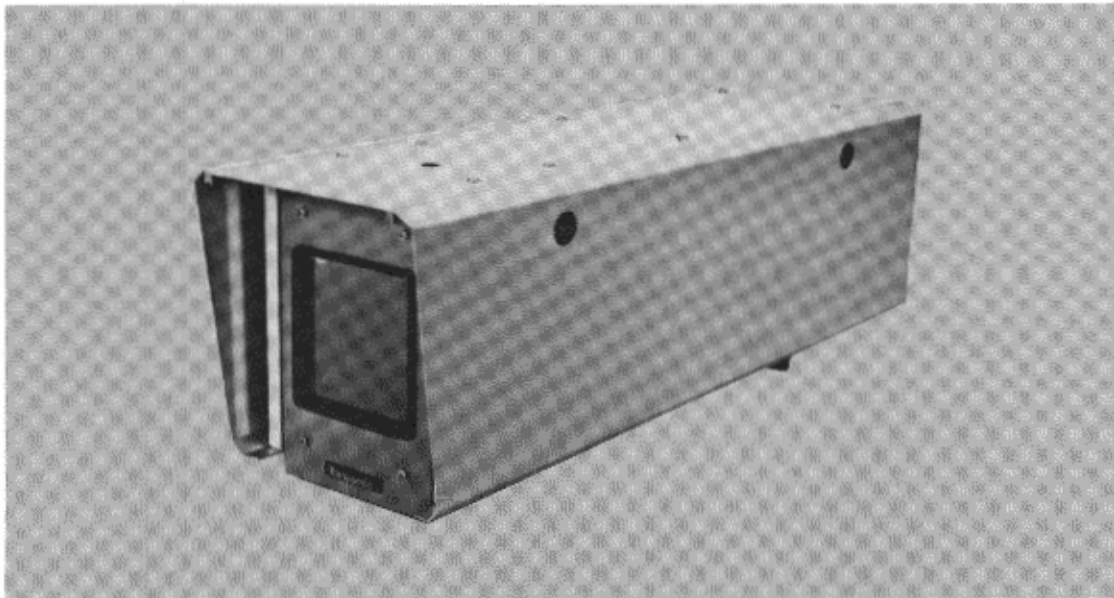


Operating Instructions

Outdoor Camera Housing
WV-7160D



Panasonic

Before attempting to connect or operate this product, please read these instructions completely.

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| INTRODUCTION | 1 | INSTALLATION OF CAMERA | 7 |
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INTRODUCTION

The WV-7160D is an outdoor camera housing equipped with heater, fan and sunshield as standard, for a 24V AC camera with a fixed-focal-length lens.

This can be mounted from the bottom on the optional Bracket Model WV-7060 and Pan/Tilt Mechanism Model WV-7260D.

PRECAUTIONS

1. Use this unit within its rating.
Designed for outdoor use.
-22°F (-30°C) — [(Maximum ambient operating temperature of 24V AC camera)]
2. Select a flat location which can support the entire weight (camera, lens, bracket, etc).
3. The input power source must be 24V^{+10%}_{-20%} (19.2 - 26.4V) AC 60 Hz.
4. Every necessary procedures with regard to install this product should be made by qualified Service Personnel or System Installers.

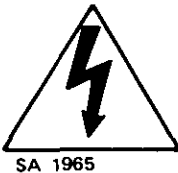
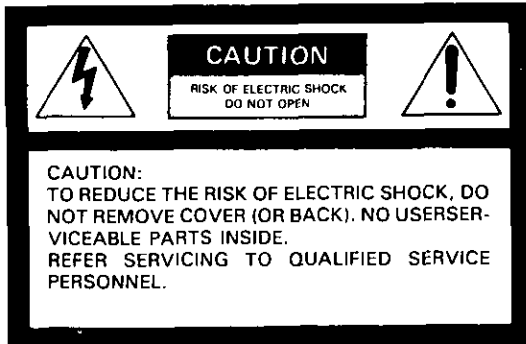
PRECAUTIONS ON INSTALLATION

Camera:

The maximum available capacity inside of the housing for the combination of the camera and lens is approx. 4"(H) x 5"(W) x 17"(D).
24V AC camera

Mounting Apparatus:

WV-7060 (Mounting Bracket) or WV-7260D (Pan/Tilt-Mechanism)



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.

For U.S.A.

Warning:
This equipment generates and uses radio frequency energy and if not installed and used properly, i.e., in strict accordance with the instruction manual, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

For CANADA

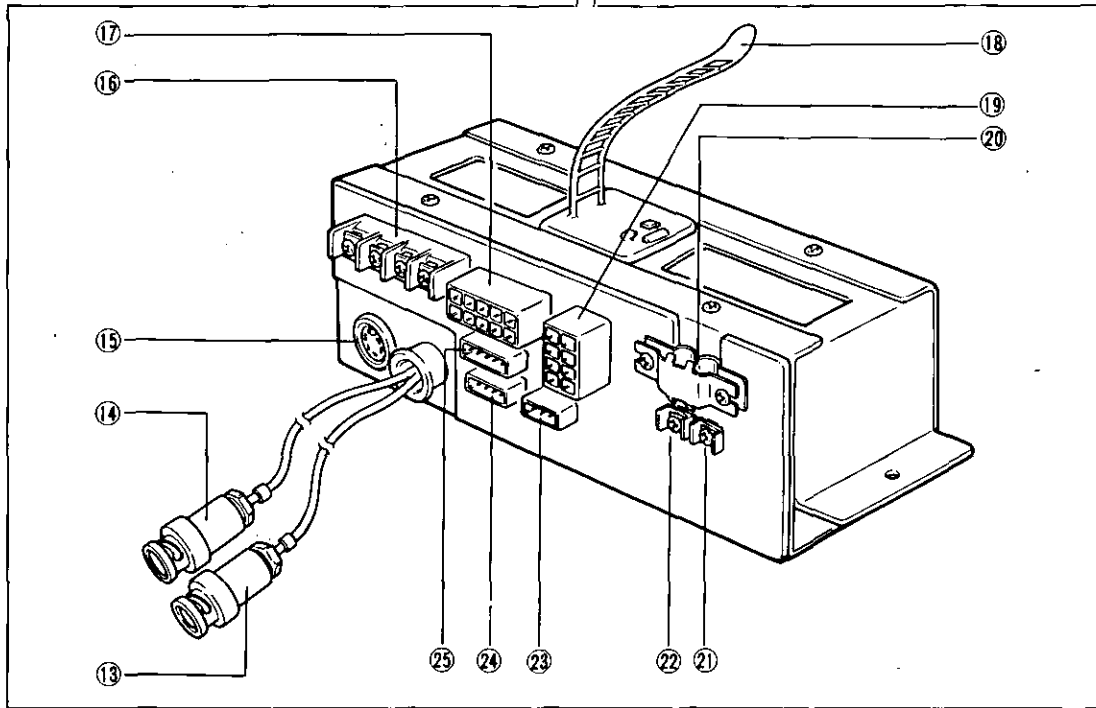
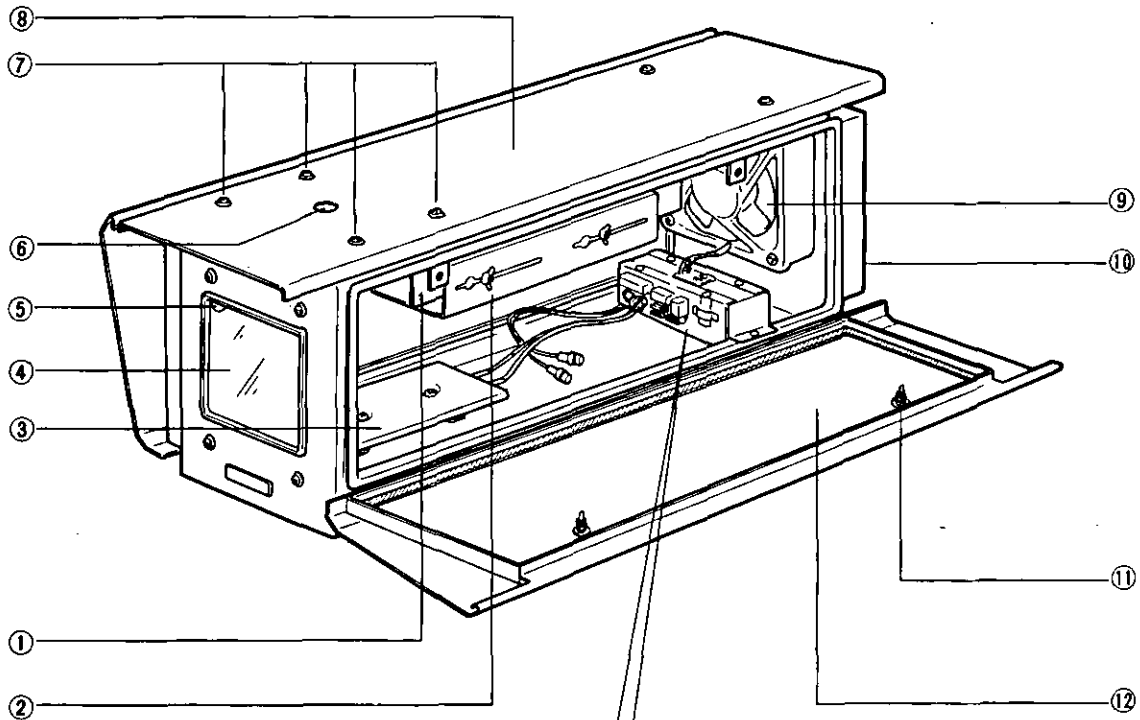
This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

The serial number of this product may be found on the bottom of the unit.
You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No. _____

Serial No. _____

MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS



(1) Camera Mounting Plate
For mounting the 24V AC camera.
See page 8.

(2) Camera Mounting Angle
See page 8.

(3) Heater
Furnished with preset thermostat for closure.

(4) Front Glass with Defroster

(5) Thermostat for Defroster
Protects from overheating of the Front Glass by Defroster.

(6) Hole for wiring the Wiper Unit

(7) Screws for optional Wiper Unit WV-Z50

(8) Sunshield
Protects enclosure from direct solar radiant heat.

(9) Fan and Filter

Fan: Furnished with preset thermostat for closure at 109°F (+43°C). The fan supplies steady forced air through arear intake and filter, which flows over camera.

(10) Intake

(11) Lock

Lock and open with key (provided)
See page 5, 9.

(12) Right-side cover

From this side, it is possible to adjust the beam and focus control of the camera.
See page 5.

(13) Sync. Input Connector(S) (BNC)

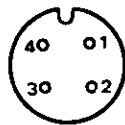
Connect to GENLOCK input connector of the camera.
See Page 9.

(14) Video Output Connector (V) (BNC)

Connect to VIDEO Output Connector of the camera.
See Page 9.

(15) Lens Connector - 2

- 1 : DC Common
- 2 : Iris Control
- 3 : Focus Control
- 4 : Zoom Control



Note:

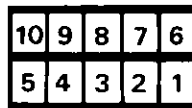
Each pin of this connector is internally connected to the corresponded pin of the Lens Connector - 1 (25).

(16) Terminal Strip

(17) Housing Control Connector - 1 (10 pins) — CN3

Connect the following to them

- 1 : No Connection
- 2 : No Connection
- 3 : No Connection
- 4 : No Connection
- 5 : Defroster
- 6 : Wiper
- 7 : DC Common
- 8 : Iris Control
- 9 : Focus Control
- 10 : Zoom Control

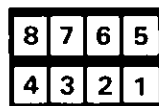


(18) Cable Clamp

(19) Housing Control Connector - 2 (8-pins) — CN4

Connect the following to them.

- 1 : Camera Power
- 2 : Fan and Heater
- 3 : Fan and Heater
- 4 : No Connection
- 5 : AC Common
- 6 : AC Common
- 7 : AC Common
- 8 : Ground



(20) Frame Ground

(21) External Sync. Input Terminal

Connect the coaxial cable to the sync. Output.

(22) Video Output Terminal

Connect the coaxial cable to the monitor.

(23) Camera Power Supply Connector (3-pins) — CN5

- 1 : Camera Power
- 2 : AC Common
- 3 : Ground

(24) Sensor Connector (4-pins) — CN6

- Feed the power supply to the sensor circuit board.
- 1 : Fan and Heater
- 2 : Fan and Heater
- 3 : AC Common
- 4 : AC Common

(25) Lens Connector - 1 (5-pins) — CN7

- 1 : DC Common
- 2 : Iris Control
- 3 : Focus Control
- 4 : Zoom Control
- 5 : No Connection

Note:

Each pin of this connector is internally connected to the corresponded pin of the Lens Connector - 2 (15).

APPLICABLE CAMERAS AND LENSES

The recommended combination of the Panasonic camera and lens to WV-7160D is shown in the following table.

| Camera | Housing Lens | WV-7160D | |
|----------|--------------|----------|----------|
| | | for 1/2" | |
| | | fixed | WV-LZ8/6 |
| | | | for 2/3" |
| | | fixed | |
| WV-1414 | | | o |
| WV-1464 | | | o |
| WV-1504 | | | o |
| WV-1554 | | | o |
| WV-CD24 | | | o |
| WV-CD134 | | | o |
| WV-BL204 | | o | |
| WV-CL304 | | o | |
| WV-BL604 | | o | |
| WV-CL704 | | o | |

- o: Recommended
- o: Possible

o WV-LA3 (LA2-8) is impossible to mount on this housing.

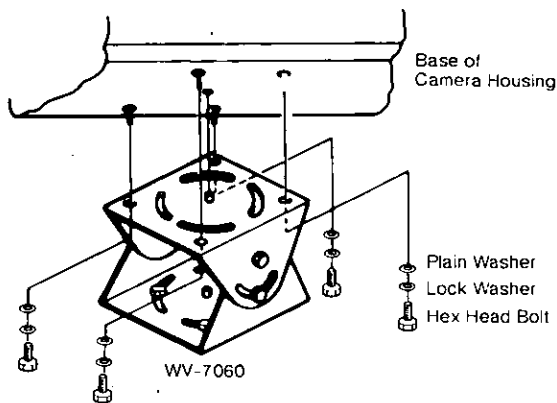
INSTALLATION OF CAMERA HOUSING

CAUTION:

The following installation should be made by qualified service personnel or system installers.

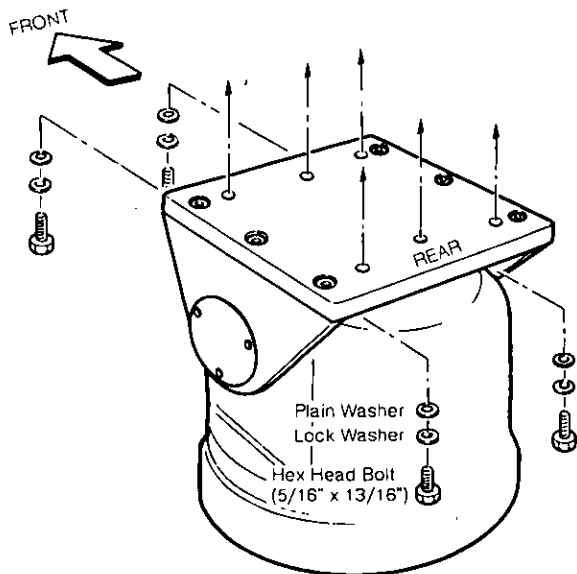
A. When mounting the Camera Housing to the Optional Bracket Model WV-7060.

- Four M8 x 20 mm (5/16" x 13/16") hex head bolts lockwashers and plain washers are provided with the bracket. Use these to mount the camera housing as shown below.



B. When mounting the Camera Housing to the Optional Pan/Tilt Mechanism WV-7260D.

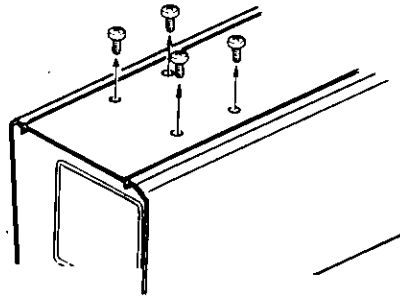
- Four M8 x 20 mm (5/16" x 13/16") hex head bolts, lockwashers and plain washers are provided with the Pan/Tilt Mechanism. Use these to mount the camera housing as shown below.



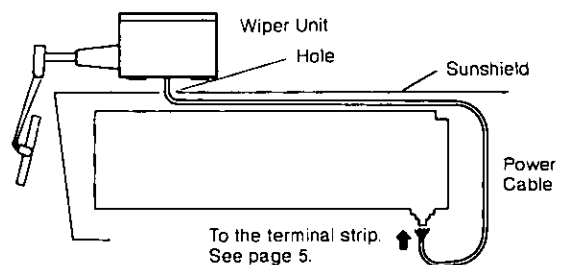
- Be sure to align the camera direction and front direction of Pan/Tilt Mechanism.

C. When the optional Wiper Unit Model WV-Z50 is used, mount it as follows.

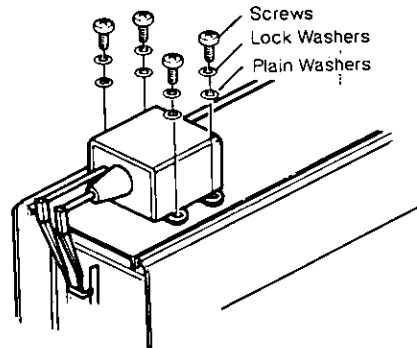
1. Remove the four sunshield screws and discard.



2. Pass the power cable through the hole for wiring wiper unit and pass it under the sunshield, to the back and through the wiring hole.



3. Attach the wiper with four screws, lockwashers and plain washers (provided with the wiper unit).



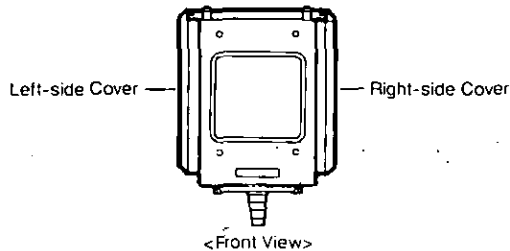
4. Complete the wiring. See PREPARATION OF WIRING on page 5.

PREPARATION OF WIRING

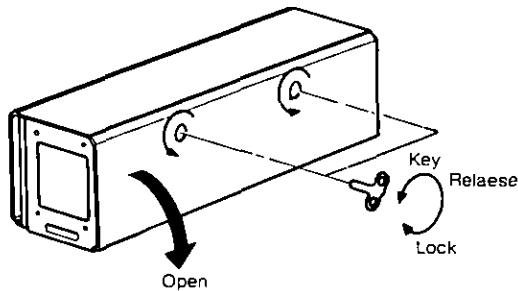
CAUTION:

The following preparation of wiring should be made by qualified service personnel or system installers.

1. First complete the outside wiring and connections. Then, complete the inner wiring and connections.
2. It is possible to mount the camera from the right-side or left-side. However, the camera mounting plate is preset at the factory for mounting the camera from the right-side.

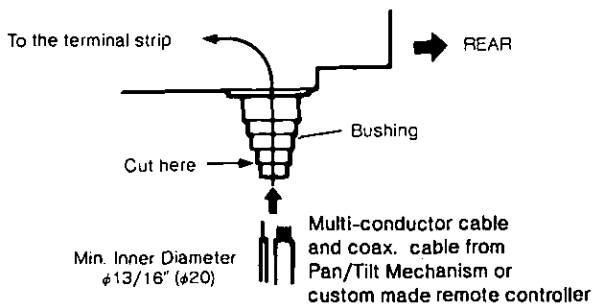


3. Open the right-side cover with the key (provided). If it is necessary to mount the camera from the left-side, open the left-side cover.



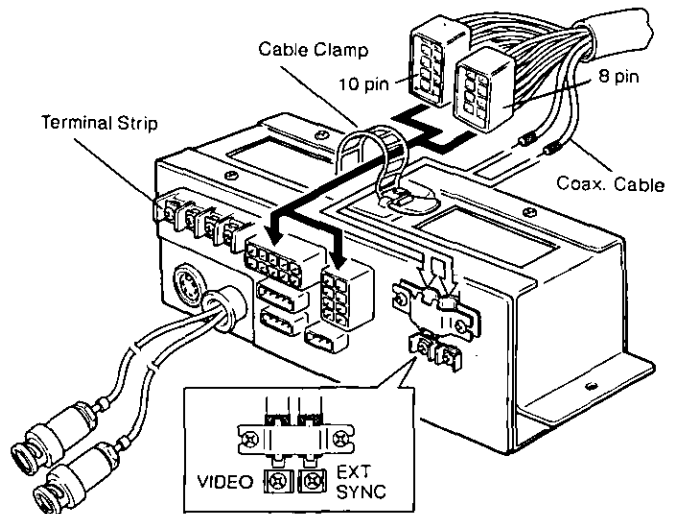
Turn the key counterclockwise until it stops.

4. Decide the wiring hole size for the rubber bushing, cut the bushing at the appropriate size. The minimum hole size is 13/16" (20 mm).



Pass the cables through the wiring hole.

5. Clamp the cables as below. Pass the cables through the wiring hole.



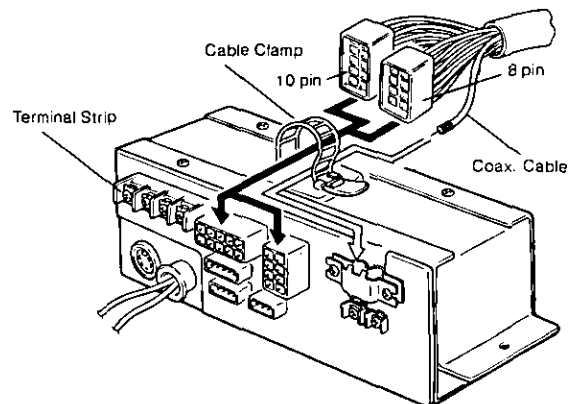
CONNECTIONS OF CAMERA HOUSING

CAUTION:

The following connections should be made by qualified service personnel or system installers.

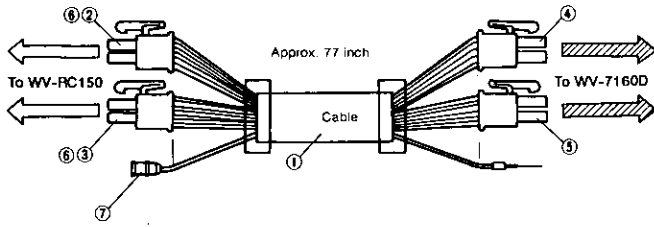
- A. When the camera housing is mounted on the Bracket

Connect the multi-conductor cable from a controller which has a $24V_{-20}^{+10}\%$ (19.2 - 26.4V) AC power supply to the connector in the camera housing.



1. In case of using WV-CA50

The appearance and cord length is shown in the drawing.



- The parts name of WV-CA50 is shown in the following.

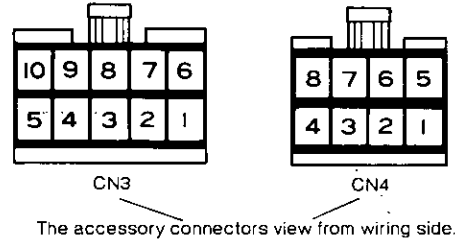
| No. | Parts name |
|-----|----------------|
| 1 | 18 wires cable |
| 2. | 14P housing |
| 3 | 12P housing |
| 4 | 10P housing |
| 5 | 8P housing |
| 6 | Contact |
| 7 | BNC connector |

2. In case of using the accessory connectors (MX5557P08 and MX5557P10)

Select a multi-conductor cable which meets FR-1 rating with 10 or 13 wires cables for WV-7160D
 13 wires cable is used to extend the cable length.
 Connect the 10 or 13 wires cable to the following positions of the accessory connectors.

| CN Pin No. WV-7160D | Usage of Terminal | Power Source |
|---------------------|-------------------|---------------|
| CN4-1 | 24V AC CAMERA | 24V AC |
| CN4-2(3) | Fan Heater | |
| CN3-5 | Defroster | |
| CN3-6 | Wiper | 24V AC Common |
| CN4-5(6)(7) | AC Common | |
| CN3-7 | DC Common | ±6V DC Common |
| CN3-8 | Iris Control | |
| CN3-9 | Focus Control | |
| CN3-10 | Zoom Control | |
| CN4-8 | Camera Ground | |

- If 13 wires cable are available for WV-7160D, connect the remained 3 wires to the () position.

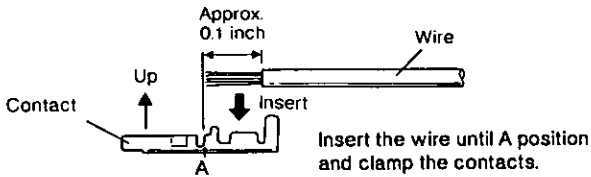


The wire gauge can be determined by the chart below.

- The system should be operated by 24V AC and the power consumption should have less than 11W for the camera, 78W for the heater, 18W for the wiper and 15W for the defroster.

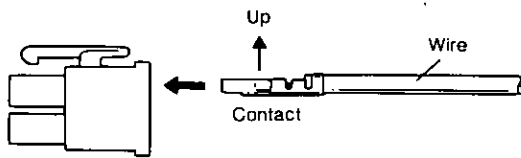
| Model | | WV-7160D | | |
|-------|-----------|---------------------------|------------|-----|
| | Impedance | Copper wire gauge AWG No. | Conductors | |
| | | | 10 | 13 |
| #24 | 77.9 | ft | 11 | 28 |
| | | | m | 3 |
| #22 | 50.4 | ft | 17 | 40 |
| | | | m | 5 |
| #20 | 32.3 | ft | 27 | 65 |
| | | | m | 8 |
| #18 | 19.9 | ft | 40 | 110 |
| | | | m | 10 |

- How to assemble the connector
Strip back the cable jacket approx. 0.1 inch (3 mm) and separate the individual conductors.



Prepare the individual conductors for clamping. If clamping, use MOLEX brand tool part number 57027-5000 (for UL-Style cable UL1015) or 57026-5000 (for UL-Style cable UL1007).

After clamping the contacts, push them into the proper holes in the connector housing until they snap in place.



CAUTIONS:

- 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 A 24V-AC CLASS 2 POWER SUPPLY ONLY.

Caution: To prevent fire or shock hazard, the UL listed wire VW-1, style 1007 should be used for the cable for 24V AC Input Terminals.

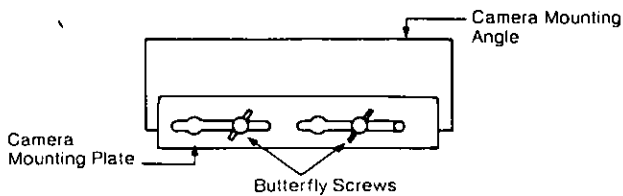
- B. When the camera housing is mounted on the Pan/Tilt Mechanism WV-7260D, refer to the operating instructions of it.

INSTALLATION OF CAMERA

CAUTION:

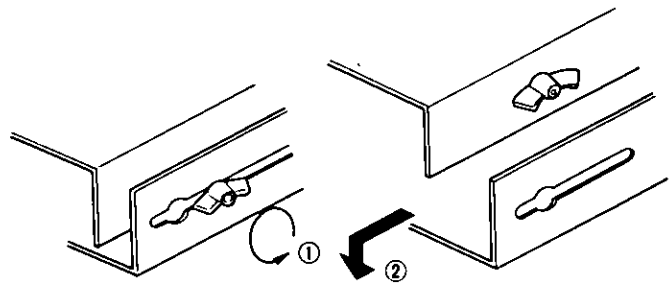
The following installation should be made by qualified service personnel or system installers.

1. Remove the camera mounting plate from the camera mounting angle.

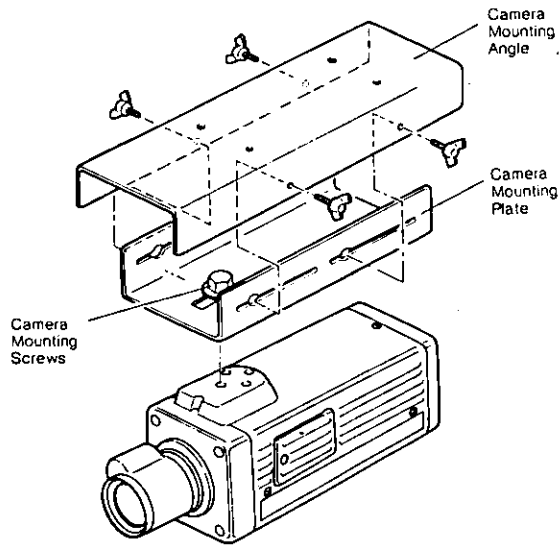


- (1) Loosen the two butterfly screws and set them along the slotted guide.
- (2) Slide the camera mounting plate and take off.

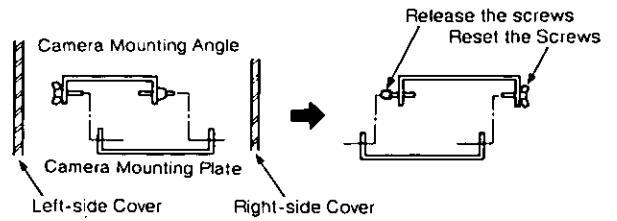
2. Mount the camera to the camera mounting plate with camera mounting screws (provided).



<For WV-CD134/CD24/BD404/BL204/CL304/BL604/CL704>



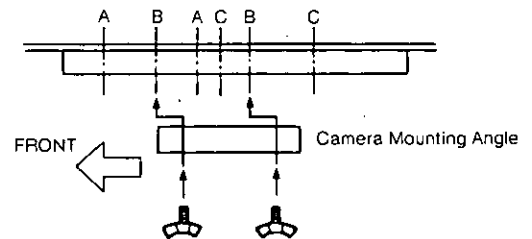
3. If it is necessary to mount the camera from the left-side, change the butterfly screws on the camera mounting angle as shown below.



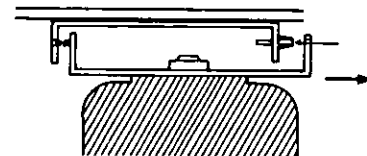
4. If the lens dimensions require it, remove the camera mounting angle and reposition by selecting the appropriate mounting holes. See chart below.

| Lens Length | Holes |
|--|-------|
| 5-15/16" - 7-7/8" (150 - 200 mm) | C |
| 3-15/16" - 5-15/16" (100 - 150 mm) | B |
| Shorter than 3-15/16" (Shorter than 100 mm) | A |

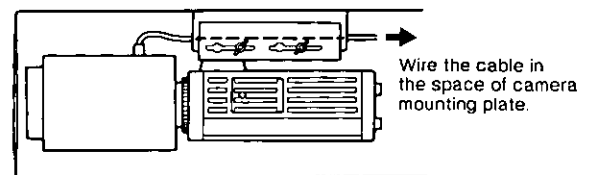
- Preset on A position at factory.



5. Attach the camera mounting plate with camera to the camera mounting angle.

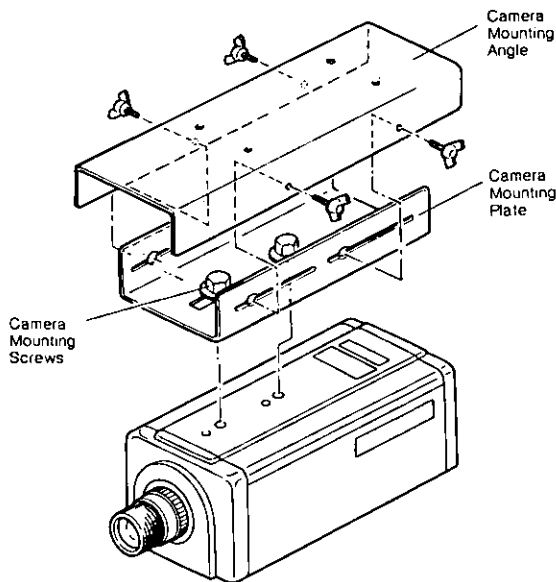


- Wire the zoom cable as shown below, to keep the wires away from the heater.

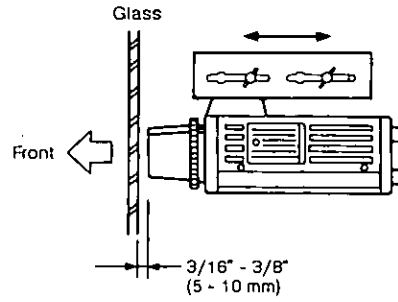
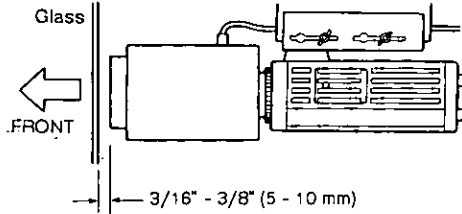


If the output connector of motorized zoom lens does not match the zoom control connector, change the connector to the provided one.

<For WV-1414/1504/1464/1554>



6. Adjust the camera position as shown in the drawing. Then, tighten the two butterfly screws.



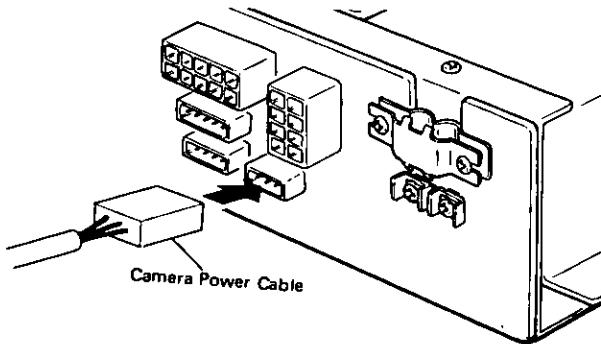
CONNECTION OF CAMERA

CAUTION:

The following connection should be made by qualified service personnel or system installers.

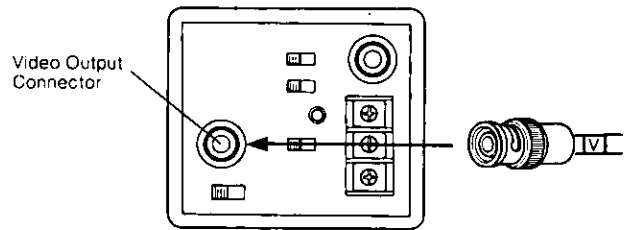
A. Camera Power Cable

1. Connect the camera power cable to the Camera Power Supply Connector (23).
2. Connect the camera power cable (provided) to the camera power connector.

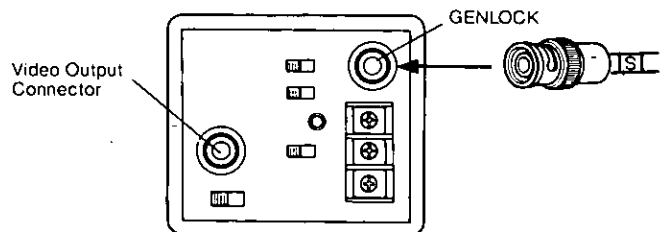


B. Video Output and External Sync. Input Cables

1. Connect the Video Output Cable (V) to the video output connector of the camera.

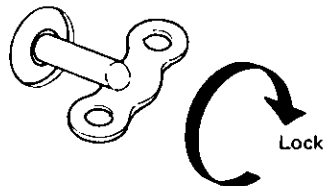


2. Connect the External Sync. Input Cable (S) to the GENLOCK input connector of the camera.



END OF WIRING

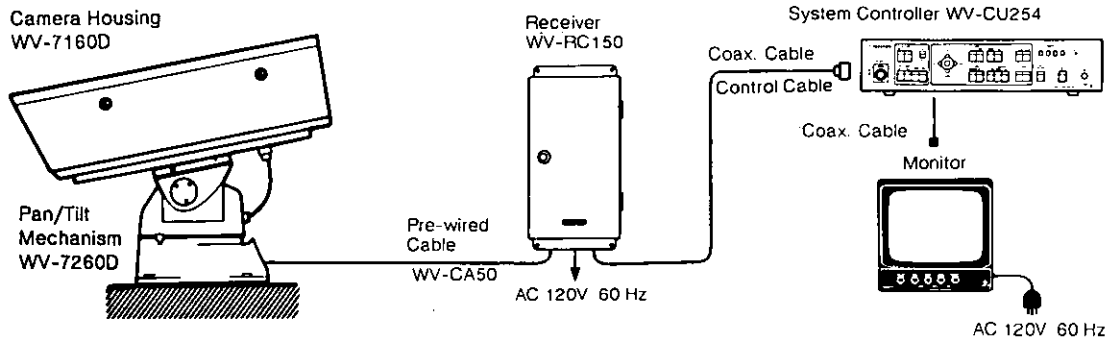
- Turn on the power switch of the camera.
- Rotate the key clockwise until it stops.



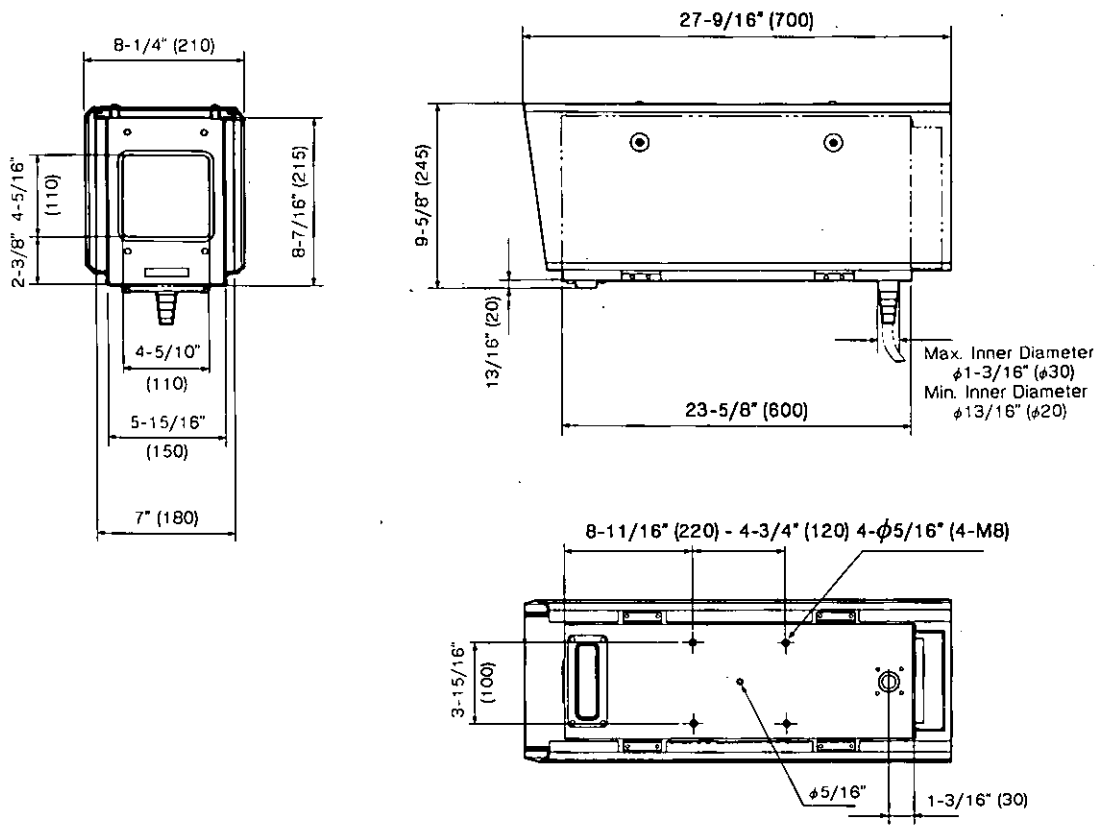
CAUTION:

When the camera LED reflects on the glass and its light comes in the screen, stick the Power Indicator Masking Label on it.

TYPICAL SYSTEM CONNECTIONS



OUTLINE DRAWING



SPECIFICATIONS

| | |
|--------------------------------|---|
| Power source: | 24V AC 60 Hz from Outdoor Receiver WV-RC150 |
| Power consumption: | Max. 131W (Excluding Panasonic 24V AC camera) |
| Functions: | Fan: 18W (ON at 109°F, +43°C) Heater: 78W (ON at approx. 23°F, -5°C) |
| Product housed: | 24 V AC camera (Max. 11W) |
| Mounting: | From bottom |
| Mounting bracket: | WV-7060 (optional) |
| Pan/tilt mechanism: | WV-7260D (optional) |
| Ambient operating temperature: | -22°F(-30°C) — [Maximum ambient operating temperature of 24V AC camera] |
| Weight: | Approx. 18 lbs. (9.1 kg) |
| Dimensions: | Approx. 8-1/4"(W) x 9-5/8"(H) x 21-5/8"(D) [210(W) x 245(H) x 700(D) mm] |

STANDARD ACCESSORIES (Supplied)

| | | | |
|--|--------|--|-------|
| Cover Locking Key [Part No. YWV7150EM03] | 1 pc. | Lens Connector [Part No. YWMAS4100] | 1 pc. |
| Camera Mounting Screw (U1/4-20UNC) (with insulation rubber) | 2 pcs. | Power Indicator Masking Label | 1 pc. |
| | | Power Cable for 24V AC Camera | 1 pc. |
| | | Connector [MX5557P08] | 1 pc. |
| | | [MX5557P10] | 1 pc. |

OPTIONAL ACCESSORIES

Pre-wired Cable WV-CA50

Panasonic

Communications & Systems Company

Panasonic Communications & Systems Company
Division of Matsushita Electric Corporation of America

CLOSED CIRCUIT VIDEO EQUIPMENT DIVISION

HEADQUARTERS:

50 Meadowland Parkway, Secaucus, New Jersey 07094

EASTERN ZONE:

50 Meadowland Parkway, Secaucus, NJ 07094 (201) 348-7620

CENTRAL ZONE:

425 E. Algonquin Road, Arlington Hts. IL 60005 (708) 981-4826

SOUTHERN ZONE:

Dallas Region: 4500 Arnon Carter Blvd., Ft Worth, TX 76155 (817) 685-1117

Atlanta Region: 1854 Shackleford Ct. Suite 115, Norcross, GA 30093 (404) 925-6841

WESTERN ZONE:

Seattle Region: 1200 Westlake Ave. N., Suite 508, Seattle, WA 98109 (206) 285-8883

Los Angeles Region: 6550 Katella Ave., Cypress, CA 90630 (714) 373-7275

MATSUSHITA ELECTRIC OF CANADA LIMITED

5770 Ambler Drive, Mississauga, Ontario, Canada L4W 2T3 (416) 624-5010

PANASONIC SALES COMPANY

DIVISION OF MATSUSHITA ELECTRIC OF PUERTO RICO, INC.

San Gabriel: Industrial Park, 65th Infantry, Ave. KM. 9.5 Carolina, Puerto Rico 00630 (809) 750-4300