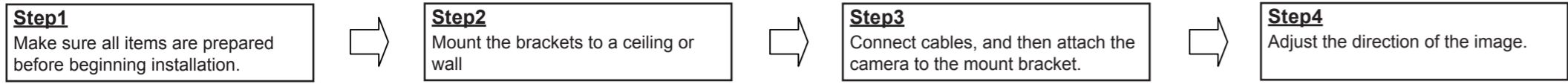


Installation

The installation tasks are explained using 4 steps.

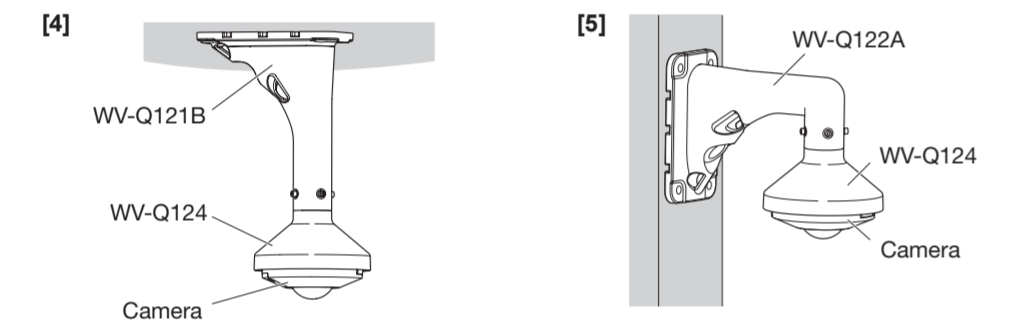


Step1 Preparations

There are 4 methods to install the camera to a ceiling or wall as described below. Prepare the required parts for each installation method before starting the installation. The following are the requirements for the various installation methods.

Installation method	Recommended screw	Minimum pull-out strength
[1] Mount the camera on the two-gang junction box using the (A) attachment plate (accessory).	M4 screws x 4	196 N {44 lbf}/1 pc.
[2] Directly mount the camera onto the ceiling or wall using the attachment plate (when wiring can be installed in the ceiling or wall).	M4 screws x 4	196 N {44 lbf}/1 pc.
[3] Mount the camera onto the ceiling or wall using the (B) base bracket (accessory) (when conduits are used for wiring, or when there is no space available for wiring in the ceiling or wall). ^{*1}	M4 screws x 4	196 N {44 lbf}/1 pc.
[4] When installing on a ceiling using the WV-Q121B (ceiling hanging mount bracket) and WV-Q124 (suspension mount bracket). ^{*1,2}	M10 screws x 4	1411 N {317 lbf}/1 pc.
[5] When installing on a wall and pole using the WV-Q122A (wall mount bracket) and WV-Q124 (mount bracket). ^{*1,3}	M10 screws x 4	823 N {185 lbf}/1 pc.

- *1 Use 4 screws (M4 x 8 mm, accessory) to fix the (A) attachment plate (accessory) to the (B) base bracket (accessory) or WV-Q124.
- *2 For information on the procedure for attaching the WV-Q121B and WV-Q122A with the WV-Q124, refer to the operating instructions included with the respective attachment brackets.
- *3 For information on the procedure for attaching the WV-Q122A with the WV-Q124, refer to the operating instructions included with the respective attachment brackets.



IMPORTANT:

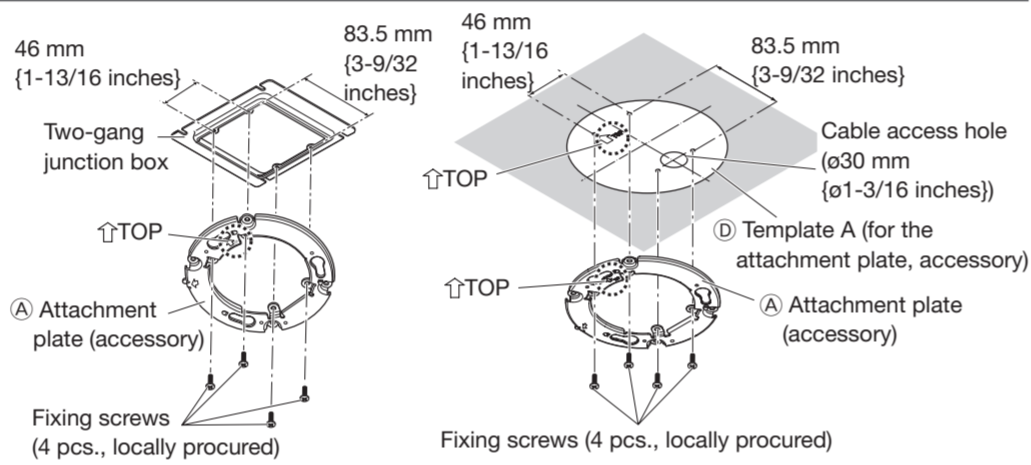
- Procure 4 screws (M4) to secure the (A) attachment plate (accessory) or (B) base bracket (accessory) to a ceiling or a wall.
- When mounting the camera on a concrete ceiling, use an AY plug bolt (M4) for securing. (Recommended tightening torque: 1.6 N·m {1.18 lbf·ft})
- Select screws according to the material of the ceiling or wall that the camera will be mounted to. In this case, wood screws and nails should not be used.
- If a ceiling board such as plaster board is too weak to support the total weight, the area shall be sufficiently reinforced.

Step2 Fixing the brackets

- Using a two-gang junction box
- Directly mount the camera to the ceiling or wall using the attachment plate

Note:

- The direction of "↑TOP" on the (A) attachment plate (accessory) determines the upwards direction of the image on the PC monitor.
- When mounting on a ceiling, determine the direction that you want images to be displayed upwards on the PC monitor, and then mount so that the (A) attachment plate (accessory) aligns with "↑TOP" on (D) template A (for the attachment plate, accessory).
- When installing on a wall, attach the (A) attachment plate (accessory) so that "↑TOP" faces upward.



<Wiring using a ceiling or wall conduit>

- Remove the cap for the female thread for the conduit by using a hexagon wrench (ISO 2936, width across flats S=5 mm {3/16 inches}). The female thread for conduit is compliant with ANSI NPSM (parallel pipe threads) 3/4 inches or G3/4 of ISO 228-1.

- Attach the base bracket and attachment plate to a ceiling or wall.
 - Mount the (B) base bracket (accessory) to a ceiling or wall using 4 fixing screws (M4, locally procured). Refer to the installation example on the right and pass the wiring through the base bracket.
 - Secure (A) attachment plate (accessory) to base bracket using 4 (C) attachment fixing screws (accessory). (Recommended tightening torque: 0.78 N·m {0.58 lbf·ft})

(C) Fixing screws for attachment plate: x 4 (accessory)
(Recommended tightening torque: 0.78 N·m {0.58 lbf·ft})

IMPORTANT:

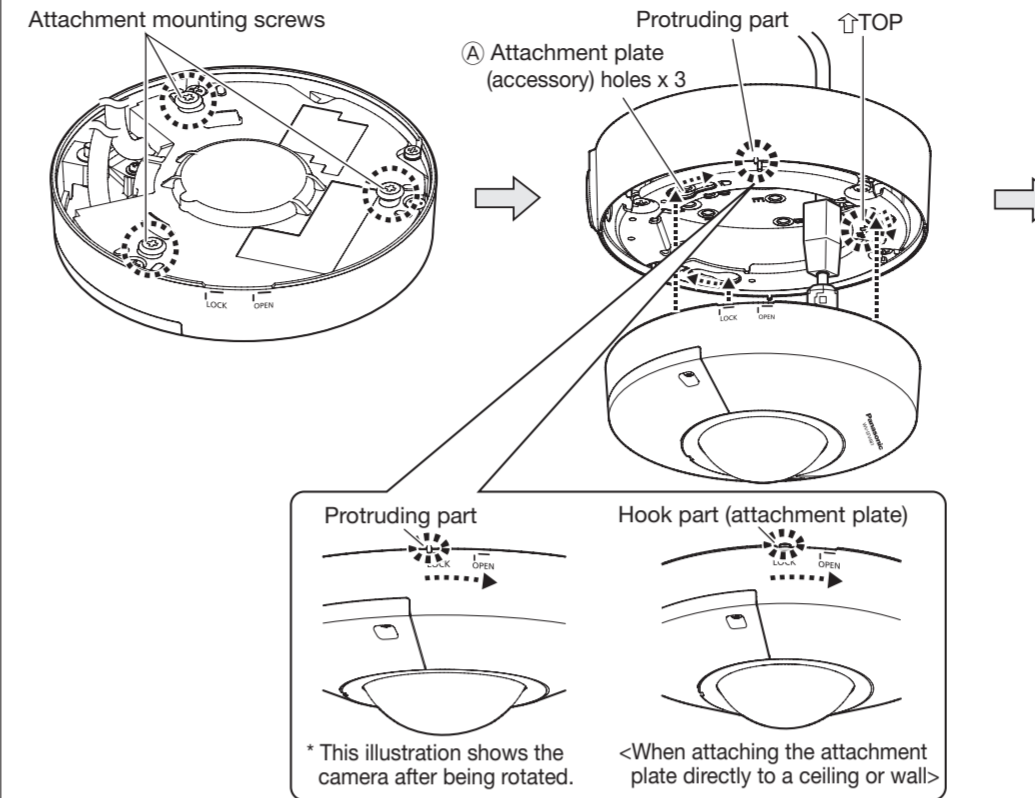
- If open wiring is conducted, be sure to use conduits and run the cables inside the tubes to protect the cables from direct sunlight.
- Installation work shall be such that there is no exposure to water into the architecture through the conduits having been joined.

Note:

- Make sure to attach the (A) attachment plate (accessory) so that the "↑TOP" mark faces in the opposite direction of the cap for the female thread for the conduit.
- The direction of "↑TOP" on the (A) attachment plate (accessory) determines the upwards direction of the image on the PC monitor. Determine the direction that you want images to be displayed upwards on the PC monitor, and then align the direction of the (B) base bracket (accessory).
- When installing on a wall, attach the (A) attachment plate (accessory) so that "↑TOP" faces upward.

Step3 Mount the camera to the attachment plate

- Check the position of attachment mounting screws on the bottom side of the camera.
- Connect cables to the camera according to the instructions in "Making connections", and mount the camera by inserting the attachment mounting screws into the holes of the (A) attachment plate (accessory).



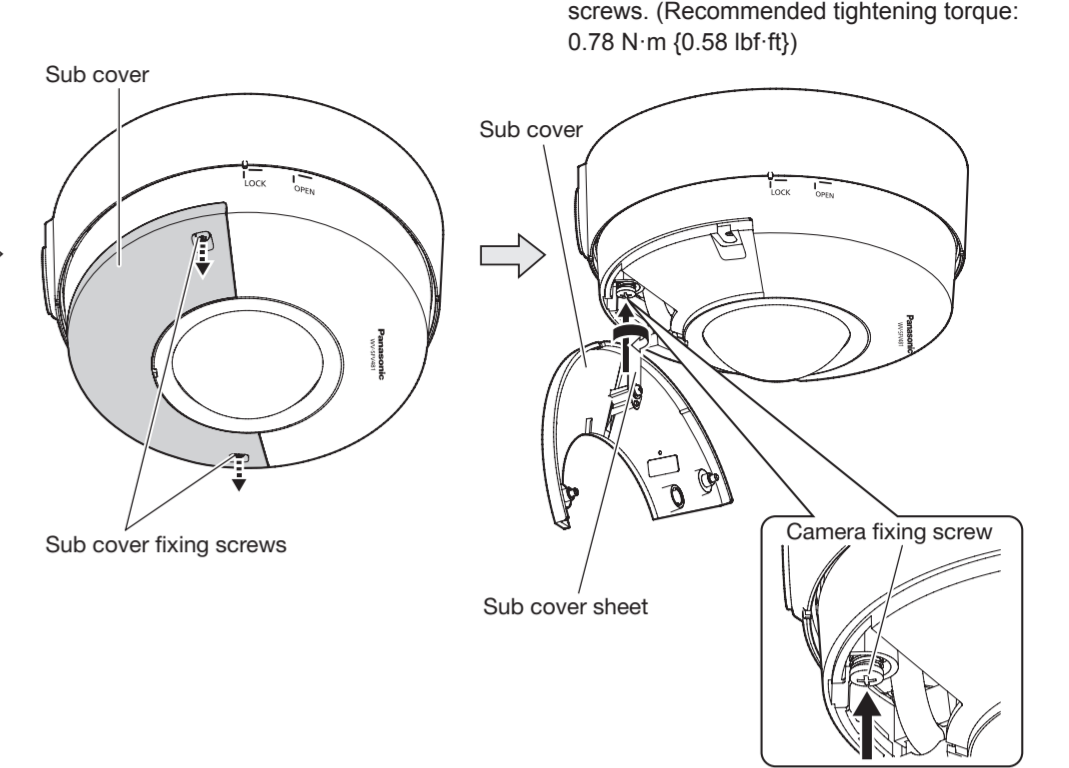
Note:

- After the cables have been connected to the camera, align the direction of the Panasonic logo on the camera with "↑TOP" of the (A) attachment plate (accessory). Align the OPEN mark of the enclosure side panel with the protruding part of the (B) base bracket (accessory), insert 3 attachment mounting screws into the attachment plate, rotate the camera approximately 15°, and move the LOCK mark to the protruding part of the base bracket to temporarily secure the camera. (When directly attaching the attachment plate to a ceiling or wall, align the OPEN mark to the hook part of the attachment plate.)

IMPORTANT:

- Disconnect the 12 V DC power source and PoE power source to prevent power from being supplied during mounting work.
- Because the sub cover is attached to the camera with the sub cover sheet, do not remove the sub cover.
- For installations on the wall, to prevent water from accumulating on the surface of the dehumidifying device, install the camera so that the dehumidifying device does not face up. If water accumulates on the surface of the dehumidifying device, it cannot function properly.

- Loosen 2 sub cover fixing screws using the (G) bit (accessory).
- Remove the sub cover from the camera, and secure the camera using camera fixing screws. (Recommended tightening torque: 0.78 N·m {0.58 lbf·ft})



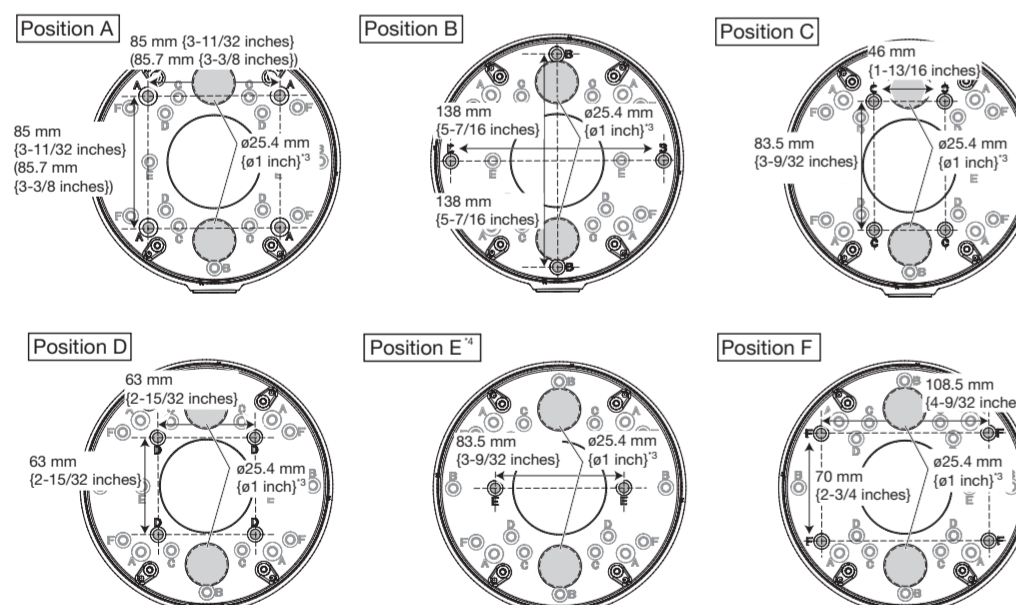
IMPORTANT:

- Be sure to tighten the camera fixing screw. Failure to observe this may cause camera trouble due to camera falling. (Recommended tightening torque: 0.78 N·m {0.58 lbf·ft})

[3] Mount the camera to a ceiling or a wall using base bracket

<Mounting the base bracket>

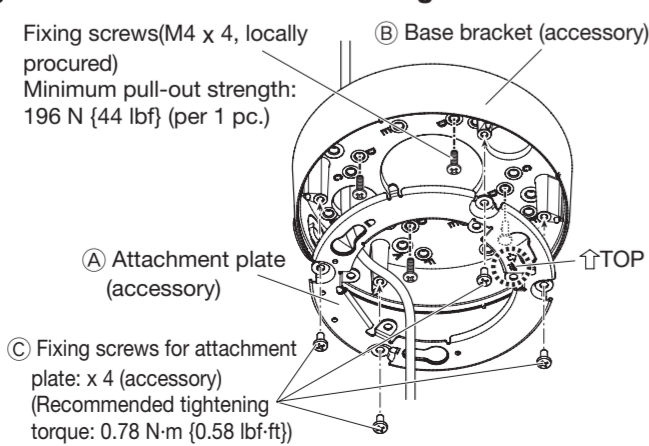
The (B) base bracket (accessory) can be fixed in any of the following 6 screwing positions according to ceiling and wall conditions. Match the hole used when installing the camera to any of positions A to F.



- The wiring hole diameter is 25.4 mm {1 inch}. Select any of the 2 base bracket fixture holes of (E) template B (for the base bracket, accessory) when installing the base bracket.
- When attaching the base bracket to a one-gang junction box in Position E, secure the base bracket with 2 screws (M4, locally procured).

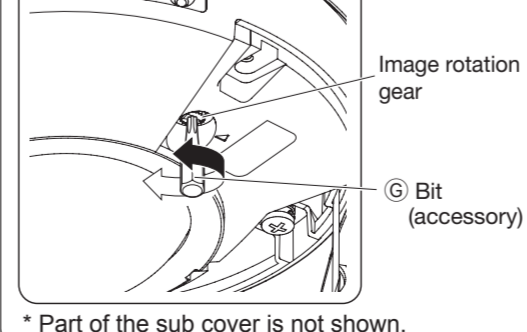
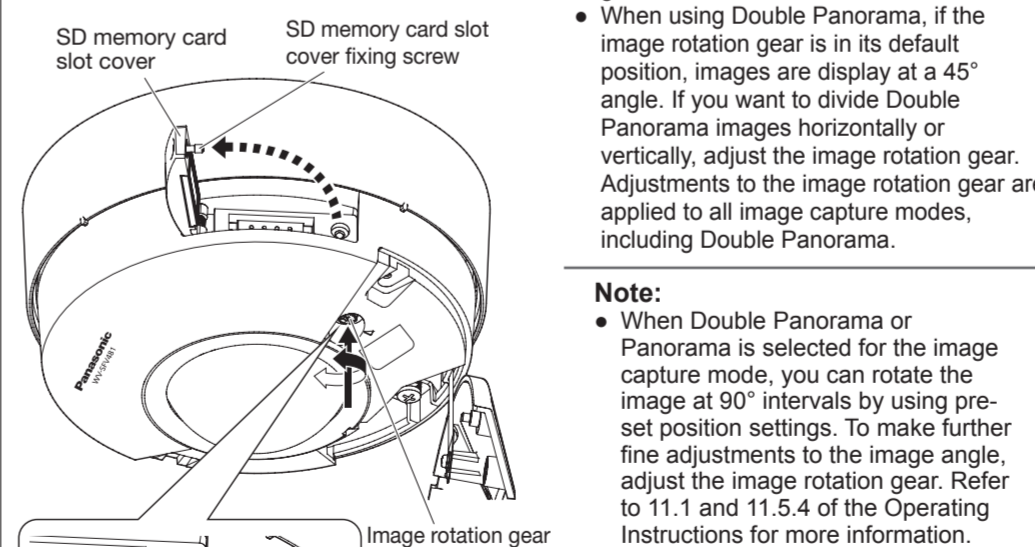
<Making holes and wiring from the back side of a ceiling or wall>

- Mount the (B) base bracket (accessory) to a ceiling or wall using 4 fixing screws (M4, locally procured). Refer to the installation example on the right and pass the wiring through the base bracket.
- Secure (A) attachment plate (accessory) to base bracket using 4 (C) attachment fixing screws (accessory). (Recommended tightening torque: 0.78 N·m {0.58 lbf·ft})



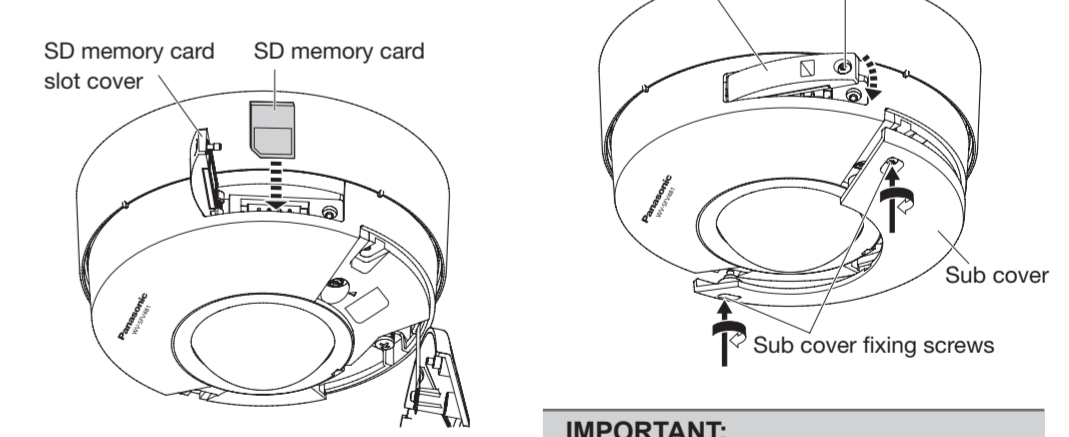
Step4 Adjustment

- Loosen the SD memory card slot cover fixing screw on the side of the camera using the (G) bit (accessory), and open the SD memory card slot cover.
- Turn on the camera. The LINK indicator inside the SD memory card slot cover lights. Make sure that the ACT indicator is blinking. (Refer to the descriptions in "Major operating controls" for more information about the indicators.)
 - * After turning on the camera, there may be a sound produced from the lens for several seconds. This is not a malfunction.
- Perform camera settings while referring to the included "Configure the settings of the camera" (leaflet), and check if camera images are displayed on the PC monitor.



* Part of the sub cover is not shown.

- Loosen the SD memory card slot cover fixing screw on the side of the camera using the (G) bit (accessory), and open the SD memory card slot cover.
- Turn on the camera. The LINK indicator inside the SD memory card slot cover lights. Make sure that the ACT indicator is blinking. (Refer to the descriptions in "Major operating controls" for more information about the indicators.)
 - * After turning on the camera, there may be a sound produced from the lens for several seconds. This is not a malfunction.
- Perform camera settings while referring to the included "Configure the settings of the camera" (leaflet), and check if camera images are displayed on the PC monitor.



* Part of the sub cover is not shown.

- Loosen the SD memory card slot cover fixing screw on the side of the camera using the (G) bit (accessory), and open the SD memory card slot cover.
- Turn on the camera. The LINK indicator inside the SD memory card slot cover lights. Make sure that the ACT indicator is blinking. (Refer to the descriptions in "Major operating controls" for more information about the indicators.)
 - * After turning on the camera, there may be a sound produced from the lens for several seconds. This is not a malfunction.
- Perform camera settings while referring to the included "Configure the settings of the camera" (leaflet), and check if camera images are displayed on the PC monitor.

IMPORTANT:

- Ensure that the SD memory card slot cover's fixing screw is firmly secured. Failure to observe this may cause electric shock or malfunction.
- Securely tighten the 2 sub cover fixing screws. Failure to do so may cause the camera to drop.
- After the installation is completed, clean the dome cover surface with a soft cloth, etc.
- After the installation is complete, if the image is out of focus, turn off the camera, and then turn it on again. If the image is still out of focus, select the [Image/Position] tab from [Setup]—[Image/Audio], and then re-adjust the back focus from [Setup]>>] of [Back focus].

* When removing the camera, perform removal by following the installation procedure in the reverse order.