MV53X Installation Guide

This guide describes how to install and configure the Cisco Meraki MV53X, a smart camera that integrates with the Meraki dashboard. It covers the overview, powering, preparing dashboard, and step-by-step installation instructions for the MV53X camera.

Overview

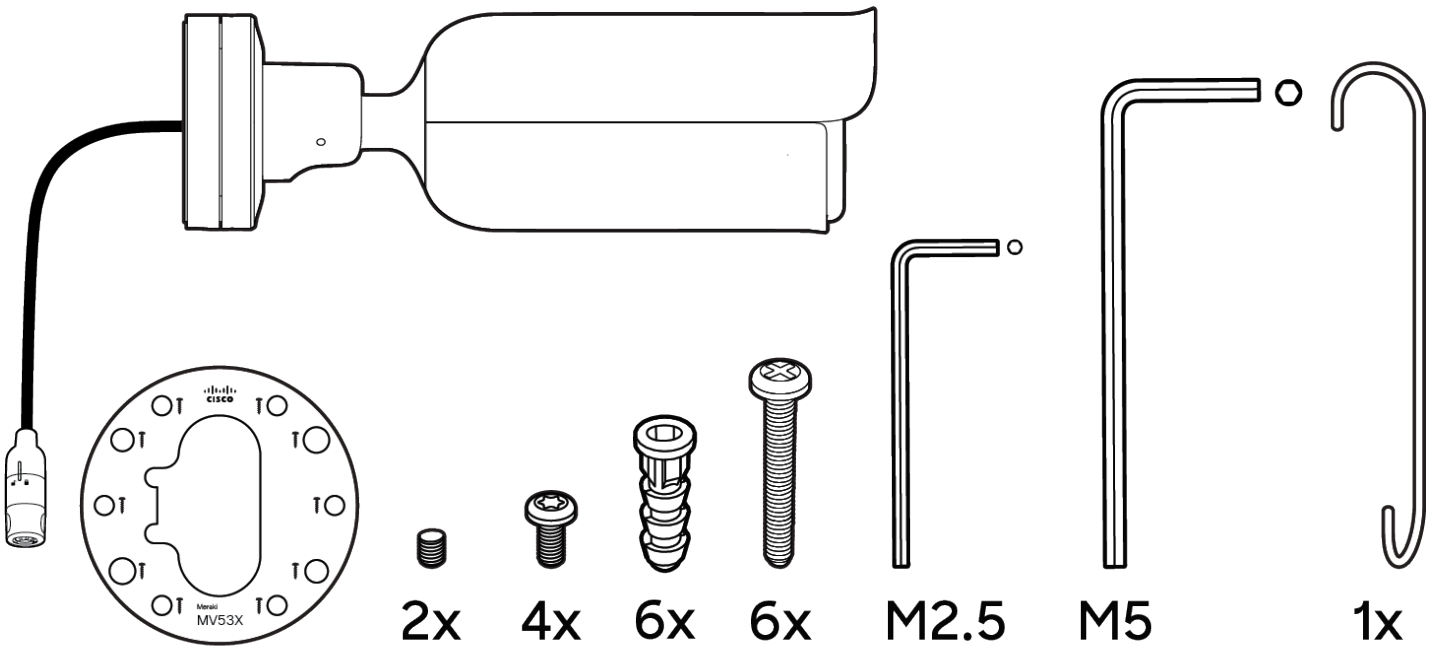
The Cisco Meraki MV53X is the first varifocal bullet camera in the third-generation smart camera family. Aligning with our other cameras, it eliminates the complex and costly servers and video recorders required by traditional solutions, which removes the limitations typically placed on video surveillance deployments and provides advanced analytics

Datasheet: Click here

Box Contents

A single camera box contains:

- One camera hardware
- One mount template
- Two set screws
- Four plate screws
- Six screws and wall anchors
- One M2.5 torx key
- One M5 torx key
- One S-hook



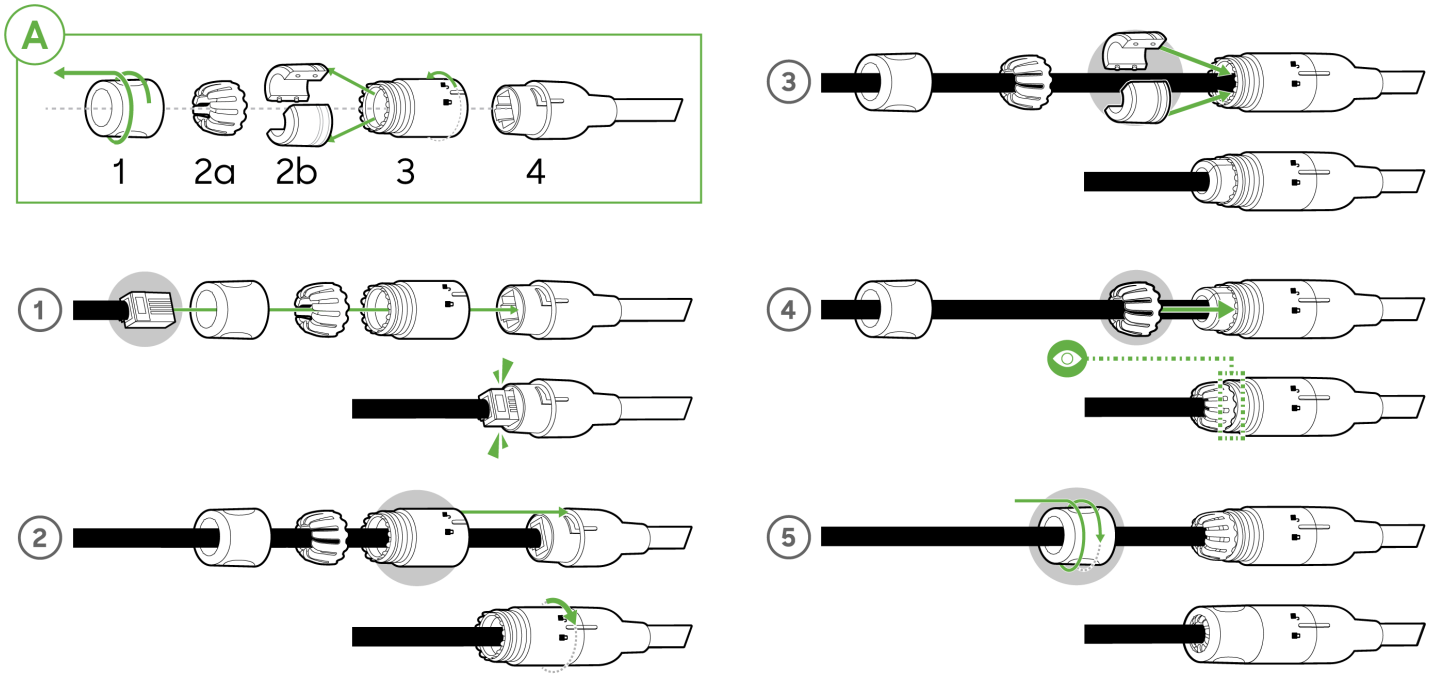
Powering the MV53X

The MV53X features a 1000BASE-TX Ethernet port with **802.3at PoE+ and requires 30W of power** to run. Route the Ethernet cable from an active port on a PoE switch or PoE injector.

MV53X requires 30W power, dedicated entirely to itself for higher processing and IR load

Supported Cable Diameter

The MV53X supports cables with a diameter between **5.4mm and 6.9mm**. A smaller or larger cable will prevent waterproof sealing and cause hardware damage that is not covered by warranty.



Pre-Install Preparation

You should complete the following steps before going on-site to perform an installation:

Configure Your Network in Dashboard

The following briefly overviews the steps required to add an MV52 to your network. For detailed instructions about creating, configuring and managing Meraki Camera networks, refer to the online documentation (https://documentation.meraki.com/MV).

1. Login to http://dashboard.meraki.com. If this is your first time, create a new account.
2. Find the network to which you plan to add your cameras or create a new network.
3. Add your cameras to your network. You will need your Meraki order number (found on your invoice) or the serial number of each camera, which looks like Qxxx-xxxx-xxxx, and is found on the bottom of the unit.
4. Verify that you the camera is now listed under **Cameras > Monitor > Cameras**.

Check and Configure Firewall Settings

If a firewall is in place, it must allow outgoing connections on particular ports to particular IP addresses. The most current list of outbound ports and IP addresses for your particular organization can be found here.

DNS Configuration

Each MV53X will generate a unique domain name to allow for secured direct streaming functionality. These domain names resolve an A record for the private IP address of the camera. Any public recursive DNS server will resolve this domain.

If utilizing an on site DNS server, please allow *.devices.meraki.direct or configure a conditional forwarder so that local domains are not appended to *.devices.meraki.direct and that these domain requests are forwarded to Google public DNS.

Assigning IP Addresses

At this time, the MV53x does not support static IP assignment. MV53X units must be added to a subnet that uses DHCP and has available DHCP addresses to operate correctly.

Install Instructions

The camera out of the box comes with a protective lens cover. Please remove this lens cap after installation.

Placement Guidelines

There are four ways in which you can mount the MV53X. They are as follows:

Wall or ceiling

- No additional accessories are required.

Pole (with accessory)

- Pole mount MA-MNT-MV-28 is available to order separately.
  - MA-MNT-MV-28 installation instructions

Junction Box

- Junction box MA-MNT-MV-58 is available to order separately.
  - MA-MNT-MV-58 installation instructions

Corner Mount

- Corner mount MA-MNT-MV-88 is available to order separately.
  - MA-MNT-MV-88 installation instructions

Mounting Instructions

When you unbox the unit itself, you will notice that the base of the camera has a metal plate:

This plate can be rotated counter-clockwise to separate it from the base of the camera and this plate will need to be mounted to the wall or other supported mount. The included template can be used to help line up any pilot holes that may need to be drilled.

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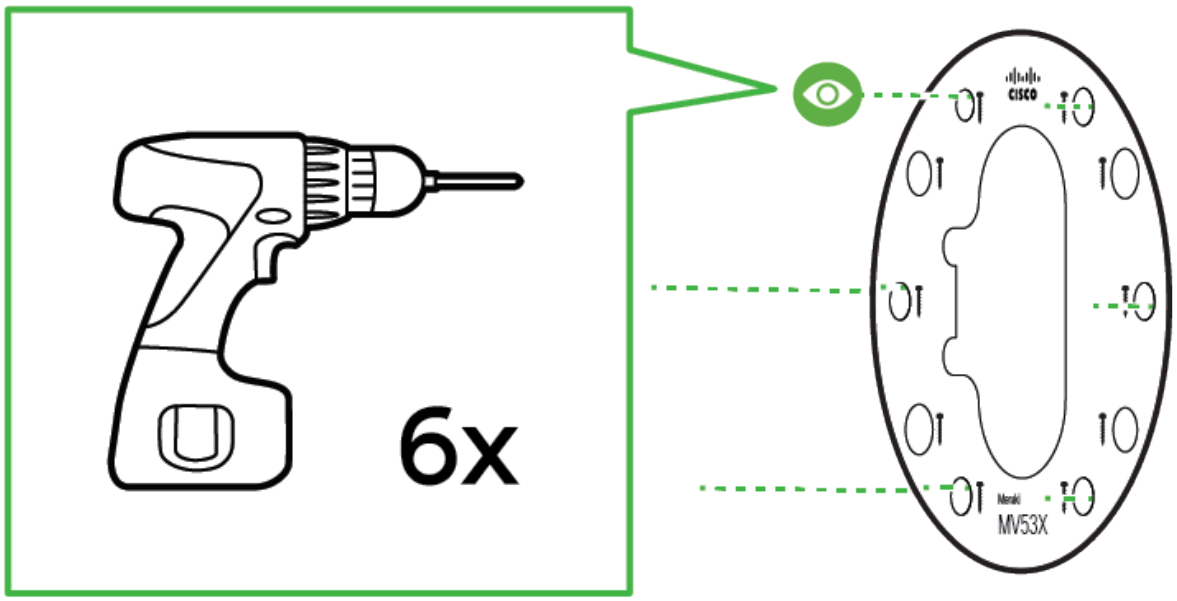

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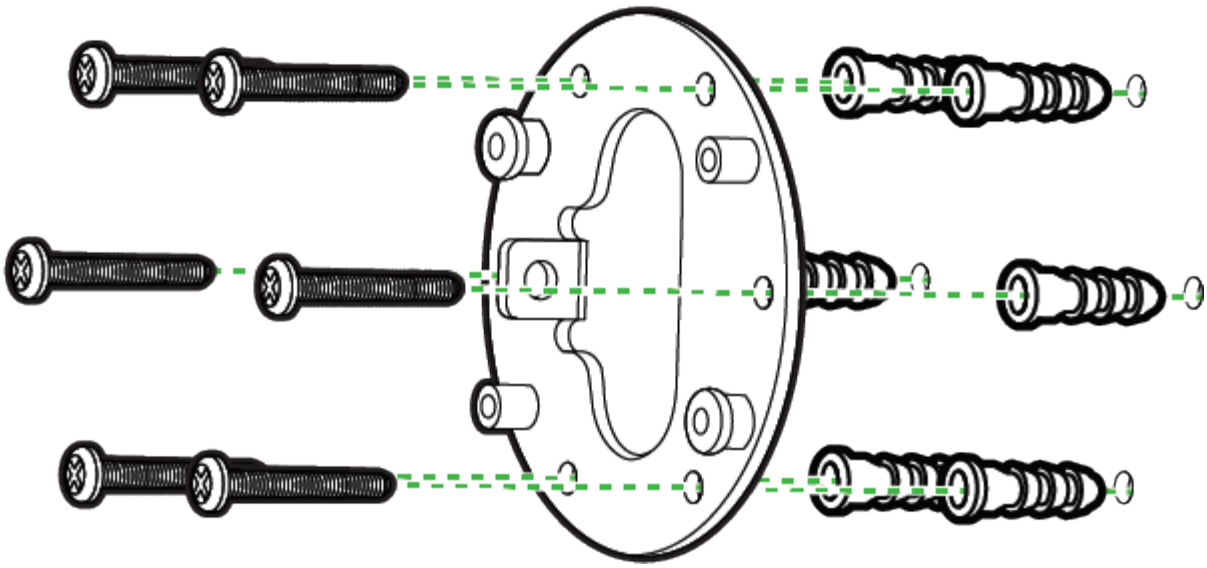

Rotate the baseplate of the camera counter-clockwise in order to separate the camera body from the second plate.

- **You will need to use the included M5 wrench to rotate this plate.**

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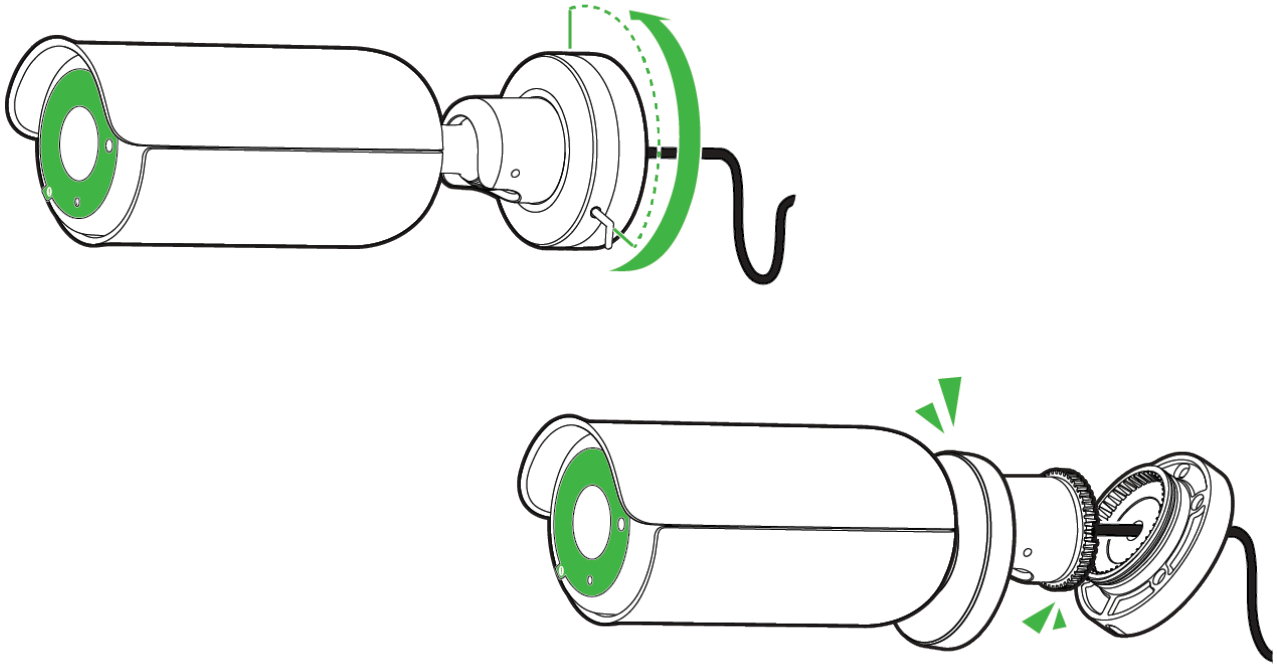

Use the included S-hook to hang the camera and feed the cable through the center hole if you are running it through a wall or into a junction box. Otherwise you can remove the cable guard on the bottom of the camera base and push the pigtail through there.

At this time, you will install the waterproof cable gland on the Ethernet cable itself. Please follow the steps in the guide earlier in this document or in the following image to ensure there is no risk of water damage to the unit.

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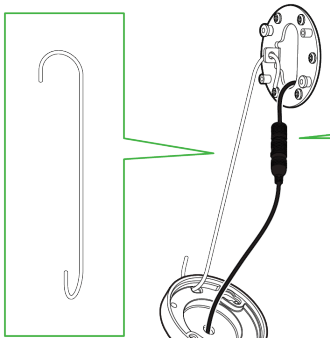

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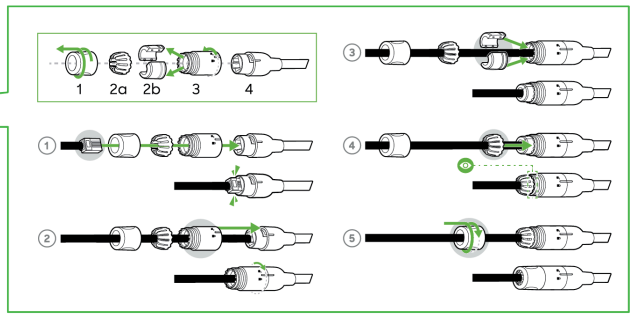

Looking at the bottom of the camera base, there are two gaps for the metal pegs of the base-plate to be put in.

Once this is done, twist the base to lock it onto the mounting plate. Ensure that the grommet on the pigtail has been passed through the cable guard if you are not pushing the pigtail through the center of the mounting plate.

Use the 4 screw holes and included screws to affix the base of the camera to the mounting plate.

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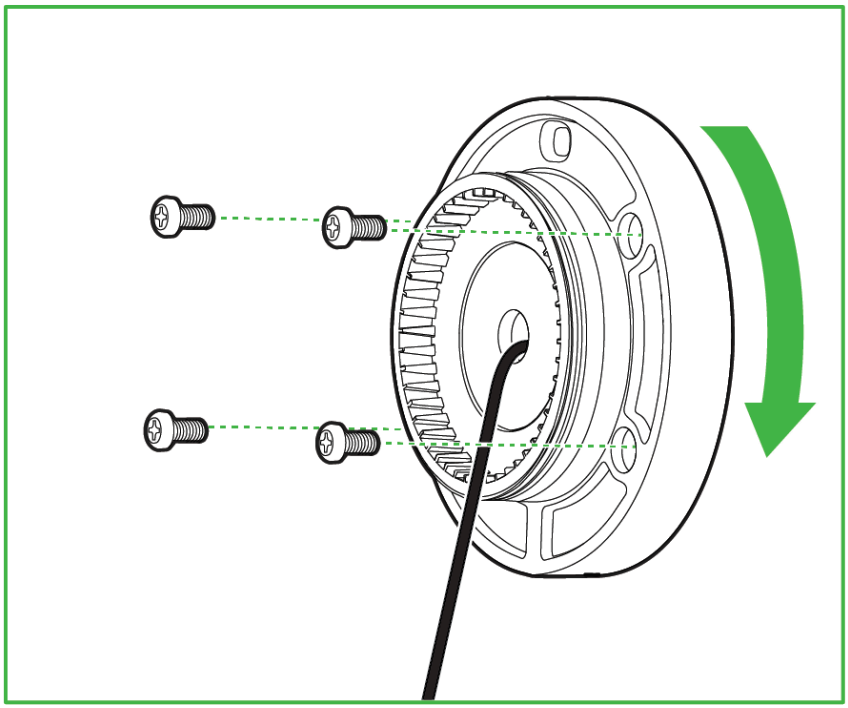

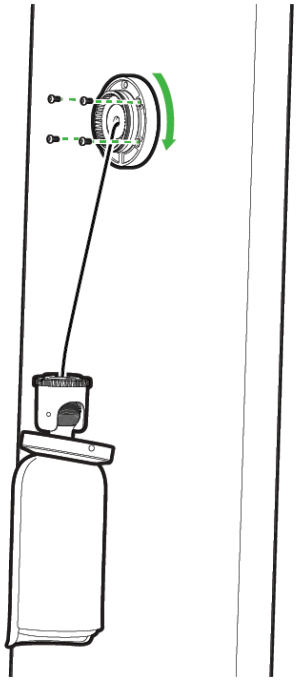

You can now attach the camera base plate to the plate that is mounted on the wall. Once this is done, hand-tighten the plate to stabilize the camera.

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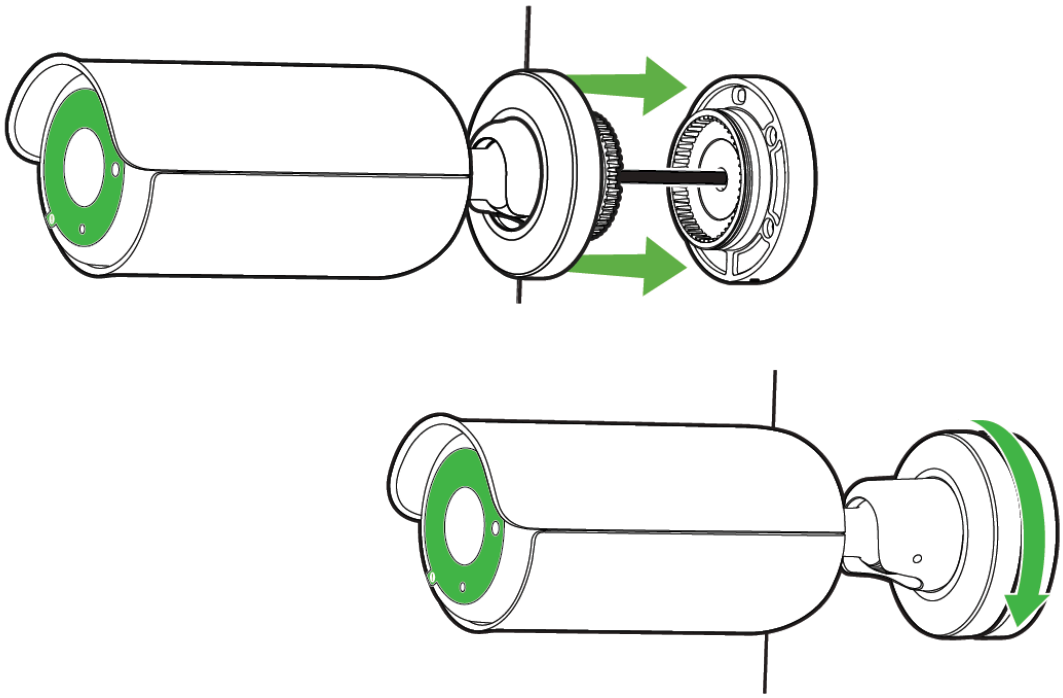

With the base top aligned to the base, rotate the camera using the ball joint to fix your field of view/angle. Ensure that the opening is facing the direction in which the camera needs to look, and that the hood is on the top.

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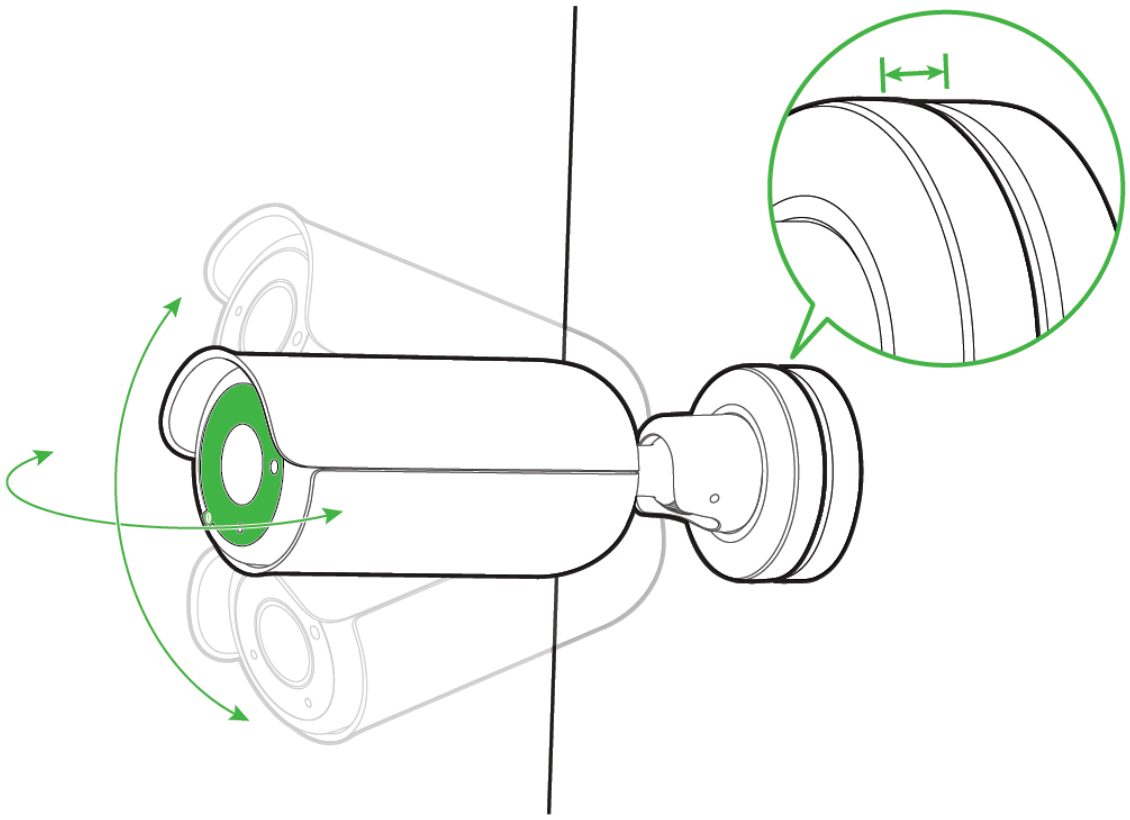

Tighten the top of the base clockwise once you have a confirmed position.

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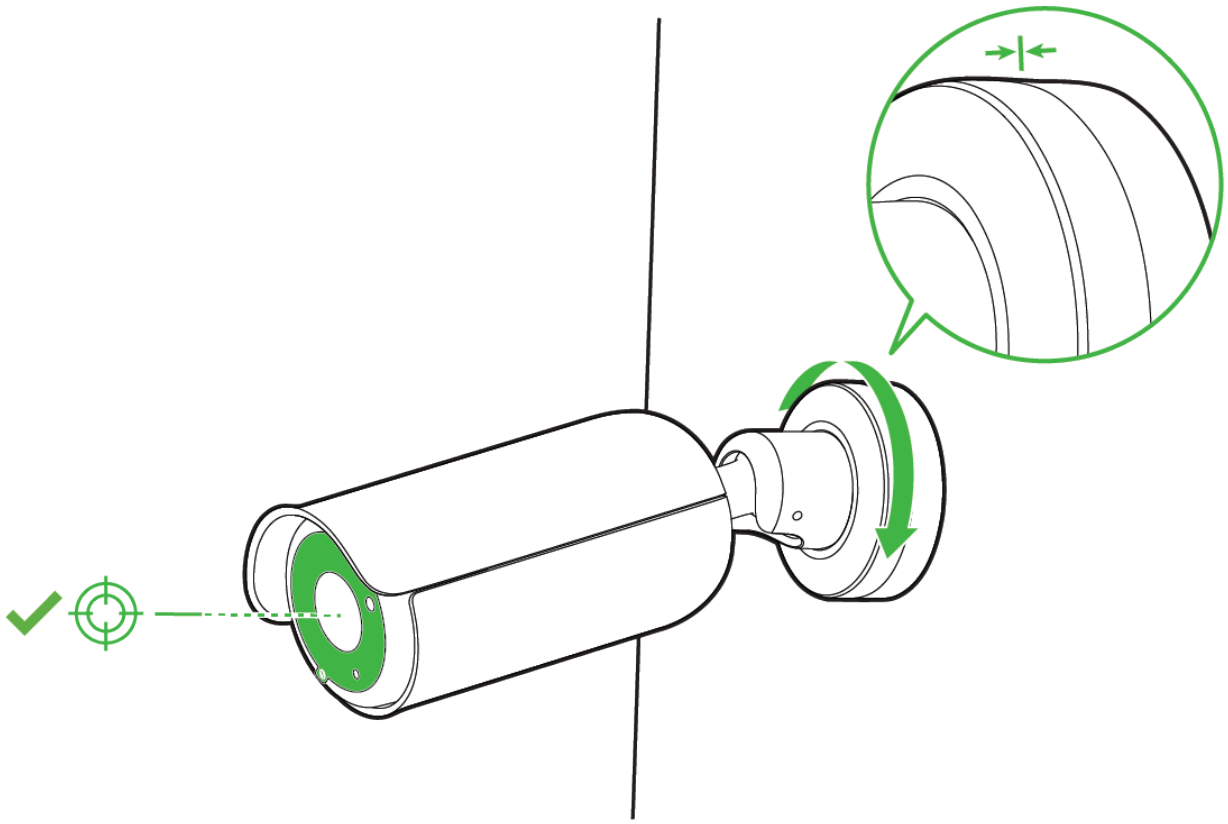

Tighten this even further by using the M5 and M2.5 torx keys provided around the joint and the top of the base. Finally, remove the protective lens cap.

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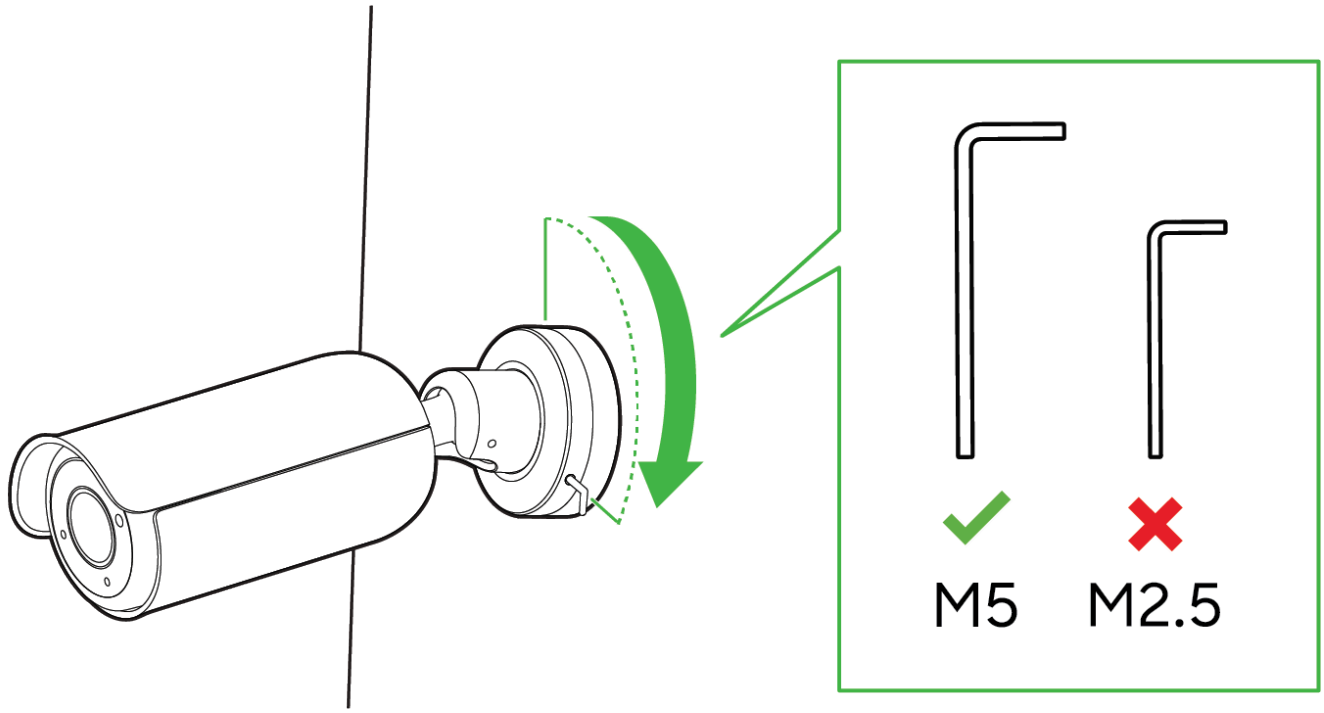

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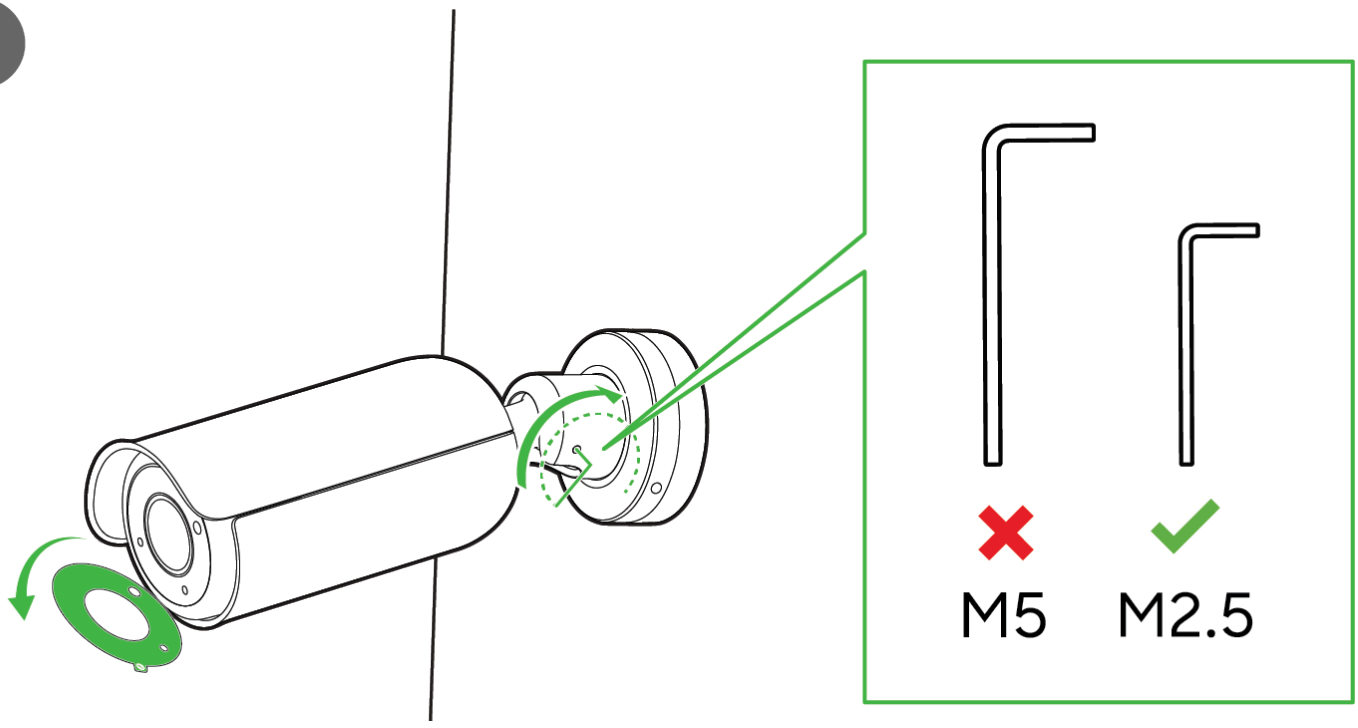

LED Indicator

The various status conditions of an MV are indicated by the following colors and patterns:

- Rainbow (solid, rotating through colors) - MV is booting up.
- Flashing Blue - MV is searching for WiFi network(s).
- Flashing Green - MV is upgrading or initializing for the first time.
- Solid Green - MV is connected via Ethernet.
- Solid Violet - MV has audio recording enabled.
- Solid Amber - MV has a network issue and cannot talk to dashboard
- Solid Red - Power connection is below <7.8V