MV Mounting Options and Guidelines

This document outlines our current MV mount offerings with some guidelines and best practices. Specific dimensions for the hardware are attached to this article.

How MV Mounting Works

- Every MV comes with a mount plate inside the box, which can go directly onto a flat surface like a wall, ceiling or (for some cameras), a junction box. Note that this mount plate is also an important part of cooling the camera.
  - For the indoor MV22, the box includes a junction box adapter plate for the 4-inch junction box.
  - For the outdoor MV72, the box includes a conduit adapter that helps ensure your entire electrical wiring is protected.

- Optional mounting accessories like an arm or a bracket are also available for the MV cameras. (Datasheets on the Cisco Meraki website. Specific dimensions attached to this document.)
  - You would use this for the following reasons:
    1. If mounting directly on a flat surface is not possible.
    2. Mounting directly on the surface does not provide the best field of view.
    3. Another reason why you would use an arm is to isolate the camera from water droplets that might obstruct the lens when mounted flush to the wall.

Summary of Mounting Options

MV cameras are compatible with the following mounting options, as well as the MV Low Voltage Power Adapter (LVPA). For these mounting options, if an accessory is available, it is linked in the table. The specific dimensions for these accessories are attached in this article. There is also a flowchart that illustrates all the different mounting options.

<table>
<thead>
<tr>
<th></th>
<th>MV LVPA</th>
<th>MV12</th>
<th>MV22****</th>
<th>MV72****</th>
<th>MV32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wall</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes, but not recommended*</td>
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<tr>
<td>Component</td>
<td>MV32</td>
<td>MV32X</td>
<td>MV72</td>
<td>MV72X</td>
<td></td>
</tr>
<tr>
<td>----------------------------</td>
<td>------</td>
<td>-------</td>
<td>------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Ceiling</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>(+Telescoping Pendant Mount)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T-Rail Ceiling Grids</td>
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<td>Yes, but not recommended**</td>
<td>Yes</td>
<td>No, but not recommended**</td>
<td></td>
</tr>
<tr>
<td>(+T-Rail Mount Clip)</td>
<td></td>
<td>(+T-Rail Mount Clip)</td>
<td></td>
<td>(+T-Rail Mount Clip)</td>
<td></td>
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<tr>
<td>Junction Box</td>
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<td>No</td>
<td>Yes**</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>(adapter plate included)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td>No</td>
<td>No</td>
<td>Yes (conduit adapter included)</td>
<td></td>
</tr>
<tr>
<td>Pole</td>
<td>Yes (zipties included)</td>
<td>No</td>
<td>Pole Mount required</td>
<td>Pole Mount required</td>
<td></td>
</tr>
</tbody>
</table>

*Read the MV32 Installation Guide for more details.

**Read the T-Rail Ceiling Grids mounting guidelines in the section below for more details.

***Supported junction box types are outlined in the section below.

****All mounting options supported by MV22 or MV72 are also supported for their MV22X and MV72X variants.
Mounting Dimensions

If you would like the precise dimensions of the mounting accessories, please reference the attachments below.

MV12 and MV32 Mounting Plate

MV12 and MV32 Telescoping Pendant

MV12 and MV32 Wall Arm

MV22 Mounting Plate

MV22 and MV72 Pole Mount
Mounting Guidelines

General Steps

1. Finalize your camera placement and determine what accessories you will need, based upon the table above.

2. If you are using the MV LVPA, determine a place nearby the camera where it can be safely and securely installed. Remember that you must first set up the camera using a wired connection before you can set it up to use wireless. Read the MV LVPA Installation Guide.

3. For each type of mounting, read the guidelines below.
   
   1. Follow the installation guides on Meraki Documentation for specific steps on mounting the camera. Remember to read the MV72 Waterproof Gland Installation Guide.
   
   2. If you need either an arm or a bracket, follow the instructions found in the box for installation.

4. If there is a need to connect conduit to the camera, we have a conduit adapter that comes in the box for the MV72.

Specific Recommendations

A complete set of drawings with dimensions on all the mount plates and mounts are attached in this article. Ordering information and other technical specifications are on the Cisco Meraki website.

Wall Mounting

Some things to consider when thinking about the electrical wiring on a wall:

- The simplest way to do wall mounting is to have the Ethernet cable go through the wall.

- If this is not possible, determine if you can run conduit to the camera.
  
  - If not, you will not be able to ensure that your electrical wiring is protected (this may be fine if installing indoors).
  
  - If it is possible, determine if you can mount to a junction box, or a conduit back box for the MV72.
- If not, you can use the conduit adapter provided with the MV72 to go into the camera. The MV22 does not come with an adapter and will have to go directly to the camera.

- If you can, ensure that the junction box size is supported by referring to the junction box mounting section of this document. If not, try to get a different junction box installed in that location.

**Available Accessories**

**MV12 and MV32 (Wall Mount Arm)**

Both of these cameras can be mounted directly on the wall though it is NOT recommended for the MV32 because of its wide field of view. The MV32 is better mounted on the ceiling.

For these cameras, we provide a wall mount arm (MA-MNT-MV-30) that allows you to mount the camera on a wall but have it face downward. Note that for MV12 and MV32, the screws are placed in different locations.
MV22 (L-Shape Wall Mount Bracket)

For the MV22, we provide a much more compact solution with the L-Shape Wall Mount Bracket (MA-MNT-MV-31)
MV72 (Wall Mount Arm)

You can mount the MV72 directly onto a wall, with an optional conduit adapter that is included in the box. However, a wall mount arm (MA-MNT-MV-10) similar to the MV12 arm is available for the MV72.

MV72 (Conduit Back Box + Wall Mount Arm)

You can optionally mount a conduit back box to the wall for simpler installation of MV72 outdoor cameras, and is compatible with the Wall Arm Mount for MV72 Series. The side, top, bottom, or rear ¾" conduit entry allows Ethernet to be securely routed to the camera.
Ceiling Mounting

Much like wall mounting, MV cameras can be mounted directly on the ceiling with the standard mount plate that comes in the box. The same considerations listed for wall mounting should be noted for the electrical wiring. The MV32 and MV22 have other options for ceiling mounting - explained below.

Available Accessories

MV12 and MV32 (Telescoping Pendant Mount)

To mount the MV32 on a very high ceiling, we provide the telescoping mount (MA-MNT-MV-40).
MV12, M22 and MV32 (T-Rail Mount Clip)

To mount the MV12/22/32 onto a recessed T-Rail and flush T-Rail ceiling, you can use a separate T-Rail Mount Clip (MA-MNT-CLG-1). This clip is also used for Meraki Wireless Access Points.

- The MV22 mount plate has 2 screw holes for each of the t-rail mount clips.
- The MV12 and MV32 mount plates have a screw hole in the middle for a single mount clip. This configuration is not recommended since this allows rotation of the camera and will not be completely secure.
Junction Box Mounting

Using the provided mount plate, you can screw the MV22 and MV72 cameras onto many types of junction boxes. The MV12 and MV32 cannot directly be mounted onto a junction box due to their smaller size.

MV22

The standard mount plate for MV22 supports the following junction boxes. A guide is provided in the box for screw locations. It is also shown below.

Supported Junction Box Types

- USA single gang box
- 4-inch circular junction box
- 3.5-inch circular junction box
- EURO single gang box
- 4-inch junction box*

  For the 4x4-inch square junction box, the MV22 comes with a junction box adapter plate that you can use to mount the camera.
MV72

The standard mount plate for MV72 supports the following junction boxes. A guide is provided in the box for screw locations. It is also shown below.

Supported Junction Box Types

- 4-inch junction box
- USA single gang box
- 4-inch circular junction box
- 3.5-inch circular junction box
MV12 and MV32

The MV12 and MV32 are too small to mount directly to many larger-sized junction boxes. If this mounting solution is absolutely necessary, you can purchase a mud ring with holes spaced no more than 2.75" apart and drill new screw holes onto the MV12/MV32 mount plate to secure onto these holes.
Pole Mounting

The only camera that comes with a pole mounting accessory is the MV72. The MV LVPA can also be mounted to a pole.

Available Accessories: MV22 and MV72 (Pole Mount)

Use pole mount (MA-MNT-MV-20) to attach a camera on a pole. This also attaches to the MV72 wall mount arm if an extension is needed for a better field of view. There are two pairs of straps that can be used. The smaller can attach to poles with diameter ranging from 40-80mm, and the larger can attach to poles with diameter from 85-145mm.