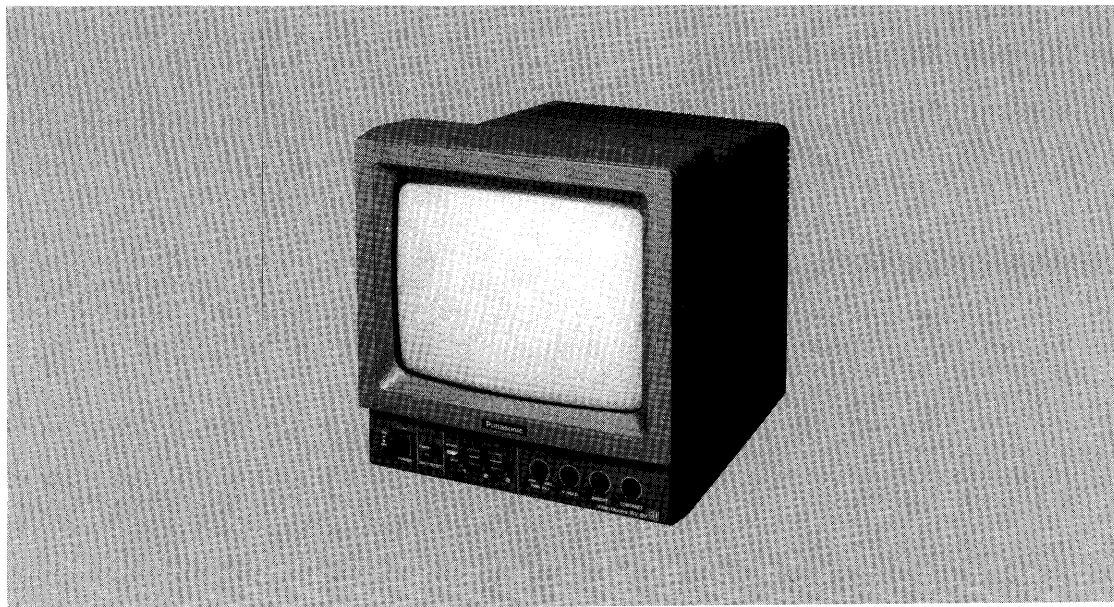


# Operating Instructions

Mini CCTV Monitor  
**WV-BM80**




**Panasonic®**

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


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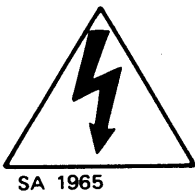


**CAUTION**

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



**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.



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. \_\_\_\_\_

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

## PREFACE

The Panasonic Mini CCTV Monitor WV-BM80 has built-in sequential switcher. The camera is simple to install and operate.

Just attach the mounting bracket to a wall or ceiling, aim the camera and focus. A single coaxial cable is used for the connection between the camera and monitor, and supplies the low voltage DC power and synchronizing vertical (V) drive pulse to the camera. This economical Mini CCTV System has been specially designed for the surveillance needs at offices, factories, stores, schools hospitals, public and residential building, etc.

The Panasonic offers the Mini CCTV Systems WV-81/KT which consists the CCTV Camera WV-80 and the Mini CCTV Monitor WV-BM80. Also this monitor allows to use the CCTV Camera WV-BL90A.

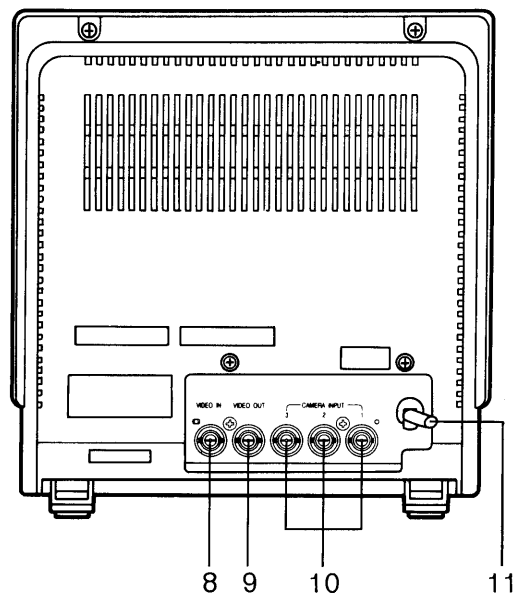
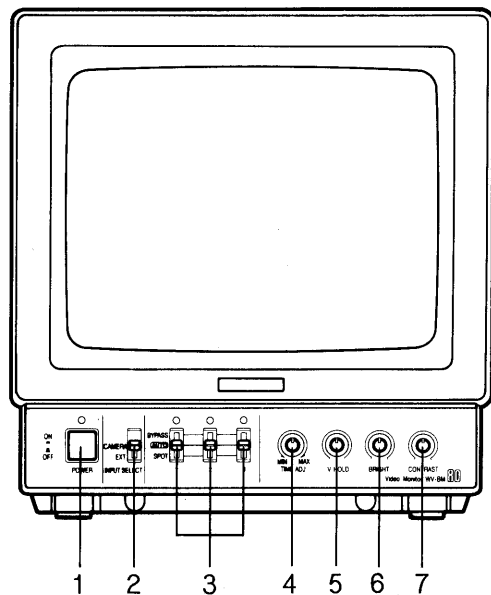
## FEATURES

- As many as three WV-80 cameras can be connected to this monitor.
- Monitor has 9" diagonal screen (8-1/2" diagonal actual visual size).
- Sequential switching interval is manually adjustable from 1 to 30 seconds.
- Built-in protection circuit for the camera and monitor for misconnection.
- VTR playback picture can be observed.
- Selectable mode from BYPASS, AUTO and SPOT.

## PRECAUTIONS


- Do not block the ventilation slots. Do place the video monitor at least 5 cm apart 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 ever the monitor does become wet. Turn power off and refer servicing to qualified service personnel. Moisture can damage the monitor and also create the danger of electric shock.
- Do not attempt to disassemble the monitor. To prevent electric shock, do not remove screws or cover. There are no user-serviceable parts inside. Refer servicing to qualified service personnel.
- Use the monitor under conditions where temperature are 14°F - 122°F (-10°C - +50°C) and humidity is below 90%.
- Do not drop metallic parts through slots. This action could permanently damage the monitor. Do turn power off immediately and refer servicing to qualified service personnel.
- If the monitors are placed side by side, the pictures on the monitors may interfere with each other. It is recommended that the monitors should be placed or installed more than 15 cm away each other.
- Do not stack the monitors.
- This apparatus must be grounded to avoid interference to the picture.
- When the WV-BL90A is used with WV-BM80, do not use the optional microphone unit WV-MC1. The audio beat will be appeared on this monitor.

# MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS




## 1. Power ON/OFF Switch (POWER)

This is a push-push type switch which turns the monitor ON and OFF.

Press once and the switch remains down (  ) for turning on the monitor and cameras.

Power and camera number indicator lamps light on.

Press again, the switch comes up (  ) for turning off the monitor and cameras, and the lamps go off.

## 2. Input Selection Switch (INPUT SELECT, EXT/CAMERA)

This selects the condition of monitor as;

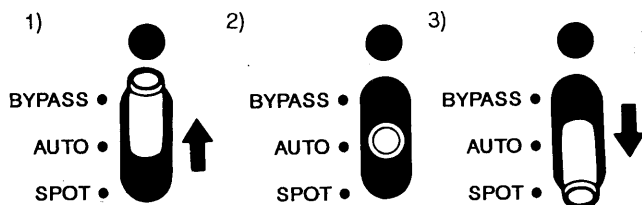
EXT:

VTR playback picture or an external camera connected to the Video Input Connector (8) can be observed.

CAMERA:

Camera picture connected to Camera Input Connector (10) can be observed.

## 3. 3-Position Selector Switch



## 1) BYPASS mode

When the switch is set to this mode, the signal of the camera in that position will be skipped regardless of the presence of video signal. In other words, the signals from that camera will not be fed out to Video Output Connector (9).

## 2) AUTO mode

When the switches are set to this mode, the signal from the camera will be switched automatically in sequence.

## 3) SPOT mode

When this mode is selected, the signal of the camera in that position will come out of the Video Output connector (9) so that the camera signal can be selectively monitored. If two or more cameras are set to this mode, the signal of the lower-numbered camera will be fed out to the Video Output Connector (9).

## 4. Time Adjustment (TIME ADJ, MIN/MAX)

The interval of the sequential switching can be manually adjusted from 1 to 30 seconds by adjusting this knob.

## 5. Vertical Hold Control (V.HOLD)

Adjust this control to hold the picture vertically.

## 6. Bright Control (BRIGHT)

Turn this control clockwise to increase the picture brightness.

**7. Contrast Control (CONTRAST)**

Turn this control clockwise to increase the picture contrast.

**8. Video Input Connector (VIDEO IN)**

This is an external video input connector for an external or VTR playback picture.

When the external video signal is to be shown on the video monitor, set the Input Selection Switch (2) to the EXT position.

**9. Video Output Connector (VIDEO OUT)**

This connector is used to provide the video output signals of the cameras to an additional monitor or video tape recorder.

**10. Camera Input Connectors (CAMERA INPUT)**

These connectors are used to connect the Mini CCTV Camera WV-80.

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

Note :

Connect the camera only after making sure that the monitor is off. If the camera is connected while the monitor is on, the camera will not function due to activation of the protection circuit for misconnection.

**Caution :**

- When the WV-BL90A is used with WV-BM80, do not use the optional microphone unit WV-MC1. The audio beat will be appeared on this monitor.

**11. Power Cord**

# CONNECTIONS

## Cautions:

1. Keep the Power Switch of the monitor in the OFF position during connection.  
If the power is turned on during connection, the camera will not function due to the activation of protection circuit for misconnection.
2. Use the Camera WV-80 or WV-BL90A.  
If other type camera is connected, the mini camera system will not function due to the activation of protection circuit for wrong camera.
3. These connections should be made by qualified service personnel or system installers.

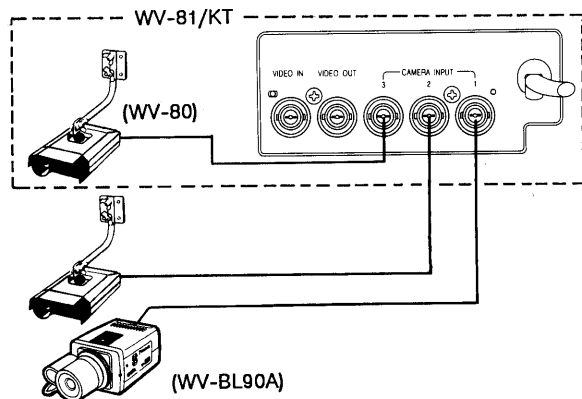
## BASIC SYSTEM

- o Connect the single coaxial cables between the camera and monitor (CAMERA INPUT). The approx. maximum cable length is as follows;

Coaxial Cable Type	Maximum Cable Length	DC R/1000 m of Conductor
RG-59/U	330 ft (100m)	Less than 100 ohms
RG-6/U	820 ft (250m)	Less than 40 ohms

The maximum DC resistance between the camera and monitor should be less than 10 ohms.

## CONNECTION DIAGRAM



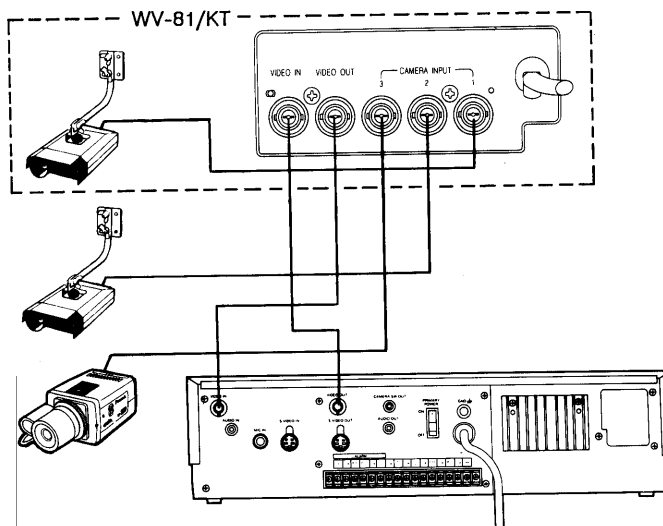
## Caution:

If an external video monitor which has a longer AFC time constant than this monitor is connected to Video Output Connector (9) of this monitor, sequential switching noise might appear on an external monitor.

## Note:

Follow connector manufacture's specific directions for coaxial cable/BNC connector assembly.

## TYPICAL SYSTEM CONNECTION



Connect the coaxial cable between the VIDEO OUT (IN) terminal of the video monitor and the VIDEO IN (OUT) terminal of the time lapse VTR.

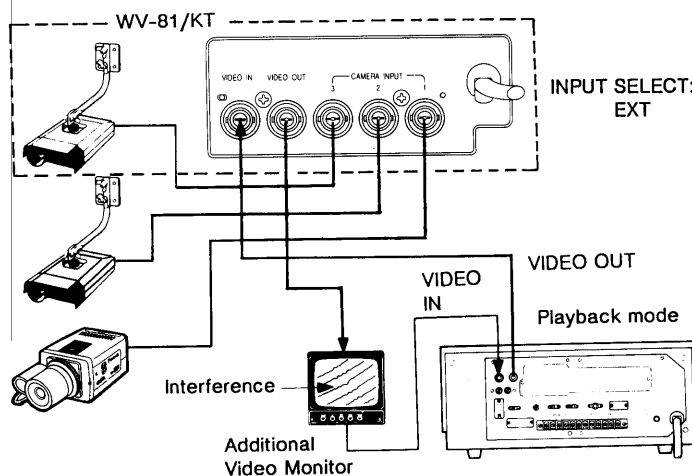
Connect the coaxial cables between the cameras and video monitor.

## Note:

Refer to "Input Selector (1) and (2)" in the OPERATING PROCEDURE.

## Caution:

Following connection and operation should be avoided since the camera picture on the external video monitor might have an interference of moving noise as shown in the figure.



## OPERATING PROCEDURE

Turn on the Power ON/OFF switch (1) on the front Panel. The red power indicator LED will light on and one green channel indicator LED will also light, according to the initial position of the selector switches.

### 1. Input Selector

#### (1) CAMERA mode

Set the Input Selection Switch (2) to CAMERA position to display the cameras connected to the Camera Input Connectors (10).

#### (2) EXT mode

- Set the Input Selection Switch (2) to the EXT position to observe the external video signal.
- When one more desired camera is connected to the Video Input Connector (8), it operates as the fourth camera.
- A VTR can be connected to the Video Output Connector (9).

### 2. Selection of Camera

#### (1) AUTO mode (More than two cameras)

- Set the 3-position Selector Switch (3) of the desired cameras to AUTO position. Cameras are switched sequentially from lowest-numbered camera.
- Adjust the Time Adjustment (4) for the desired auto switching interval (from 1 to 30 seconds).
- Set the 3-position Selector Switch (3) to the BYPASS position when no camera is connected.

#### (2) SPOT mode

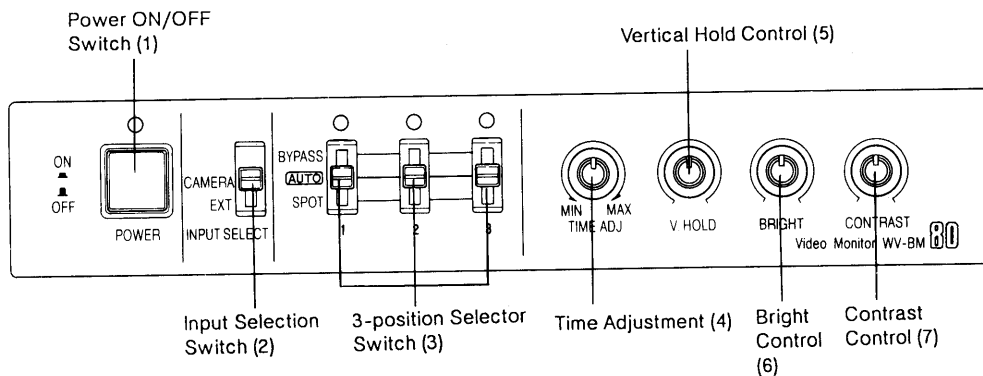
Set the 3-position Selector Switch (3) of the desired camera to SPOT position for observing the camera.

#### (3) BYPASS mode

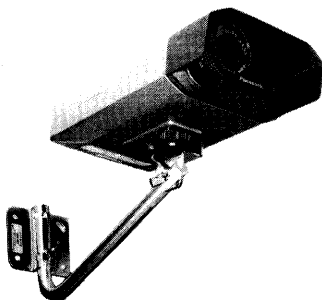
Set the 3-position Selector Switch (3) of the desired camera to BYPASS position for skipping the desired camera.

Note :

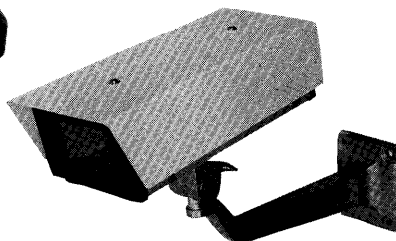
When recording the pictures in AUTO mode on a Time Lapse VTR, be sure to adjust the Time Adjustment (4) so that the switching interval of cameras is greater than the recording interval of the Time Lapse VTR.



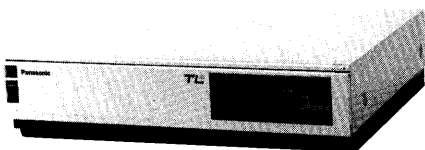
## OPTIONAL ACCESSORIES



CCTV Camera WV-80



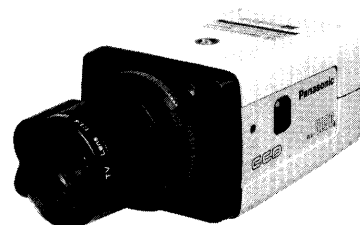
Camera Housing WV-95



Time Lapse VTR AG-6030



Wide Angle Lens VZ-ML10  
(For WV-80)



CCTV Camera WV-BL90A  
(Lens : option)



Automatic Iris Control Lens  
WV-LA2.8  
WV-LA4.5  
WV-LA6B2  
WV-LA12B2  
WV-LA18  
WV-LA36



Manual Iris Control Lens  
WV-LM4.5  
WV-LM6B2  
WV-LM12B2



Automatic Iris Zoom Lens  
WV-LZ81/6A  
WV-LZ81/10

## SPECIFICATIONS

Power Supply :	120V AC 60 Hz
Power Consumption :	45W
Camera Input :	1.0Vp-p/75 ohms, Composite × 3 (BNC)
Video Input :	1.0Vp-p/75 ohms, composite × 1 (BNC)
Video Output :	1.0Vp-p/75 ohms, composite × 1 (BNC)
Power Supply for Camera :	Regulated Current multiplex method (BNC)
Camera Switching :	Manual/Auto (Sequence) With manual bypass
Sequential Switching Interval :	Adjustable; 1 to 30 sec.
Resolution :	750 lines at center
Sweep Linearity :	V : Less than 7% H : Less than 5%
Dimensions :	9"(W) × 9-7/16"(H) × 10-3/8"(D) 230(W) × 240(H) × 264(D) mm
Weight :	8.4 lbs. (3.8 kg)

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

# Panasonic

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