

Operating Instructions

Video Monitor
WV-BM1410



Panasonic®

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

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	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
<p>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.</p>		



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.

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. WV-BM1410

Serial No. _____

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

PREFACE

The Panasonic WV-BM1410 Video Monitor is a desk-top closed circuit Video Monitor especially designed for surveillance and studio applications. Rack mounting is also available with an optional rack mount adapter.

This monitor features a 322 mm (12-11/16") actual diagonal viewing size screen and produces sharp, black-and-white pictures with a horizontal resolution of 1000 lines at center.

The WV-BM1410 can be used with other CCTV monitors or Panasonic Video Cassette Recorders.

FEATURES

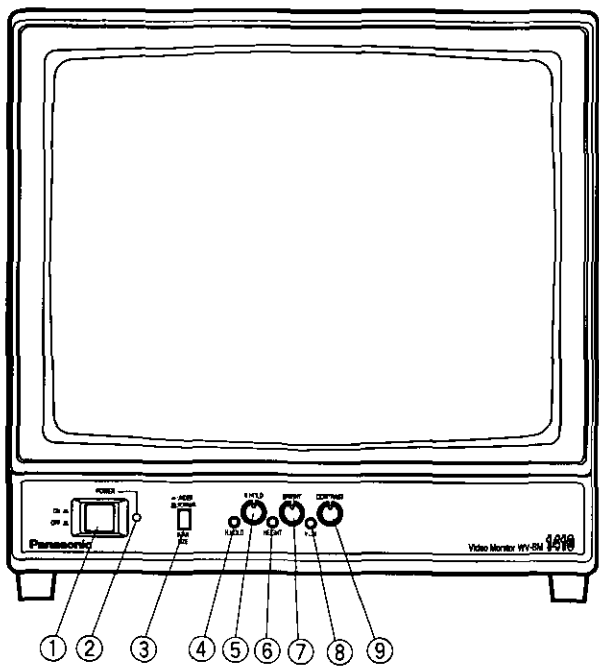
- 322 mm (12-11/16") actual diagonal viewing size.
- Horizontal resolution is 1000 lines at center of screen.
- Under or normal scan size (switchable).
- Rack mounting with optional rack mount adapter.

PRECAUTIONS

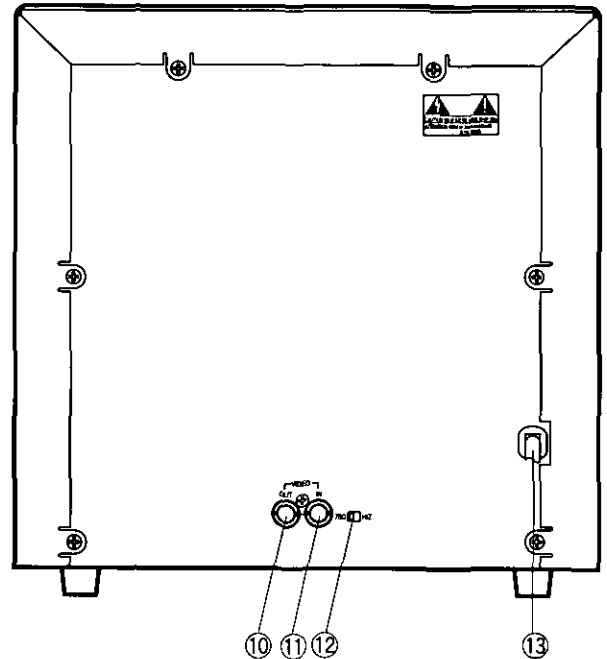
- Do not block the ventilation slots.
- Place the video monitor at least 5 cm (2 inches) away from the wall.
- Do not expose the monitor to water or moisture.
- Do not operate the monitor if it becomes wet. Turn the power off immediately and ask a qualified service person for servicing. Moisture can damage the monitor and also create the danger of electric shock.
- Do not drop metallic parts through the ventilation slots. This action could permanently damage the monitor. If metallic parts should fall through the ventilation slots, turn the power off immediately and ask a qualified service person for servicing.
- Do not attempt to disassemble this monitor. To prevent electric shock, do not remove screws or covers. There are no user serviceable parts inside. Ask a qualified service person for servicing.
- Do not operate the monitor under extreme ambient conditions beyond the specified temperature, humidity, and power source ratings. Use the monitor under conditions where temperature is between -10°C to $+50^{\circ}\text{C}$ (14°F to 122°F .) and humidity is below 90%. When mounting the monitor in an EIA standard 19" rack, the interior temperature of the rack is not above $+50^{\circ}\text{C}$ (122°F .) The input power source is 120V AC 60 Hz.





MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS

<FRONT VIEW>



<REAR VIEW>



- 1. Power On/Off Switch (POWER ON/OFF)**
 This switch turns the power of the monitor on and off.
 Press this switch once to turn (switch down ) the power of the monitor on.
 Press again (switch up ) for turn the power of the monitor off.
- 2. Power Indicator**
 This indicator lights to indicate that the power is on.
- 3. Scan Size Selection Switch (SCAN SIZE, UNDER/NORMAL)**
 This switch is used for selecting the scan size.
 Press once (switch down ) to select the Under Scan mode.
 Press again (switch up ) to select the Normal Scan mode.
- 4. Horizontal Hold Control (H. HOLD)**
 This control is used to lock the horizontal position of the picture.

- 5. Vertical Hold Control (V. HOLD)**
 This control is used to lock the vertical position of the picture.
- 6. Height Control (HEIGHT)**
 This control is used to adjust the height of the picture.
- 7. Bright Control (BRIGHT)**
 Turn this control clockwise to increase the picture brightness.
 Turn this control counterclockwise to decrease the picture brightness.
- 8. Vertical Linearity Control (V. LIN)**
 This control is used to correct the vertical nonlinearities in the picture.
- 9. Contrast Control (CONTRAST)**
 Turn this control clockwise to increase the picture contrast.
 Turn this control counterclockwise to decrease the picture contrast.

10. Video Output Connector (VIDEO OUT)

This BNC type connector is used to provide the video output signal of the source to an additional monitor or video cassette recorder.

11. Video Input Connector (VIDEO IN)

This BNC type connector is used for receiving the video signal from a source to be monitored, such as a VCR.

12. Video Termination Switch (75 Ω /HiZ)

Set this switch to the 75 Ω position for a single monitor connection.

For a multiple monitor connection, set this switch to the 75 Ω position on the last monitor in the series, and to the HiZ position for the other monitors.

13. Power Cord

CONNECTIONS

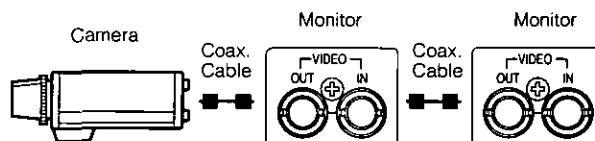
Power Cord

1. Keep the Power ON/OFF switch of the camera in the OFF position during installation.
2. Connect the Power Cord to a grounded electrical outlet.

Video Cable

Use a 75 Ω coaxial cable (RG-59, RG-59A/U, RG-59B/U, RG-59/U, RG-6/U, or RG-11/U).

1. Up to 10 monitors can be hooked up in this configuration before signal loss occurs. Total cable length should not be longer than 150 meters (500 feet).



2. Wiring Precautions :

Do not bend the coaxial cable into a curve whose radius is smaller than 10 times its diameter.

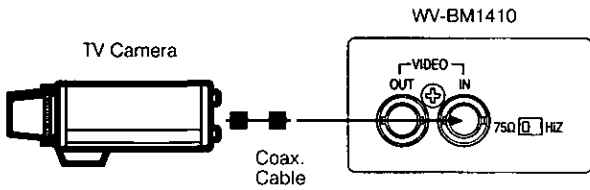
Never staple coaxial cables, not even with circular staples.

Never crush or pinch the cable.

All of the above will change the impedance of the cable and cause poor picture quality.

SYSTEM CONNECTIONS

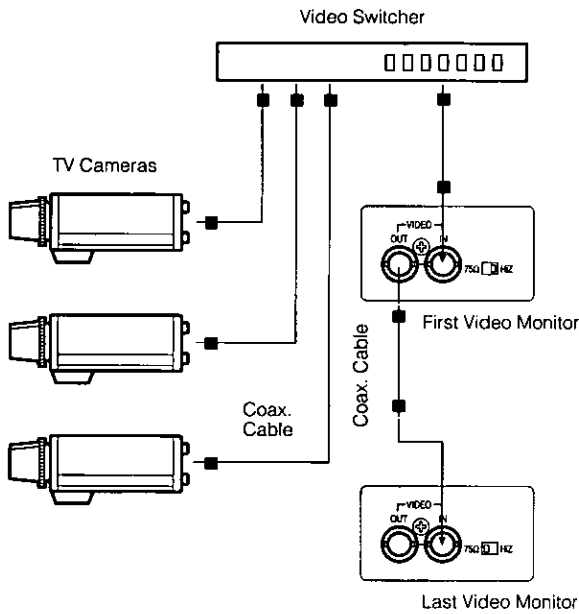
1. Single Monitor Connection



- Connect the Video Input Connector (VIDEO IN) on this monitor to the Video Output Connector of the video source with a coaxial cable.
- Set the Video Termination Switch to the 75 Ω position.

- Connect the Video Input Connector (VIDEO IN) on this monitor to the Video Output Connector of the video source with a coaxial cable.
- Connect the Video Output Connector (VIDEO OUT) on this monitor to the Video Input Connector (VIDEO IN) on the second monitor with a coaxial cable.
- Complete the connections of all monitors in the system according to the above procedure.
- Set the Video Termination Switch to the 75 Ω position on the last monitor and to the HiZ position on the other monitors.

2. Multiple Monitor Connection

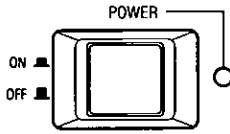


ADJUSTMENT

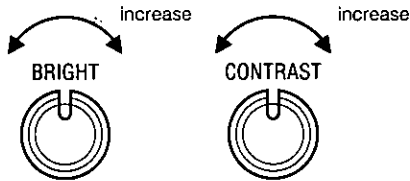
Preparations:

Make sure that all required connections in the system are completed.

Turn on the power of this monitor by pressing the Power On/Off Switch on the front panel.



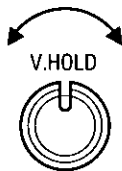
1. Adjust the brightness by the Bright Control (BRIGHT) and the Contrast Control (CONTRAST) so that the overall brightness is appropriate and grey tones are resolved.



2. If the picture slips to either side, or a series of horizontal lines appear, adjust the Horizontal Hold Control (H.HOLD) until the picture is stabilized.



3. If the picture rolls up or down, adjust the Vertical Hold Control (V.HOLD) until the picture is stabilized.




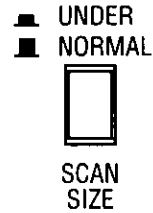
4. The sub controls, HEIGHT and V. LINEARITY, should be adjusted at the same time to give proper vertical height consistent with good vertical linearity. Extending the picture height approximately 6 mm (1/4") beyond the top and bottom edges of the CRT mask is recommended.



OPERATION

Under Scanning

Press the Scan Size Selection Switch (SCAN SIZE) once (switch down ) to set the UNDER position.



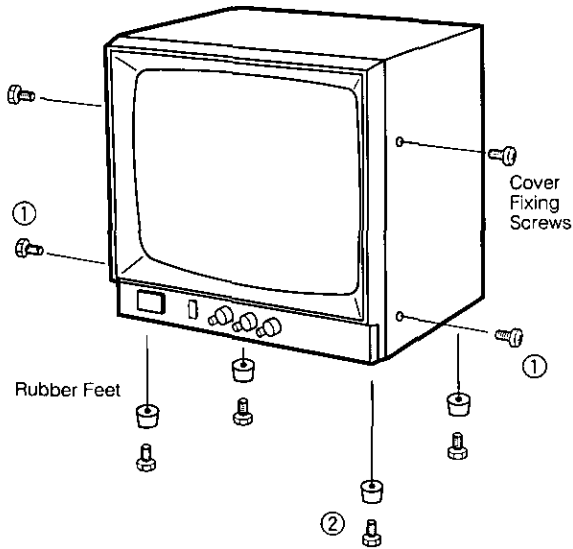
Press again (switch up ) to NORMAL position.

INSTALLATION

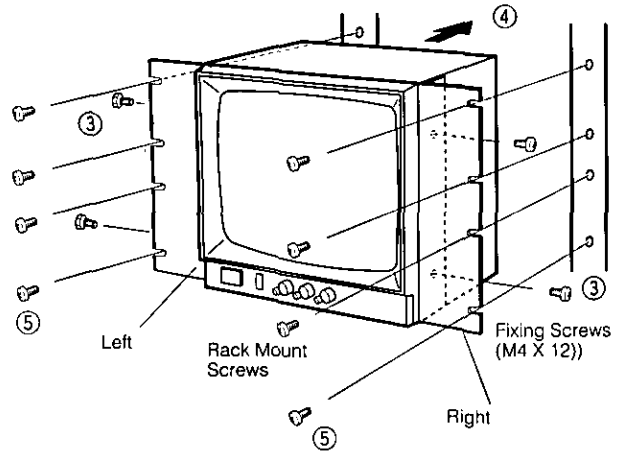
Mounting into EIA Standard 19" Rack

Note: Rack mounting requires the purchase of an optional WV-Q21W Rack Mount Adapter.

- ① Remove the four Cover Fixing Screws.
- ② Remove the four Rubber Feet.



- ③ Align the Rack Mount Adapter to the four holes on the monitor, and attach with screws provided with the Adapter.
- ④ Mount into EIA Standard 19" Rack.
- ⑤ Attach the monitor to the rack with rack mount screws (not provided).



Caution :

If a fan is used to keep the temperature in the rack below 50°C (122°F), it should be installed away from the monitor to avoid picture disturbance.

SPECIFICATIONS

Power Source :	120V AC, 60 Hz
Power Consumption :	Approx. 32 W
Video Input :	1.0 V[p-p] EIA composite/75 Ω
Horizontal Resolution :	1000 TV lines at center
Sweep Linearity :	Less than 5% at overscan
Sweep Geometry :	Less than 2% at overscan
Overscanning :	Approx. 6%
Scanning Size :	Normal or underscan switchable
Tube Size :	322 mm (12-11/16") diagonal actual visual size 347 mm (13 - 11/16") diagonal tube screen size
Ambient Operating Temperature :	-10°C - 50°C (14°F - 122°F)
Ambient Operating Humidity :	Less than 90%
Dimensions :	320(W) X 325.5(H) X 328(D) mm 12-5/8"(W) X 12-13/16"(H) X 12-15/16"(D)
Weight :	10 kg (22 lbs)

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

OPTIONAL ACCESSORY

Rack Mount Adapter WV-Q21W

Panasonic

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