

Others

SPECIFICATIONS

■ CAMERA

Signal system:

- U type based on NTSC standard
- E type based on PAL standard

Image device: 1/4" IT CCD

Effective picture elements:

- U type 380,000 pixels,
768 (H) × 494 (V)
- E type 440,000 pixels,
752 (H) × 582 (V)

Sync system: Line lock/Internal

Video S/N: 50 dB (AGC OFF, Typ.)

Horizontal resolution:

535 TV lines (Typ.)

Minimum illumination:

- 4.8 lx (F1.2, AGC ON,
50%, WIDE end) (Typ.)
- 2.4 lx (F1.2, AGC ON,
25%)
- 0.9 lx (F1.2, AGC ON,
25%, with clear dome
cover (option))

White balance: ATW/Manual (switchable)

ATW: Color temperature range
2300K to 10000K.

Backlight compensation:

ON/OFF (Switchable)

■ LENS

Focal length: 2.6 mm to 6 mm (variable)

Max. aperture ratio:

F1.2 to F1.8

Angle of vision:

- f = 2.6 mm
82° (H) × 59° (V)
- f = 6 mm
35° (H) × 26° (V)

Angle adjustment range:

- Horizontal: 120°
- Vertical: +80°, -50°
- Tilt: ±15°

■ GENERAL

Power requirement:

- AC 24 V ~ 50/60 Hz or
- DC 12 V \equiv

Power consumption:

- U type Approx. 4.2 W
- E type Approx. 300 mA

Mass: 570 g

Operating temperature:

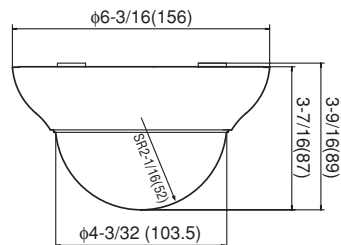
- 10°C to 50°C (recom-
mended: 0°C to 40°C)

Dimensions: Approx. 156 mm diam-
eter × 89 mm

Accessories:

- U type
 - Instructions × 1
 - Warranty card × 1
 - Service information
card × 1
- E type
 - Instructions × 2

■ External dimensions [Unit: inches (mm)]



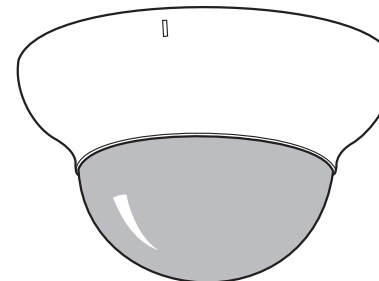
- Design and specifications are subject to change without notice.

JVC®

DOME CAMERA CAMÉRA À DÔME CÂMARA DOMO

TK-C205

INSTRUCTIONS MODE D'EMPLOI INSTRUCCIONES



For Customer Use:

Enter below the Serial No. which is located on the body. Retain this information for future reference.

Model No. **TK-C205**

Serial No. _____

English

Français

Español

IMPORTANT SAFEGUARDS

1. Read all of these instructions.
2. Save these instructions for later use.
3. All warnings on the product and in the operating instructions should be adhered to.
4. Unplug this appliance system from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
5. Do not use attachments not recommended by the appliance manufacturer as they may cause hazards.
6. Do not use this appliance near water - for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.
7. Do not place this appliance on an unstable cart, stand, or table. The appliance may fall, causing serious injury to a child or adult, and serious damage to the appliance.
Use only with a cart or stand recommended by the manufacturer, or sold with the appliance. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer. An appliance and cart combination should be moved with care.
Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
8. Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to insure reliable operation of the appliance and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the appliance on a bed, sofa, rug, or other similar surface.
This appliance should never be placed near or over a radiator or heat register. This appliance should not be placed in a built-in installation such as a bookcase unless proper ventilation is provided.
9. This appliance should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company. For appliance designed to operate from battery power, refer to the operating instructions.
10. This appliance system is equipped with a 3-wire grounding type plug (a plug having a third (grounding) pin). This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding plug.
11. For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
12. Do not allow anything to rest on the power cord. Do not locate this appliance where the cord will be abused by persons walking on it.

PORTABLE CART WARNING
(symbol provided by RETAC)



13. Follow all warnings and instructions marked on the appliance.
14. Do not overload wall outlets and extension cords as this can result in fire or electric shock.
15. Never push objects of any kind into this appliance through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the appliance.
16. Do not attempt to service this appliance yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
17. Unplug this appliance from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power cord or plug is damaged or frayed.
 - b. If liquid has been spilled into the appliance.
 - c. If the appliance has been exposed to rain or water.
 - d. If the appliance does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the appliance to normal operation.
 - e. If the appliance has been dropped or the cabinet has been damaged.
 - f. When the appliance exhibits a distinct change in performance - this indicates a need for service.
18. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
19. Upon completion of any service or repairs to this appliance, ask the service technician to perform routine safety checks to determine that the appliance is in safe operating condition.

Safety Precautions

FOR USA AND CANADA



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



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.

Information for USA

This device complies with part 15 of the FCC Rules. Changes or modifications not approved by JVC could void the user's authority to operate the equipment.

Due to design modifications, data given in this instruction book are subject to possible change without prior notice.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

AVERTISSEMENT:

POUR EVITER LES RISQUES D'INCENDIE OU D'ELECTROCUTION, NE PAS EXPOSER L'APPAREIL A L'HUMIDITE OU A LA PLUIE.

INFORMATION (FOR CANADA) RENSEIGNEMENT (POUR CANADA)

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la Class B est conforme à la norme NMB-003 du Canada.

Thank you for purchasing this product.

(These instructions are for TK-C205U and TK-C205E)

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Features

- The camera uses a high-resolution 380,000 pixel (U type) / 440,000 pixel (E type), high-sensitivity CCD to realize high picture quality with horizontal resolution of 535 TV lines and S/N50dB.
 - Dome-type design allows application in various locations.
 - Built-in backlight compensation feature to improve the quality of video taken under backlight conditions.
 - A 4inch square electrical box compatible
 - Built-in white-spot correction feature
- Before starting an important recording, be sure to perform a test recording in order to confirm that a normal recording is possible.
 - We do not accept liability for the loss of a recording in the case of it becoming impossible to record due to a problem in the video camera, VCR or video tape.
 - We do not accept liability for any damage to the camera in cases when it is dropped because of incomplete installation due to not observing the installation instructions correctly. Please be careful when installing the camera.

Operating Precautions

- To save energy, when it is not being used turn the system's power off.
- This camera has been designed for indoor use. It cannot be used outdoors.
- This camera has been designed exclusively to be hung from the ceiling. It may malfunction if it is placed on a surface or if it is tilted.
- Do not install or use the camera in the following places.
 - In a place exposed to rain or moisture.
 - In a place with vapor or oil soot, for example in a kitchen.
 - In a temperature outside the operating temperature range (−10°C to 50°C).
 - Near a source of radiation, X-rays, strong radio waves or magnetism.
 - In a place where corrosive gasses are generated.
 - In a place subject to vibration.
 - In a place with excessive dirt.
- If this camera and the cables connected to this camera are used where there are strong electromagnetic waves or where there is magnetism present, for example near a radio or TV transmitter, power transformer or an electric motor, the picture may produce noise and the colors may be affected.
- This camera incorporates an AGC circuit. As a result, when it is used under low light conditions, the camera sensitivity is automatically boosted and the picture may look uneven. This is not a malfunction however.
- The white balance setting when used under a fluorescent lamp should be ATW (Auto White).
- When this camera is used in the ATW mode, the recorded colors may be slightly different from the actual colors due to the operational principles of the auto-tracking white balance circuit. This is however not a malfunction.

Safety Precautions

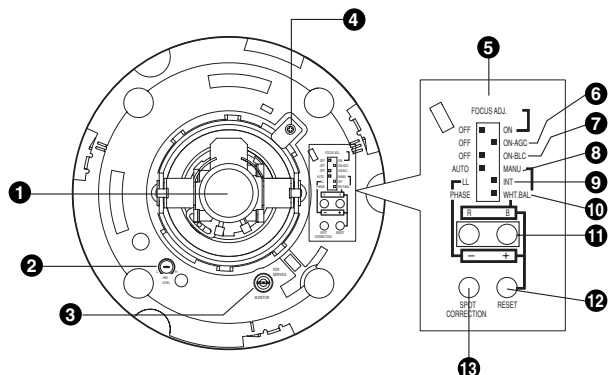
- Installation of this unit requires expertise. Please contact your dealer for details.
 - The ceiling to mount the TK-C205 has to be strong enough to support ten times the weight of this product. If the ceiling is not strong enough, make sure to apply reinforcement to the ceiling before installation.
 - Be sure to tighten the screws and nuts securely. Insufficient tightening may cause the unit to fall from its mount.
 - The unit is to be powered by a DC 12 V or an AC 24 V power supply. The AC 24 V power supply should conform to the following:
 - Class 2 only (U type)
 - Isolated power supply only (E type)
- If a high-intensity object (such as a lamp) is shot, the image on the screen may have vertical lines (smear) or blur (blooming) at its periphery. This is a characteristic of the CCD, and is not a defect.
 - Do not touch the dome cover of the lens directly with your hand, contamination of this cover will lead to a deterioration of the picture quality.
 - Observe the following when carrying out camera maintenance.
 - Turn the power OFF before proceeding to carry out maintenance.
 - Clean the dome cover lens using a lens wiper cloth (or a tissue).
 If it is contaminated seriously, clean the contaminated part with a cloth (or a tissue) which has been soaked in a solution of water and a neutral detergent.

Names and Operations of Parts

Camera Body

■ Body Surface

View when the dome cover is removed.



1 Camera Head

For adjusting the angle of the camera, such as during focusing, etc.
(☞ page 13)

2 [IRIS LEVEL] sensitivity adjustment knob

For adjusting the iris level of the lens. By turning this knob, the brightness of video signals can be adjusted.

	Turning direction of level
To darken image	Counterclockwise (L side)
To brighten image	Clockwise (H side)

MEMO

• Since this unit is mounted with a smoke cover as standard specification, the video may appear darker than the video during iris-level adjustment. To improve, adjust the iris level to a brighter setting or use the optional clear cover.

• When turning the level (sensitivity adjustment) too far to the L side, the sensitivity will increase by the AGC of the camera and the picture quality will become rough. For this reason, always set the AGC switch to "OFF" when making LEVEL adjustments.

3 MONITOR terminal (RCA pin)

For connecting a monitor when determining camera angle, etc. (High impedance)

4 Horizontal LOCK screw

When adjusting the camera angles horizontal rotation, this screw is loosened for adjustment and tightened to maintain the angle.

5 [FOCUS ADJ. - ON/OFF] focus adjustment switch

When adjusting the focus during installation, setting this switch to "ON" will open the iris.

- The subject depth will become closer for easier focusing.

- After focusing, set this switch to "OFF". (Default setting: OFF)

6 [AGC - ON/OFF] Auto-gain control switch

When the brightness of the subject is not sufficient, setting this switch to "ON" will automatically increase the sensitivity. (Default setting: ON)

7 [BLC - ON/OFF] Backlight compensation switch

When the subject is under backlight, setting this switch to "ON" will open the iris and the subject will become easier to view. (Default setting: OFF)

8 [AUTO/MANU] Auto/manual selection switch

For selecting whether to adjust the white balance automatically or manually. (Default setting: AUTO)

9 [INT/LL] Synchronization system selection switch

This switch sets the synchronizing system for the camera.

INT:

This is set for internal synchronization

LL (Line Lock):

The camera's vertical synchronization is locked to the AC 24 V power line frequency.

When switching between multiple cameras using a switcher, selecting this mode and adjusting the vertical phase can reduce the monitor sync disturbances occur that when the camera image is switched. (Default setting: INT)

10 [WHT.BAL/PHASE] adjustment switch

Switch to select the function of the 11 [R/B, +/-] adjustment button.

- When setting to WHT.BAL:

- When the 8 [AUTO/MANU] switch is set to MANU, the white balance can be adjusted using the [R/B, +/-] button.

- When setting to PHASE:

- When the 9 [INT/LL] switch is set to LL, the vertical phase of the line lock can be adjusted using the [R/B, +/-] button.

- (Default setting: WHT.BAL)

11 [R/B, +/-] adjustment button

This button is pressed when manually adjusting the white balance or when adjusting the vertical phase of the line lock.

The function of this button is selected using the 10 [WHT.BAL/PHASE] switch.

- When manually adjusting the white balance:

- Press the R button to increase the red tint and decrease the blue tint.

- Press the B button to increase the blue tint and decrease the red tint.

- When adjusting the phase:

- Press the + or - button to adjust the phase.

12 [RESET] Reset button

When this button is pressed, the value of the white balance or phase adjusted manually is reset to the default value.

When the 10 [WHT.BAL/PHASE] switch is set to WHT.BAL, the white balance is reset to the default value. When the switch is set to PHASE, the phase is reset to the default value.

13 [SPOT CORRECTION] White-spot correction button

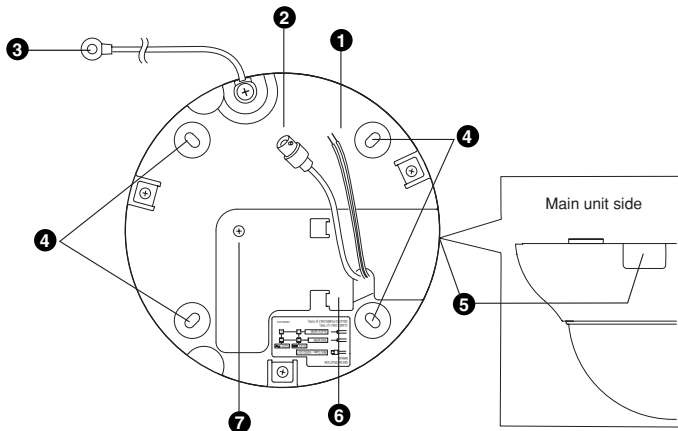
When this button is pressed, white spots are corrected.

(☞ page 15)

Names and Operations of Parts

Camera Body (continued)

■ Body Underside



1 Power input cable

To input DC 12 V or AC 24 V power.
The AC 24 V power supply should conform to the following:
U-type: class 2 only
E-type: Isolated power supply only

2 Video signal output connector (BNC)

This BNC connector outputs a composite video signal. Connect this to the video input connector of a video monitor, switcher, etc.

3 Drop prevention wire

This wire is mounted to the ceiling slab or channel.

CAUTION

Be sure to attach the drop prevention wire.
If not attached, the camera body could drop down.

4 Mounting holes

These holes are used to mount the camera body to the ceiling. When using a 4 inch square electrical box, the 2 holes diagonally across are used to fix the box in place.
(☞ page 12)

5 Cable extraction hole

This hole is used when extracting cables without opening a hole in the ceiling.

6 Cover

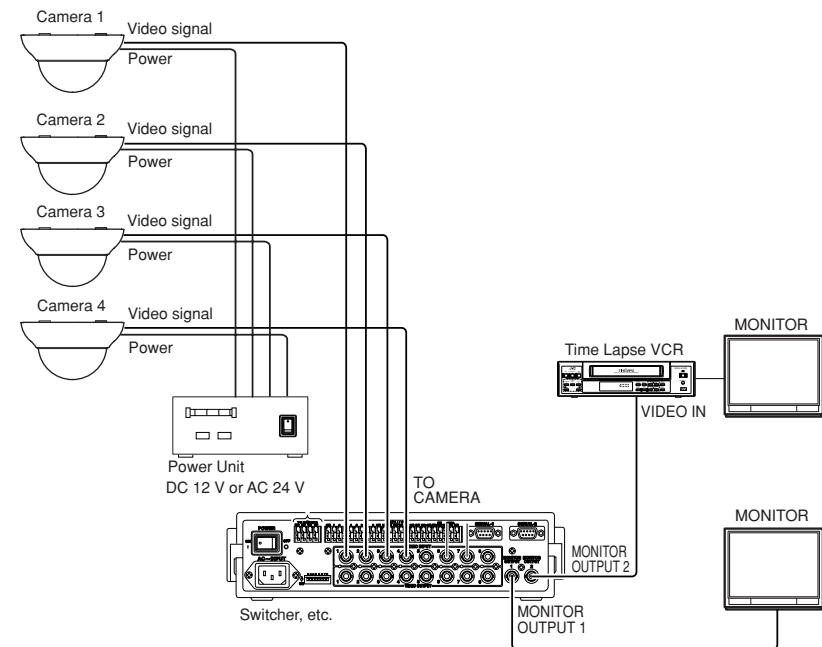
This cover is removed when using the 5 cable extraction hole.

7 Cover locking screw

This screw is removed when removing the 6 cover.

Installation and connection

System diagram



- Turn OFF the power supply to all equipment to be used before making connections.
- Read the Instruction Manual for each piece of equipment to be used before making connections.

Installation and connection

About Connection Cables

- Turn OFF the power supply to all components before making connections.

■ Video signal cables

Connect the coaxial cables (BNC) to the video signal output connector (BNC).

Note

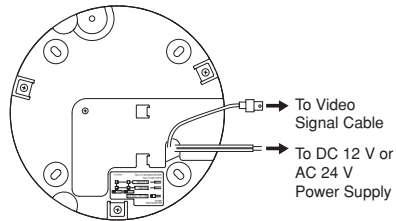
Use the 3C-2V or 5C-2V video signal cable (coaxial cable). The 7C-2V cannot be used.

■ DC 12 V or AC 24 V power supply cable

Connect the DC 12 V or the AC 24 V power supply to the DC 12V/AC 24V terminals on the terminal board. To prevent connection errors or a cable disconnection, we recommend the use of lug plates for the connections.

The following table shows the connection distances and connection cables provided that 2-conductor VVF cables (vinyl-insulated vinyl sheath cables) are used.

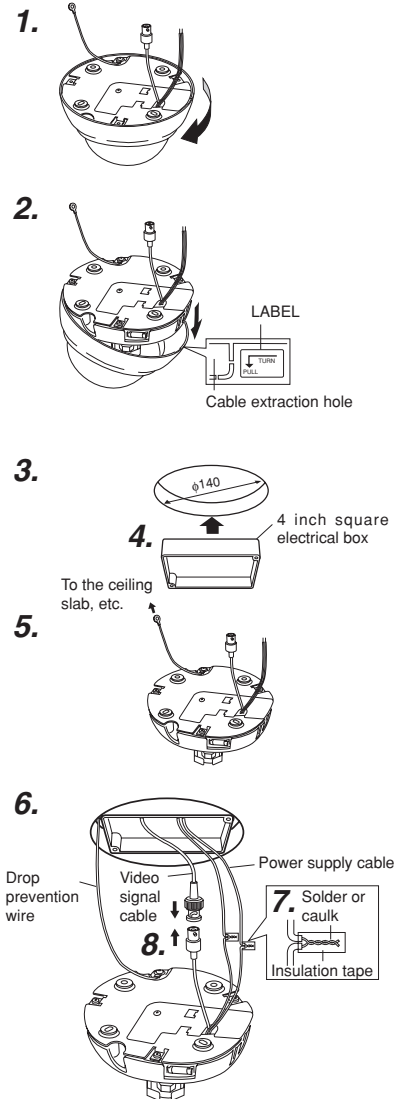
Maximum extension (reference)	100 m	260 m	410 m	500 m
Conductor diameter	1.0φmm and more	1.6φmm and more	2.0φmm and more	2.6φmm and more



CAUTION:

- If thin cables are used (i.e. with a high resistance), a significant voltage drop will occur when the unit is at its maximum power consumption. Either use a thick cable to restrict the voltage drop at the camera side to below 10%, or place the power supply near to the camera. If voltage drop occurs during operation, the performance will be unstable.
- Attach the cable conductors so that they do not come into contact with the drop prevention wires.
- Do not allow input from both a DC 12 V and AC 24 V power supply at the same time.
- When using a DC 12 V power supply, ensure that the polarities of the cable are correct.
- The AC 24 V power supply should conform to the following:
U-type: Class 2 only
E-type: Isolated power supply only

Mounting the Camera to the Ceiling



1. Remove the dome cover

Hold the bottom of the unit and turn the dome cover counterclockwise.

2. Pull the label part downwards and remove the dome cover.

3. Open a hole of $\phi 140$ mm in the ceiling.

MEMO

There is no need to open a hole in the ceiling when extracting the cables from the cable extraction hole on the camera side.

(☞ See page 8)

4. Mount the electrical box.

This unit can be mounted with a 4 inch square electrical box. For mounting an electrical box, consult your dealer of purchase.

5. Mount the drop prevention wire.

In order to prevent the unit from falling for any reason, connect the drop prevention wire to the ceiling slab, etc.

6. Pull out the cables from the ceiling.

Before connecting, pull out the power supply and video signal cables about 10cm from the electrical box.

7. Connect the power supply cable.

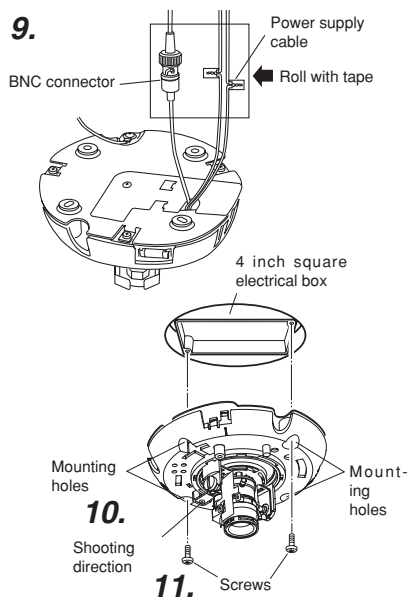
When installing, cover the cable with insulation tape so that it does not become damaged from contact with surrounding parts.

In addition, be sure to use a wiring cable for the power supply cable.

8. Connect the video signal cable (BNC connector).

Installation and connection

Mounting the Camera to the Ceiling (Continued)



9. Roll cables with insulation tape.

As shown in the diagram to the left, roll the entire connecting section of the power supply cable and BNC connector with insulation tape and insert them in the electrical box.

MEMO

Rolling cables with insulation tape not only increases the work efficiency later on, but reduces the entry of noise, etc.

10. Adjust the unit in the direction to shoot.

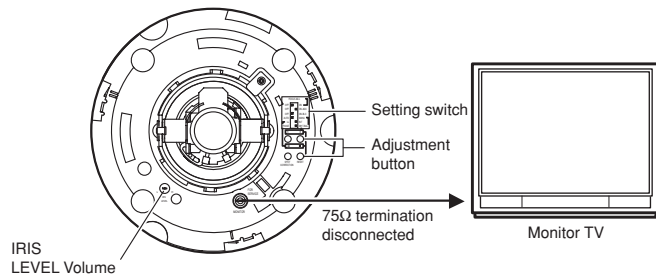
11. When using an electrical box, use the 2 mounting holes to fix the box to the unit.

CAUTION:

- Do not hold the lens part when mounting the unit to the ceiling or wall.
- When directly mounting the unit to the ceiling or wall, fix the unit using all 4 mounting holes.
- Use M4 screws or bolts for attaching the ceiling mount.
- If wood screws are used, use screws with a diameter of 4.1 mm.

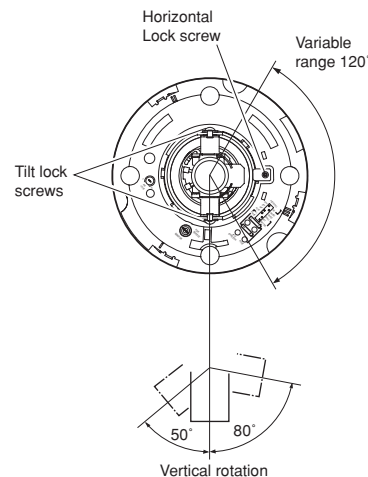
Connection for Adjustment of the Camera

Temporarily used for making various adjustments while the camera remains in the installed location.



* The power to the camera body must be ON when adjustments are performed.

Adjusting the Camera Angle



■ Horizontal rotation (adjustable range: 120°)

1. Loosen the horizontal LOCK screw.
2. Holding the both tilt lock screws, rotate horizontally.
3. Tighten the horizontal LOCK screw.

■ Vertical rotation (adjustable range: +80°, -50°)

1. Loosen the tilt lock screws.
2. Holding the rotation levers, rotate vertically.
3. Tighten the tilt lock screws.

■ Image inclination (adjustable range: ±15°)

Manipulate the rotation levers to adjust the inclination of the image.

■ Adjusting the image size

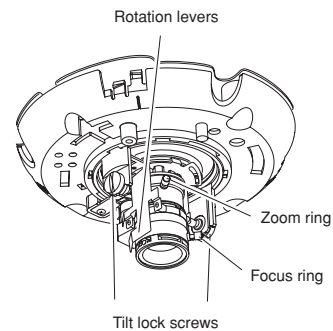
Adjust the size using the zoom ring.

■ Adjusting the focus

Adjust using the focus ring.

When adjusting the focus, set the FOCUS ADJ. switch to "ON". After adjustment is completed, set the FOCUS ADJ. switch to "OFF".

When required, the surveillance image should be adjusted, etc.

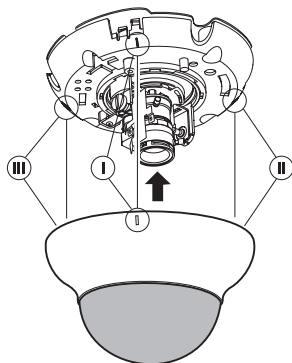


Installation and connection

Adjusting the Camera Angle (Continued)

■ Attach the dome cover.

Set the dome cover to the unit by aligning the 3 marks on the camera and dome cover (I, II and III).



CAUTION

Be sure that the dome cover is firmly attached. Improper attachment could result in the cover dropping down.

Others

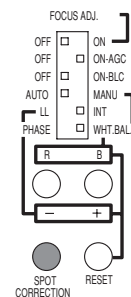
About White-spot correction

As a general characteristic unique to CCD, white spots may appear on the screen when operating under high temperature.

In order to reduce this phenomenon, this unit is equipped with a white-spot correction feature.

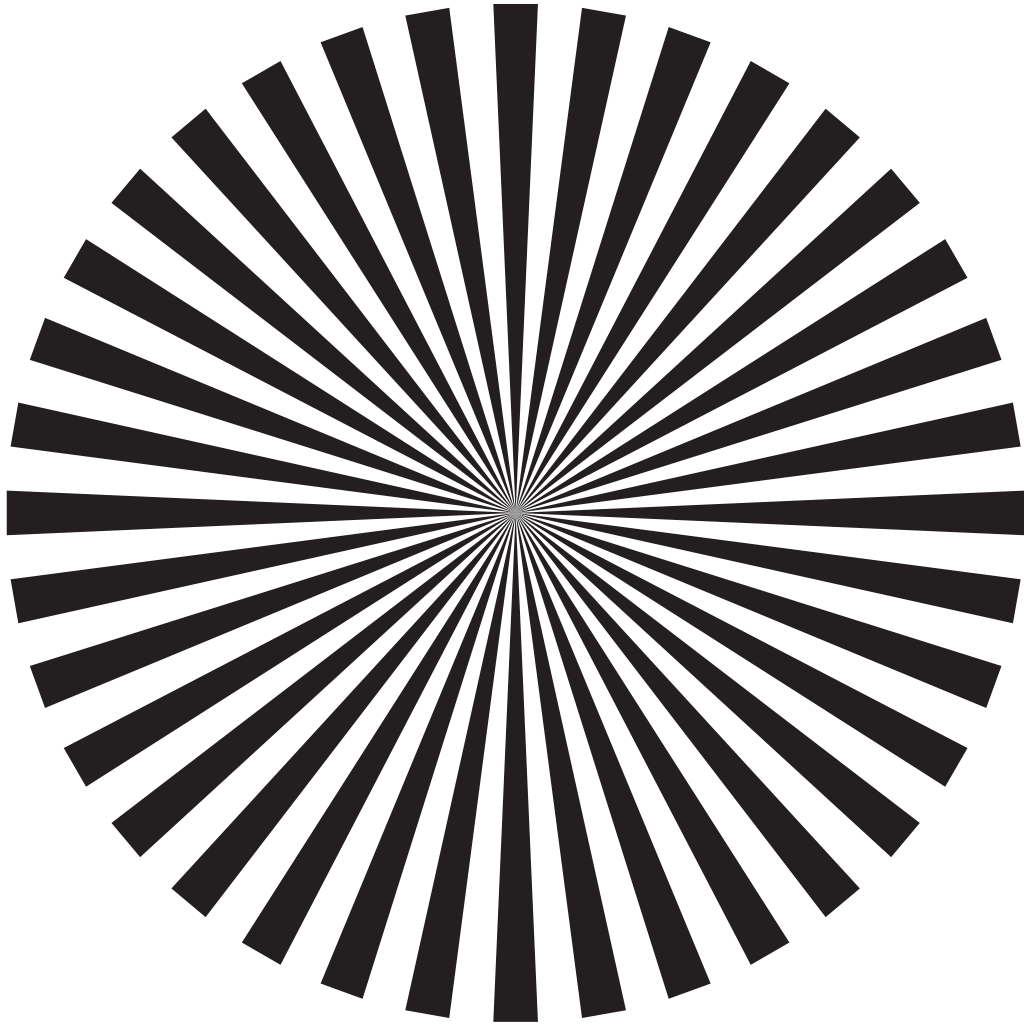
Usage

1. Remove the dome cover.
 - Switch on the camera power supply and wait for at least 30 minutes.
2. Cover the lens surface using a black sheet of paper, etc. so that light does not enter the lens.
3. Press and hold the SPOT CORRECTION button on the unit for more than 2 seconds.
 - White-spot correction will start. Correction may take several seconds for completion.



Memo:

- The white-spot correction feature of this unit does not guarantee the correction of all white spots.
Maximum correction: less than 16 ~ 32 spots
Depending on the characteristic of white spots, correction may not be possible.
- When performing white-spot correction, accurate data may not be achieved in case of highly-detailed pixels since correction is made using the information of surrounding pixels.
- The result of white-spot correction is maintained until the next correction is performed.



Focus chart