

Panasonic®

Color CCTV Camera Instructions

Model No. **WV-CW374**

Before attempting to connect or operate this product,
please read these instructions carefully and save this manual for future use.

N0504-0 3TR002485AAA Printed in Japan

Caution:
Before attempting to connect or operate this product, please read the marking on the top.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: All work related to the installation of this product should be made by qualified service personnel or system installers.

CAUTION: An ALL-POLE MAINS SWITCH with a contact separation of at least 3 mm (0.12") in each pole shall be incorporated in the electrical installation of the building.

■ Preface

Panasonic WV-CW374 is designed for installation on the wall, using a camera mounting arm or the supplied adapter box.

■ Precautions

• Refer all work related to the installation of this product to qualified service personnel or system installers.

• Do not operate the appliance beyond its specified temperature, humidity, or power source ratings.
Use the camera at temperatures between -30°C and +50°C [between -22°F and 122°F], and humidity below 90%. The input power source for this appliance is 12 V DC/24V AC 60 Hz for WV-CW374.

When you install the camera in a low-temperature location and start operating it, it may take time (around 30 minutes) for the inside of the camera to warm up. Cut power once then supply power again.

• Screws to mount the camera is not supplied.
Prepare locally procured screws matching the material, structure, and total weight of mounting place.

• Be sure to use a ceiling board having enough strength to support this camera.

■ Preparations

The camera can be mounted either of the following ways.

- Using the supplied adapter box.
- Fixing the camera mounting arm directly

Caution: When installing, the power cord is NOT to be exposed to outdoor conditions like frost and sunlight.

Using the supplied adapter box

When you mount the camera on a flat wall with a cable access hole, or through exposed wirings, you will use the supplied adapter box. For installation, refer to Installation of Camera and Adapter Box.

Notes:

- Mounting screws are not supplied. Prepare locally procured screws matching the material, structure, and total weight of mounting place.
- Screws to fix the camera mounting arm to the adapter box are supplied.

Fixing the supplied camera mounting arm directly

- You can fix the camera mounting arm to a junction box installed on the wall.
- You can fix the camera mounting arm directly to the wall with a cable access hole. For installation, refer to Fixing the Mounting Arm Directly.

Note: Mounting screws are not supplied. Prepare locally procured screws matching the material, structure, and total weight of mounting place.

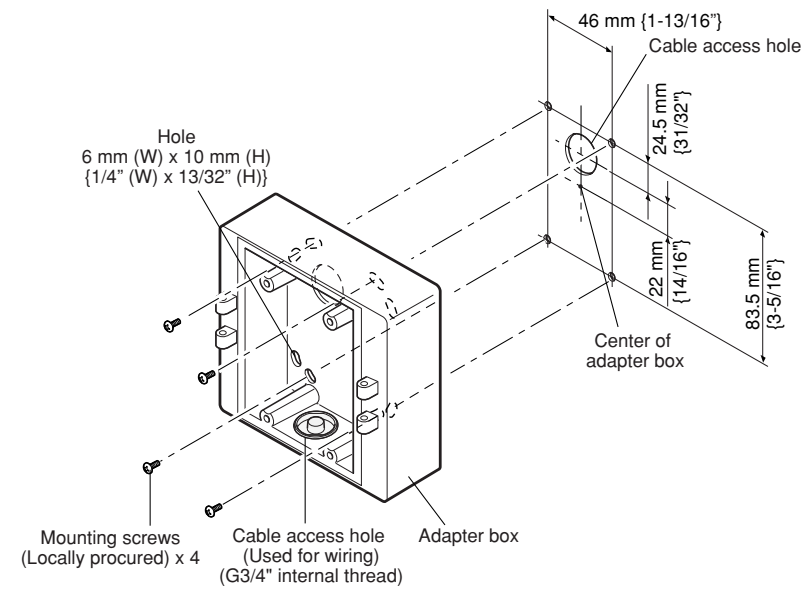
■ Installation of Camera and Adapter Box

Notes:

- For outdoor use, the mounting screws and screw holes require waterproofing. Refer to Waterproofing Process in this document.
- When wiring the camera cables through the adapter box, use a cable access hole. The cable access hole is G3/4".

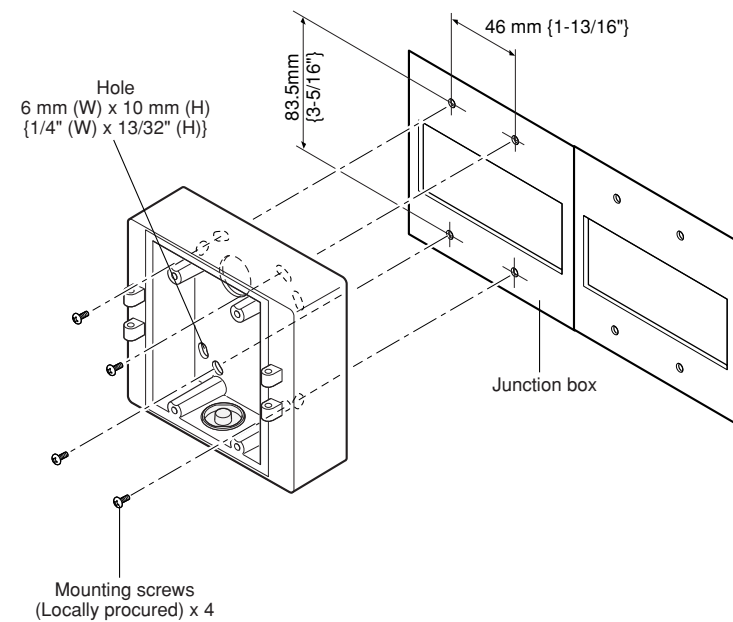
Installing the adapter box directly to the wall

With the mounting screws (locally procured), fix the adapter box to a junction box or directly to the wall.



Installing the adapter box to a junction box

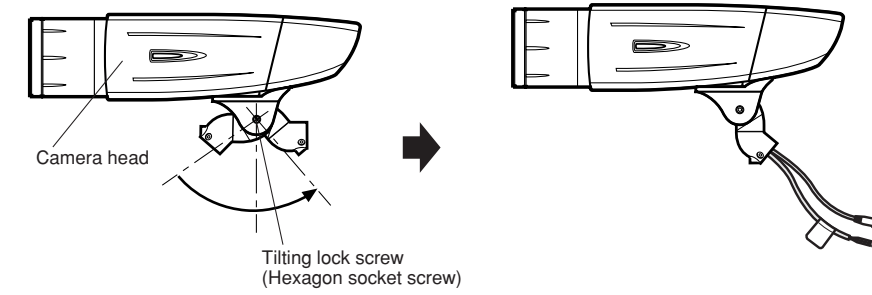
To facilitate wirings, it is recommended to align two junction boxes.



Fixing the camera, camera mounting arm, and adapter box

As the factory default, the camera head has been tilted to the downside.

1. Move the camera head, as shown in the illustrations, by loosening the tilting lock screw.

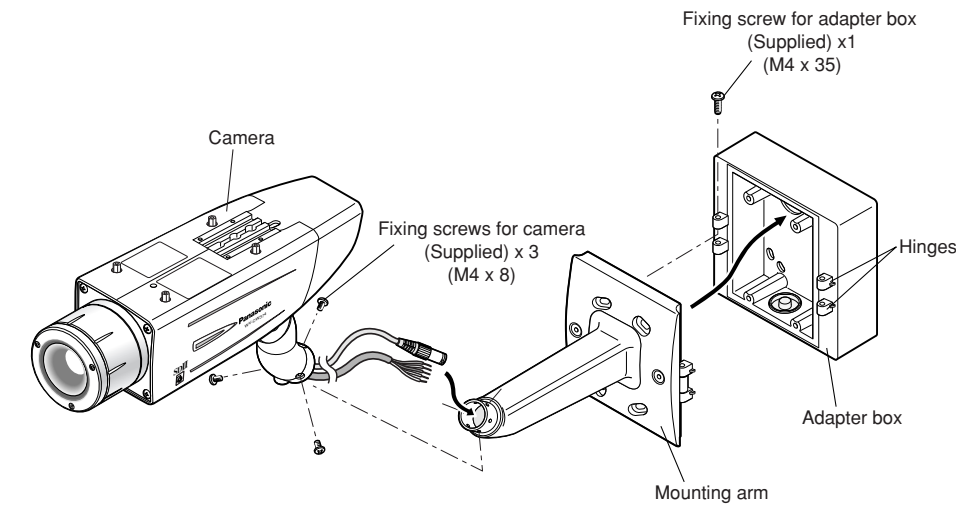


2. After adjustment, tighten the tilting lock screw again.

3. Attach the camera mounting arm to the left or right hinges of adapter box, so that the mounting arm can be opened and closed flexibly. (Refer to the illustration in Step 4.)

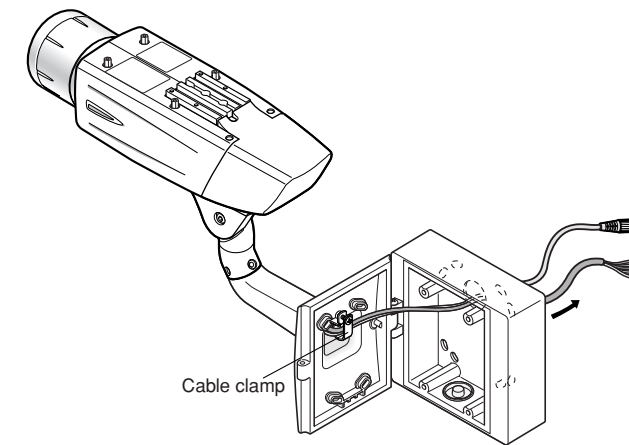
Note: Attach the mounting arm to hinges on the side opposite to the wall.

4. Fix the camera to the camera mounting arm.



Note: Lead the camera cables out of the cable hole of mounting arm.

5. Pass the cables through the cable clamp of mounting arm, and then to the wall.

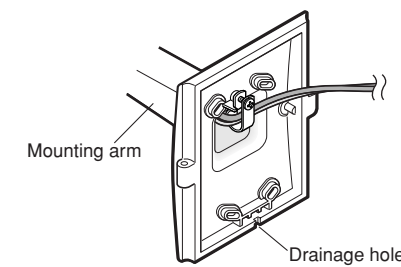


Note: Do not expose the cables to sunlight.

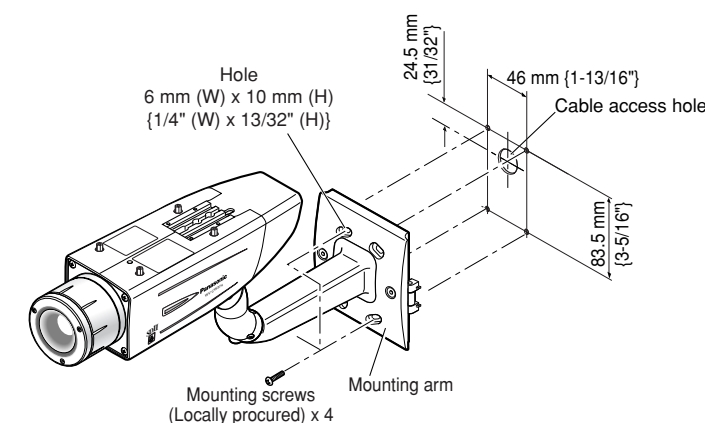
■ Fixing the Mounting Arm Directly

Notes:

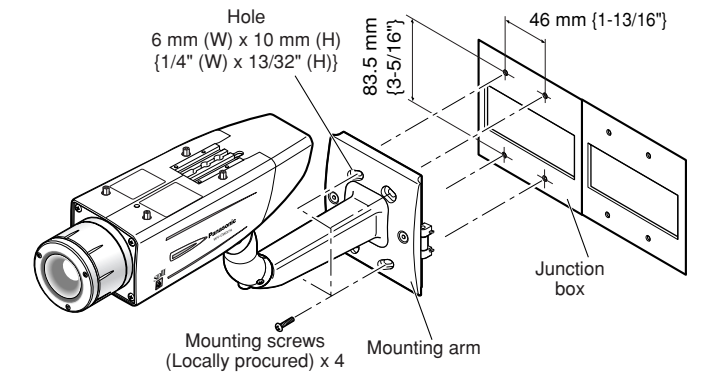
- For outdoor use, the mounting screws and screw holes require waterproofing. Refer to Waterproof Process in this document.
- Avoid waterproofing the drainage hole.



With the mounting screws (locally procured), fix the camera mounting arm directly to a wall or a junction box installed on the wall.



To facilitate wirings, it is recommended to align two junction boxes.



■ Waterproof Process

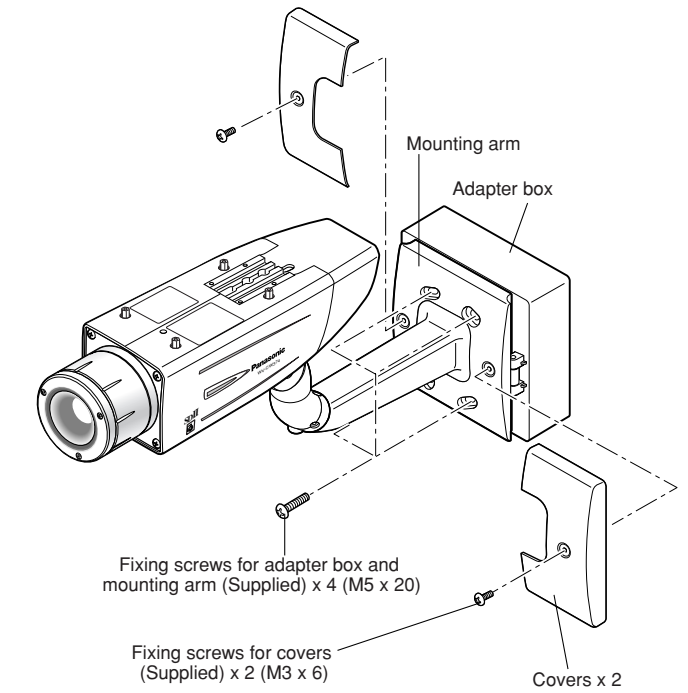
Apply waterproofing to the necessary portions, using appropriate materials. This camera is applied to IP66 only when installed according to the instructions in this document, and appropriate waterproofing is applied.

Screw-holes, cable access holes, and gaps:
Fill these portions with silicon rubber or equivalent waterproofing material.

Note: The waterproof process should be made by qualified service personnel or system installers according to the local requirement.

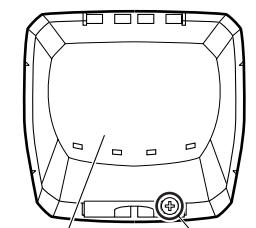
■ Fixing the Camera Mounting Arm and Adapter Box

1. Fix the camera mounting arm to the adapter box with four supplied screws.
2. Fix the mounting arm covers to the mounting arm with two supplied screws.



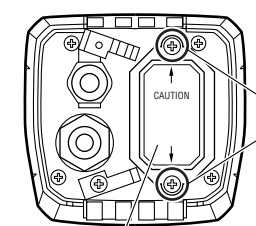
■ Adjusting the Camera Angle

1. Remove the rear cover by loosening the fixing screw.



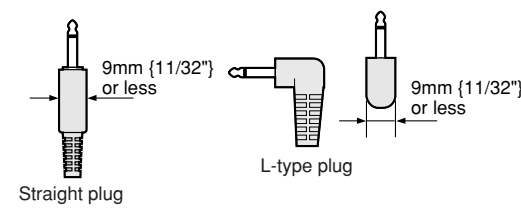
(2) Remove the rear cover. (1) Remove the fixing screw.

2. Remove the switch cover by loosening the two fixing screws. The switch unit will appear.



(1) Remove the fixing screw. (x 2)
(2) Remove the switch cover.

3. Connect the video input jack of LCD monitor and the monitor output jack (3.5 mm [0.14"] diam. minijack) of camera with a 2-pole cable.



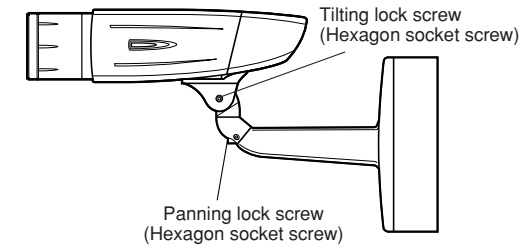
Note: Refer to the illustrations for the width of plug to be inserted into the video input jack.

4. Adjust the camera angle by performing 1) to 3).

1) While holding the camera head, loosen the panning lock screw. Panning becomes adjustable. Then, move the camera head horizontally.

2) While holding the camera head, loosen the tilting lock screw. Tilting becomes adjustable. Then, move the camera head vertically.

3) After adjustments, tighten the panning and tilting lock screws.



Notes:

- When loosening the panning and tilting lock screws, give only one turn.
- While a LCD monitor is connected to the camera, You cannot check images on a monitor connected to the video output cable.
- After adjusting the panning and tilting, adjust the focus. (Refer to Adjusting the Focus.)

■ Adjusting the Focus

1. Remove the front cover by loosening the four fixing screws. Lens focus becomes adjustable.

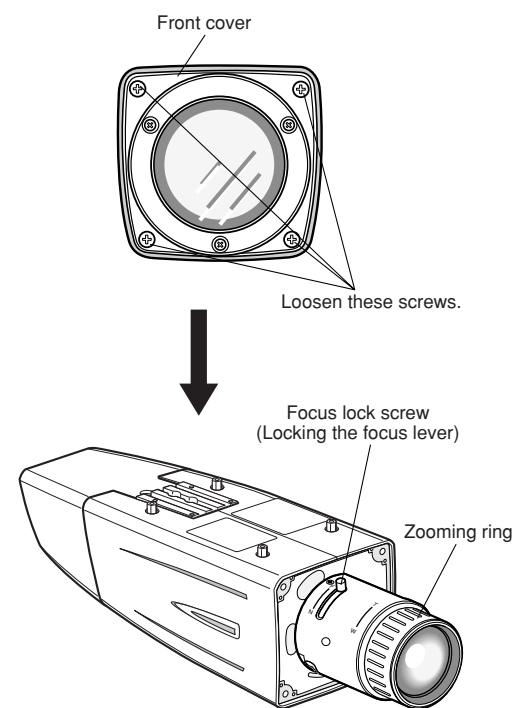
2. Adjust the lens zooming by moving the zooming ring to T (Tele) or W (Wide).

3. Adjust the lens focus by performing 1) to 3).

1) Loosen the focus lock screw. The focus lever, locked with the focus lock screw, will be adjustable.

2) Move the focus lever to F (Far) or N (Near).

3) After adjustment, tighten the focus lock screw.



Note: To change the lens zooming or focus, perform Step 2 and 3 again.

■ Attaching the Switch, Rear, and Front Covers

Attach the switch, rear, and front covers to the camera with the screws you have removed.

Switch cover attachment

Perform Step 2 of "Adjusting the Camera Angle" reversely.

Rear cover attachment

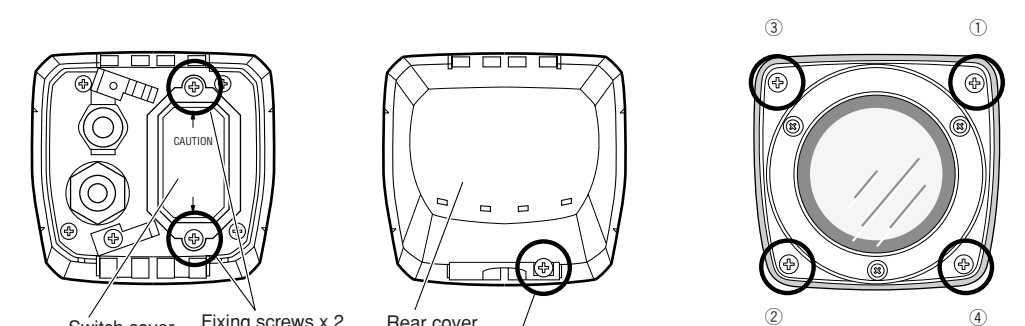
Perform Step 1 of "Adjusting the Camera Angle" reversely.

Front cover attachment

Perform Step 1 of "Adjusting the Focus" reversely.

Notes:

- The recommended tightening torque of switch cover fixing screws (x 2) and front cover fixing screws (x 4) is 0.59 Nm [0.43 lb ft.].
- Tighten the front cover with the fixing screws in the order from ① to ④ two times. (Refer to the illustration.)



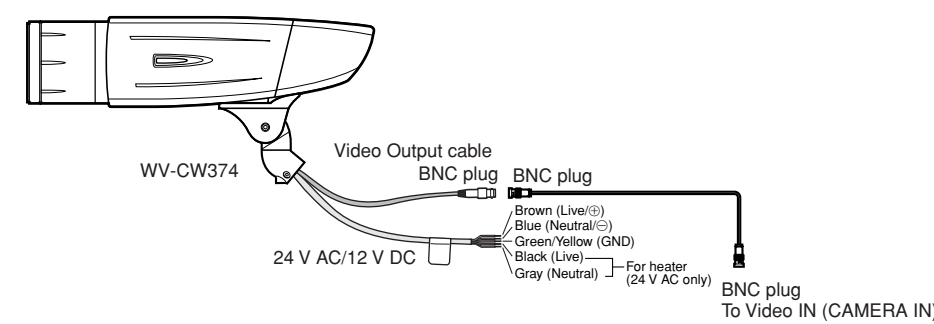
Switch cover attachment

Rear cover attachment

Front cover attachment

■ Connections

Perform cable connections by referring the illustrations.



● Video Output Connection

Connect the video output connector to the monitor or other system device with the procured coaxial cable. The maximum extensible length is shown in the table.

| Type of coaxial cable | RG-59/U (3C-2V) | RG-6/U (5C-2V) | RG-11/U (7C-2V) | RG-15/U (10C-2V) |
|---------------------------|-----------------|----------------|-----------------|------------------|
| Recommended (m) | 250 | 500 | 600 | 800 |
| maximum cable length (ft) | 825 | 1 650 | 1 980 | 2 640 |

● Cable Length and Wire Gauge

24 V AC

The recommended cable length and thickness are shown in the table for reference. The voltage supplied to the power terminals should be within 19.5 V AC and 28 V AC.

Recommended wire gauge for 24 V AC line.

| Copper wire size (AWG) | #24 (0.22 mm ²) | #22 (0.33 mm ²) | #20 (0.52 mm ²) | #18 (0.83 mm ²) |
|-------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Length of Cable (Approx.) (m) | 20 | 30 | 45 | 75 |
| (ft) | 65 | 100 | 160 | 260 |

12 V DC

Use the formula below to calculate the power cable and power supply. The voltage supplied to the power terminals of the camera should be within 10.5 V DC and 16 V DC.

Resistance of copper wire [at 20 °C (68 °F)]

| Copper wire size (AWG) | #24 (0.22 mm ²) | #22 (0.33 mm ²) | #20 (0.52 mm ²) | #18 (0.83 mm ²) |
|------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Resistance Ω/m | 0.078 | 0.050 | 0.03 | 0.018 |
| Resistance Ω/ft | 0.026 | 0.017 | 0.010 | 0.006 |

$$10.5 \text{ V DC} \leq VA - 2(R \times I \times L) \leq 16 \text{ V DC}$$

- L : Cable length (m) (ft)
- R : Resistance of copper wire (Ω/m) (Ω/ft)
- VA : DC output voltage of power supply unit
- I : DC current consumption (A). See specifications.

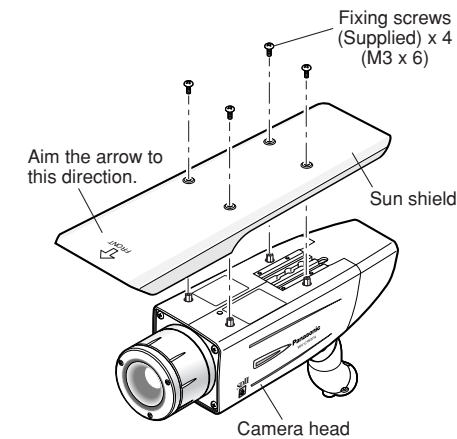
CAUTIONS

1. Shrinking the cable-entry seal is a one-time procedure. Do not shrink the cable-entry seal until it has been ascertained that the unit is functioning. CONNECT THIS TO CLASS 2 POWER SUPPLY ONLY.
2. All interconnecting devices must be UL Listed.

■ Attaching the Supplied Sun Shield

Attach the sun shield to the camera head by tightening the four supplied screws.

Caution: Be sure to use the four supplied screws.

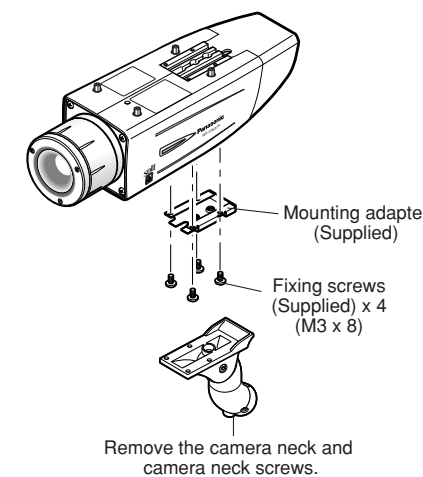


■ Attaching the Supplied Mounting Adapter

If you use a camera mounting arm locally procured, you need to use the supplied mounting adapter.

1. Remove the camera neck from the camera head by loosening the camera neck screws.

2. Attach the supplied mounting adapter to the camera head by tightening the four supplied screws.



Cautions:

- Be sure to use the supplied screws. Longer screws may damage inner components, or shorter screws may cause camera drop.
- You cannot use camera neck screws to attach the mounting adapter to the camera unit.

Notes:

- Lead the cables out of the camera head.
- When separating the camera neck, remove the panning lock screw and tilting lock screw. Then, remove the three screws inside the camera neck.

■ Specifications

Dimensions: 78 mm (H) x 82 mm (W) x 301 mm (D)
{3-1/16" (H) 3-1/4" (W) 11-7/8" (L)}

Weights: 1.3 kg [2.9 lbs.]

Weights and dimensions indicated are approximate. Specifications are subject to change without notice.

■ Standard Accessories

| | |
|---|--------|
| Instructions (this document)..... | 1 pc. |
| Operating Instructions..... | 1 pc. |
| The following are for installation. | |
| Sun shield..... | 1 pc. |
| Mounting arm..... | 1 pc. |
| Adapter box..... | 1 pc. |
| Mounting adapter..... | 1 pc. |
| Cover..... | 2 pcs |
| Fixing screws for camera (M4 x 8)..... | 3 pcs. |
| Fixing screws for adapter box (M4 x 35)..... | 1 pc. |
| Fixing screws for adapter box and mounting arm (M5 x 20)..... | 4 pcs. |
| Fixing screws for covers (M3 x 6)..... | 2 pcs. |
| Fixing screws for sun shield (M3 x 6)..... | 4 pcs. |
| Fixing screws for mounting adapter (M3 x 8)..... | 4 pcs. |

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