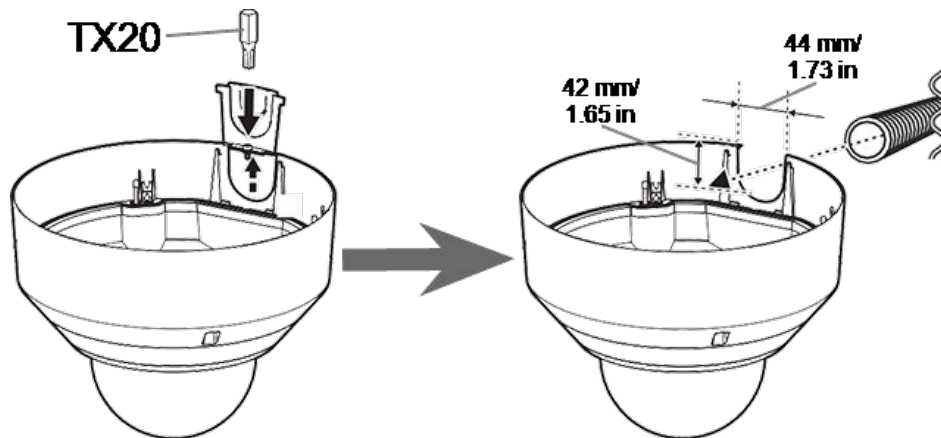
Step 4 – Remove Camera from Base Plate

Remove the camera from the base plate by pressing on the two locks (left and right, ①), then lift the camera from the base plate towards the front ②   and finally unhinge the camera ③ .

Preparing for Wiring From the Side

Alternative A – Using a Pipe Connection

Remove the screw of the pipe hole cover using the supplied TX20 drill bit.

Alternative B – Without Using a Pipe Connection

Cut the pipe hole cover to fit the diameter of the network cable ① . Use a file to remove any burs ② .
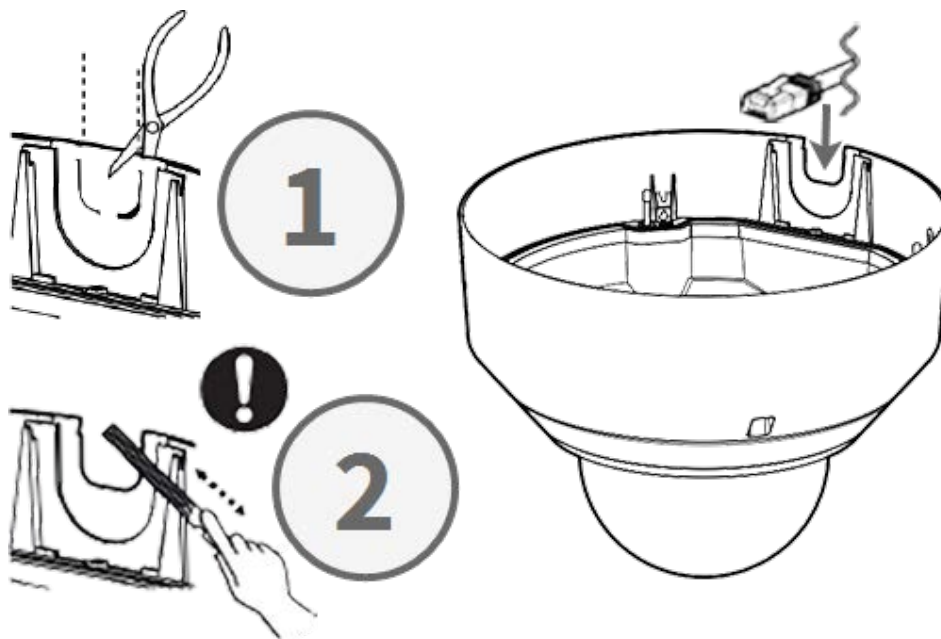
Adjusting the Tilt Angles

CAUTION! Never try to adjust the tilt angle of the <Multisensor> cameras by hand! You will break the camera mounts if you try this!

Every one of the <Multisensor> cameras can be set to three different tilt angles using its **tilt adjust-ment lever**.

- ▪ **M**: Middle position – 40° tilt angle (default). You should try this setting first.

- ▪ **N**: Near position – 47° tilt angle. Use this position if you want to observe a scene that is closer to the camera.

- ▪ **F**: Far position – 22° tilt angle. Use this position if you want to observe a scene that is farther away from the camera.

To Select a Different Tilt Angle Position than the Default M Position

1. Gently lift the tilt position lever.

2. Move the lever to the left or right until the letter of the desired position appears in the window.

3. Lock the lever again by gently pushing it down.

Middle Position – Tilt Angle 40° (Default)
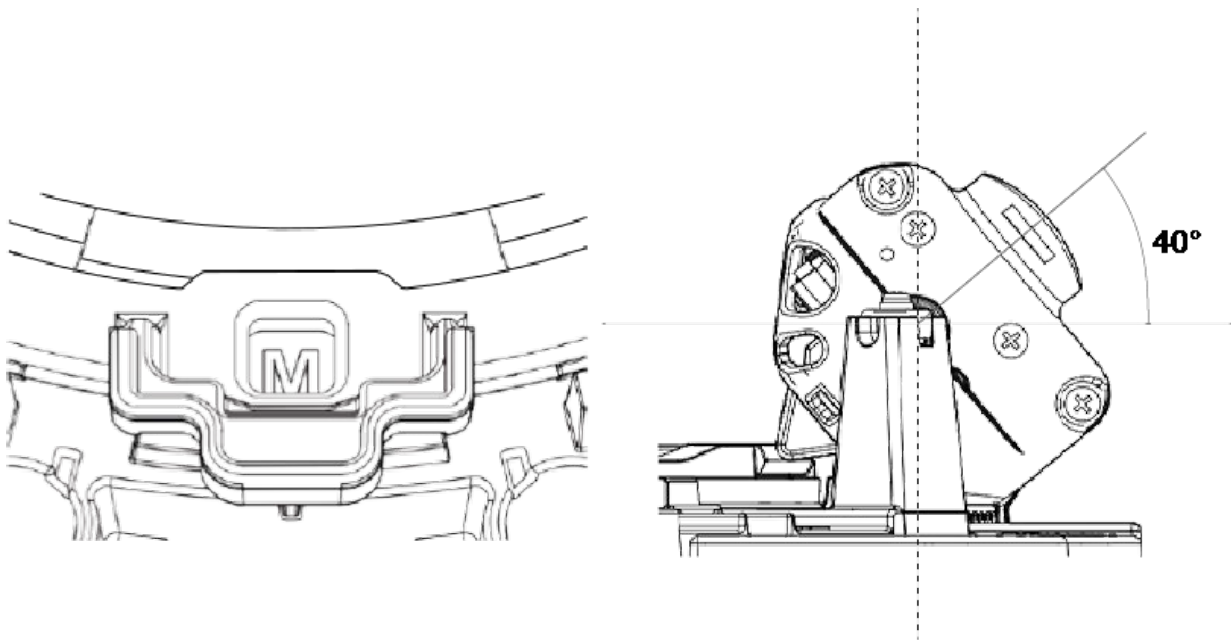
Near Position – Tilt Angle 47°
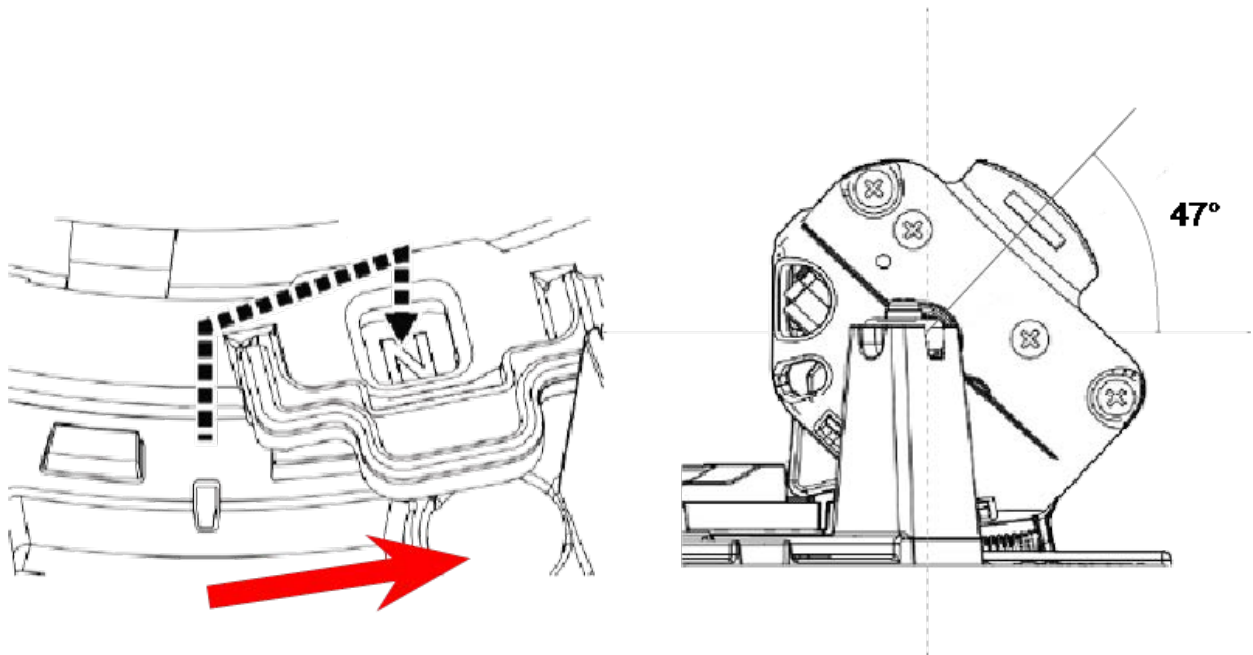
Far Position – Tilt Angle 33°
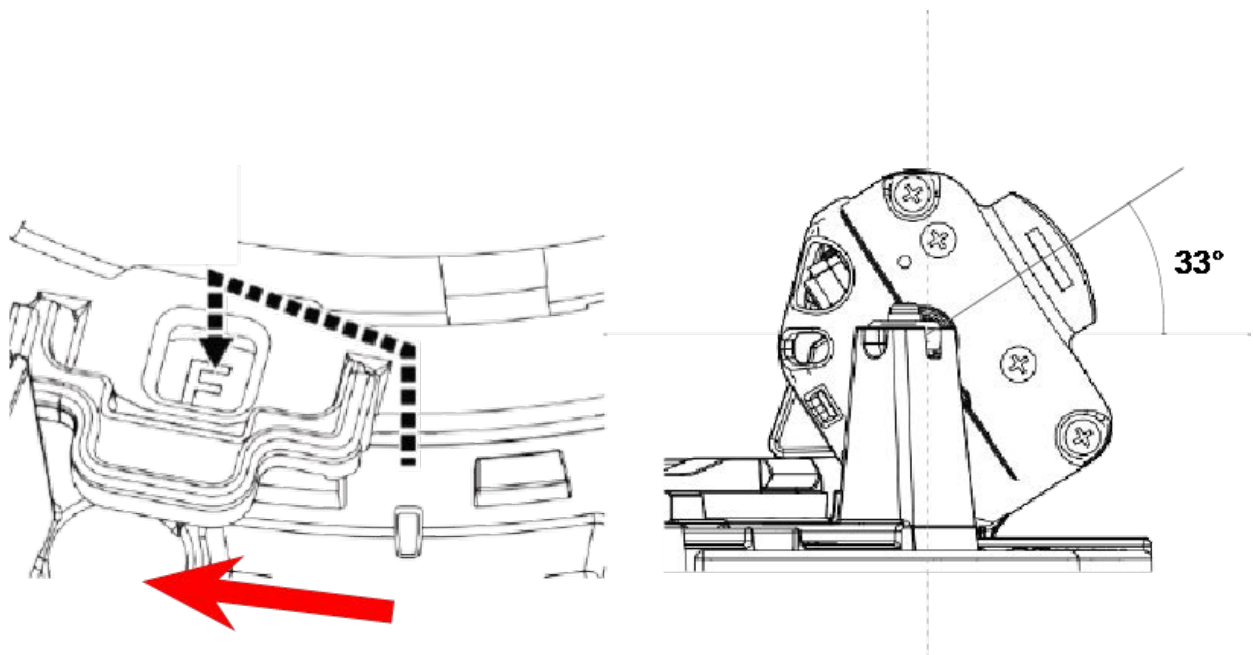
NOTE! If you change the tilt angle of a camera with the tilt adjustment lever, remember to change the **Tilt adjustment lever position** in the camera's browser interface to the same setting (see User Manual of this camera).

Inserting SD Cards

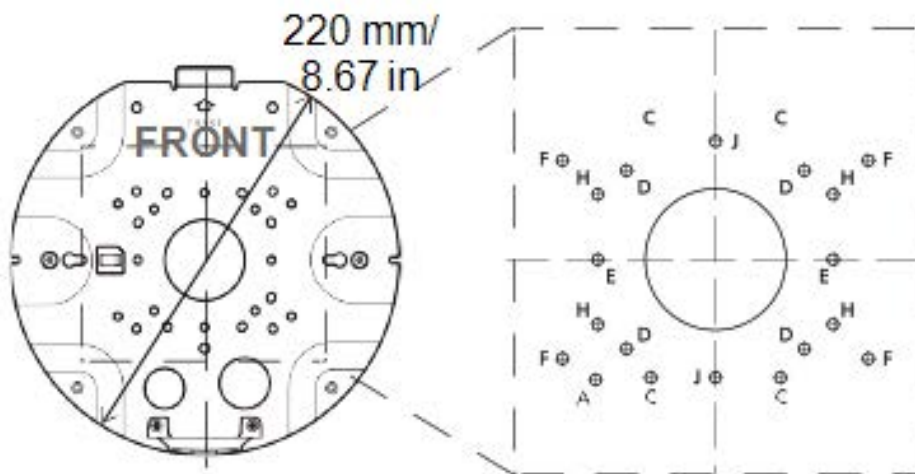Insert a microSD card into the <Multisensor> SD card slot ① and another one into the <PTZ> SD card slot ② .
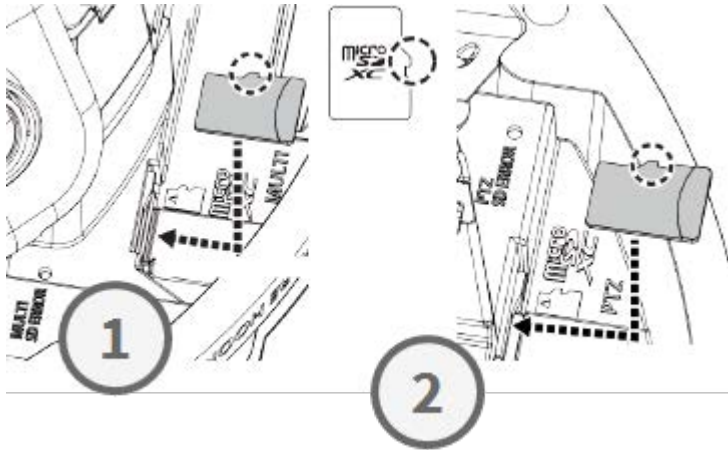
Installing Base Plate and Camera

Step 1 – Mark the Holes for Drilling

Use the supplied drilling template to mark the holes for drilling (if required).

> **NOTE!** Make sure the FRONT arrow points into the main direction of viewing when you mark the holes.

Step 2 – Install the Base Plate

Use appropriate screws (and dowels, if needed) to install the base plate at the desired location.
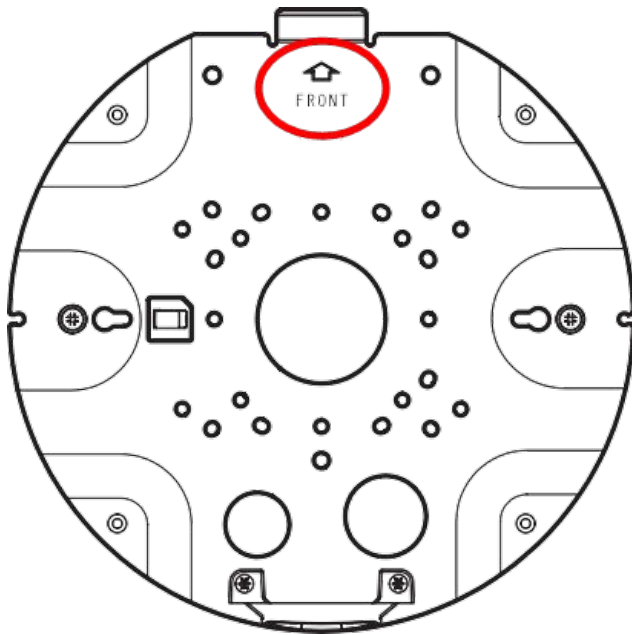
Step 3 – Hang the Camera Into the Base Plate Hinge

Hang the camera into the hinge of the back plate. Guide the network cable through either the center hole of the base ① plate or the cable guide on the side ② .
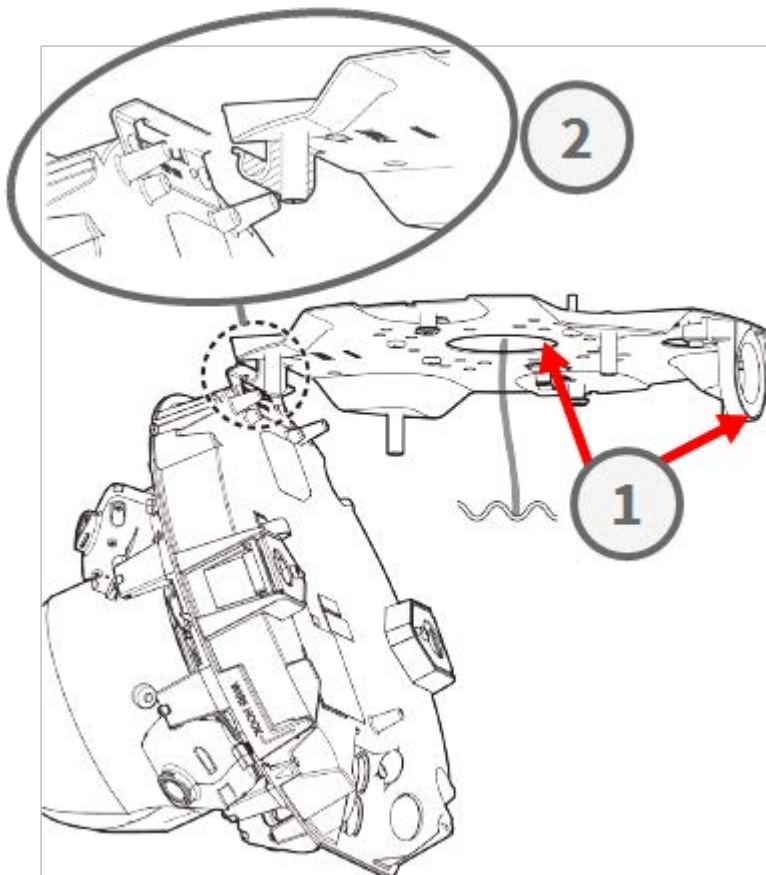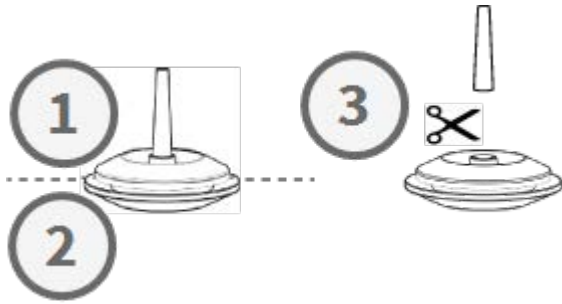
Connecting the Cables

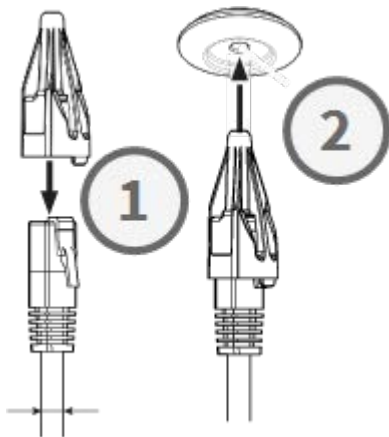### Step 1 – Prepare the Grommet (Rubber Sealing)

Note that the grommet has an inside ① and an outside ② . Cut off the excess tube on the inside ③ .

> **CAUTION!** Do not reuse a grommet that had been used before!

Step 2 – Prepare the Ethernet Cable

Push the RJ45 cap onto the RJ45 Ethernet cable plug ① , then push the assembly through the center of the grommet ② .

Step 3 – Insert the Ethernet Cable Into the Camera

Remove the RJ45 cap from the plug ① and make sure that you have pulled the wire out of the grommet by at least 145 mm/5.7 in ② . If the sleeve (red) shows at the inside of the grommit ③ , push the cable back a little bit ④ .
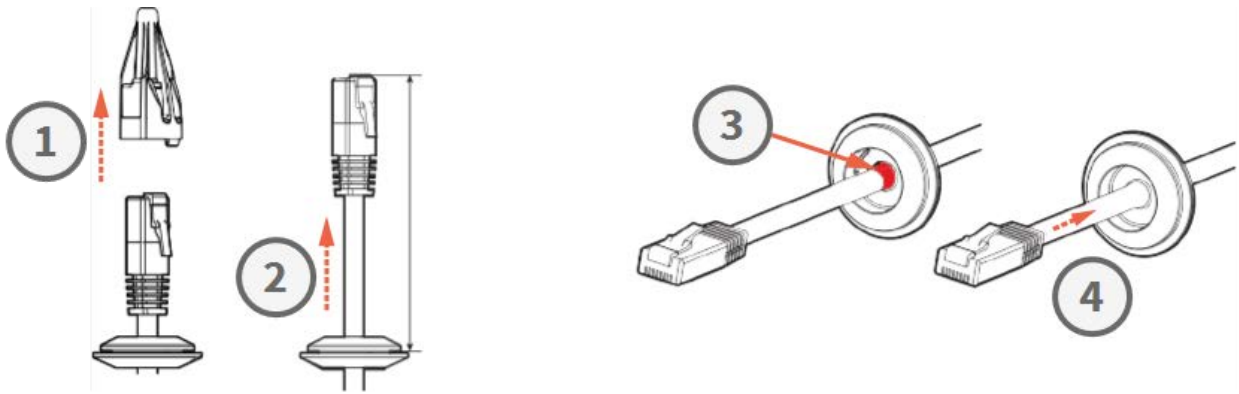

Step 4 – Connect the Ethernet Cable and Apply the Grommet

Insert the RJ45 plug into the Ethernet connector of the camera ① , then push the grommet into its seating ② . Make sure that the grommet is seated properly and that the sleeve is not showing at the inside of the camera housing ③ .
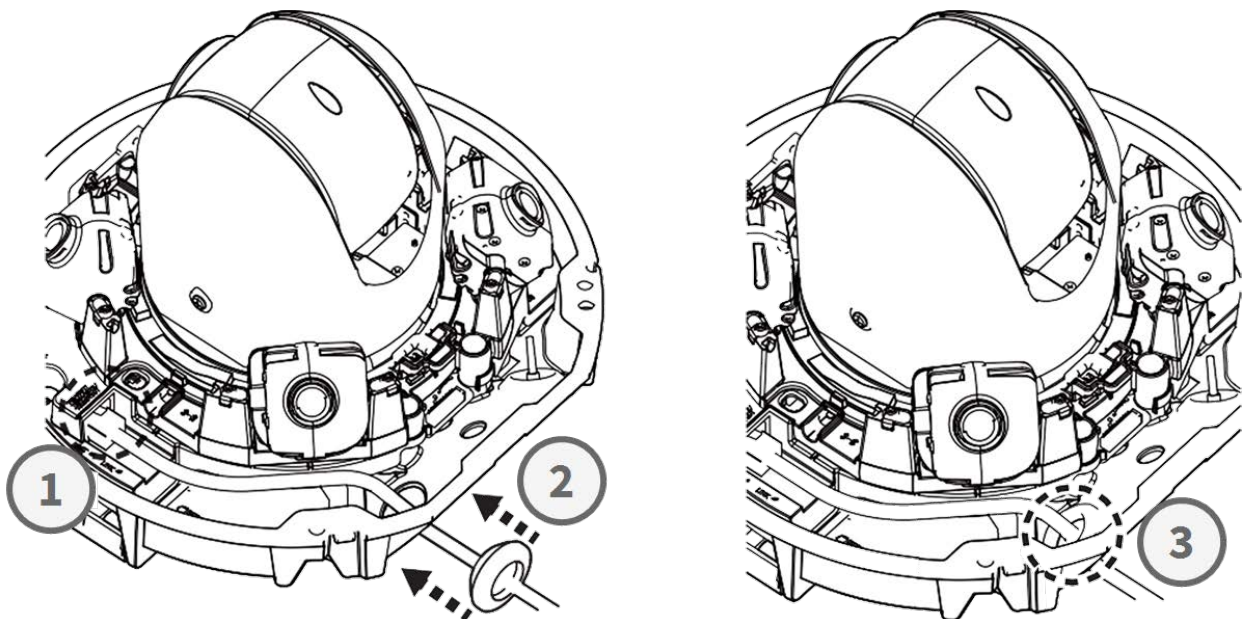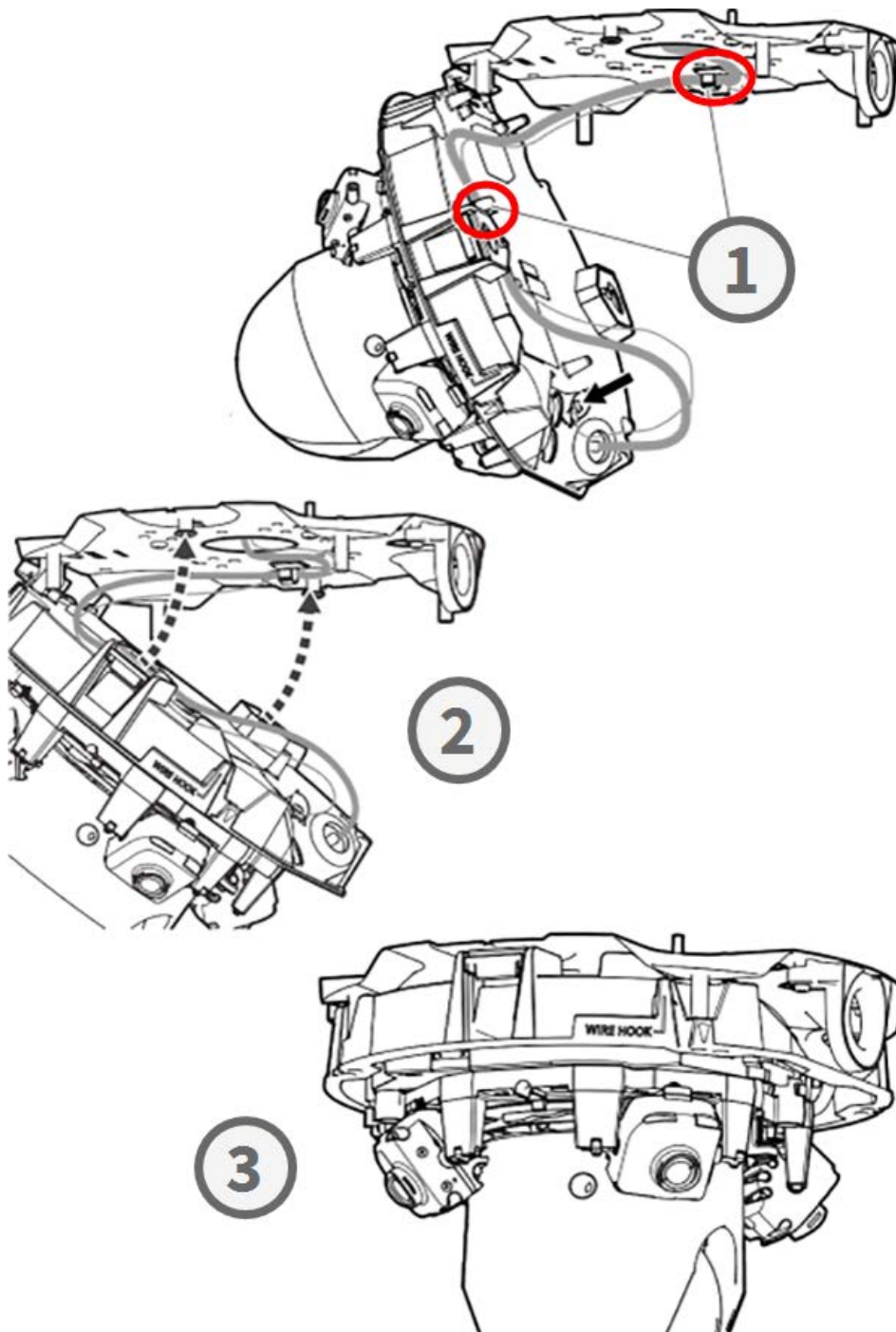
Step 5 – Connect the Ground Wire

Guide the ground wire ① through the base plate and connect it to the ground screw ② at the back of the camera.
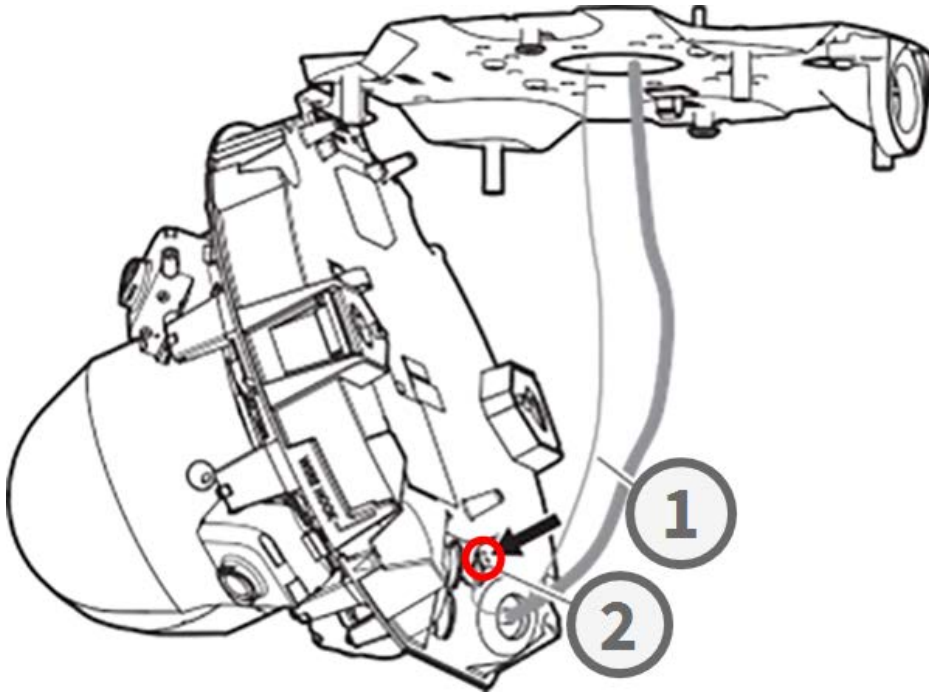
Step 6 – Secure the Network Cable and the Ground Wire

Use the wire clamps ① to secure the network cable and the ground wire as shown. Close the camera and make sure the cables aren't pinched ② . Ensure that the camera is firmly closed ③ .


Finishing the Installation

CAUTION! To avoid scratching the dome, only peel off its protective film after having installed the camera enclosure (see Step 4 – Peel off the Protective Film, p. 22)!

Step 1 – Apply Sticky Tape to Wire Hook (Only When Using Wire Hook)

When using the wire hook to secure the camera, apply sticky tape to the area in red. This will prevent the wire hook from shifting when applying the enclosure.

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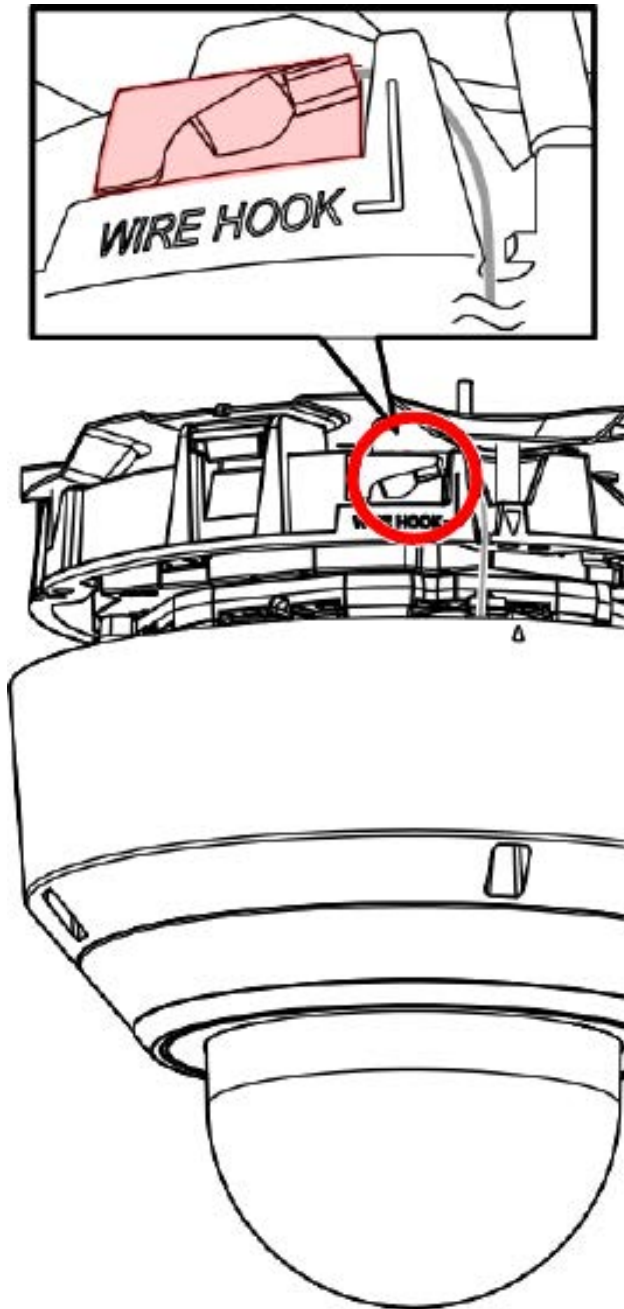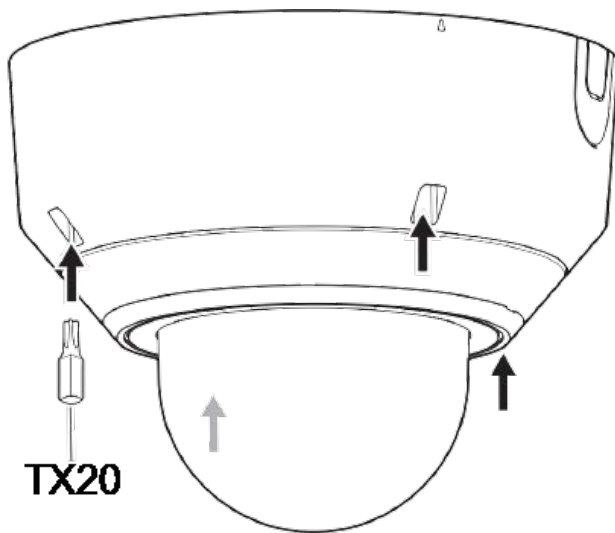
Step 2 – Align Enclosure and Camera Body

Align the two arrows on the enclosure and the body ① . Push the enclosure onto the camera body ② .
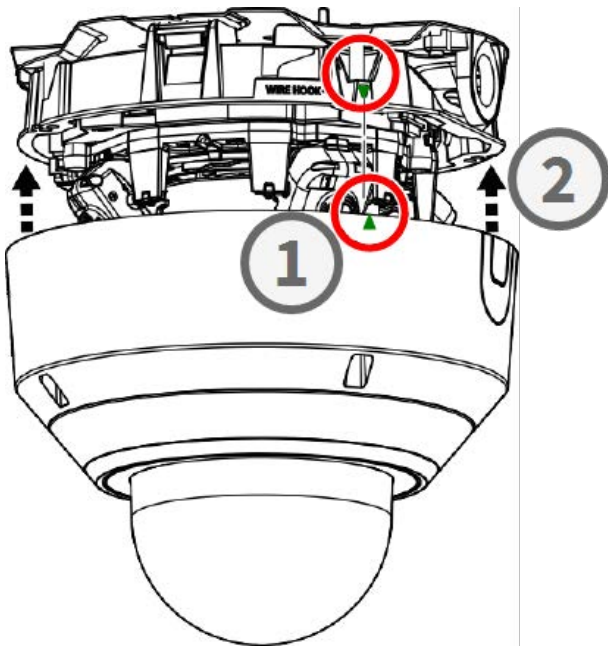
Step 3 – Install the Enclosure

Use the supplied TX20 drill bit to tighten the four Torx screws that hold the enclosure in place ① . Use a force of 1.2 Nm/0.89 lbf when tightening the screws.

Step 4 – Peel off the Protective Film

You have successfully installed the camera. Before continuing, peel off the protective film from the dome.

NOTE! Do not discard the protective film! You should apply it again in case you need to remove the camera enclosure.

Step 5 – Establish the Power Supply

Connect the camera's network cable to the PoE++ switch to establish the power supply. Proceed as outlined in the camera user manual to set up the camera (see Further Reading, p. 24).

Further Reading

[Manuals and Quick Installation documents](#)

[Technical Specifications](#)

[MOBOTIX MOVE Installation Hints](#)

[MOBOTIX Community](#)

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BeyondHumanVision