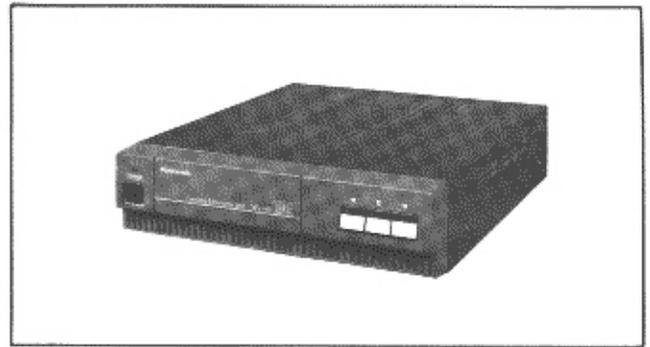


Instructions

Camera Extension Unit WV-AD110A

Panasonic.

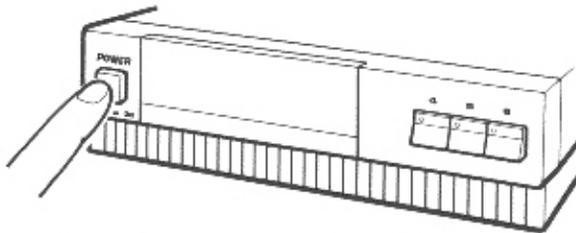
Before attempting to connect or operate this product, please read these instructions completely.



The Camera Extension Unit WV-AD110A is used with the Video Monitor WV-CM110A (or WV-CMS1A) to extend the three more Mini CCTV Cameras or the three more Solid State Color Cameras.

OPERATING PROCEDURE

1. Depress the Power Switch to be ON.



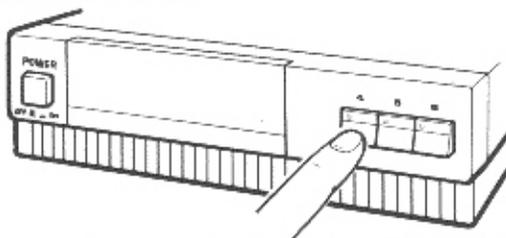
Note : When the system connection contains two or more of the Camera Extension Units, make sure that all of the power switch is ON for proper operation.

Caution :

When the power switch of the camera extension unit is turned ON and OFF repeatedly in the short period of time, the camera may not be turned ON due to the operation of misconnection protection circuit.

In this case, leave the switch in the OFF position for a few seconds before turning it ON again.

2. Make sure that the Power Switch of the monitor is also ON.
3. Push the Camera Selector Switch for selecting the desired camera to observe the picture of it and green indicating lamp lights.



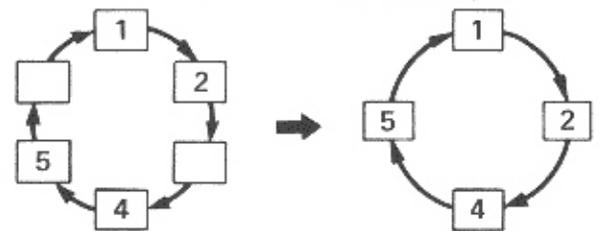
- o Refer to the Operating Instructions of Panasonic Color Mini CCTV System WV-CMS1A for other applications.

- Notes :**
1. The desired camera can be selected by pushing the Camera Selector Switch to observe the picture of the desired camera on the monitor at sequence mode.
 2. Also the desired camera can be selected by pushing the Camera Selector Switch to observe the picture of the desired camera from Video Output Connector at STANDBY mode (no picture on the screen of the monitor).

4. Sequence Mode Operation :

Refer to the Operating Instructions of Panasonic Color Mini CCTV Systems-WV-CMS1A.

Note : The sequential switching features the automatic bypass circuit by detecting the presence of the DC power for the camera so that the input connector with no camera connection is automatically skipped.



The serial number of this product may be found on the bottom cover of the unit.

You should note the serial number of this unit in the space provided and retain this instruction as a permanent record of your purchase to aid identification in the event of theft.

Model No. WV-AD110A

Serial No. _____

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

Power Switch

This is a push type switch which turns the camera extension unit ON and OFF.

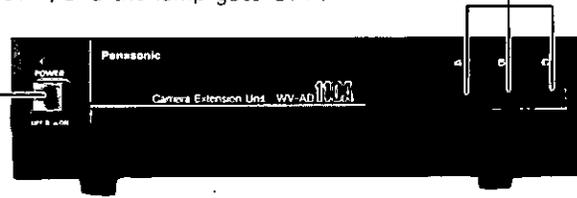
Push once and the switch remains down (▲) for turning the camera extension unit and cameras ON, and green lamp of camera selector switch lights.

Push again, the switch comes up (▲) for turning the camera extension unit and cameras OFF, and the lamp goes OFF.

Camera Selector Switch

This is a push-push type switch which selects the desired camera to observe and green lamp lights.

When this switch is pushed for ON, the sequence switch goes OFF if the sequence switch is ON.



Camera Input Connector

The BNC type connectors are used to accept the coaxial cables from the specified cameras.

These connectors supply DC power and vertical drive pulse to the cameras, and receive the video informations from the cameras.

- Note :**
- o Be sure to connect only the specified cameras.
 - o Connect the camera after making sure that the camera extension unit is OFF.

When the camera is connected during the camera extension unit is ON, the camera will not be functioned by activating the protection circuit for misconnection.

System Selector Switch

This switch is used to turn the camera number ON or OFF.

Set the switch to right position when WV-AD110A is connected to WV-AD110A or WV-CM110A, in other case, set the switch to left position.

Camera Extension Cable

This cable with 12 pin connector is used to connect with the video monitor WV-CM110A (or WV-CM110) or the other camera extension unit.

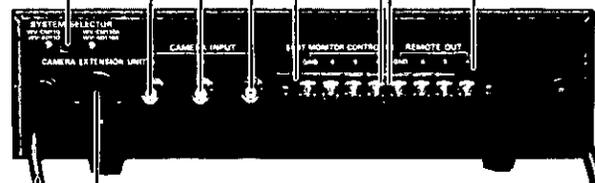
Spot Monitor Control In Connector

The terminals for the Spot Monitor Control In are used to connect the intercom or alarm sensors for the spot monitoring by short circuit of terminal 4, 5 or 6. If the terminal 4 is shorted by intercom or alarm sensors, the camera No. 4 is selected and its picture is observed as spot monitoring.

Note : The voltage of short circuit for the terminal should be 0-0.2 volt when the intercom or alarm sensor is activated.

Remote Out Connector

The terminals for the Remote Out are used to connect the Spot Monitor Control In for the spot monitoring by short circuit of terminal 1, 2 or 3.



Camera Extension Input Connector

This 12 pin connector is used to connect with the other camera extension unit.



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.



SA 1965



SA 1966

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.

CONNECTIONS

Cautions : 1. Keep the Power Switch of the monitor, optional Camera Extension Unit and optional Remote Control Unit in the OFF position during connection.

If the power of these units are ON during connection for the camera, the camera will not function due to the protection circuit for the connection of wrong camera.

2. Connect only the specified cameras WV-CD110A (or WV-CM110).

If other camera is connected, the Color Mini camera system will not operated due to the protection circuit for misconnection.

(WV-71 and WV-73 can be connected.)

3. Connect the cameras in sequential number as 1, 2 and 3.

Note : When the optional Camera Extension Unit is used, connect the cameras in sequential number as 4, 5 and 6.

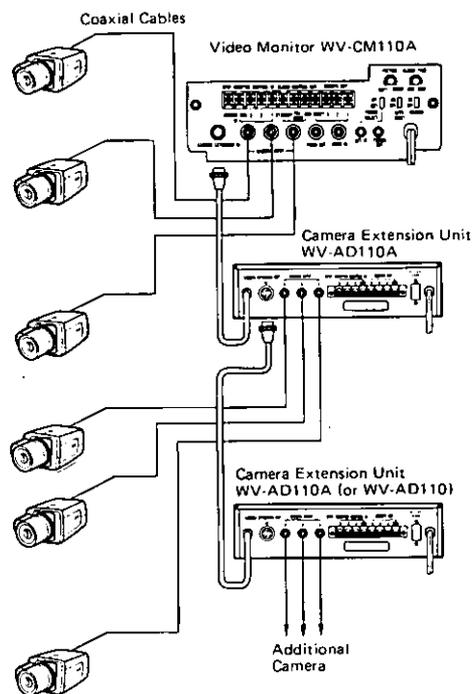
■ BASIC SYSTEM

o Connect the single coaxial cables between the cameras and monitor/camera extension unit. The approx. maximum cable length is as;

Coaxial Cable Type	Maximum Cable Length	DC R/1000 ft. of Inner Conductor
RG-59/U	660 ft. (200 m)	Less than 30 ohms
RG-6/U	1650 ft. (500 m)	Less than 12 ohms

The maximum extensible cable length is 20 ohms between the camera and monitor.

● Connection Diagram



o Connect the camera extension cable from the camera extension unit at the Camera Extension Input Connector on the monitor.

Note : 1. The cameras can be extended up to 6 units by using one Camera Extension Unit. The Camera Extension Unit can be connected unlimitedly.

2. When the system combines two or more camera extension unit WV-AD110A and WV-AD110, in this case WV-AD110A should be connected to the video monitor WV-CM110A and WV-AD110 should be connected to WV-AD110A. Otherwise camera number may not be displayed on the monitor

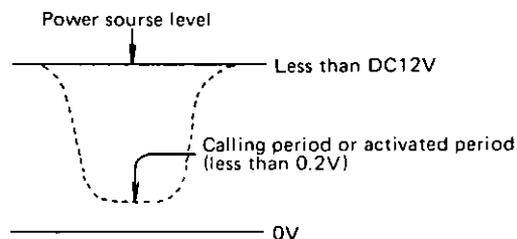
Cautions for Intercomes and Alarm Sensors/Switches

o The wiring for intercom system and alarm sensor/switches should be two wires.

o The power source for intercom system and alarm sensors/switch should be less than DC 12V.

Do not use the intercom system and alarm sensor/switch of AC power source.

o When the intercom or alarm sensor/switch is activated, the line voltage for intercom or alarm sensor/switch should be DC 0 - 0.2V.



There is a limitation for the wiring length among the intercom system, alarm sensors system, optional units and video monitor.

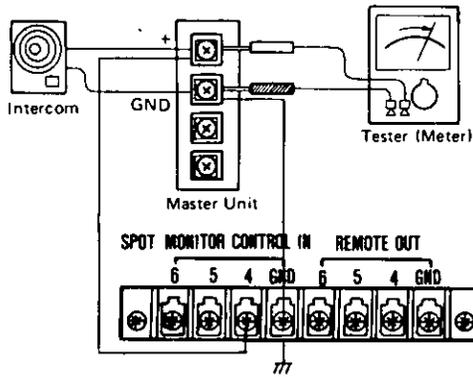
For example, the wiring length for intercom system is as follows;

Wires (mm/Q'ty)	Equivalent		Maximum Wiring length
	AWG	SWG	
0.18/12	22	23	490ft (150m)
0.18/20	20	21	820ft (250m)
0.18/30	18	19	1315ft (400m)
0.18/50	16	17	1970ft (600m)

AWG : American Wire Gauge

SWG : British Legal Standard Wire Gauge

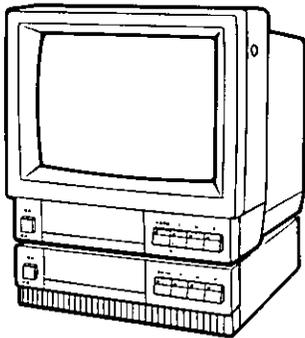
- o The polarity for the intercom system and the Spot Monitor Control In the Camera Extension Unit should be matched. Make sure the polarity of the intercom system by tester (meter).



- o The power rate of the alarm should be DC 24V, max. 100mA.
- o If the power capacity of the remote is less than 100mA at DC 24V, the remote load can be connected at the terminal of Remote directly.
- o If the power capacity of the alarm is more than 100mA at DC 24V, the remote load can not be connected at terminal directly. In this case, the relay circuit should be used for the remote load.

STACKING POSITION

The video monitor WV-CM110A (or WV-CM110) can be stacked on the Camera Extension Unit WV-AD110A (or WV-AD110) as shown in the diagram.



CAMERA NUMBER LABEL

The attached camera number label can be put onto the camera number of the front panel when the camera number should be changed to 7, 8 and 9 from 4, 5 and 6.

SPECIFICATIONS/Camera Extension Unit WV-AD110A

Power Supply :	AC 120V 60Hz
Power Consumption :	Approx. 33W
Camera Input :	1.0Vp-p/75ohms, composite x 3 (BNC)
Power Supply for Camera :	Regulated current multiplex method
Camera Switching :	Manual/Auto(Sequence) with auto bypass
External Control	
Connection Terminal :	SPOT MONITOR CONTROL IN x 3 REMOTE OUT x 3
Camera Extension Cable :	Cable with 12 pin connector (Pig tail)
Ambient Operating Temperature :	14°F – 122°F (–10°C – +50°C)
Dimensions:	10-1/4"(W) x 3"(H) x 12-3/4"(D) [260(W) x 76.5(H) x 324(D) mm]
Weight :	6.2 lbs (2.8 kg)

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