# 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**

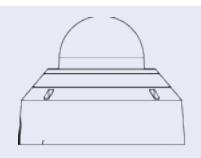
- This camera must be installed by qualified personnel and the installation should conform to all local codes.
- This product must not be used in locations exposed to the dangers of explosion.
- Do not use this product in a dusty environment.
- Protect this product from moisture or water entering the 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 <u>MOBOTIX MOVE Installation Hints</u> 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

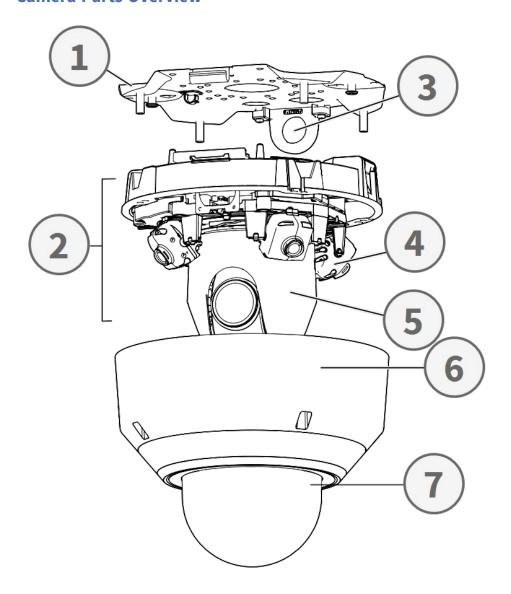


RJ-45 cap



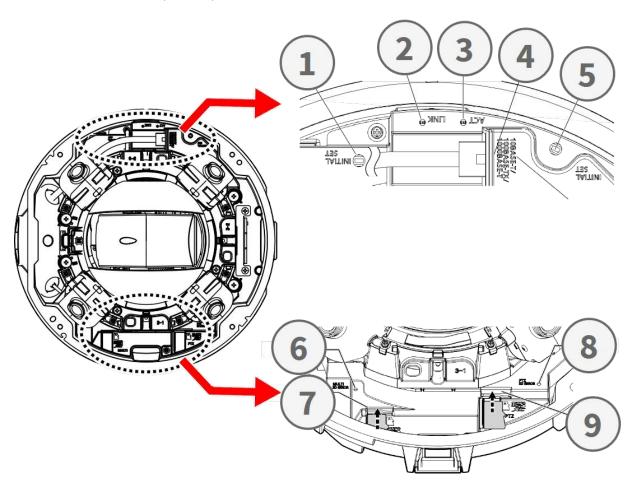
Drilling template

#### **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 con- nector	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!** When setting an invalid password or user name, the camera will show a prompt with the password requirements.

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 .

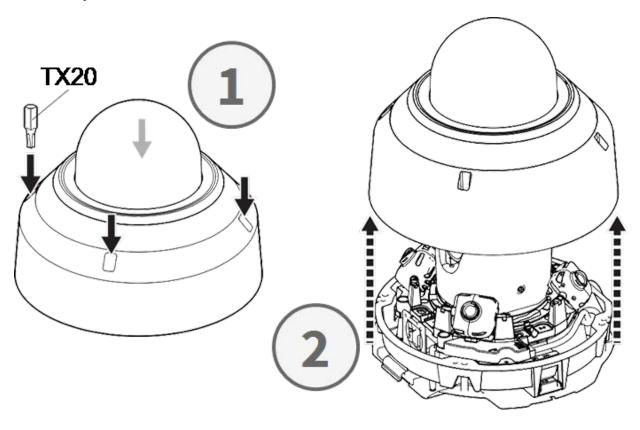
## **Preparing the Installation**

#### **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.

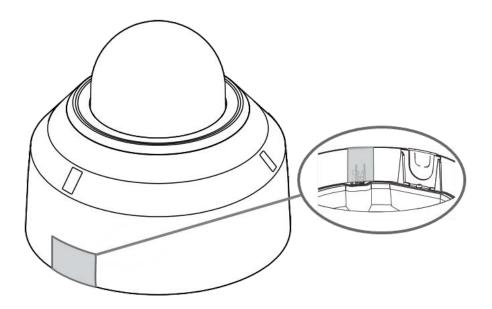
#### **Step 1 - Remove Enclosure**

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

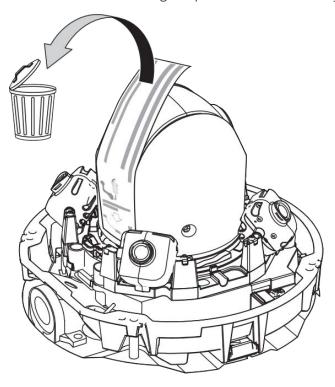


**Step 2 - Remove Adhesive Tapes** 

Remove the adhesive tape for the plate spring that temporarily holds the enclosure in place.

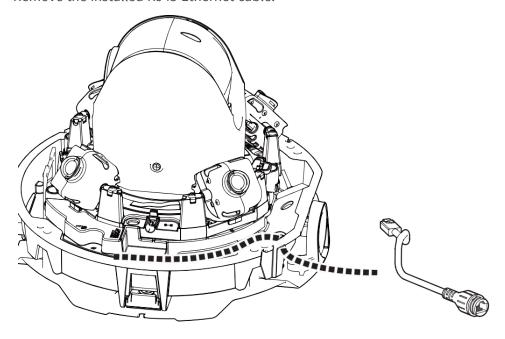


Remove the label showing the position of the TILT adjustment lever.



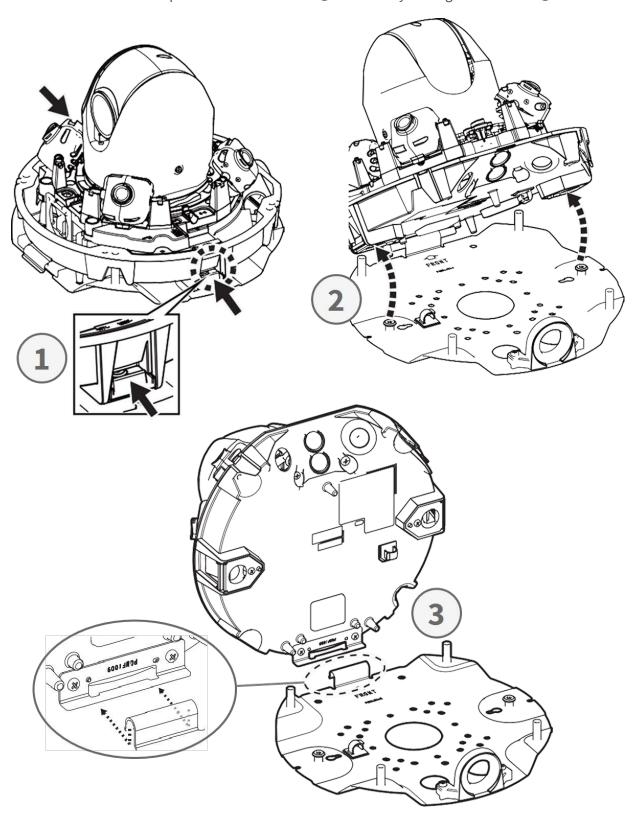
**Step 3 - Remove Ethernet Cable** 

Remove the installed RJ45 Ethernet cable.



#### **Step 4 - Remove Camera from Base Plate**

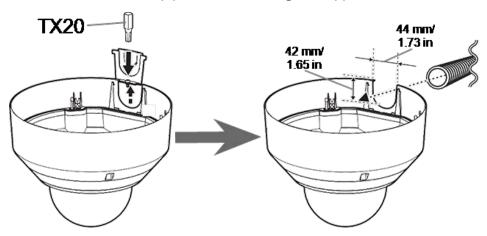
Remove the camera from the base plate by pressing on the two locks (left and right, 1), then lift the camera from the base plate towards the front 2 and finally unhinge the camera 3.



# **Preparing for Wiring From the Side**

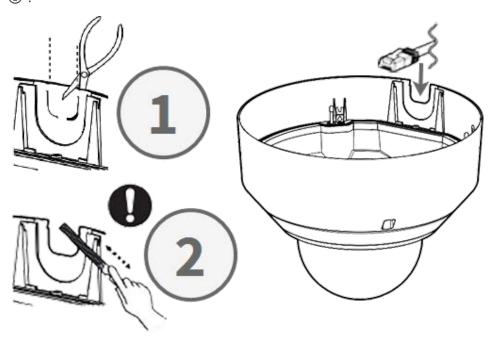
#### Alternative A - Using a Pipe Connection

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!

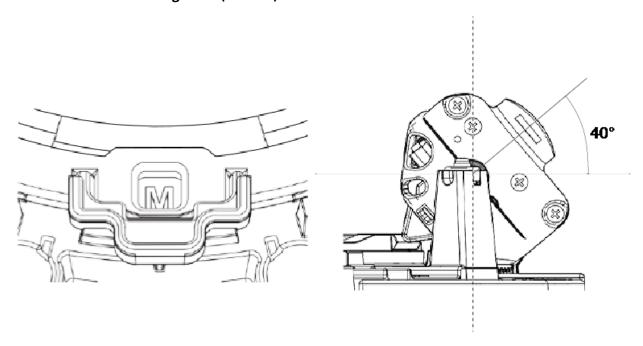
Every one of the <Multisensor> cameras can be set to three different tilt angles using its **tilt adjust-ment lever**.

- 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.

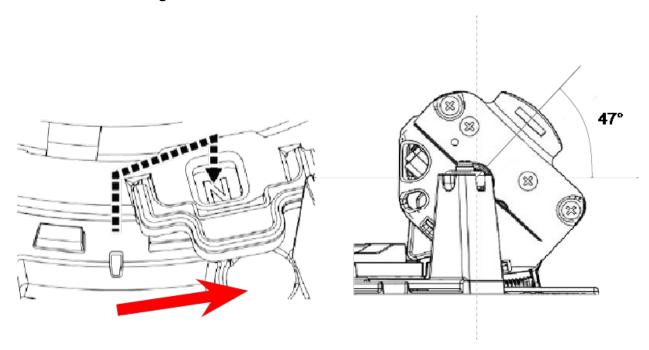
#### To Select a Different Tilt Angle Position than the Default M Position

- 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.

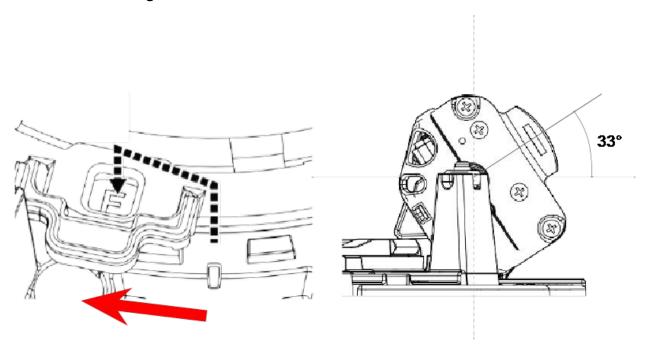
#### Middle Position - Tilt Angle 40° (Default)



## Near Position - Tilt Angle 47°



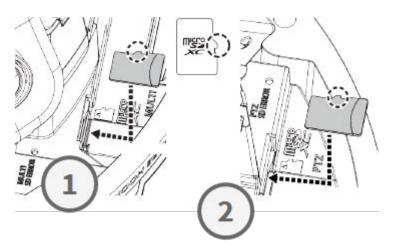
## Far Position - Tilt Angle 33°



**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.

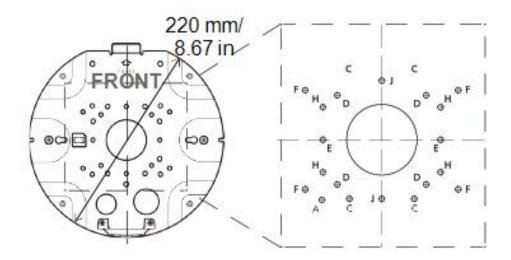


# **Installing Base Plate and Camera**

#### Step 1 - Mark the Holes for Drilling

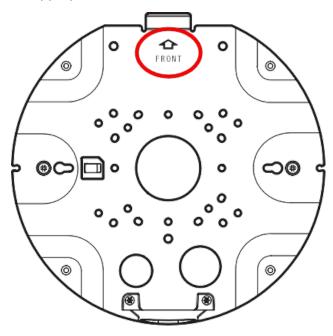
Use the supplied drilling template to mark the holes for drilling (if required).

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



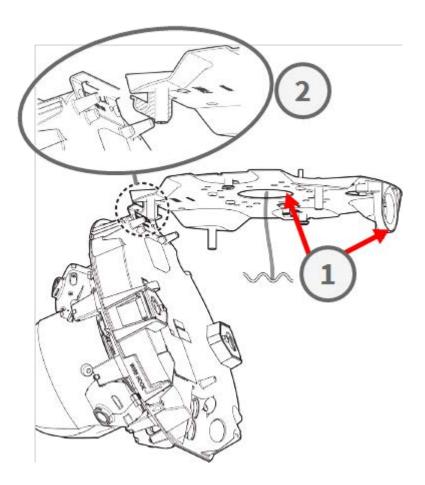
#### Step 2 - Install the Base Plate

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** 

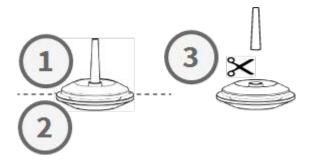
Hang the camera into the hinge of the back plate. Guide the network cable through either the center hole of the base  $\bigcirc$  plate or the cable guide on the side  $\bigcirc$  .



# **Connecting the Cables**

#### **Step 1 - Prepare the Grommet (Rubber Sealing)**

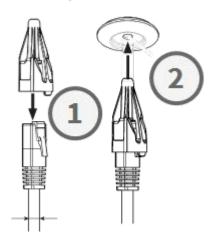
Note that the grommet has an inside 1 and an outside 2 . Cut off the excess tube on the inside 3 .



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

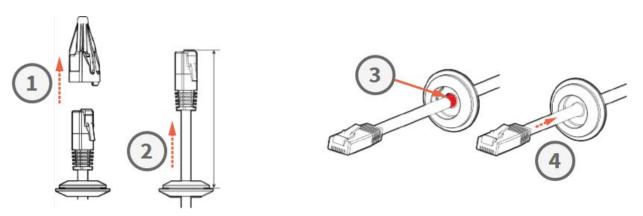
#### **Step 2 - Prepare the Ethernet Cable**

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



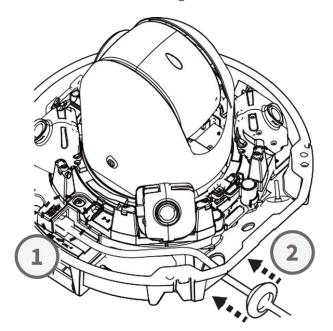
#### Step 3 - Insert the Ethernet Cable Into the Camera

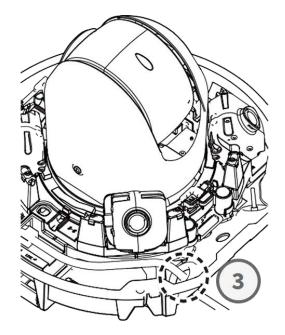
Remove the RJ45 cap from the plug 1 and make sure that you have pulled the wire out of the grommet by at least 145 mm/5.7 in 2. If the sleeve (red) shows at the inside of the grommit 3, push the cable back a little bit 4.



**Step 4 - Connect the Ethernet Cable and Apply the Grommet** 

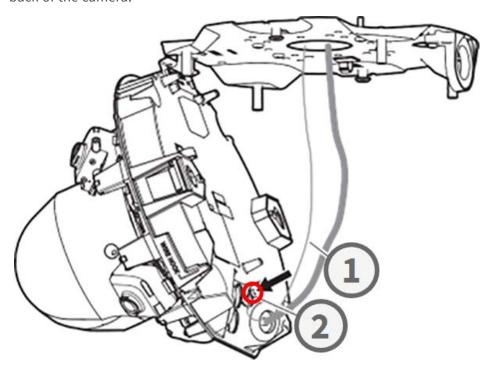
Insert the RJ45 plug into the Ethernet connector of the camera ①, then push the grommet into its seating ②. Make sure that the grommet is seated properly and that the sleeve is not showing at the inside of the camera housing ③.





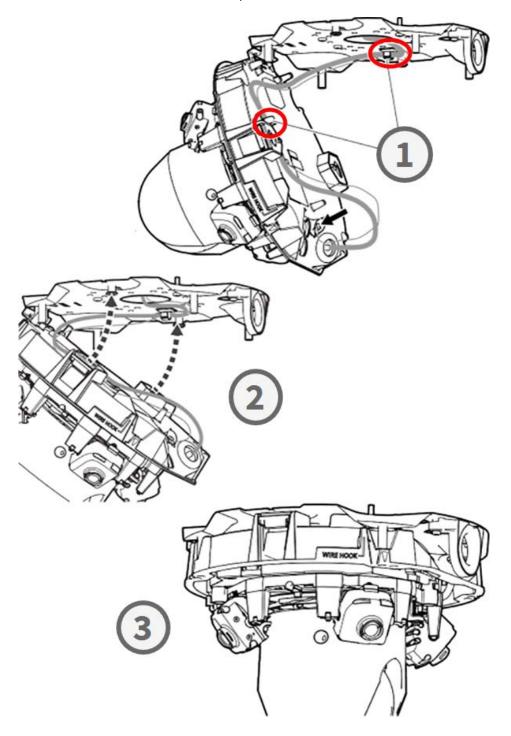
# **Step 5 - Connect the Ground Wire**

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 .

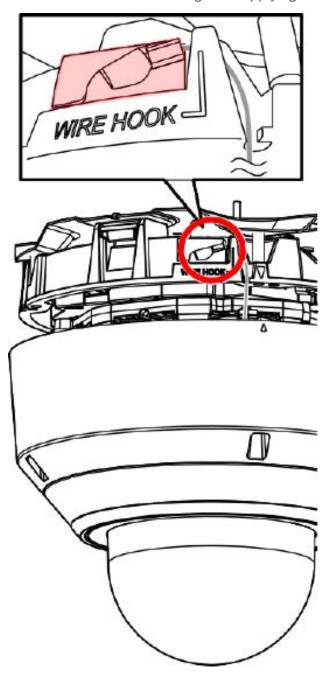


# **Finishing the Installation**

**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)!

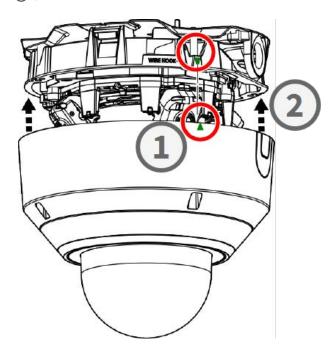
#### **Step 1 - Apply Sticky Tape to Wire Hook (Only When Using Wire Hook)**

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.



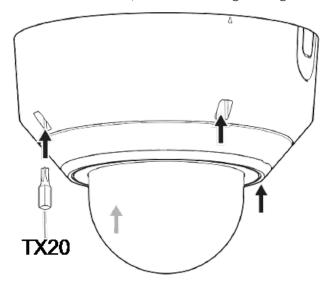
#### Step 2 - Align Enclosure and Camera Body

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

**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

