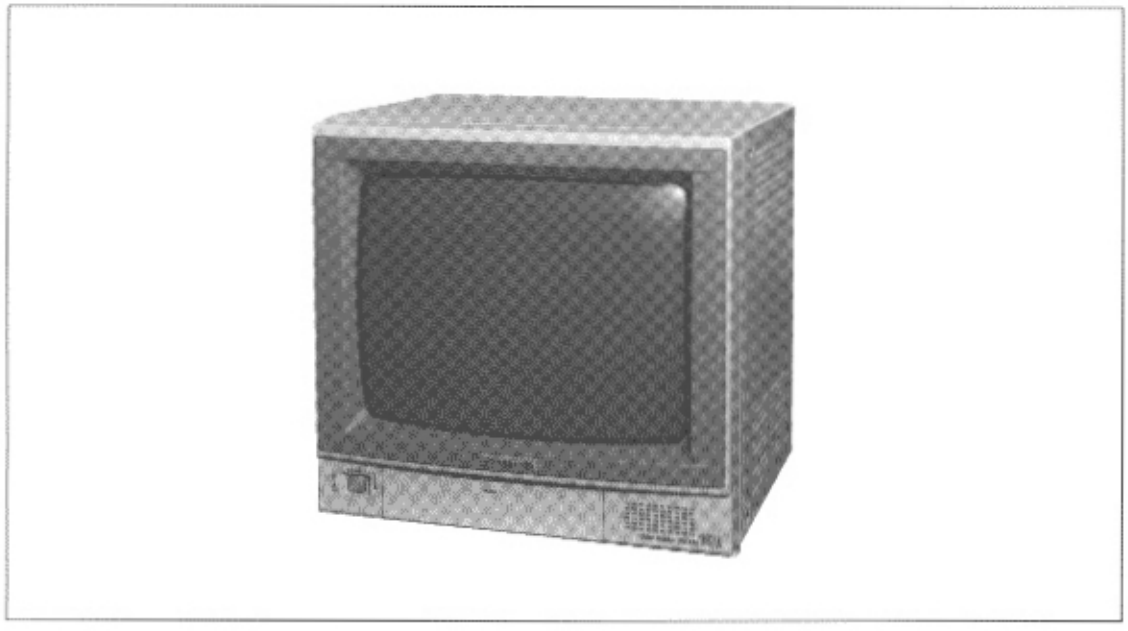
Operating Instructions

Color Monitor

WV-CM1470



Panasonic

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

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SA 1965

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.

SA 1966

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.

The serial number of this product may be found on the rear 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. _____

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

PREFACE

The Panasonic WV-CM1470 Color Monitor is a high resolution S-VIDEO to ensure high-defining picture quality for monitoring camera picture.
All controls except for power are coverd with a push door to give a sleek appearnce on the front. The master controls of tint, color, brightness and contrast are provided with sub controls to permit adjustment of present levels.

Standard BNC and S-video input and output connectors enabled WV-CM1470 to be used with other CCTV monitors or Panasonic video tape recorder.

FEATURES

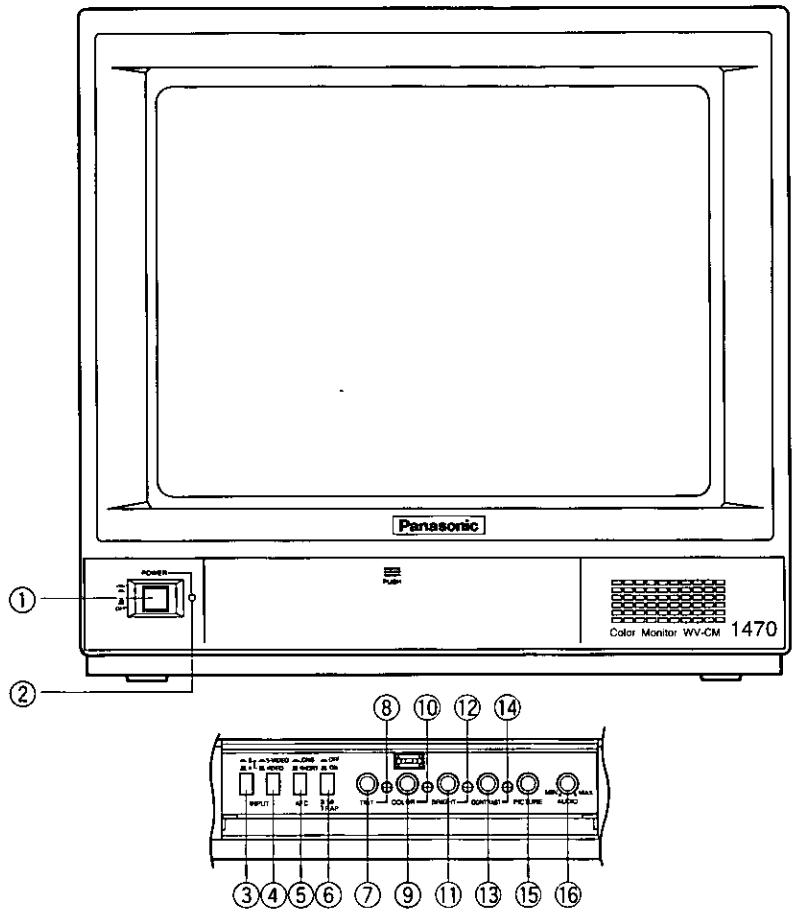
- Approx. 14" diagonal actual size
- Switchable of AFC time constant
- Looping through BNC connectors for video input and output
- Looping through S-VIDEO connectors for S-video input and output
- Looping through RCA pin jack for audio input and output
- 3.58 MHz trap on/off is available
- Max. 0.7W for speaker output
- Rack-mountable by using the optional bracket WV-Q104

PRECAUTIONS

- **Do not block the ventilation slots.**
  Place the monitor at least 5 cm (2") apart from the wall.
- **Do not expose the monitor to water or moisture.**
  Turn the power off and ask a qualified service personnel for servicing. Moisture can damage the monitor and also create the danger of electric shock.
- **Do not drop metallic parts through slots. This action could permanently damage the monitor.**
  Turn the power off and ask a qualified service personnel for servicing.
- **Do not attempt to disassemble the monitor.**
  To prevent electric shock, do not remove screws or cover.
  There are no serviceable parts inside. Ask a qualified service personnel for servicing.
- **Do not operate the monitor beyond the specified temperature, hunidity or power source ratings.**
  Use the monitor under conditions where temperature is between −10°C - +50°C (14 °F - 122°F), and humidity is below 90%. The input power is 120V AC 60Hz.
- **Do not use the monitor in a car or other place where it may be exposed to severe vibration.**
  Severe vibration damage the monitor and cause the malfunction.
- **Do not stack two or more sets.**
  If more than two monitors are used, place them less than 15 cm apart. Otherwise, the monitors may produce noise on the display screen.

MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS

■ FRONT VIEW



① **Power Switch (POWER)**
This switch turns the power of the monitor on and off.
Press this switch once. The switch remains down (▂) for turning on the power of the monitor.
Press again. The switch comes up (▆) for turning off the power of the monitor.

② **Power Indicator**

③ **Input Signal Selection Switch (INPUT, A/B)**
This selector is used to select the desired channel to be monitored.
Press this switch once. The switch remains down (▂) to enable to monitor the picture from INPUT B (video signal/S-video signal and audio signal).
Press again. The switch comes up (▆) to enable to monitor the picture from INPUT A (video signal and audio signal).

④ **Input Signal for INPUT B Selection Switch (S-VIDEO/ VIDEO)**
This selector is used to select the video signal for INPUT B.
Press this switch once. The switch remains down (▂) for selecting S-video signal and audio signal.
Press again. The switch comes up (▆) for selecting video signal and audio signal.

⑤ **AFC Time Selection Switch (AFC, LONG/SHORT)**
This switch is used to select the AFC time.
Select LONG when the video signal is jittery.
Select SHORT when video signal is standard and normal.
Press this switch once. The switch remains down (▂) for selecting LONG.
Press again. The switch comes up (▆) for selecting SHORT.

⑥ **3.58 MHz Trap Filter ON/OFF Switch (3.58 TRAP, ON/OFF)**
This switch is used to turn on or off the 3.58 Mhz trap filter function.
Select ON to turn on the 3.58 trap filter function when you want to decrease the cross color noise on the monitor screen.
Press this switch once. The switch remains down (▂) for turning off the 3.58 trap filter function.
Press again. The switch comes up (▆) for turning on the 3.58 trap filter function.

⑦ **Tint Control (TINT)**
Turn this control clockwise for purplish color of the picture.
Turn this control counterclockwise for greenish color of the picture.

⑧ **Tint Sub Control**

⑨ **Color Control (COLOR)**
Turn this control clockwise to strengthen the picture color.
Turn this control counterclockwise to weaken the picture color.

⑩ **Color Sub Control**

⑪ **Bright Control (BRIGHT)**
Turn this control clockwise to increase the picture brightness.
Turn this control counterclockwise to decrease the picture brightness.

⑫ **Bright Sub Control**

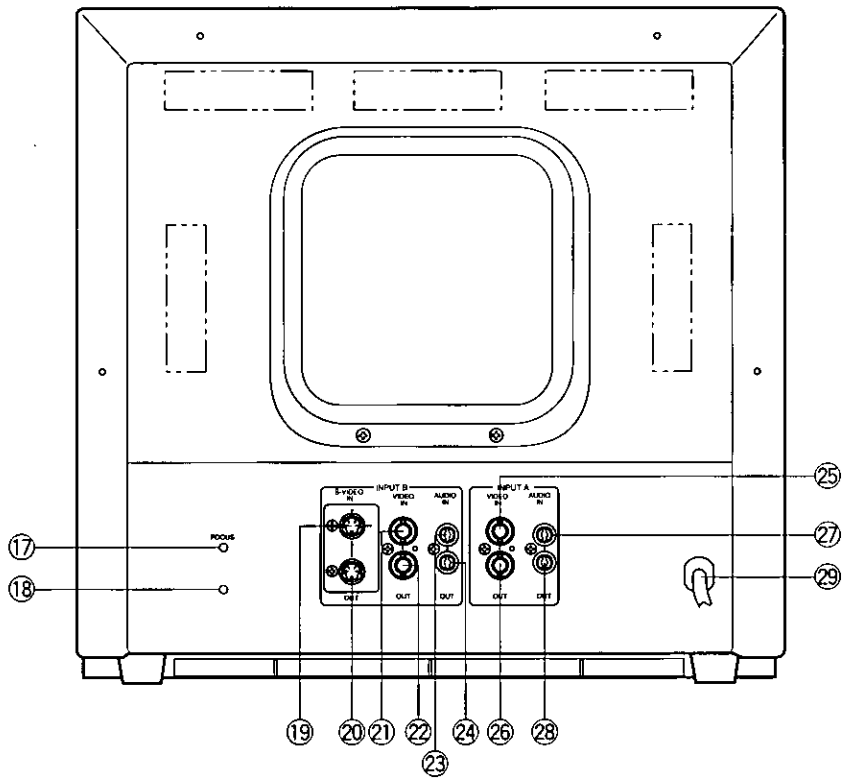
⑬ **Contrast Control (CONTRAST)**
Turn this control clockwise to increase the picture contrast.
Turn this control counterclockwise to decrease the picture contrast.

⑭ **Contrast Sub Control**

⑮ **Picture Adjustment (PICTURE)**
Turn this control clockwise for a sharp picture.
Turn this control counterclockwise for a soft picture.

⑯ **Audio Control (AUDIO, MIN/MAX)**
Turn this control clockwise to increase the audio level.
Turn this control counterclockwise to decrease the audio level.

■ REAR VIEW



⑰ **Focus Control (FOCUS)**
This control is preset at the factory.
Do not turn this control. When adjustment is required, ask a qualified service personnel for servicing.

⑱ **Screen Control (SCREEN)**
This control is preset at the factory.
Do not turn this control. When adjustment is required, ask a qualified service personnel for servicing.

⑲ **S-VIDEO Input Connector for INPUT B (INPUT B, S-VIDEO IN)**
This connector receives S-video signal from an external source such as VCR for monitoring.
Connect a coaxial cable between this connector and S-VIDEO OUT connector of external equipment.

⑳ **S-VIDEO Output Connector for INPUT B (INPUT B, S-VIDEO OUT)**
The S-video input signal received at the S-VIDEO IN connector is looped through to this connector.
Connect a coaxial cable between this connector and S-VIDEO IN connector of external equipment.

㉑ **Video Input Connector for INPUT B (INPUT B, VIDEO IN)**
This BNC connector receives video signal from an external source such as VCR for monitoring.
Connect a coaxial cable between this connector and VIDEO OUT connector of external equipment.

㉒ **Video Output Connector for INPUT B (INPUT B, VIDEO OUT)**
The video input signal received at the VIDEO IN connector is looped through to this connector.
Connect a coaxial cable between this connector and VIDEO IN connector of external equipment.

㉓ **Audio Input Connector for INPUT B (INPUT B, AUDIO IN)**
This RCA pin jack connector receives audio signal (–8 dB/Hi-z) from an external source, such as VCR, for monitoring sounds from the internal speaker.
Connect an RCA audio cable between this connector and AUDIO OUT connector of external equipment.

㉔ **Audio Output Connector for INPUT B (INPUT B, AUDIO OUT)**
The audio signal received at the VIDEO IN connector is looped through to this connector.
Connect an RCA pin jack audio cable between this connector and AUDIO IN connector of external equipment.

㉕ **Video Input Connector for INPUT A (INPUT A, VIDEO IN)**
This BNC connector receives video signal from an external source such as VCR for monitoring.
Connect a coaxial cable between this connector and VIDEO OUT connector of external equipment.

㉖ **Video Output Connector for INPUT A (INPUT A, VIDEO OUT)**
The video input signal received at the VIDEO IN connector is looped through to this connector.
Connect a coaxial cable between this connector and VIDEO IN connector of external equipment.

㉗ **Audio Input Connector for INPUT A (INPUT A, AUDIO IN)**
This pin jack connector receives audio signal (–8dB /Hi-z) from an external source, such as VCR, for monitoring sounds from the internal speaker.
Connect an RCA pim jack audio cable between this connector and AUDIO OUT connector of external equipment.

㉘ **Audio Output Connector for INPUT A (INPUT A, AUDIO OUT)**
The audio signal received at the VIDEO IN connector is looped through to this connector.
Connect an RCA pin jack audio cable between this connector and AUDIO IN connector of external equipment.

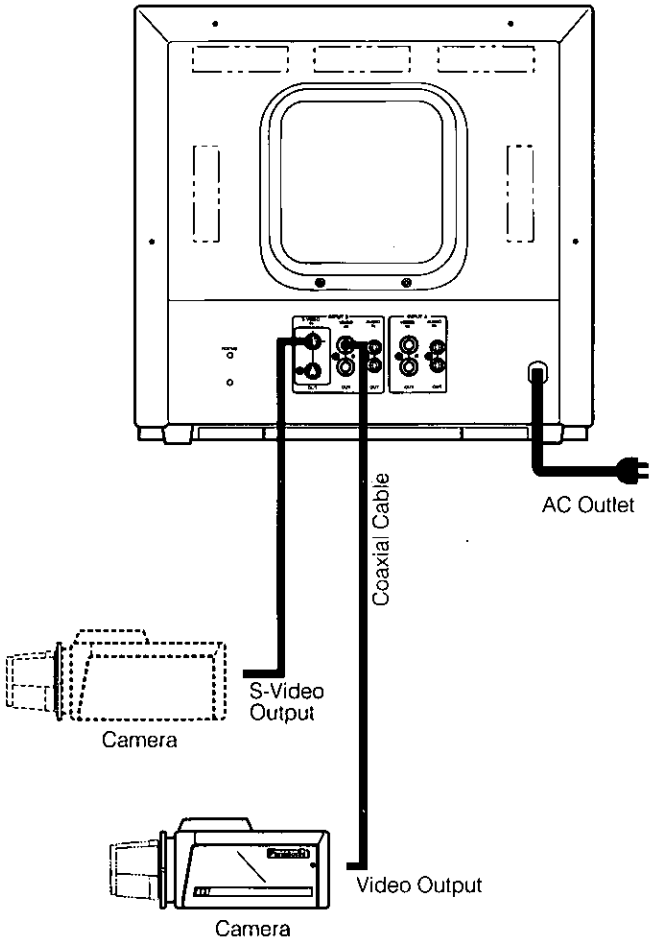
㉙ **Power Cord**
Caution: 120 V AC source only.

CONNECTIONS

Precautions:

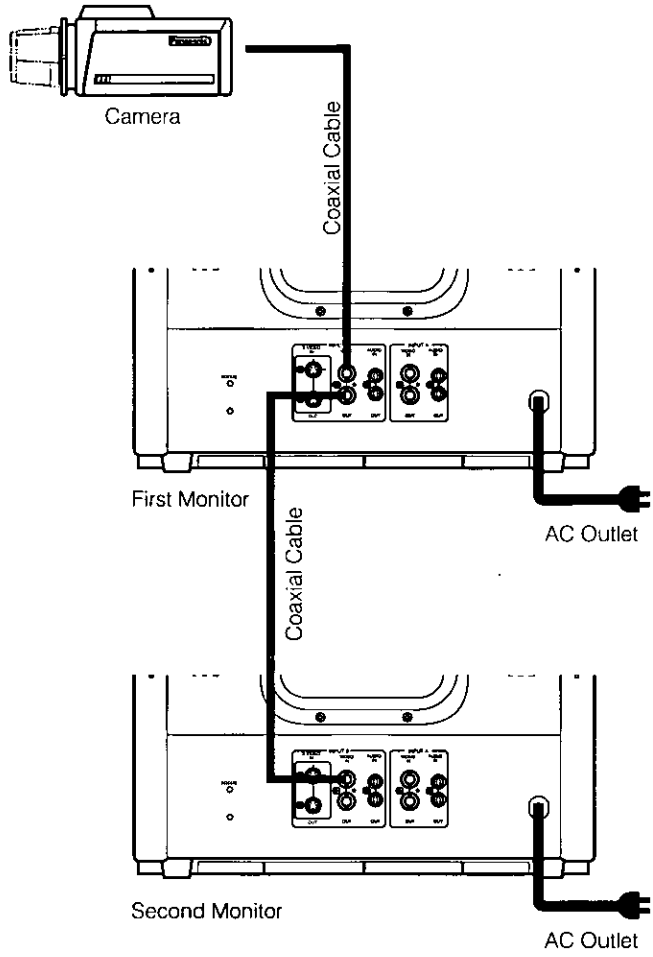
1. These connections should be made by qualified personnel or system installers.
2. Keep the power switches on the monitor and optional camera in the OFF position while connecting them.

Single Monitor Connection



- Connect a coaxial cable between the S-VIDEO OUT connector of the camera or VCR and the S-VIDEO IN connector of the monitor.
- Connect a coaxial cable between the VIDEO OUT connector of the camera or VCR and the VIDEO IN connector of the monitor.

Multiple Monitor Connection

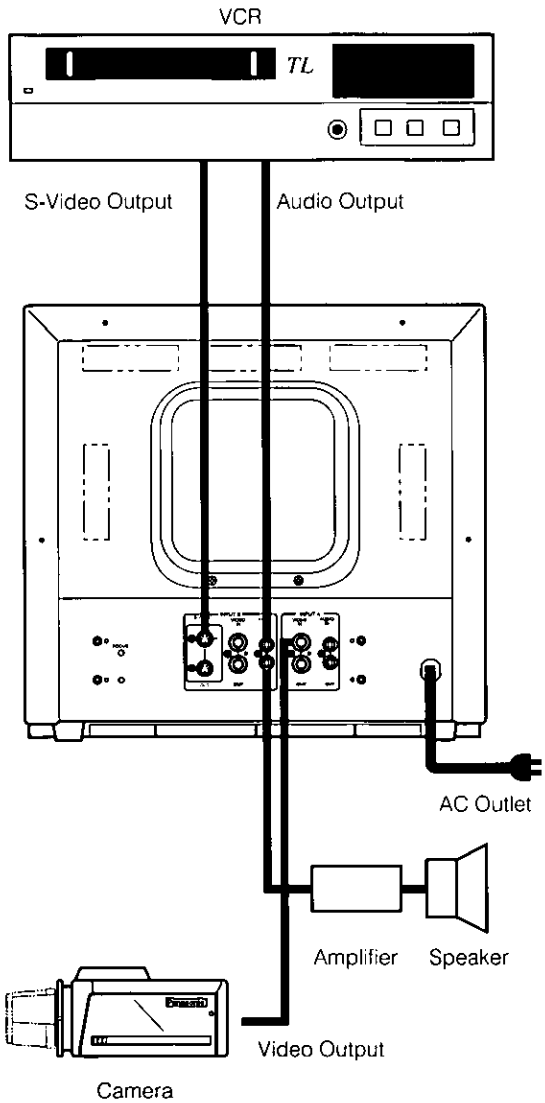


Cautions:

- Connect correctly and firmly. With wrong connection, the monitor does not work not properly.
- Do not connect more than 10 monitors regardless of the diameter of the cable.

1. Connect a coaxial cable between the S-VIDEO OUT or VIDEO OUT connector of the camera or VCR and the S-VIDEO IN or VIDEO IN connector of the first monitor.
2. Connect a coaxial cable between the S-VIDEO OUT or VIDEO OUT connector of the first monitor and the S-VIDEO IN or VIDEO IN connector of the second monitor, and continue until completing connections for all monitors.

■ Audio Circuit Signal



1. Connect a coaxial cable between the S-VIDEO OUT or VIDEO OUT connector of the camera or VCR and the S-VIDEO IN or VIDEO IN connetor of the monitor.
2. Connect a coaxial cable between the AUDIO OUT connector of the camera or VCR and the AUDIO IN connector of the monitor.
3. Connect a coaxial cable between the AUDIO IN connector of the audio amplifier and the AUDIO OUT connector of the monitor.

■ Cable Information

Power Cable

1. Keep the power switch in the OFF position during installation.
2. Connect the power cord to a grounded electrical outlet.

Video Cable

Follow these cautions to prevent from changing the impedance of the cable and causing poor picture quality.

1. Use 75Ω coaxial cable RG-59/U (3C-2V), RG-6/U (5C-2V), RG-14/U (7C-2V), or RG-15/U (10C-2V).
   Cable lengh between camera and monitor are shown below.

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

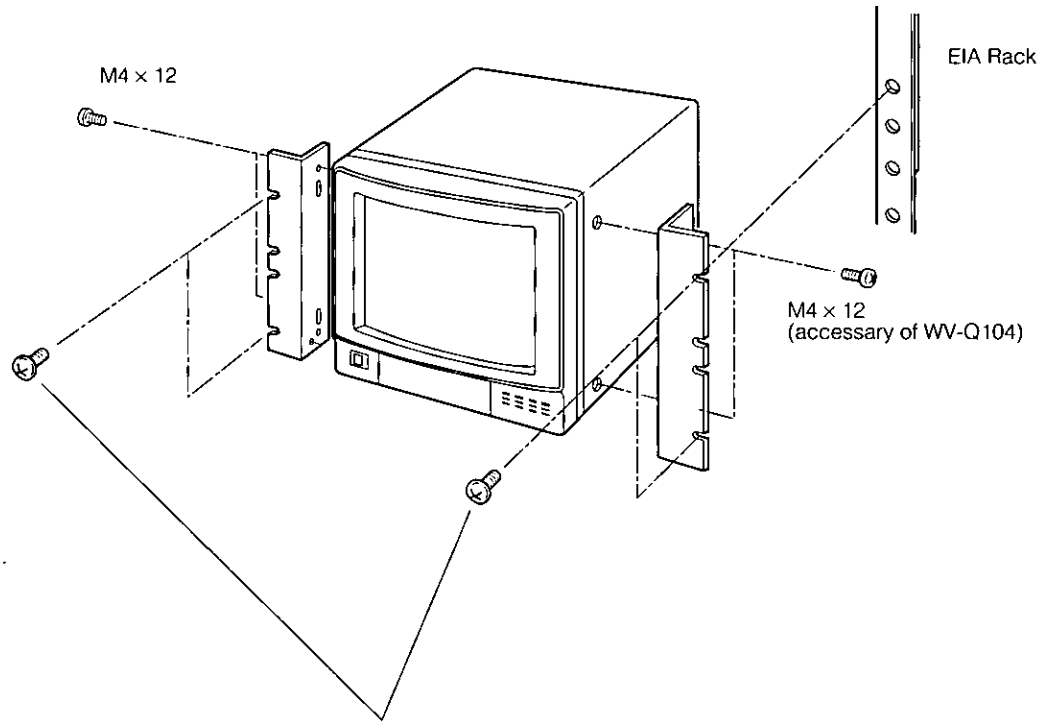
2. Up to 10 monitors can be hooked up in this configuration before signal loss occurs. Total cable length should not exceeded 150m.
3. Wiring Precautions:

- Do not bend coaxial cable into a curve whose radius is smaller than 10 times of its diameter.
- Never crush or pinch the cable.

RACK MOUNTING

To install WV-CM1470 Color Monitor in an EIA rack, use the rack mounting brackets WV-Q104 (optional) with rack mounting screws.

1. Turn off the power of the monitor.
2. Remove the four screws from the both side panels of the monitor.
3. Attach the optional rack mounting brackets WV-Q104 to both sides of the monitor and fix them with screws (M4 x 12) which are accessories of optional mounting brackets WV-Q104.



Cautions:

- Leave one space free both above and below the monitor, or install a cooling fan in the rack.
- If the rack is subject to vibrations, secure the rear of the unit to the rack using additional rack mounting brackets (to be obtained locally).

SPECIFICATIONS

Power Source :	120 V AC 60 Hz
Power Consumption :	Approx. 70 W
CRT Size :	36.8 cm (14" diagonal)
Actual Visual Size :	33.5 cm (13" diagonal)
Video Input :	1.0 V[p-p]/75 Ω, composite x 2 (BNC)
Video Output :	Loopthrough x 2 (BNC)
S-Video Input :	Y: 1.0 V[p-p]/75 Ω C: 0.286 V[p-p]/75 Ω x 1 (Mini DIN 4-pin connector)
S-Video Output :	Loopthrough x 1 (Mini DIN 4-pin connector)
Resolution :	More than 700 lines at center
Sweep Linearity :	Horizontal: 5 % or less
	Vertical: 5 % or less
Sweep Geometry :	2 % or less
Scanning Size :	Approx. 6 % (Overscanning)
Scanning Frequency :	Horizontal: 15.734 kHz
	Vertical: 59.94 Hz
Audio Input :	–8 dB/Hi-z x 2 (RCA pin-jack)
Audio Output :	Loopthrough x 2 (RCA pin-jack)
Speaker Output :	0.7 W
Ambient Operating Temperature :	–10 °C - +50 °C (14 °F - +122 °F)
Dimension :	370 (W) x 354 (H) x 380 (D) mm [14-9/16"(W) x 13-15/16"(H) x 14-15/16"(D)]
Weight :	Approx. 13 kg (28.6 lbs.)

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

Panasonic

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