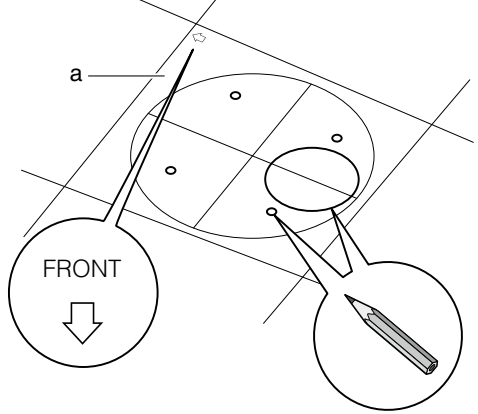


Installing the Camera

1

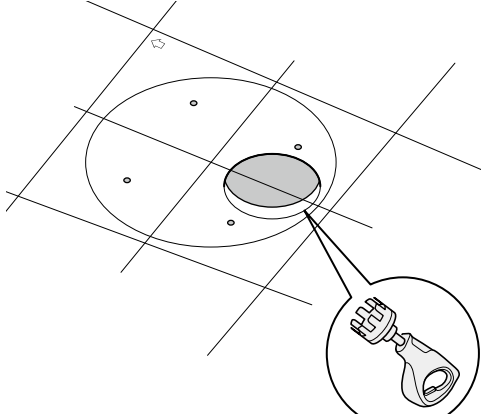
Direct-mounting on ceiling

1-1

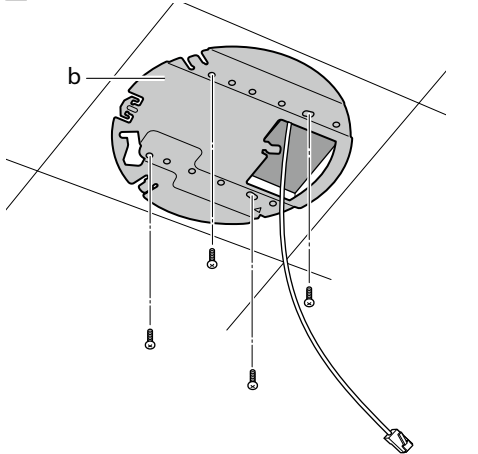


a. Template

1-2



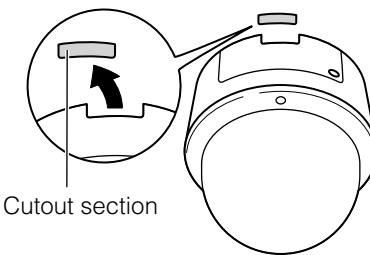
1-3



b. Ceiling plate

If the cables cannot be stored above a ceiling

If the cables cannot be stored above a ceiling made of concrete, etc., break the cutout section of the dome case using pliers to remove the section to guide the cables.



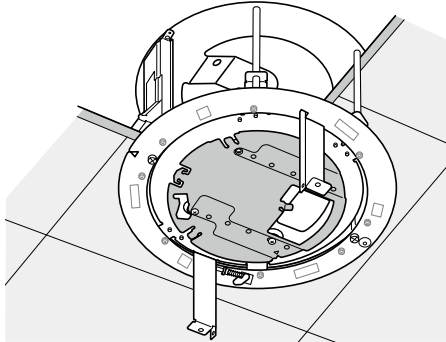
Cutout section

Attaching to a junction box

Attach the ceiling plate to the junction box after confirming the fixing holes locations with the external dimensions diagram.

Ceiling recessed mounting

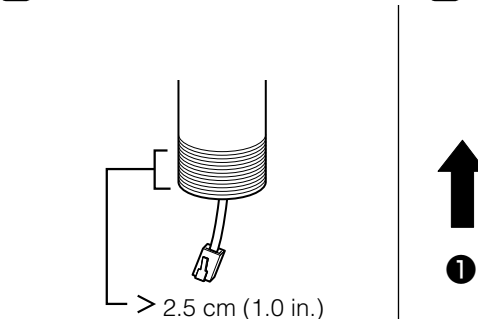
Mount using Recessed Mounting Kit or Plenum Mounting Kit (each sold separately). For details please refer to the Installation Guide included with the kit.



Ceiling pendant mounting

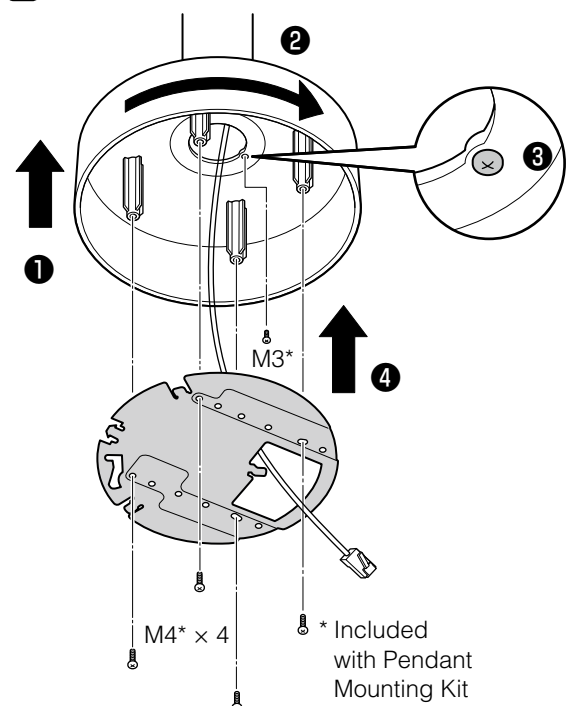
Mount using the Pendant Mounting Kit (sold separately). For details please refer to the Installation Guide included with the kit.

1-1

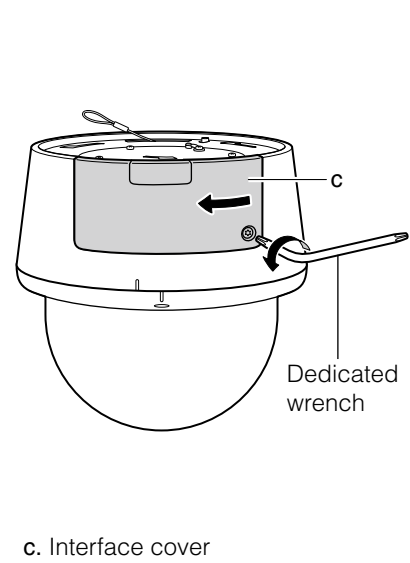


Pass necessary cables for connecting the camera through the pipe.

1-2

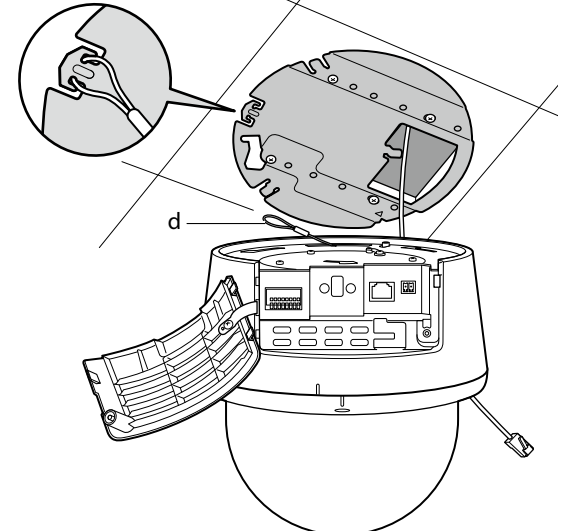


2



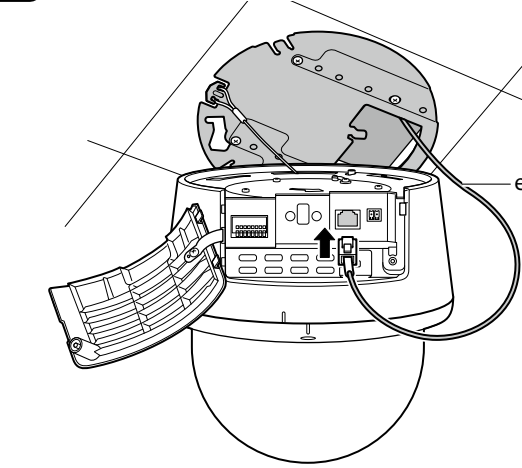
c. Interface cover

3



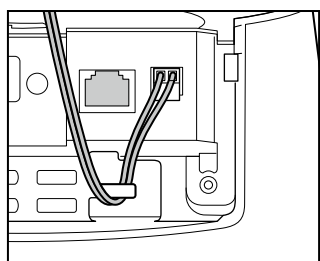
d. Safety wire

4



e. LAN cable

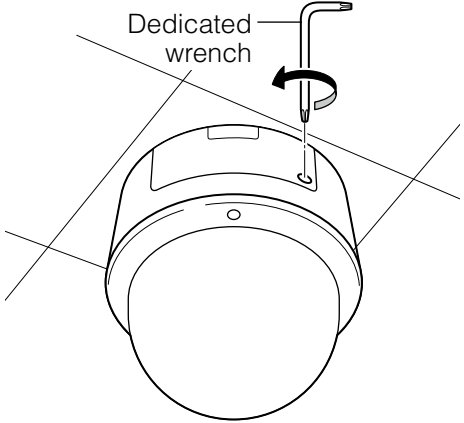
Using an external power supply



Note

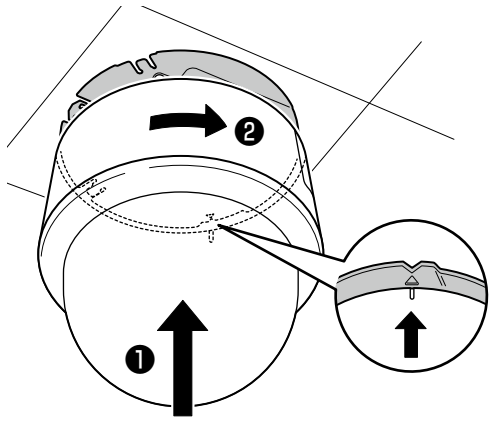
Connect the cable after hooking around the tab, to prevent accidental removal.

5



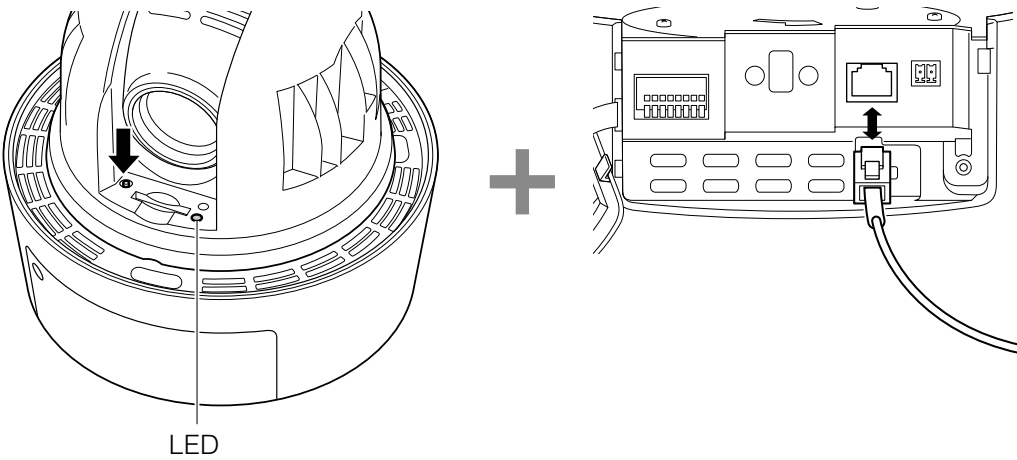
Dedicated wrench

6



Resetting the Camera

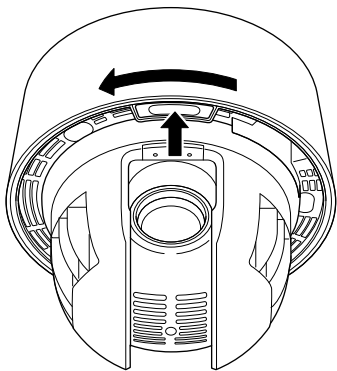
Remove the dome case, and push in the power cable while pressing the reset switch. Release the switch once the LED starts to flash. When the LED stops flashing, the reset procedure is complete.



LED

Removing the Camera

Remove the dome case, and while pushing the mounting-release button, rotate it counter-clockwise to remove.



Connecting the Camera

Power Connection

Power can be supplied to the camera in the three ways described below. Please be sure to read the user manual for the dedicated power supply before use.

Note

- Power supply should conform to all local codes.
- The power supply should also comply with IEC/UL60950-1 (SELV/LPS) standards.
- The camera does not have a power switch. Connecting and disconnecting the LAN cable (PoE power supply), AC adapter, or external power supply plug turns the power ON and OFF, respectively.
- When the camera needs to be rebooted, perform the reboot operation from the camera Setting Page (please refer to the "Operation Guide").

PoE (Power over Ethernet)

The camera supports PoE functions. Power can be supplied to the camera by using a LAN cable connected to a PoE HUB that conforms to the IEEE802.3at Type1 standard.

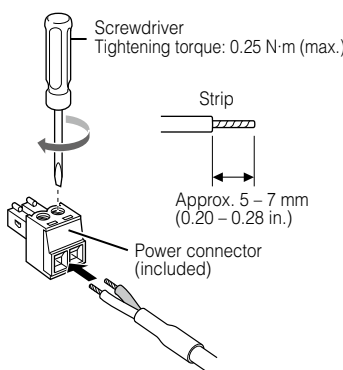
Important

- Check with your dealer for more information about PoE HUB and Midspan technology. Midspan (a LAN cable power supply device) is a device that, like a PoE HUB, supplies power to the camera via a LAN cable.
- Some PoE HUBs allow the limitation of currents for each port, but applying limits may interfere with performance. If using this type of PoE HUB, do not limit the operating current.
- Some PoE HUBs have limits for the total current consumption for the ports which can interfere with performance when multiple ports are in use. For more information, check the instruction guide for your PoE HUB.
- When the camera is connected to both a PoE HUB and an external power supply (12 V DC or 24 V AC), power from the power supply first connected is given priority. But when both power supplies are connected, according to the combination, problems such as failure of the network connection may occur. When a problem has occurred, either shut off the PoE HUB power supply setting or use the AC adapter that is sold separately as the external power supply.

External Power Supply

12 V DC or 24 V AC input can be used.

Connect the power connector included in the package, as shown below.



12 V DC can be connected in a non-polar configuration.

Important

- The power supply should be within the following voltage range.
- 24 V AC: Voltage fluctuation within $\pm 10\%$ of 24 V AC (50 Hz or 60 Hz ± 0.5 Hz or less)
Current supply capacity of at least 1.0 A per camera
- 12 V DC: Voltage fluctuation within $\pm 10\%$ of 12 V DC
Current supply capacity of at least 1.5 A per camera
- When using a 12 V DC battery power supply, be sure to connect resistors of at least 0.5 – 1.0 Ω /20 W in series to the power line.
- For an external power supply, use a double-insulated device.

Recommended Power Cables [Reference]

Cable (AWG)	24	22	20	18	16
12 V DC maximum cable length	5 m (16.4)	9 m (29.5)	14 m (45.9)	23 m (75.5)	32 m (105.0)
24 V AC maximum cable length	11 m (36.1)	18 m (59.1)	29 m (95.1)	46 m (150.9)	64 m (210.0)

Use UL cable (UL-1015 or equivalent) for 12 V DC or 24 V AC wiring.

AC Adapter

Please use the dedicated AC Adapter (sold separately).

External Device I/O Terminals

External device I/O terminals consist of two input and output systems each. Viewer can be used to check external device input status and control output to an external device (please refer to the "Operation Guide").

External Device Input Terminals (IN1, IN2)

External device input terminals consist of two sets (IN1, IN2) of two terminals, with the negative terminals connected to the camera interior GND. Connecting cables to the positive and negative terminals and opening or closing the circuit notifies the Viewer.

Important

- When connecting sensors and switches, connect terminals that are electrically isolated from the respective power and GND.
- Do not push the external device I/O terminal button with too much force. Doing so may cause the button to remain pushed-in.

External Device Output Terminals (OUT1, OUT2)

External device output terminals consist of two sets (OUT1, OUT2) of two terminals. The sets have no polarity. Controls from the viewer can be used to open and close the circuit between the terminals. Using optical couplers, the output terminals are isolated from the camera's internal circuit.

The load connected to the output terminals should be within the following rating range.

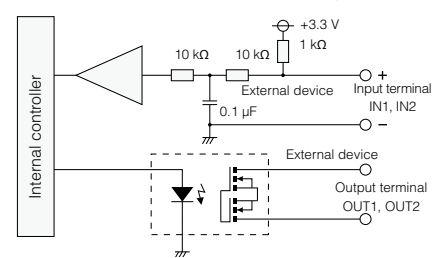
Rating between output terminals:

- Maximum voltage 50 V DC
- Continuous load current at or below 100 mA
- On resistance: Max. 30 Ω

Note

Adaptive wiring for external device cables
Solid wire/Stranded wire AWG: No. 26 – 20
Cable strip should be approx. 11 mm (0.43 in.).

Internal Connection Diagram



Audio Input/Output Terminals

Each audio input/output terminal only has one input system and one output system. Connecting the camera to an audio input/output device such as a microphone or a speaker with an amplifier allows you to send/receive audio through the Viewer. Use the $\phi 3.5$ mm ($\phi 0.14$ in.) monaural mini-jack connector to connect an audio input/output device.

Audio Input Terminal Common LINE IN/MIC IN (monaural input)

Although the camera only has a single audio input system, it supports two types of microphone input: LINE IN and MIC IN. Before using the audio input, please confirm the [Audio Input] on the Setting Page (please refer to the "Operation Guide"). LINE IN is selected by default. Input terminal: $\phi 3.5$ mm ($\phi 0.14$ in.) mini jack (monaural)

- Dynamic MIC IN
Input impedance: 1.5 k Ω $\pm 5\%$
* Supported microphones: Output impedance: 400 – 600 Ω
- Condenser MIC IN
Input impedance (microphone bias resistance): 2.2 k Ω $\pm 5\%$
Microphone power supply: plug-in power (voltage: 2.3 V)
* Supported microphones: Condenser microphones with plug-in power support
- LINE IN
Input level: Max. 1 Vp-p
* Use a microphone with an amplifier.

Audio Output Terminal LINE OUT (monaural output)

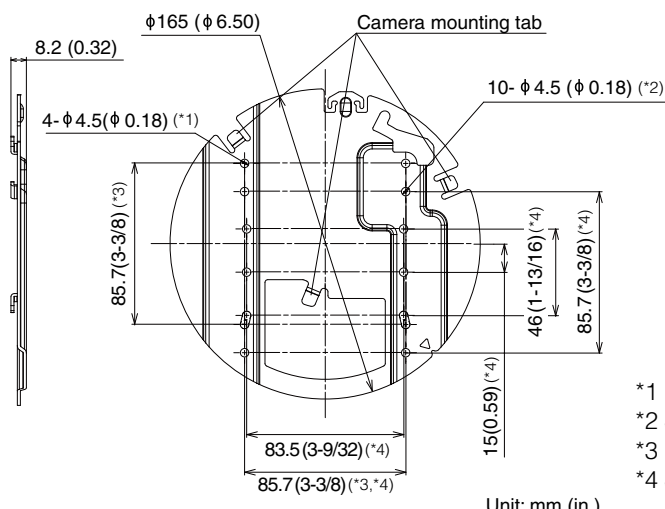
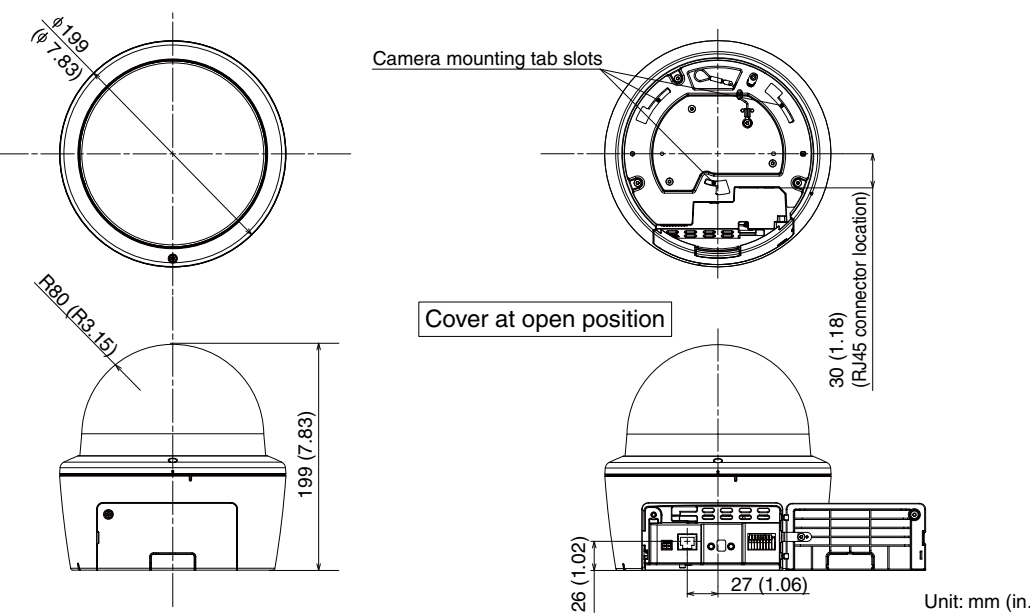
Connect the camera to a speaker with an amplifier. Audio can be sent to the speaker from the Viewer.

Output terminal: $\phi 3.5$ mm ($\phi 0.14$ in.) mini jack (monaural)

Output level: Max. 1 Vp-p

* Use a speaker with an amplifier.

External Dimensions



- *1 Ceiling mount holes
- *2 Junction box fixing holes
- *3 Ceiling mount holes position
- *4 Junction box fixing holes position

Unit: mm (in.)