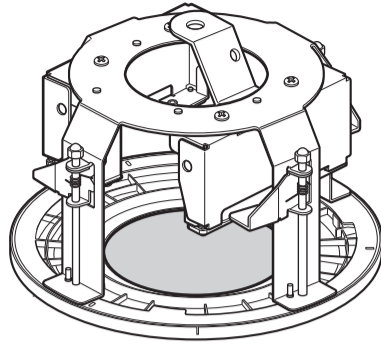# i-PRO

Operating Instructions

Included Installation Instructions

Ceiling Mount Bracket

Model No. **WV-QEM500-W**

- Before attempting to connect or install this product, please read these instructions carefully and save this manual for future use.
- The external appearance and other parts shown in this manual may differ from the actual product within the scope that will not interfere with normal use due to improvement of the product.

i-PRO Co., Ltd. assumes no responsibility for injuries or property damage resulting from failures arising out of improper installation or operation inconsistent with this documentation.

Caution:
- Before attempting to connect or operate this product, please read these instructions carefully.

Notice:
- This product is not suitable for use in locations where children are likely to be present.
- Do not install this product in locations where ordinary persons can easily reach.
- For information about screws and brackets required for installation, refer to the corresponding section of this document.

Precautions

■ **Refer installation work to the dealer.**
Installation work requires technique and experience. Failure to observe this may cause fire, electric shock, injury, or damage to the product.
Be sure to consult the dealer.

■ **Do not use this bracket except with suitable cameras.**
Failure to observe this may cause a drop resulting in injury or accidents.

■ **The measures of protection against a fall of this product shall be taken.**
Failure to observe this may cause a drop resulting in injury or accidents. Be sure to install the safety wire.

■ **Install the product securely on a ceiling in accordance with the installation instructions.**
Failure to observe this may cause injury or accidents.

■ **Do not rub the edges of metal parts with your hand.**
Failure to observe this may cause injury.

When using this product, also read the "Precautions" described in the operating instructions for the camera to be attached.

Preface

This product is a ceiling embedded bracket that is designed to mount the network camera on a ceiling. This bracket can be used for an area with weak pull-out strength such as plasterboard in a double ceiling, and the embedded type makes the visible part of the camera smaller.
For the latest information about the supported cameras, refer to our support website (https://i-pro.com/global/en/surveillance/training_support/support/technical_information <Control No.:C0501>).

Specifications

Ambient operating temperature:	−50 °C to +60 °C {−58 °F to +140 °F}
Dimensions:	ø211.3 mm × 117 mm (H)* {ø8-5/16 inches × 4-19/32 inches} *Including decorative cover thickness: 13 mm {1/2 inches}
Mass:	Approx. 870 g {1.92 lbs}
Finish:	**Main body:** Surface treatment steel sheet **Decorative cover:** ABS resin i-PRO white

Precautions for installation

■ **In order to prevent injury, the product must be securely mounted to the ceiling according to the Installation Guide of the camera.**

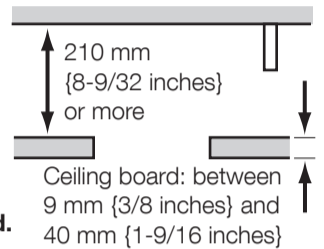■ **This product is designed to be used indoors.**
This product is not operable outdoors. Do not expose this product to direct sunlight for hours and do not install the product near a heater or an air conditioner. Otherwise, it may cause deformation, discoloration and malfunction. Keep this product away from water and moisture.

■ **Installation area for this product**
Make sure that the installation area is strong enough to hold the total weight of the camera assembly before installation. The installation area shall have 210 mm {8-9/32 inches} or more space behind the ceiling.
The thickness of the ceiling board for installation can range between 9 mm {3/8 inches} and 40 mm {1-9/16 inches}.

■ **Make sure to remove this product if it will no longer be used.**

210 mm {8-9/32 inches} or more

Ceiling board: between 9 mm {3/8 inches} and 40 mm {1-9/16 inches}

Standard Accessories

Operating Instructions (this document)....... 1 pc.	Template A .... 1 pc.
Safety wire.. 1 pc.	Template B .... 1 pc.
Safety wire angle .... 1 pc.	Decorative cover.. 1 pc.

Other items that are needed (not included)

Anchor bolt (M10)*....................................2 pcs.   Nut (M10) .... 6 pcs.
* One anchor is used for securing the mounting chassis, and the other anchor is used for connecting the safety wire. (See Step2)
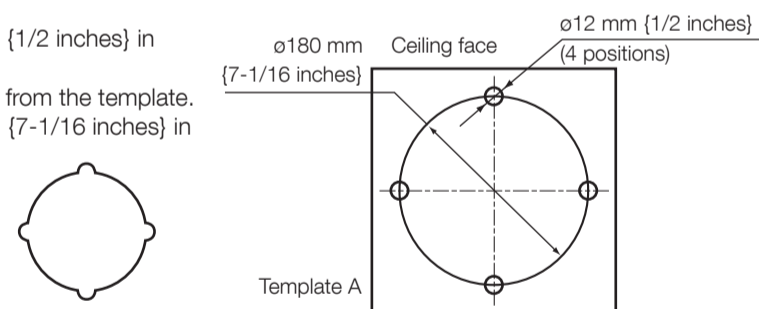
IMPORTANT
● Prepare anchor bolts according to the material and strength of the area where the product is to be installed. The pull-out strength of the anchor bolt shall be more than 5 times of the total weight of the installed devices (including the camera body, ceiling mount bracket, anchor bolts, and all other parts).

Installation

Refer to the operating instructions of the camera for details on the camera installation (including the camera mounting, cable connection and adjustment).
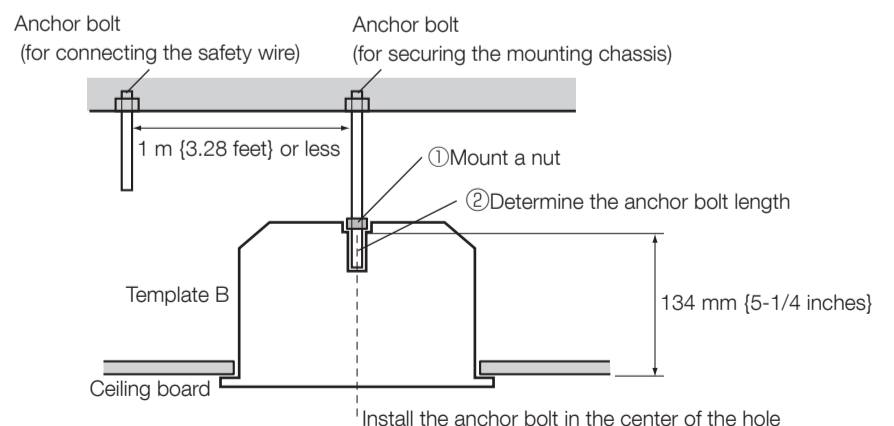
Step 1 Put Template A (accessory) against the ceiling and make a hole.

① Make 4 holes of 12 mm {1/2 inches} in diameter.
② Remove the center part from the template.
③ Make a hole of 180 mm {7-1/16 inches} in diameter.
The ceiling hole shape is shown in the drawing at right.

ø180 mm {7-1/16 inches}   Ceiling face   ø12 mm {1/2 inches} (4 positions)

Template A

Step 2 Install two anchor bolts (M10: locally procured) into the ceiling.

① Determine the anchor bolt length (for securing the mounting chassis) by use of Template B (accessory).
② Position the nut by use of Template B (accessory) and mount the nut. (The distance between the bottom surfaces of the ceiling board and nut shall be 134 mm {5-1/4 inches}.)
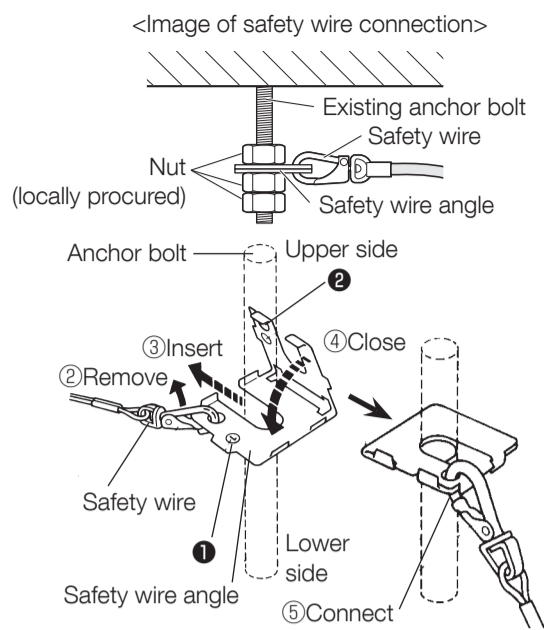

Anchor bolt (for connecting the safety wire)   Anchor bolt (for securing the mounting chassis)

1 m {3.28 feet} or less

①Mount a nut
②Determine the anchor bolt length

Template B

134 mm {5-1/4 inches}

Ceiling board

Install the anchor bolt in the center of the hole

IMPORTANT:
● When the existing anchor bolt is used as an anchor bolt for connecting the safety wire, make sure that the distance between the anchor bolt and camera mounting position is 1 m {3.28 feet} or less.
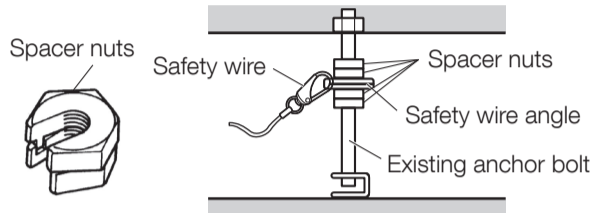
Step 3 — Secure the safety wire angle (accessory) to the anchor bolt (for connecting the safety wire), and connect the safety wire (accessory).

① Mount a nut so that the safety wire angle is secured on the anchor bolt.
② Remove the safety wire from the safety wire angle.
③ Insert the groove of the portion ❶ of the safety wire angle into the anchor bolt.
④ Close the safety wire angle while inserting the groove of the portion ❷ of the safety wire angle into the anchor bolt.
⑤ Connect the safety wire to the safety wire angle again.
⑥ Engage the nut from beneath, and secure the safety wire angle with top and bottom nuts.
⑦ Engage another nut from beneath to tighten and secure the nut that was engaged from beneath in ⑥ in a double nut fashion.
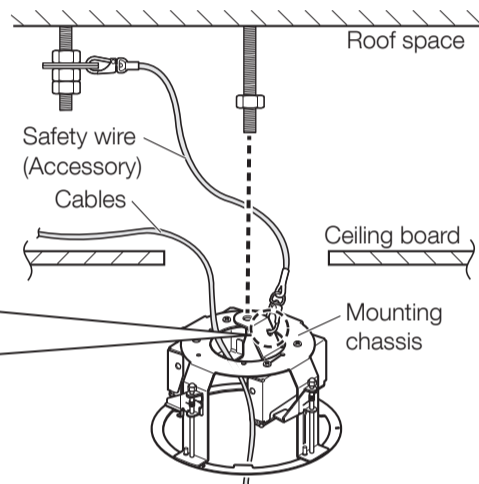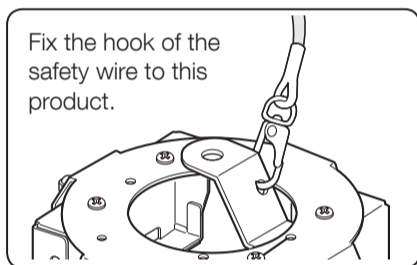

<Image of safety wire connection>

Existing anchor bolt
Safety wire
Nut (locally procured)
Safety wire angle
Anchor bolt
Upper side ❷
③Insert
④Close
②Remove
Safety wire
❶
Lower side
Safety wire angle
⑤Connect

Note:
● When the existing anchor bolt that has been installed is used for connecting the safety wire, the use of 2 spacer nuts is helpful.

Spacer nuts
Safety wire
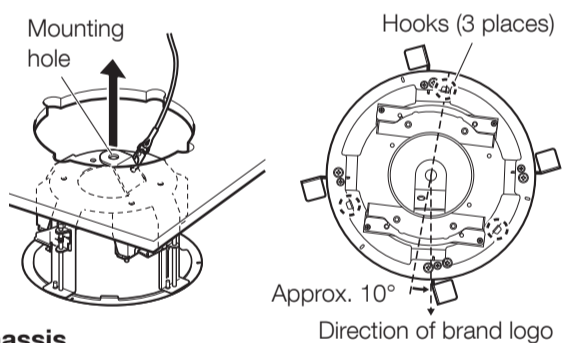Spacer nuts
Safety wire angle
Existing anchor bolt

Step 4 — Attach the safety wire.

① Mount a nut so that the mounting chassis is secured on the anchor bolt(for securing the mounting chassis).
② Attach the safety wire to the mounting chassis as shown in the right illustration.

Fix the hook of the safety wire to this product.

Roof space
Safety wire (Accessory)
Cables
Ceiling board
Mounting chassis

Step 5 — Insert the anchor bolt into the mounting hole of the mounting chassis.

To adjust the position of the i-PRO logo on the decorative cover, rotate the mounting chassis. Note that the i-PRO logo will be located at approximately 180° opposite side of a hook for the decorative cover.
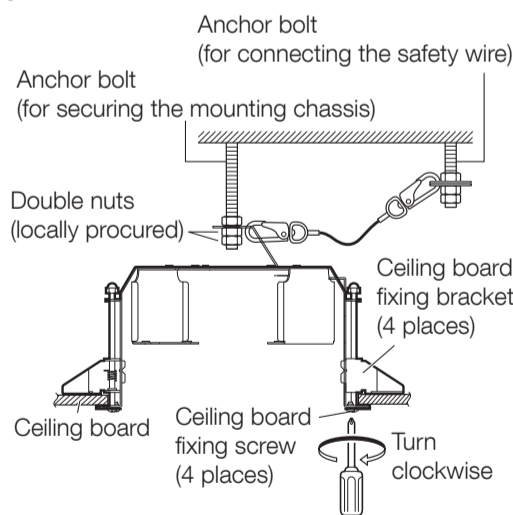
Mounting hole
Hooks (3 places)
Approx. 10°
Direction of brand logo

Step 6 — Secure the mounting chassis.

① Secure the mounting chassis to the ceiling board with the ceiling board fixing screws (4 places).
Turning the ceiling board fixing screws clockwise provides ceiling board tightening between the bottom of the mounting chassis and ceiling board fixing bracket resulting in mounting chassis securing.

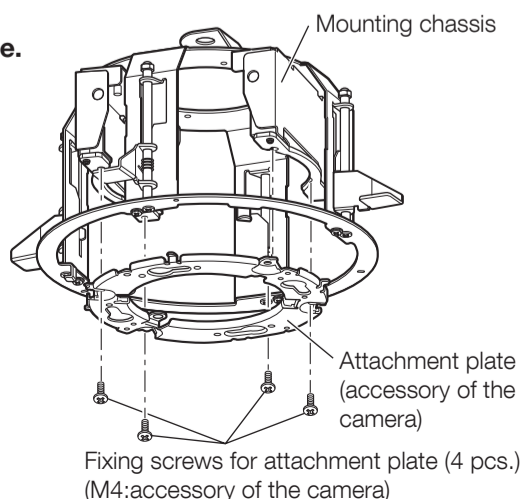Recommended tightening torque: 0.78 N·m {0.58 lbf·ft}

IMPORTANT:
● When securing this bracket on the ceiling, make sure that the four ceiling board fixing brackets are open as shown in the right illustration.

② Use double nuts (locally procured) to secure the mounting chassis after inserting the anchor bolt (for securing the mounting chassis).

Anchor bolt (for connecting the safety wire)
Anchor bolt (for securing the mounting chassis)
Double nuts (locally procured)
Ceiling board fixing bracket (4 places)
Ceiling board
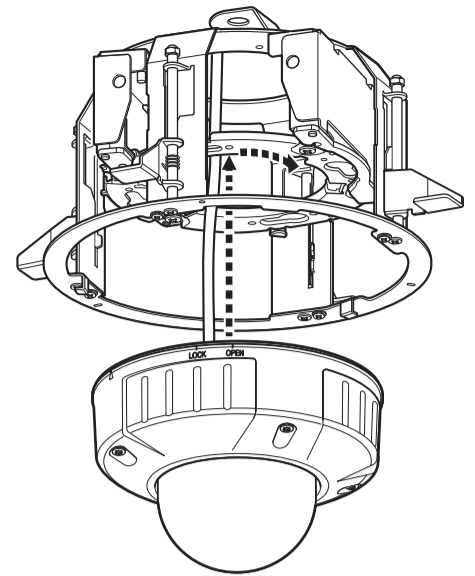Ceiling board fixing screw (4 places)
Turn clockwise

Step 7 — Mount the attachment plate.

① Mount the attachment plate (accessory of the camera) to this mounting chassis. Use fixing screws for attachment plate (M4:accessory of the camera) to secure the attachment plate firmly as shown in the right illustration.
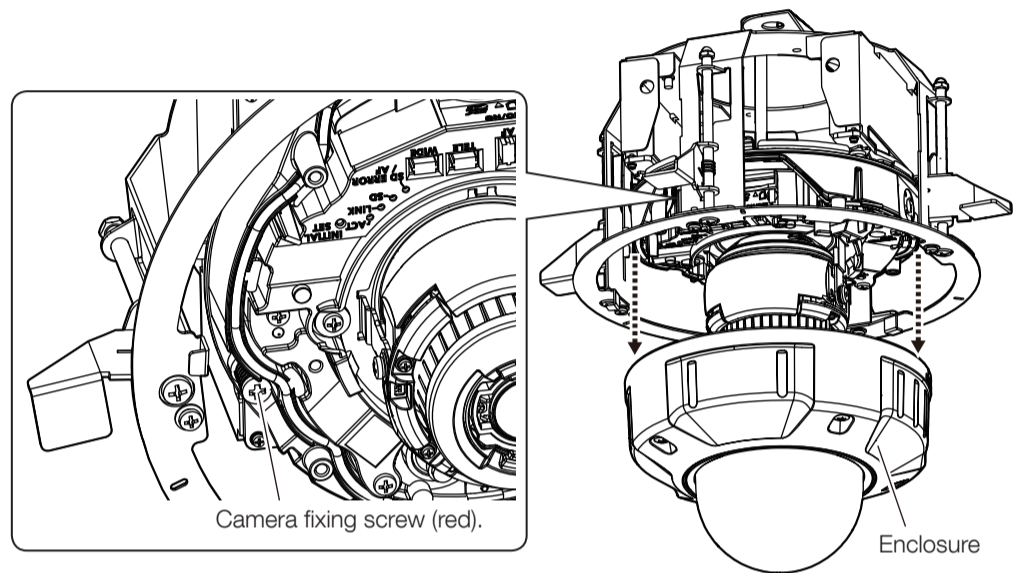Recommended tightening torque: 0.78 N·m {0.58 lbf·ft}

Mounting chassis
Attachment plate (accessory of the camera)
Fixing screws for attachment plate (4 pcs.) (M4:accessory of the camera)

Step 8 — Connect the cables and mount the camera on the attachment plate.

Step 9 — Fix the camera.

Remove the enclosure from the camera and fix the camera firmly by tightening the camera fixing screw (red).
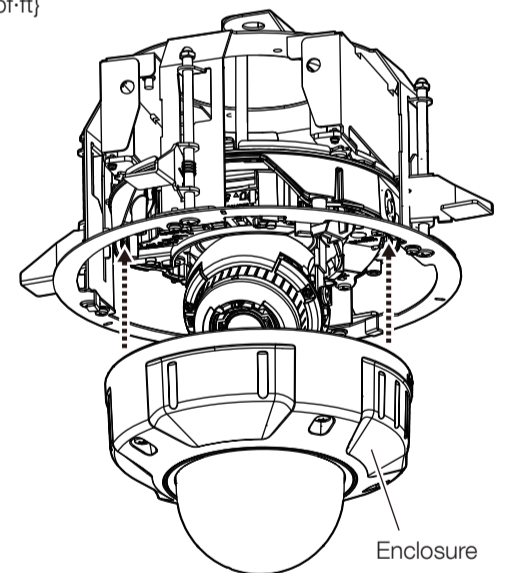Recommended tightening torque: 0.78 N·m {0.58 lbf·ft}

Camera fixing screw (red).
Enclosure

Step 10 — Adjust the camera.

After adjusting the angle of view, attach the enclosure to the camera as it was before.
Recommended tightening torque: 0.78 N·m {0.58 lbf·ft}

Enclosure

Step 11 — Mount the decorative cover.

Mount the decorative cover on this mount bracket.
● Align the "I" mark of the decorative cover supplied with this mounting chassis with the hook of the mounting chassis, press the decorative cover against the ceiling, and rotate the decorative cover clockwise when viewing it from beneath to secure the cover.

Hook of the mounting chassis
Hooks for the decorative cover (3 places)
"I" Mark
Projection
Decorative cover
Projections (3 places)