

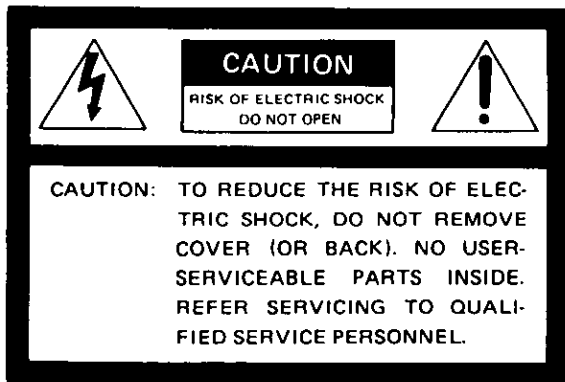
Gen-lock Adaptor  
**WV-AD36**

# Operating Instructions



**Panasonic**<sup>®</sup>

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



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.

**Warning :**

This equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications set forth in Subpart J of Part 15 of the FCC Rules.

If this equipment does cause interference to radio or television reception which can be determined by turning the equipment on and off, use the equipment in another location and/or utilize an electrical outlet different from that used by the receiver.

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

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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. WV-AD36

Serial No. \_\_\_\_\_

## PREFACE

A gen-lock adaptor WV-AD36 is used to synchronize/gen-lock the color camera WV-3260/8AF or WV-D5000 by the external reference signal in the EFP and studio application.

**Note :** Use the RCU adaptor WV-AD37 when synchronizing the camera with the 5" viewfinder.

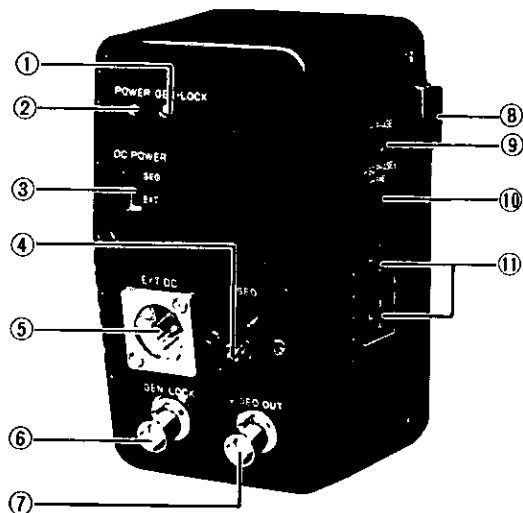
## FEATURES

- o Can be simply mounted on the color camera WV-3260/8AF or WV-D5000.
- o Synchronizes/gen-locks the WV-3260/8AF or WV-D5000 with the external reference signal.
- o Gen-lock subcarrier phase control of more than  $360^{\circ}$ .
- o Gen-lock horizontal phase control from  $-0.1\mu\text{sec}$  to  $+1.5\mu\text{sec}$ .
- o Can be used with the system switcher WJ-3500
- o External DC input connector

## PRECAUTIONS

- o Do not attempt to disassemble the unit. There are no user-serviceable parts inside. Do refer any servicing to qualified service personnel.
- o Use the unit under the conditions where temperature is within  $32^{\circ}\text{F} - 104^{\circ}\text{F}$  ( $0^{\circ}\text{C} - +40^{\circ}\text{C}$ ) and humidity is less than 90%.

## MAJOR OPERATING COMPONENTS AND THEIR FUNCTIONS



### 1. Gen-lock Indicator (GEN-LOCK)

This indicator lights ON when the gen-lock signal (composite or black burst signal) for external synchronization is supplied to the Gen-lock Input Connector (6) or to the 10-Pin SEG Connector (4) via the system switcher WJ-3500 or AC adaptor WV-PS03.

### 2. Power Indicator (POWER)

### 3. DC Power Selection Switch (DC POWER)

Set this switch according to the DC power supplied to this unit.

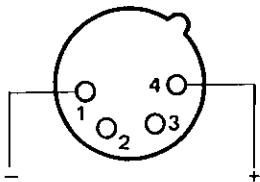
**SEG :** Set to this position if the system switch WJ-3500 or AC adaptor WV-PS03 is connected to the 10-pin SEG connector (4).

**EXT :** Set to this position if the +12V DC is supplied to the 4-pin External DC Input Connector (5).

### 4. 10-pin SEG Connector (SEG)

This connector is used for connecting the 10-pin camera cable from the system switcher WJ-3500 or the AC adaptor WV-PS03 for system operation.

5. **4-Pin External DC Input Connector (EXT DC)**  
This connector is used for connecting a cable from an external DC nominal 12V (11V - 20V), 0.7A power source (a belt type battery or a car battery for example).



**CAUTION :** Use only with a 12V DC power supply marked Class 2.

Do not use with an external storage battery unless provided with a fuse rated at 8 amps or less and located within 5 inches of the battery connecting means.

6. **Gen-lock Input Connector (GEN-LOCK)**

The color video signal of camera is automatically synchronized to the gen-lock signal (composite or black burst) which is introduced in this connector from the system reference such as a special effects generator.

**Caution :** If the gen-lock signal contains much jitter (such as a VTR playback signal), the camera may not be synchronized properly.

7. **Video Output Connector (BNC) (VIDEO OUT)**

A composite video signal is provided at this connector.

8. **Release Button**

When removing the gen-lock adaptor, press this button.

9. **Horizontal Phase Control (H PHASE)**

The horizontal phase of the camera signal is adjusted to match the horizontal phase of the signal at the Gen-lock Input Connector (6) or the 10-pin SEG connector (4).









This control should be adjusted when the camera is used in a system using a special effects generator or the system switcher WJ-3500. See page 8.

10. **Subcarrier Phase Fine Control (FINE)**

This control allows fine adjustment of the subcarrier phase set by the Subcarrier Phase Coarse Switch (11).

It allows continuous control of up to plus 90° subcarrier phase to match the phase of subcarrier signal at the Gen-lock Input Connector (6) or the 10-pin SEG connector (4).

This control should be adjusted together with the Subcarrier Phase Coarse Switch (11) when the camera is used in the system using the special effects generator or the system switcher WJ-3500. See page 9.

SC Phase	0°	90°	180°	270°
Position of Switches	 1 2	 1 2	 1 2	 1 2
	 3 4	 3 4	 3 4	 3 4

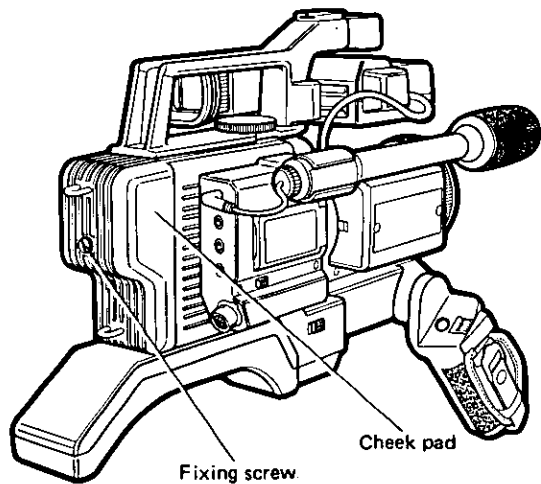
#### 11. Subcarrier Phase Coarse Switch (SC PHASE)

The subcarrier phase of the camera signal is adjusted from 0° to 360° in 90° steps with these switches as shown below for matching the phase of subcarrier signal at the Gen-lock Input Connector (6) or the 10-pin SEG connector (4).

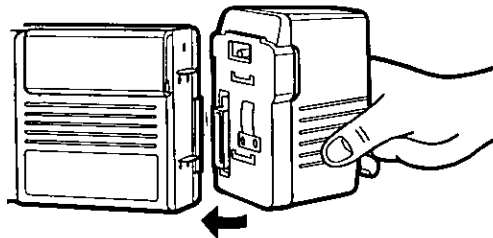
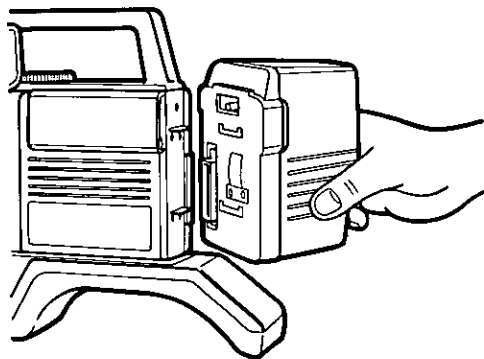
The switches should be set when the camera is used in the system using the special effects generator or the system switcher WJ-3500. See page 9.

## INSTALLATION

- o Loosen the cheek pad fixing screw. Remove the cheek pad from the color camera by lifting it.



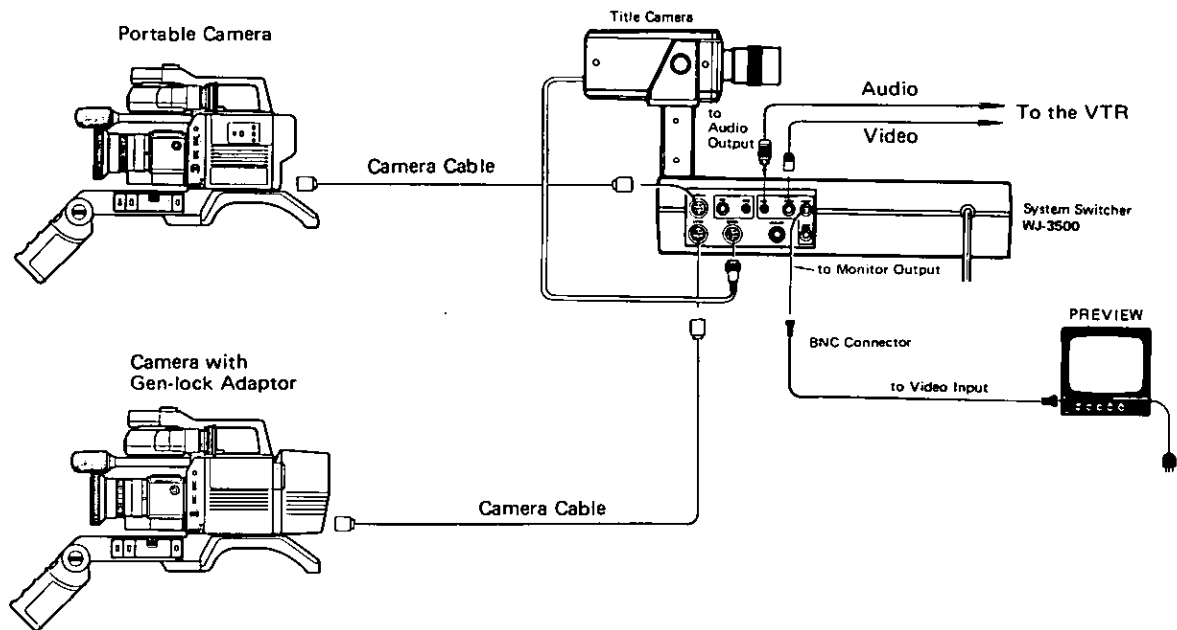
- o Install the gen-lock adaptor on the camera while engaging the 32-pin connector and then press it down.





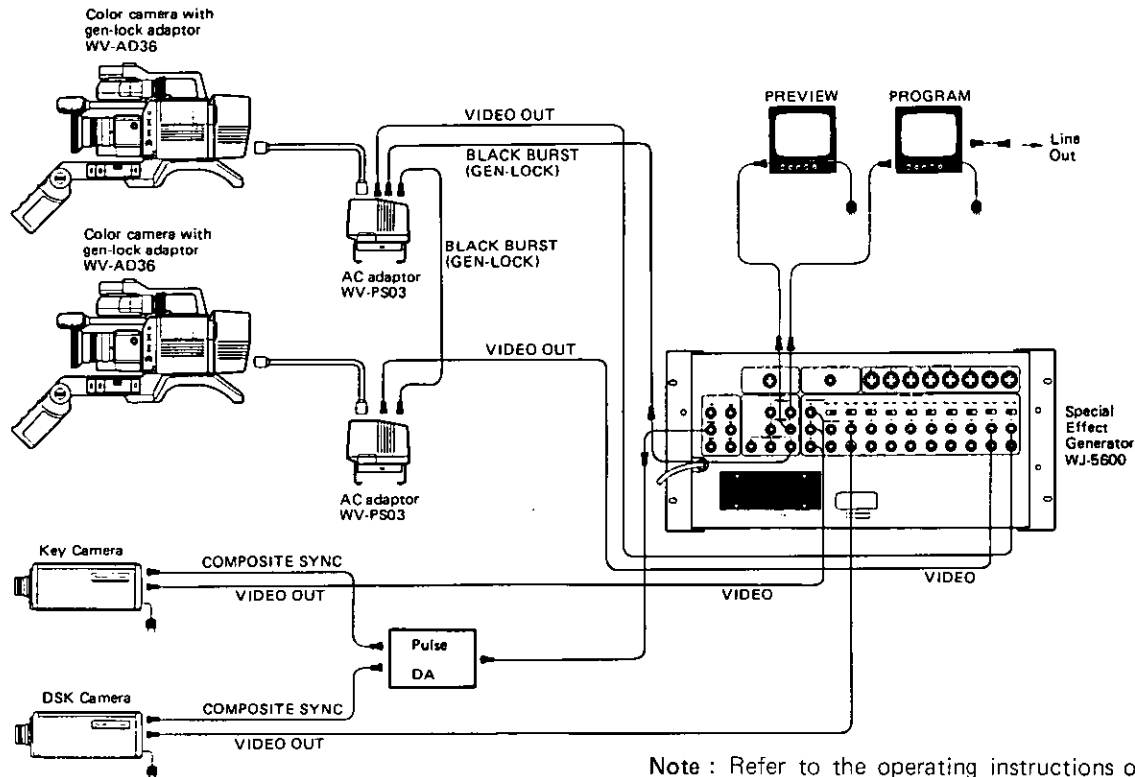
## CONNECTION

### 1. Connection with the system switcher WJ-3500



**Note :** Refer to the operating instructions of the system switcher WJ-3500.

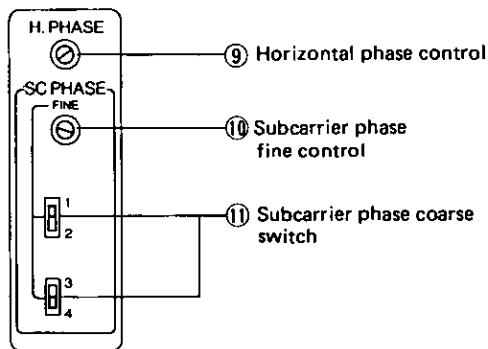
## 2. Gen-lock EFP Application



**Note :** Refer to the operating instructions of the special effects generator.

## ADJUSTMENT

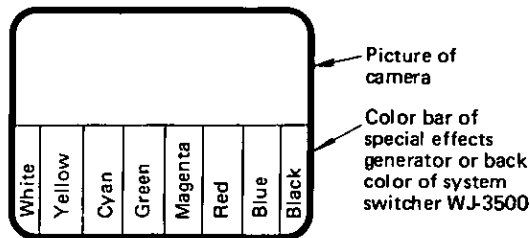
When the camera is used with the gen-lock adaptor in the system using the system switcher WJ-3500 or special effects generator, the horizontal phase and subcarrier phase controls must be adjusted.



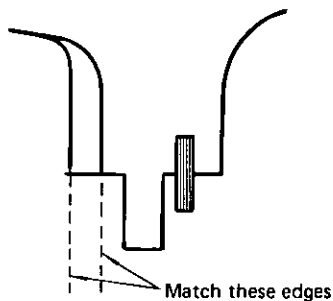
### 1. Horizontal phase adjustment

- o Set the switches and controls on the system switcher WJ-3500 or special effects generator so that the split picture is observed on the program output monitor.

Refer for the details to the operating instructions of the system switcher WJ-3500 or special effects generator.



- o Connect the oscilloscope to the VIDEO OUTPUT/PROGRAM OUTPUT connector of the system switcher WJ-3500 or special effects generator and observe the horizontal blanking period of the VIDEO OUTPUT/PROGRAM OUTPUT signal.
- o Adjust the Horizontal (H) Phase Control (9) on the gen-lock adaptor so that the phase of horizontal blanking of the video signal for the camera matches that for the system switcher WJ-3500 or special effects generator.



**Note :** The horizontal phase should be readjusted as well as the subcarrier phase explained next if the connection or length of coaxial cable is changed in the system.

## 2. Subcarrier phase adjustment

- o Connect the video output signal of camera directly to the color video monitor and note the hue of the picture.
- o Set the switches and controls on the system switcher WJ-3500 or special effects generator so that the camera picture is observed on the video output/program output monitor.  
Refer for the details to the operating instructions of the system switcher WJ-3500 or special effects generator.
- o Adjust the Subcarrier (SC) Phase Coarse Switch (11) and Fine Control (10) on the gen-lock adaptor so that color/hue of the camera picture is similar to the noted one.
- o Precise adjustment should be done by using the vectorscope. Supply the video output signal of camera directly to the vectorscope and note the position of the vector. Supply the VIDEO OUTPUT/PROGRAM OUTPUT signal to the vectorscope from the system switcher WJ-3500 or special effects generator. While observing the vectorscope, adjust the Subcarrier Phase Coarse Switch (11) and Fine Control (10) so that the phase of vector for camera positions same as the noted vector.

## SPECIFICATIONS

Power Source :	+12V (11V - 20V), 0.7A DC for operation with the camera, supplied from the external DC power supply through 4-pin EXT DC input connector or from the system switcher WJ-3500 or AC adaptor WV-PS03 through 10-pin SEG connector
Video Output :	1.0Vp-p NTSC composite/75 ohms x 1 (BNC connector)
Gen-lock Input :	NTSC composite signal or black burst signal/75 ohms (BNC connector)
Subcarrier Phase for Gen-lock :	Adjustable more than 360°
Horizontal Phase for Gen-lock :	Adjustable from -0.1 $\mu$ sec to +1.5 $\mu$ sec
Ambient Operating Temperature :	32°F - 104°F (0°C - +40°C)
Ambient Operating Humidity :	Less than 90%
Dimensions :	3-1/4" (W) x 5-1/8" (H) x 3-5/16" (D) 83(W) x 130.5(H) x 84.5(D)mm
Weight :	0.88 lbs (0.4kg)

Weight and dimensions shown are approximate.

Specifications are subject to change without notice.

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