

Operating Instructions

Video Monitor
WV-BM1400



Panasonic®

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

PREFACE

The Panasonic WV-BM1400 Video Monitor is a desk-top closed circuit Video Monitor especially designed for surveillance and studio applications. It can also rack mounted with optional rack angle brackets.

This monitor features a 12-11/16" actual diagonal viewing size screen and produces sharp, black-and-white pictures with horizontal resolution of 1000 lines at center. The picture tube has rimband implosion protection.

Front-mounted controls permits fast picture adjustment. Standard BNC-type input and output connectors are provided. The WV-BM1400 can be used with other CCTV monitors or Panasonic Video Tape Recorders.

FEATURES

- 12-11/16" actual diagonal viewing size
- Horizontal resolution is 1000 lines at center of screen
- DC restoration ON/OFF (switchable)
- Under or normal scan size (switchable)
- Short H. AFC time constant for VTR playback
- Loop-through BNC Connectors for video and sync input and output
- Internal or external sync (switchable)
- Rackmountable with optional rack angle bracket

PRECAUTIONS

- Do not block the ventilation slots.
- Do place the video monitor at least 2 inches(5cm) away from the wall.
- Do not expose the monitor to water or moisture.
- Do not operate the monitor if it becomes wet.
- Do take immediate action if the monitor becomes wet. Turn the power off and refer servicing to qualified service personnel. Moisture can damage the monitor and can 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, immediately turn the power off and refer servicing to qualified service personnel.
- Do not attempt to disassemble this monitor. To prevent electric shock, do not remove screws or cover. There are no user serviceable parts inside. Refer servicing to qualified service personnel.
- Do not use the monitor beyond its temperature, humidity or power source ratings.
 - (a) Ambient temperature must not range beyond 14°F-122°F (-10°C - +50°C).
 - (b) Avoid using the monitor when the humidity is above 90%
 - (c) The input power must be 100-240V AC 50/60Hz. When mounting this unit in an EIA standard 19" rack, be careful to insure that the interior temperature of the rack does not exceed 122°F (+50°C)

CAUTION :

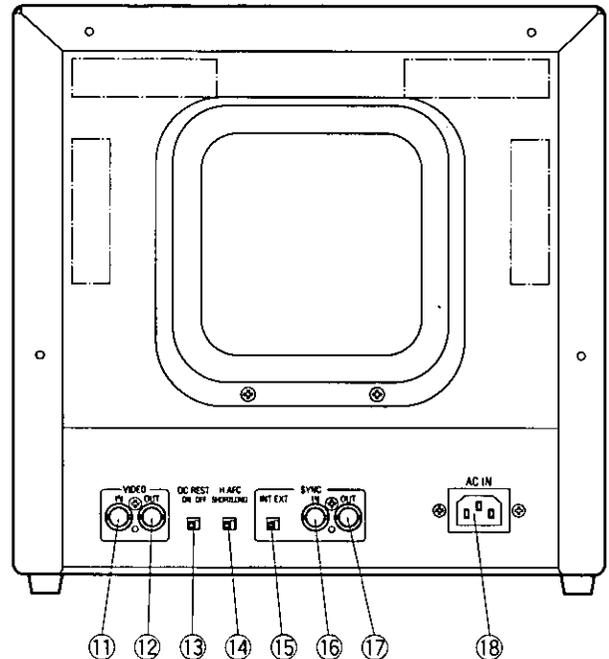
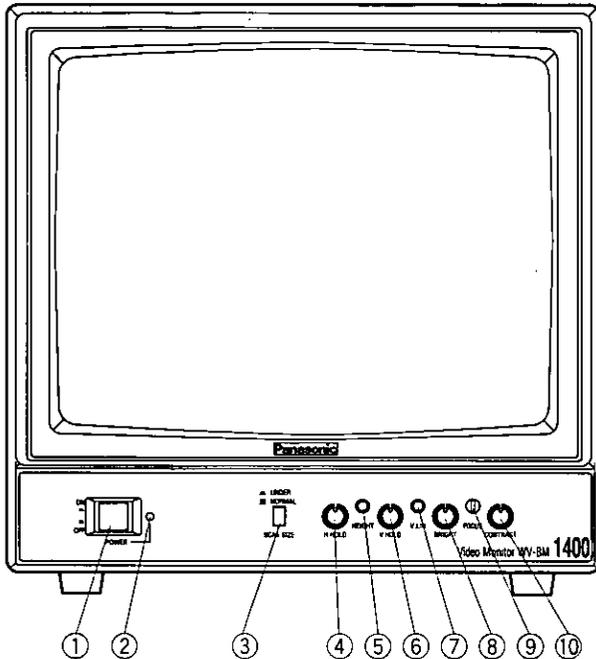
The supplied power cord is designed for use in 100 - 120V AC.

When operating this unit with other than 120V AC, replace this power cord with one approved by local safety regulations.

MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS

<FRONT VIEW>

<REAR VIEW>



1. Power On/Off Switch (POWER ON/OFF)

This is a push-push type switch which turns the power of the monitor on and off.

Press once and the switch remains down for turning on the power of monitor.

Press again, the switch comes up for turning off the power of the monitor.

2. Power Indicator

This indicator lights to indicate that the Power Switch (1) is turned on.

3. Scan Size Selection Switch (SCAN SIZE, UNDER/ NORMAL)

This is a push-push type switch which selects the scan size.

Press once and the switch remains down for selecting the Under Scan mode.

4. Horizontal Hold Control (H. HOLD)

This control is used to lock the picture in horizontally.

5. Height Control (HEIGHT)

This control is used to adjust the height of picture.

6. Vertical Hold Control (V. HOLD)

This control is used to lock the picture in vertically.

7. Vertical Linearity Control (V. LIN)

This control is used to correct for vertical nonlinearities in the picture.

8. Bright Control (BRIGHT)

Turn this control clockwise to increase the picture brightness.

9. Focus Control (FOCUS)

This control is used to adjust for best focus of the picture.

10. Contrast Control (CONTRAST)

Turn this control clockwise to increase the picture.

11. Video Input Connector (VIDEO IN)

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

12. 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 tape recorder.

13. DC Restoration Switch (DC RESET, ON/OFF)

This switch is used to restore or stabilize the dark areas of the picture.

14. H. AFC Selection Switch (H. AFC SHORT)

Select the SHORT position for VTR playback. Select the LONG position to monitor source timing instabilities.

15. Internal/External Selection Switch (SYNC, INT/EXT)

EXT : Set the switch to this position when a non-composite video signal is supplied to the Video Input Connector and a separate sync signal is supplied to the Sync Input Connector.

INT : Set the switch to this position when a composite video signal is supplied to the Video Input Connector.

16. Sync Input Connector(SYNC IN)

17. Sync Output Connector(SYNC OUT)

18. AC Inlet (AC IN)

Connect the Power Cord (provided) here.

CAUTION :

The Power Cord(provided) is designed for use with 100-120V AC.

When operating this unit with other than 120V AC, replace the power cord with one approved by local safety regulations.

CONNECTIONS

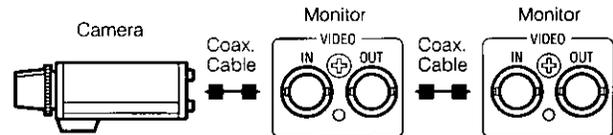
Power Cable

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-ohm 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 exceed 500 feet.



2. Wiring Precautions :

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

Never staple coaxial cable - not even with circular staples.

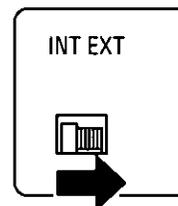
Never crush or pinch the cable.

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

External Sync

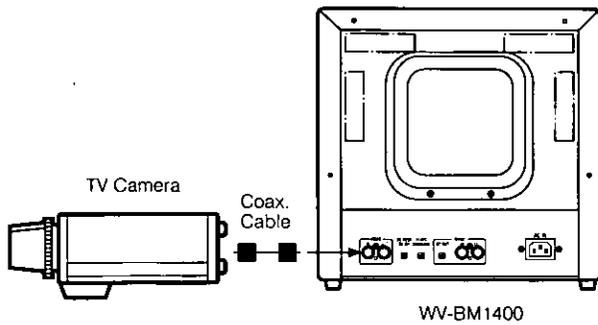
When a non-composite video signal is connected to this monitor, it will be necessary to connect an external composite sync signal to the monitor.

1. Supply the sync signal source to the Sync Input Connector on this monitor by using a coaxial cable.
2. Set the Internal/External Selection Switch(15) to the EXT position.



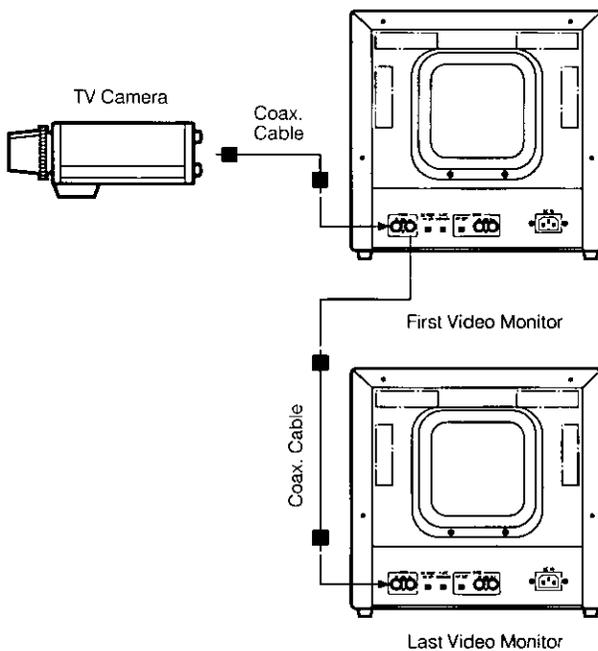
SYSTEM CONNECTIONS

1. Single Monitor Connection



- Connect the Video Input Connector(11) on this monitor to the Video Output Connector of the video source with a coaxial cable.

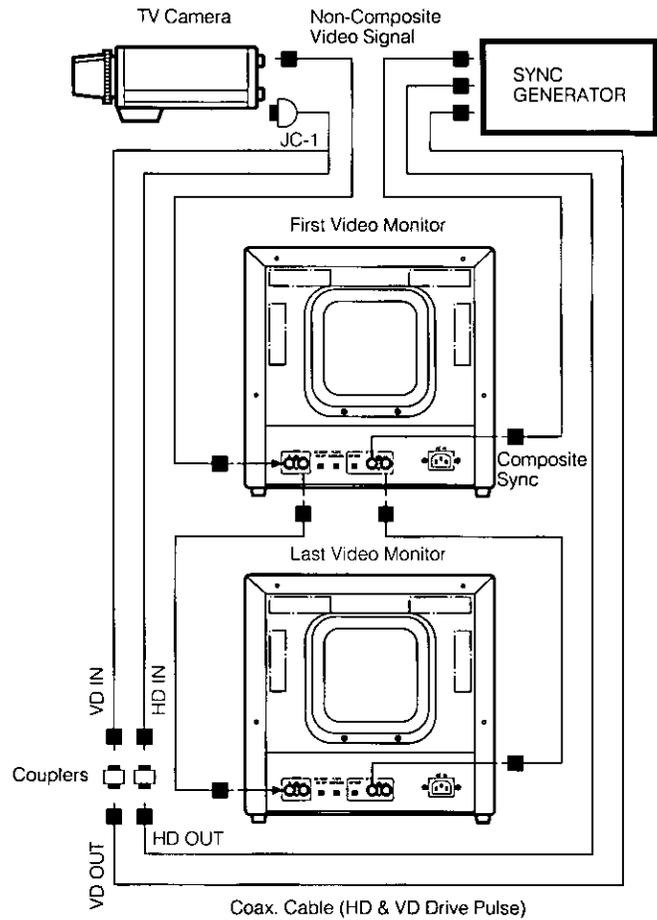
2. Multiple Monitor Connection



- Connect the Video Input Connector (11) on this monitor to the Video Output Connector of the video source with a coaxial cable.
- Connect the Video Output Connector (12) on this monitor to the Video Input Connector (11) on the second monitor with a coaxial cable.
- Complete the connections of all monitors in the system according to the above procedure.

3. External Sync Connection

When a non-composite video signal is supplied to the monitor, an external composite sync signal must also be supplied to the monitor.



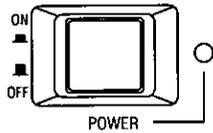
- Connect the Video Input Connector (11) on the monitor to the Video Output Connector of the video source with a coaxial cable.
- Connect the Video Output Connector (12) on the first monitor to the Video Input Connector (11) on the second monitor with a coaxial cable.
- Complete the connections of all monitors in the system according to the above procedure.
- Set the Internal/External Selection Switch (15) to the EXT position. Supply the sync signal source to the Sync Input Connector (16) on the first monitor with a coaxial cable.
- Connect the Sync Output Connector (17) on the first monitor to the Sync Input Connector (16) on the second monitor with a coaxial cable.
- Complete the connections of all monitors according to the above procedure.

ADJUSTMENT

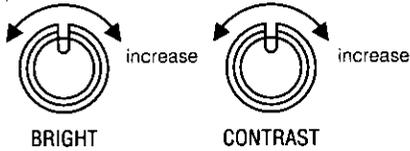
Preparations:

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(1) on the front panel.



1. Adjust the Bright Control (8) and Contrast Control (10) so that the overall brightness is appropriate and gray tones are resolved.



2. If the picture slips to either side, or appears as a series of horizontal strips, adjust the Horizontal Hold Control (4) until a stable picture is obtained.



3. If the picture rolls up or down, adjust the Vertical Hold Control (6).

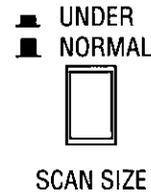


4. The recessed screwdriver controls, HEIGHT and V. LINEARITY, should be adjusted simultaneously to give proper vertical height consistent with good vertical linearity. Adjustments should be made to extend the picture limits approximately 1/4" beyond the top and bottom edges of the CRT mask.

OPERATION

Under Scanning

Under Scanning is obtained by setting the Scan Size Selection Switch (3) to the UNDER position.



DC Restoration

The DC restoration circuit provides a stable reference for the black level.

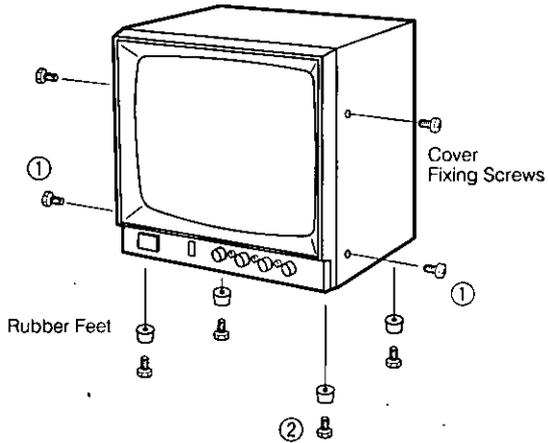
Set the DC Restoration Switch to the ON position to preserve black or shadow detail when the black level of the object is bright and the picture is losing black level.

INSTALLATION

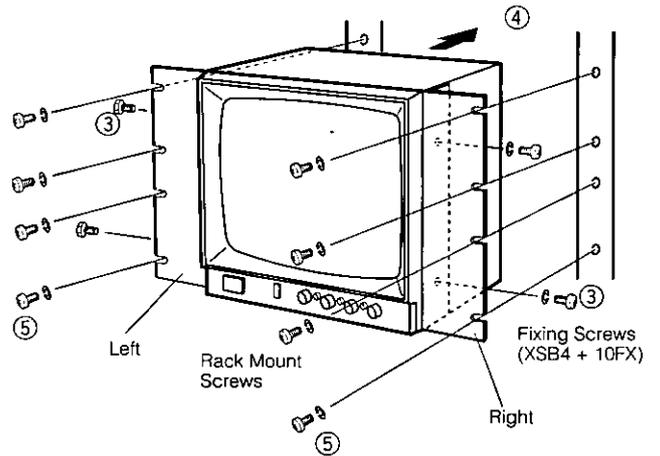
Mounting into EIA Standard 19" Rack

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

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



- ③ Align the Rack Mount Adaptor to the four holes on the monitor, and attach with screws provided with the Adaptors.
- 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 122°F (50°C), it should be installed away from the monitor to avoid picture disturbance.

SPECIFICATIONS

Power Source :	100-240V AC, 50/60 Hz
Power Consumption :	Approx. 37 watts
Video Input :	1.0 Vp-p composite/75 ohms
External Sync Input :	4.0 Vp-p composite/75 ohms
Horizontal Resolution :	1000 lines at center
H.AEC Time Constant :	Short/Long time constant switchable
Sweep Linearity :	Less than 5% at overscan
Sweep Geometry :	Less than 2% at overscan
Overscanning :	Approx. 5%
Scanning Size :	Overscan or underscan switchable
DC Restoration :	Yes
Tube Size :	12-11/16" diagonal actual visual size (14" diagonal tube screen size)
High Voltage :	DC 13kV
Ambient Operating Temperature :	14°F - 122°F (-10°C - 50°C)
Ambient Operating Humidity :	Less than 90%
Dimensions :	12-5/8"(W) X 12-11/16"(H) X 14-1/8"(D) 320(W) X 322(H) X 358.5(D) mm
Weight :	19.8 lbs (9 kg)

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

STANDARD ACCESSORY

Power Cord1 pc.

OPTIONAL ACCESSORY

Rack Mount Adaptor WV-Q21W

Panasonic

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