

Quick Installation

MOBOTIX 20MP Multisensor IR Video Analytics Camera Mx-VM1A-20-IR-VA

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NOTE!

This guide is only valid for **installing and connecting** the 20MP Multisensor IR Video Analytics Camera. For more information on the camera, please refer to the other documents (see [Further Reading, p. 8](#)).

Important Installation Notes

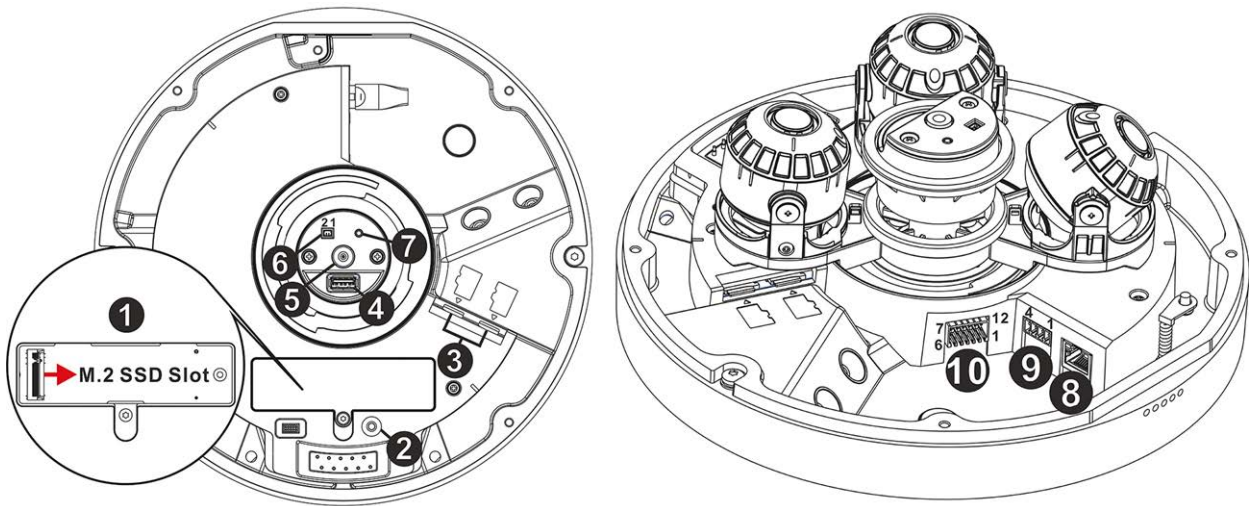
- This product must not be used in locations exposed to the dangers of explosion.
- Do not look directly into the infra-red LEDs that may be active on the product.
- Install this product in a well-ventilated spot and do not close off any vent openings.
- Do not use this product in a dusty environment.
- 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 Class I adapter, the power cord shall be connected to a socket-outlet with proper ground connection.
- 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.

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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.

Camera Connectors



No.	Connector	Definition
1	M.2 SSD Card Slot	Insert the M.2 SSD card (max. 8 TB) into the slot to store videos and snapshots. Always power off the camera before inserting or removing any storage media!
2	Reset Button	Press the button with a proper tool for at least 20 seconds to reset the system to factory defaults.
3	microSD Card Slots (2)	Insert microSD cards into the slots to store videos and snapshots. Always power off the camera before inserting or removing any storage media!
4	USB Type A	Insert a flash drive into the USB slot to store videos and snapshots. Always power off the camera before inserting or removing any storage media!
5	MIC	Audio In
6	BNC	Not available on this camera model.
7	BNC Button	Not available on this camera model.
8	RJ-45 Port	For network and PoE connections

No.	Connector	Definition
9	Power Connector	AC24V/DC24V power connector (see Connecting Power , p. 3 below)
10	Audio/Alarm I/O Connector*	Audio/Alarm I/O connection (see Audio and Alarm I/O Connector , p. 4 below)

*Do NOT connect an external power supply to the alarm I/O connector of the camera.

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

Internal Storage Media (microSD/SSD)

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.

M.2 SSD Card Slot

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

Insert a suitable M.2 SSD card (max. 8 TB) into the slot and secure it using the supplied M3 screw.

NOTE!

- Remember to format a new SSD card as shown in [Formatting Storage Media](#) below.

Reset Button

Press the reset button 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.

Using AC or DC

To power up the camera, connect **either the AC or the DC** power adapter to the power connector of the camera and the power outlet.

CAUTION! Never connect both AC and DC power since **this will cause unforeseeable damage.**

Diagram and Pin Definition for AC24V/DC24V Power Connection

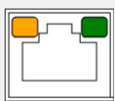
Pin	Definition
1	DC24V-
2	DC24V+
3	AC24V 1
4	AC24V 2

Ethernet Cable Connection

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



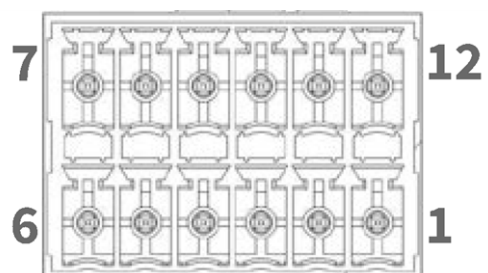
- Green **Link** LED indicates good network connection.
- Orange **Activity** LED flashes for network activity indication.

NOTE! The ITE is to be connected only to PoE networks without routing to the outside plant or equivalent description.

Audio and Alarm I/O Connector

Please refer to the pin definition table below for using the audio and alarm I/O connector.

Pin	Definition
1	Alarm In 1+
2	Alarm In COM
3	Alarm Out 1+



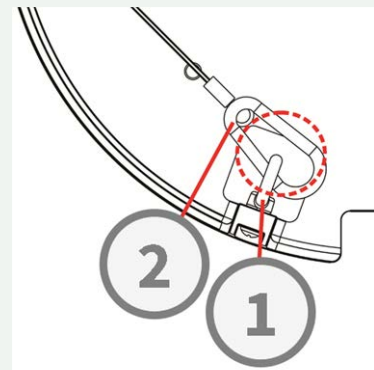
Pin	Definition
4	Alarm Out 1-
5	Audio Out R
6	Audio Out L
7	Audio In L
8	Audio In R
9	Alarm Out 2-
10	Alarm Out 2+
11	GND
12	Alarm In 2+

Using a Gooseneck (Parapet), Pendant or Wall Mount

CAUTION!

For safety reasons, it is recommended to hook up the camera's anti-drop ring ① to the anti-drop cable ② of the pendant/wall mount when installing the camera.

For more information about installing the mounts and the anti-drop cable, please see the corresponding Quick Installation document available at www.mobotix.com > [Support](#) > [Download Center](#) > [Marketing & Documentation](#) > [Manuals](#) in the **MOBOTIX MOVE Accessories** section.



Accessing the Camera

The 20MP Multisensor IR 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.

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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.

The screenshot displays the MOBOTIX MOVE web interface. At the top, there are navigation tabs: Home, System, Streaming, Camera, and Logout. A language dropdown is set to English. Below the navigation, there is a 'Stream 1 (cam1)' selection dropdown and a 'Video Time' display showing 2023/07/20 11:55. The main area is a large video stream of a train station platform. Below the video, there are several control panels:

- ZOOM:** WIDE, TELE, 1 step, RESET.
- FOCUS:** NEAR, FAR, 1 step, RESET.
- AF Mode:** MANUAL, ZM TRIG, PUSH AF.

Labels with arrows point to these panels: 'AF Controls' points to the AF Mode panel, 'Focus Adjustment' points to the FOCUS panel, and 'Zoom Adjustment' points to the ZOOM panel. To the right of the video, there is a 'Video Quality Information' panel showing stream details for four streams, and a row of icons for Full Screen, Snapshot, Live View, and Manual Trigger.

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 20MP Multisensor IR Video Analytics Camera in good working condition:

- Clean the multisensor bubble 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 silica gel dry pack to prevent condensation on the inside of the multisensor bubble.

Further Reading


[Manuals and Quick Installation documents](#)



[Video Analytics Manual](#)



[Technical Specifications](#)



[MOBOTIX MOVE Installation Hints](#)



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