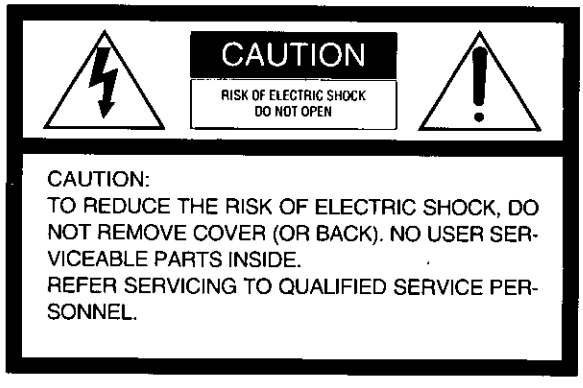
Operating Instructions

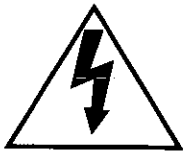
Color Video Camera

WV-F565

Panasonic®

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 accompa-nying 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 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.

CONTENTS

PREFACE

The Panasonic WV-F565 Digital Processing Color Video Camera represents and extraordinary combination of advanced digital technology in a compact, lightweight design-so you can take your vest shot at video acquisition - for productions that look like real life. The WV-F565 incorporates three 380,000-pixel (771 x 492) interline transfer CCDs to give you a remarkable 850 lines of horizontal resolution and a S/N ration 65 dB. This means you get a color picture with high visual information content, for excellent image detail.

Because it features digital signal processing, the WV-F565 provides an exceptionally stable picture, not to mention centralized push-button control for initial setup and adjustments.

Operation is easy, and virtually maintenance-free. Another advantage of digital signal processing is that it enables docking with the AU-45H MII VCR, as well as the AG-7450A S-VHS VCR. In addition, the WV-F565 accepts an optional adaptor that will enable interfacing with a wide variety of digital equipment in the future. So take your best shot.with the versatile Panasonic WV-F565 Digital Processing Color Video Camera.

FEATURES

1. Self-contained, well-balanced, compact ENG/EFP portable color video camera.
2. High-performance middle index prism optical system with three 1/2" FIT CCDs.
3. Horizontal resolution of 850 lines (High-band DTL On)
4. Signal-to-noise ratio of 65 dB (typical) (DNR On)
5. Extra resistance to burn-in
6. No pattern distortion
7. Not affected by geo-magnetism
8. Composite output for use with most VTRs on the market
9. May be combined with S-VHS, MII, or Betacam format recorders
10. 1.5" electronic viewfinder (1-3/8" actual image size, measured diagonally) can be freely tilted and adjusted for most comfortable viewing.
11. Electret Condenser Microphone
12. Conventional auto-white balance setting with two memories
13. Automatic setting of black balance with memory hold
14. –6dB, 0dB, 3dB, +6dB, +9dB, +12dB, +18dB, +24dB (Night Eye (L), Night Eye (H)) selection
15. Minimum illumination of 1 lux at F1.4 with Night Eye mode
16. Internal EIA standard sync generator and gen-lock operation
17. Switchable audio output level: –20dB and –60dB operation
18. 2H Vertical Enhancer
19. High-band aperture correction with 3-position level selection
20. 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 sec. electronic.
21. Built-in SMPTE color bar generator
22. Audio monitor output (for earphone)
23. Positive/negative VTR trigger polarity switch
24. Color temperature conversion filters: 3200K, 5600K, 5600 with 1/16 ND.
25. Viewfinder character display for system check
26. Can be operated on five different power sources: Rear mounted, NiCad battery pack, rear-mounted AC adaptor, optional Remote Control Unit (RCU), optional portable VTR or an external 12V DC source.
27. Die-cast chassis for rigid alignment of the optical system and metal housing for extended durability and RF rejection.
28. Servo control zoom lens with automatic iris control
29. Iris 1/2 open/close switch
30. The video signal, gen-lock and the camera control from the RCU are available by using a coaxial cable (with WV-AD700AS only). When using BELDEN 8281 coaxial cable, the maximum cable length is 900 ft (300m). When using BELDEN 9259 coaxial cable the maximum cable length is 600 ft (200m).
31. Full studio adaptability with 5" Electronic Viewfinder (4.5" actual image size measured diagonally) and Remote Control Unit (RCU).
32. Switch display in the viewfinder is available
33. 5 scene files (USER A/B, 1, 2, 3) are provided.

CAUTION: THIS CAMERA MAY NOT FUNCTION PROPERLY IF IT IS CONNECTED TO A VTR OF OTHER MANUFACTURE THAN PANASONIC.

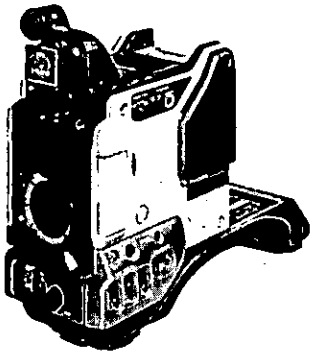
PRECAUTIONS

The WV-F565 camera is a sensitive, high quality instrument and should be treated as such. Because it is an electrical device, the danger of electric shocks exists if it is used carelessly.

DONT'S	DO'S
• Do not attempt to disassemble the camera, Remote Control Unit (RCU) or other units. In order to prevent electric shock, do not remove screws or covers. There are no user-serviceable parts inside.	• Do refer any servicing to qualified service personnel.
• Do not abuse the camera. Avoid striking, shaking, etc. The camera contains sensitive components which could be damaged by improper handling or storage.	• Do handle the camera with care.
• Do not let the lens remain uncapped when the camera is not in use. If the lens is not installed, do not leave the lens mount hole uncovered.	• Do protect the precision made lens by placing the lens cap over the lens when the camera is not in use. If the lens is not installed, protect the surface of the prism by placing the body cap into the lens mount hole.
• Do not touch the surface of the lens or prism with your fingers.	• Do use a mild blower or lens cleaning tissue designed for coated lenses, to clean the surface of the lens or prism in the event that it should become dirty.
• Do not use strong of abrasive detergents when cleaning the camera body.	• Do use a dry cloth to clean the camera if it is dirty. In case the dirt is hard to remove, use mild detergent and wipe gently.
• Do not aim the camera toward the sun, no matter whether it is turned on or not.	• Do use caution when operating the camera in the vicinity of spot lights or other bright lights, as well as light reflecting objects and surfaces.
• Do not expose the camera or Remote Control Unit (RCU) to rain or moisture, and do not try to operate the equipment in wet areas. Do not operate the camera or RCU if it becomes wet.	• Do take immediate action if ever the camera or RCU should become wet. Turn the power off and have the unit checked by an authorized service facility.
• Do not operate the camera or Remote Control Unit (RCU) outdoors during a lightning storm.	• Do follow normal safety precautions to avoid personal injury.
• Do not leave the camera or Remote Control Unit (RCU) in a closed car or trunk during the summer. The temperature can reach or exceed those limits which electrical devices, including your camera and RCU, can normally withstand.	• Do pay attention to excessive temperatures inside your car and be sure to remove the equipment when leaving the car. (This will also keep tempted thieves out of your car.)
• Do not use the camera in an extreme environment where high temperatures or high humidity exist.	• Use the camera in an environment where the temperature is within 50°F - 113°F (–10°C - +45°C), and the relative humidity is within 30% - 90%.
• Do not leave the camera and Remote Control Unit (RCU) turned on when not is use. Do not unnecessarily turn the camera power on and off repeatedly. Do not block the ventilation slots.	• Always turn the power off when the camera is not going to be used. Operate the camera and Remote Control Unit (RCU) only when there is adequate ventilation.

PANASONIC WV-F565 SERIES SYSTEM PARTS AND ACCESSORIES

■ **Color Camera Head**

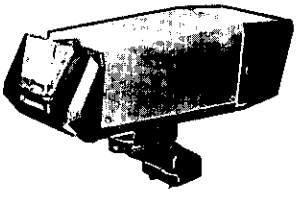


■ **ENG/EFP Kit (WV-S550A)**

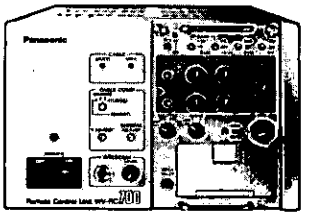
• 1.5" Viewfinder	WV-VF42
• Tripod Mounting Adaptor	WV-QT700
• Carrying Case	WV-CC500A
• Microphone Holder	WV-MH500

■ 1.5" Electronic Viewfinder (WV-VF42)

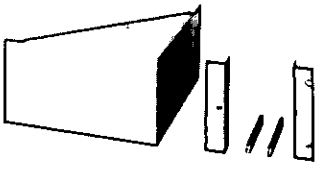
■ 5" Electronic Viewfinder (WV-VF65B)



■ Remote Control Unit (RCU) (WV-RC700A)

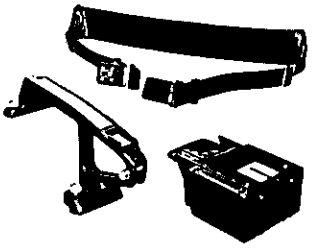


■ RCU Rack Mount Frame (WV-Q70)

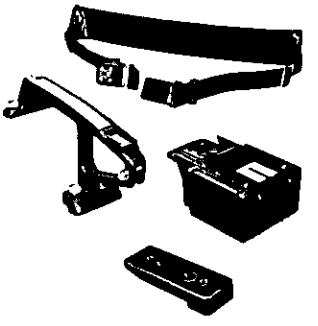


■ Remote Control Unit (WV-RC550)

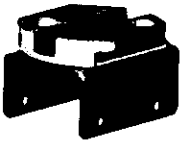
■ Dockable Kit (WV-DKT700S)



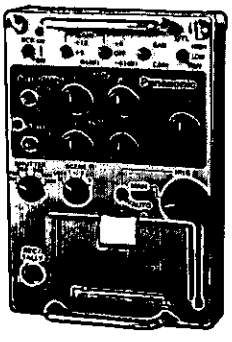
(WV-DKT700M)



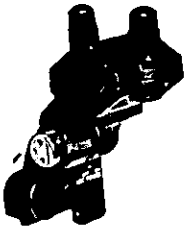
■ 5" Viewfinder Bracket (WV-Q71)



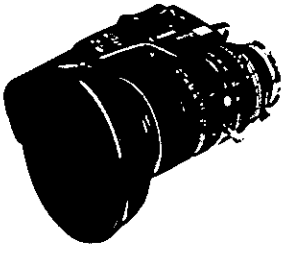
■ Remote Control Box (RCB) (WV-CB700A)



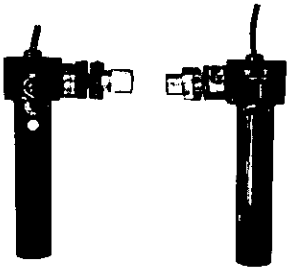
■ Microphone Holder (WV-MH500)



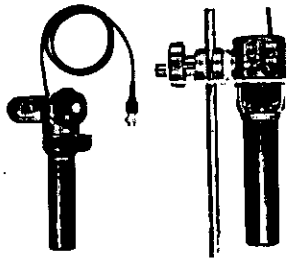
■ 13X Servo Control Zoom Lens (YH13X75BKRS)



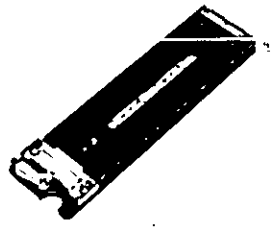
■ Lens Control Kit (WV-LK35)



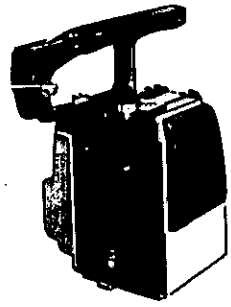
■ Lens Control Kit
(WV-LK36)



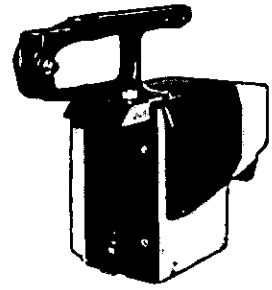
■ Tripod Mounting Adaptor
(WV-QT700)



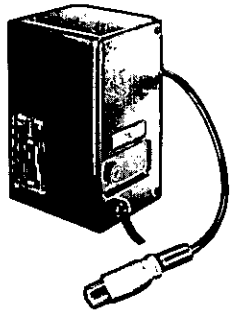
■ Camera Adaptor
(WV-AD500)



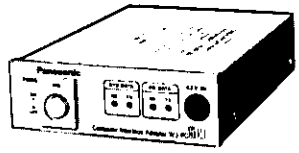
(WV-AD700AS)



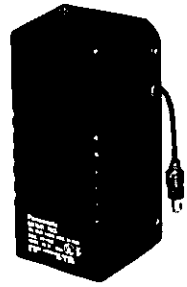
■ AC Adaptor/Charger
(WV-PS34)



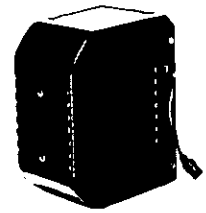
■ Computer Interface Adaptor
(WJ-PC500)



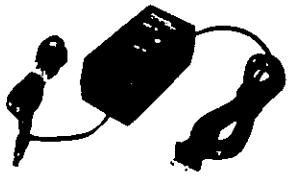
■ Battery Pack
(WV-PS60)



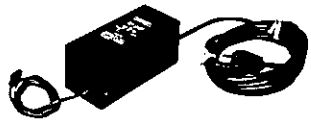
■ Battery Pack
(WV-PS33)



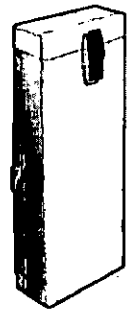
■ Battery Charger
(DE-1232)



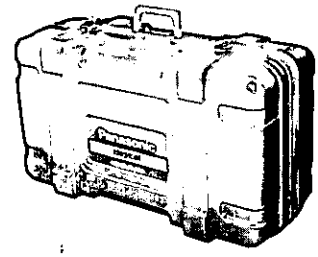
(WV-BC30)



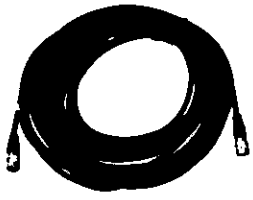
■ Battery Adaptor
(WV-AD19)



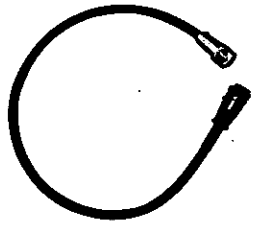
■ Carrying Case
(WV-CC500A)



■ RCB Cable
(WV-CA10B02/
(WV-CA10B25/
WV-CA10B50)



■ Conversion Cable
(WV-CA26T32/
WV-CA32T26)

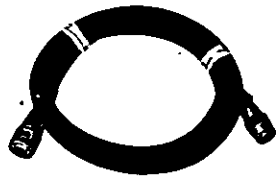


■ VTR Cable
(WV-CA26A26)

■ Studio Cable
(WV-CA26U15/CA26U30/
CA26U100)

■ VTR Cable
(WV-CA26A10)

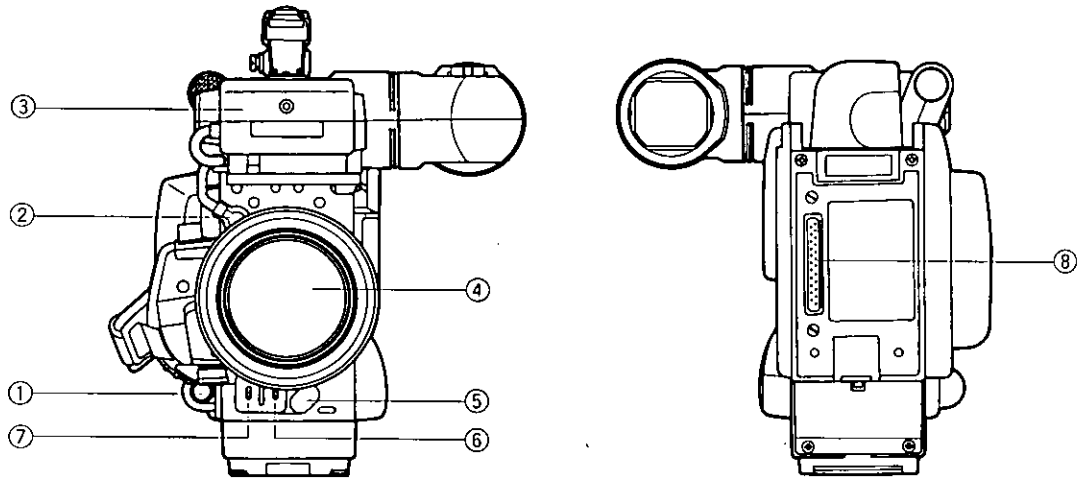
(WV-CA26A14)

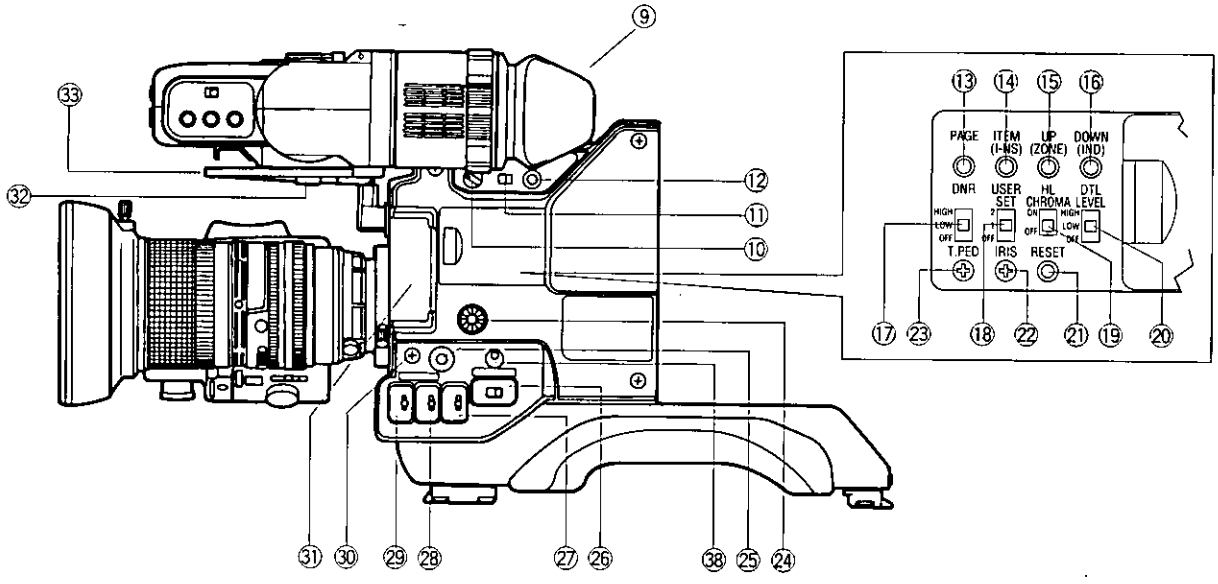


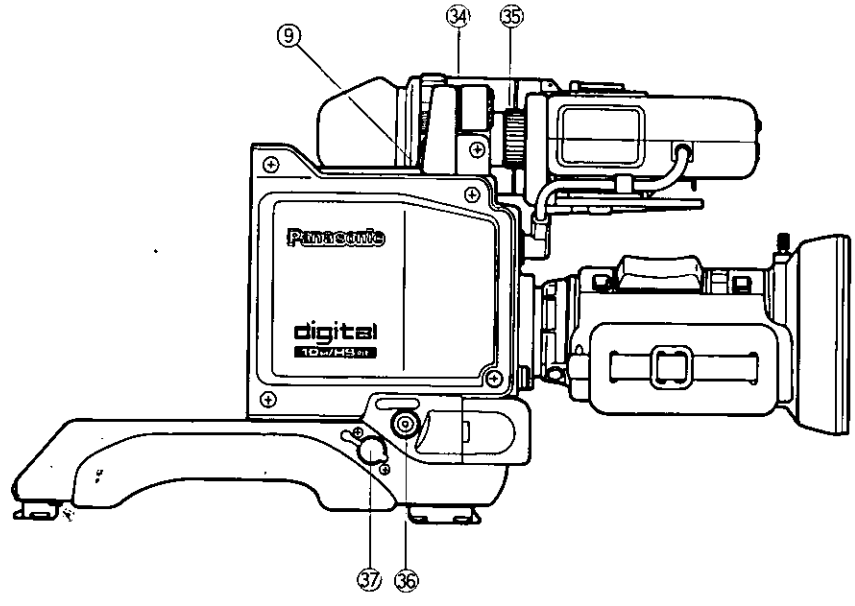
■ Joint Connector
(WV-CA26T26)

■ 10/14 Conversion
Connector
(WV-CA10T14)

MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS







CAMERA HEAD WV-F565H

1. Lens Connector (12-pin) (LENS)
Connect the lens cable to this connector.

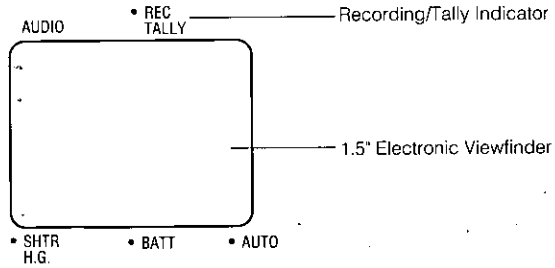
2. Viewfinder Connector (12-pin) (VIEWFINDER)
Connect the viewfinder cable from the 1.5" or 5" Electronic Viewfinder to this connector.

Note: When connecting the 5" Electronic Viewfinder, WV-VF65B, to this connector, use the Viewfinder Conversion Cable supplied with the WV-VF65B. Refer to page 28 for details.

3. 1.5" Electronic Viewfinder
This small 1.5" (1-3/8" actual image size) monitor shows exactly the image picked up by the lens. The viewfinder can be tilted 90° from horizontal and it is adjustable up and down by approximately 13/16" (20 mm). Further, the viewfinder may be slid laterally by up to 1-3/4" (45 mm) and 13/16" (20 mm) back and forth. Refer to page 18 for details.

4. Auto Iris Servo Control Zoom Lens
This is a high-quality zoom lens offering automatic as well as manual iris control and servo control zoom. The lens features a bayonet mount and F1.4 maximum aperture. Picture size may be magnified by up to 13 times through use of the zoom feature. Simply rotate the macro ring for close-up or wide angle recording. Macro shooting is possible of objects up to 1-15/16" (5 cm) from the lens surface. Refer to page 16 for details.

5. VTR Start/Stop Button (VTR) (parallel operation)
This button is used to change the recorder mode from pause (Recording Pause) to recording and functions in the same way as the VTR Start/Stop Button (92) on the lens. Press once to start recording. While recording, the Tally Indicator in the viewfinder and the Recording/Tally Indicator (9) light, and the Tally Light (101) on the viewfinder also lights.



When this button is pressed once more, the recorder is set to the Pause mode (Recording Pause), and the Recording/Tally Indicator and Tally Light will go off.

6. Auto White/Auto Black Set Switch (AUTO W/B BAL AWC/HOLD/ABC)
This switch sets the white balance and black balance automatically as follows:

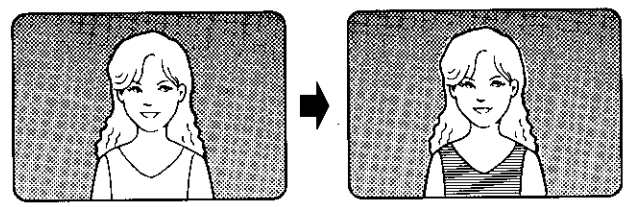
AWC: This position is used for setting the white balance when the White Balance Selection Switch (28) is set to the AWC A or AWC B position. White balance adjustment is required when "AWC A NG" or "AWC B NG" starts blinking in the viewfinder or when the Auto Warning Indicator in the viewfinder lights.
Two white balance settings for two light sources, such as indoor and outdoor, can be retained in the memory. In this case both the AWC A and AWC B positions are used.

HOLD: In this position, the white and black balances set at the AWC or ABC position can be held fixed if so desired for at least one year.

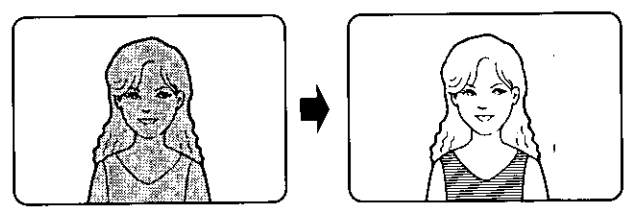
ABC: This position is used for setting the black balance. Black balance adjustment is required when "ABC NG" starts blinking in the viewfinder or when the Auto Warning Indicator in the viewfinder lights.

Note: The picture will flash in the viewfinder while the black balance is being set. This flashing indicates that the adjustment is currently being performed and will cease once the adjustment is completed.

7. Lens Iris Selection Switch (LENS IRIS: 1/2 OPEN/NOR/1/2 CLOSE)
This switch can be used to set the lens iris opening to compensate for unusual lighting conditions. If the object is brightly lit against a dark background, set this switch to the 1/2 CLOSE position. This will close the lens iris by a 1/2 F stop.



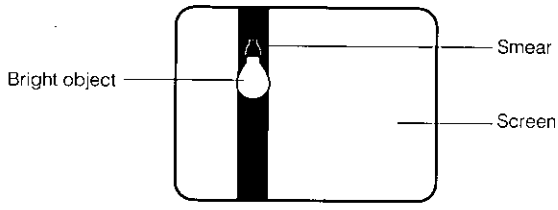
If the object is relatively dark and the background is bright, set the switch to the 1/2 OPEN position. This will open the lens iris by a 1/2 F stop.



At the normal (NOR) position, the lens is operating with normal lens iris openings.

Notes:

1. If this switch is used, be sure to return it to the detent NOR position after use.
2. If the camera is aimed at an extremely bright object, such as the sun or a lamp, vertical bars (i. e. smear) may appear in the picture. This is a peculiar phenomenon of the CCD and is quite normal. Try as much as possible to avoid shooting scenes with extremely bright light, as this could also be harmful to the camera.



3. Set this switch to the NOR position when the camera is used together with the Remote Control Unit (RCU).

8. 68-pin Multi Connector

When mounting the S-VHS dockable VCR (AG-7450A) the MII dockable VCR (AU-45H) or the WV-AD500 Camera Adaptor, engage the 68-pin connectors on the Camera Head and VCR/VTR Adaptor, or Camera Adaptor.

9. Recording/Tally Indicator (REC TALLY)

This indicator changes to one of three colors, depending on the camera mode.

This indicator lights red when the camera is set to the recording mode (through the VTR Start/Stop Button), and informs that the scene is being recorded. The Tally Indicator also lights when the camera is in full system operation together with the Remote Control Unit and Special Effects Generator. In case a tape is not loaded or the tape end is reached, or if the servo mechanism is working improperly, this indicator will start blinking to warn the operator of such faults. This indicator lights green when the camera is set to the shutter on mode. This indicator lights yellow when the camera is set to the recording mode and the shutter on mode is selected.

Note: If a portable VTR is not connected to the camera, the Recording/Tally Indicator will not light.

10. Scene File Selection Switch (SCENE FILE, USER A/B/1/2/3)

This switch is used to select the most suitable camera conditions for various scenes to obtain the best picture.

1: Studio Mode
This position is suitable for shooting in normal condition.
Note: This level is adjusted under the condition of 2000 lux 3200 K at F8.

2: ENG Mode
This position is suitable for shooting under fluorescent, halogen or outdoor lighting.
Note: The selection of fluorescent, halogen or outdoor lighting can be selected on the Main Menu.

3: Low Light Mode
This position is suitable for low illumination level shooting.

USER A/B: The camera conditions can be set to the desired level by the user.

11. Electronic Shutter On/Off Switch (SHUTTER, ON/OFF)

This switch is used to select the Electronic Shutter On/Off mode.

When setting this switch to the ON position, the shutter speed is in a speed set by the menu.

Notes:

1. In the electronic shutter operation, the light of the object/scene is taken in a short period of time. Therefore, higher shutter speeds require greater scene illumination.

Shutter Speed	Minimum Illumination (at F8)
1/100 sec.	1000 lux
1/250 sec.	2000 lux
1/500 sec.	4000 lux
1/1000 sec.	8000 lux
1/2000 sec.	16000 lux
1/4000 sec.	32000 lux
1/10000 sec.	80000 lux

2. In the electronic shutter operation, the vertical smear of CCD is emphasized since greater light intensity is required as mentioned above. Avoid shooting scenes which contain extremely bright objects. Refer to PECULIAR PHENOMENA OF CCD on page 77.
3. The white balance may be disturbed if the 1/1000 - 1/10000 sec. electronic shutter is operated while the camera is in the +18 dB high gain condition.

12. Back Light Compensation Switch (BACK LIGHT COMP ON/OFF)

When backlight affects the picture, turn on this switch for a clear picture.

Note: Be sure to set the Auto Iris Button of the lens to the A (Auto) position or activate the Electronic Light Control.

13. Page Switch (PAGE)

By repeated pressing of this switch, the Initial Set and User Set menus can be changed in the viewfinder or on the monitor.

14. Item/I Noise Suppress Switch (ITEM/I-NS)

When the User Set Switch is set to the 1 or 2 position, this switch is used to move the cursor to the various items in the menu.

When the User Set Switch is set to the OFF position, the I Noise Suppress in the menu can be selected by this switch.

Note: Noise of the i axis on the vector can be suppressed when the Detail Level Selection Switch (20) is set to the HIGH or LOW position.

15. Up/Zone Switch (UP/ZONE)

When the User Set Switch is set to the 1 or 2 position, the On mode of an item can be selected and/or the level of an item can be increased in the menu by this switch.

When the User Set Switch is set to the OFF position, the display on or off of the center marker or safety zone into the viewfinder can be selected by this switch.

Notes:

1. The marker shows the electronic center of the picture and might not coincide with the optical center of the picture.
2. The center marker on/off and type of safety zone can be set by the Sub Menu.

16. Down/Level Indicator Switch (DOWN/IND)

When the User Set Switch is set to the 1 or 2 position, the Off mode of an item can be selected and/or the level of an item can be decreased in the menu.

When the User Set Switch is set to the OFF position, the display On/Off of the zebra pattern into the viewfinder can be controlled by pressing this switch.

Picture images exceeding a specified level (95 IRE) will produce a zebra pattern barely visible.

Note: The zebra level can be set by the Sub Menu.

17. Clean DNR (Digital Noise Reduction) Selection Switch (DNR OFF, LOW, HIGH)

This switch is used to improve the S/N ratio on the screen.

18. User Set Switch (USER SET 2, 1, OFF)

By setting this switch to the 1 position, a Menu selected by the Scene File Switch is displayed in the viewfinder and menu setting is available.

By setting this switch to the 2 position, a Menu selected by the Scene File Selection Switch is displayed in the viewfinder and the monitor.

To display the normal picture in the viewfinder or on the monitor, set this switch to the OFF position. (The menu is kept under the last condition)

Note: To select the USER A or USER B menu, set the Scene File Selection Switch (10) to the USER position while pressing the Page Switch (13) or Check Button (25).

When setting the Scene File Selection Switch (10) to the USER position without the Page Switch or Check Button, the last selected menu of USER A or B is displayed.

19. High Light Chroma Switch (HL CHROMA ON/OFF)

This switch is used to obtain the good picture in the high brightness condition.

By setting this switch to the ON position, the low or high level can be selected in the Sub Menu or User Set menu.

Note: When the HL CHROMA is set to the HIGH position, the object in the high brightness condition might be colored.

20. Detail Level Selection Switch (DTL, LEVEL-HIGH/LOW/OFF)

The detail/aperture level can be selected by this switch in three steps. Set this switch to the desired position while observing the sharpness of the picture.

Note: When over modulation has occurred with recording or playing back the VTR, set this switch to LOW position.

21. Recording Time Reset Button (RESET)

The accumulated recording time is displayed in the viewfinder under REC TIME while the Check Button (25) is pressed. The time can be reset to "0 MIN" by pressing either this button or the one on the AG-7450A VTR. Thus, total recording time can easily be checked by first pressing this button at the outset of a new recording and then checking REC Time at the end of the recording by pressing the check button .

Note: The REC TIME displayed in the viewfinder and the one displayed on the AG-7450A might be different.

22. Lens Iris Control (IRIS)

The auto iris level can be adjusted by this control. When replacing the lens, check the output signal of the camera and make any necessary adjustment with this control, if required.

23. Total Pedestal Level Control (T. PED)

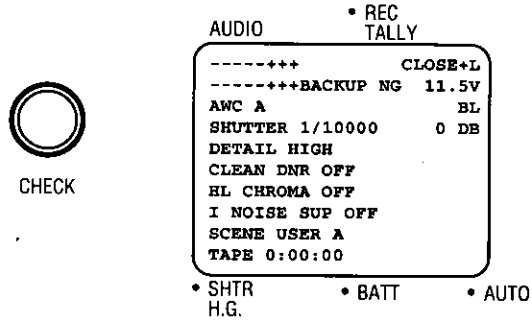
This control is used for adjusting the pedestal level of the video signal (luminance). When attempting to match the pedestal level of two or more cameras in a system, use a waveform monitor or oscilloscope for precise adjustment.

24. Audio Level Control (AUDIO)

Only when the MII format VTR AU-45H is connected, the microphone level can be adjusted.

25. Check Button (CHECK)

The operating conditions of the camera can be displayed in the viewfinder by keeping this button pressed. Refer to page 85 for details.



26. Power Switch (DC POWER, OFF/SAVE/ON)

This switch selects the operating mode of the camera. Refer to OPERATING PROCEDURE FOR CAMERA RECORDER APPLICATION on page 65 for details.

27. Color Bar/Night Eye/Camera Selection Switch (BAR/N.E/CAMERA)

BAR: Set this position to display the color bar.

N.E.: Set this position to shoot the object in the dark scene (Night Eye mode).
The High Gain Selection Switch (29) can not work in this mode.

CAMERA: By selecting this position, gain-up level can be set by the High Gain Selection Switch (29).

28. White Balance Selection Switch (AUTO/ATW ATW/A/B)

This switch is used to white balance mode as follows.

ATW: The white balance can be adjusted automatically.

A: The white balance can be set automatically by pressing the Auto White/Auto Black Set Switch (6) upwards. The setting is stored in memory A.

B: Similar to A, but the setting is stored in memory B.

29. High Gain Selection Switch (GAIN LOW/MID/HIGH)

This switch is used to select the gain level.
The gain level can be set in the Sub Menu with the combination shown below.

HIGH	MID	LOW
18 dB	9 dB	0 dB
24 dB	12 dB	0 dB
12 dB	6 dB	0 dB
6 dB	3 dB	0 dB
12 dB	0 dB	-6 dB
6 dB	0 dB	-6 dB

Be sure to use the Operation Seat for WV-F565 (provided with WV-RC700A) when operating this camera in combination with the WV-RC700A Remote Control Unit.

30. Lens Hold Ring/Knob

Turn this ring/knob clockwise to secure the lens to the camera.

31. Filter Selection Wheel

This wheel, which has four positions, controls two built-in color temperature conversion filters and one ND filter.

(1) 3200K - indoor light (tungsten, halogen, quartz lamps)
(2) 5600K +6.25% ND - daylight (sunny)
(3) 5600K - daylight (cloudy/rainy)
(4) Close

Select the position according to the light source (see page 76).

Caution: If the incorrect filter is selected, the Automatic White Balance Setting may not be successfully completed.

32. Viewfinder Lock Lever

The viewfinder's position is locked or released through the use of this lever. When the lever is released, the viewfinder can be slid approximately 1-3/4" (45 mm) laterally and 13/16" (20 mm) back and forth. Be sure to lock the level after having adjusted the viewfinder position.

33. Viewfinder Mounting Base

The 1.5" Electronic Viewfinder, WV-VF42, is mounted on the camera by first installing this base onto the camera. Refer to page 32 for detailed mounting instructions.

34. Microphone

This Microphone is a nondirectional condenser microphone. When sound from the surroundings is not desired, use the optional Microphone WM-L30 and Microphone Holder WV-MH500.

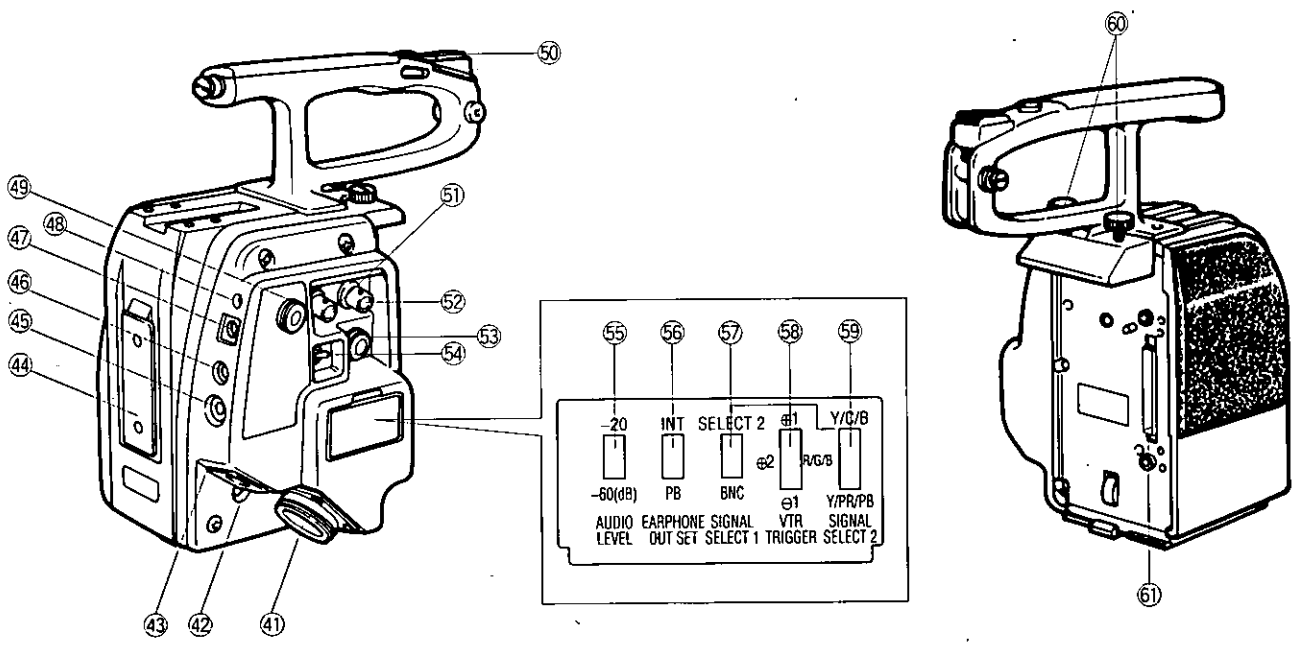
35. Viewfinder Height Adjustment Knob (UP/DOWN)
The height of the viewfinder can be adjusted by first loosening this knob, adjusting the viewfinder to the proper height, and then tightening this knob. Adjustment of up to 13/16" (20 mm) is possible.

36. Monitor Output Connector (MONITOR)
A composite video signal for monitoring is provided at this connector.
Note: This output signal might differ slightly from the output signal of the Video Output Connector (52).

37. Remote Control Box Connector (RCB)
This connector is provided for the Remote Control Box (RCB) connection.
Note: When connecting the BNC Cable to the Monitor Output Connecter (36), the video signal from this connector through the Remote Control Box can not be output.

38. Power Indicator
This indicator lights red when the camera is operating. When the camera is in the standby mode, the indicator lights green.

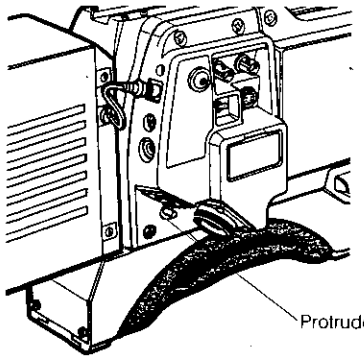
CAMERA ADAPTOR WV-AD500



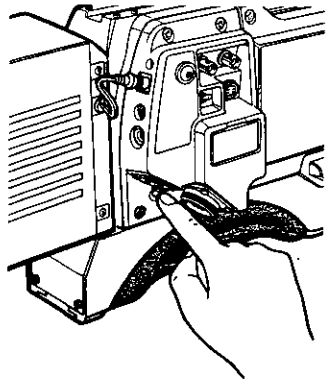
41. VTR/RCU Connector (26-pin) (VTR/RCU)
When using the camera together with a Panasonic portable color VTR, the specified VTR cable should be connected between the camera and VTR. This connector is also used for connection of the 26-pin studio cable from the Remote Control Unit (RCU) for comprehensive system operation. When connecting the 26-pin studio cable to this connector, the camera is automatically set to the RCU operation mode.

1/2" VHS and 3/4" U-vision portable VTR (10-pin)
WV-CA26A10 (26P-10P cable)
3/4" U-vision portable VTR (14-pin)
WV-CA26A/14 (26P-14P cable)
MII portable VTR (26P)
WV-CA26A/26 (32P-26P cable)
26 pin studio cable (RCU cable)
WV-CA26U15
WV-CA26U30
WV-CA26U100

42. Circuit Protector (BREAKER)
When an excessive current flows into the camera due to a short circuit or some other reason, the red button of this circuit protector protrudes to cut off the circuit.

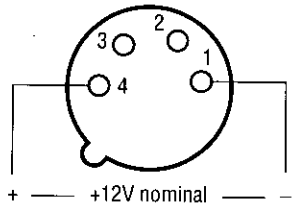


After solving the problem, press the red button again to recover the circuit.



CAUTION: Refer servicing to qualified service personnel to solve the problem.

43. External DC Input Connector (XLR, 4-pin) (EXT DC)
This connector accepts the power cable from an external DC source supplying nominal power of 12V, 2A (a belt type battery or car battery for example). This connector also accepts the power cable from an AC adaptor. For driving the studio configuration, a 12V DC, 2.5A power source is required.



44. Battery Pack Mounting Angle
Mount the Battery Pack WV-PS60/WV-PS33 or the AC Adaptor/Charger WV-PS34 on the camera by sliding it down along this mounting angle.

45. Intercom Jack (M6) (INTERCOM)
This jack is used for communication between the camera operator and operators of the RCU and Special Effect Generator in a system.

46. Earphone Jack (M3) (EARPHONE)
When an earphone is connected, the sound picked up through the microphone or played back audio from a 3/4" U-vision recorder, 26-pin MII format portable VTR or 14-pin S-VHS portable VTR connected to the camera, can be monitored.

47. Battery Connector (BATTERY)
Connect the cord from the Battery Pack to this connector.

48. Recording/Tally Indicator (red) (REC TALLY)
This indicator lights when the VTR is set to the recording mode (through the VTR Start/Stop button), and informs the person concerned of scenes being recorded.
The Tally indicator also lights when the camera is in full system operation together with the Remote Control Unit and Special Effects Generator.
In case a tape is not loaded or the tape end is reached, or if the servo mechanism is working improperly, this indicator will start blinking to warn the operator of such faults.
Note: If a portable VTR is not connected to the camera, the Recording/Tally indicator will not light.

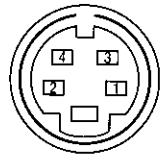
49. Earphone/Intercom Level Control (LEVEL)
Use this control to adjust the volume level in the earphone connected to the Earphone Jack (46) or the headset connected to the Intercom Jack (45).

50. Accessory Shoe

51. Gen-lock Input Connector (BNC) (GEN-LOCK)
The color video signal of the camera is automatically synchronized to the gen-lock signal (composite or black burst) which is supplied to this connector. The gen-lock signal is used for system reference, such as when using a Special Effects Generator.
Caution: If the gen-lock signal is jittery (like that obtained from VTR playback), the camera may not be able to synchronize properly.

52. Video Output Connector (BNC) (VIDEO OUT)
A composite video signal is provided at this connector.

53. S-VHS Video Output Connector (S-VIDEO OUT)
The luminance (Y) and chroma (C) signals for S-VHS VTR or monitor are provided at this connector.



S-VIDEO OUT (female)

No.	Contents
1	Y Ground
2	C Ground
3	Y Signal Output
4	C Signal Output

54. Power Selection Switch (POWER SELECT, BATT/EXT DC-VTR/RCU)

By using this switch, the desired power source connected to the camera can be selected.

BATT/EXT DC: This position is used for power supply from the battery pack, and external DC source or through an AC adaptor.

VTR/RCU: This position is used when power is to be supplied through the 26-pin connector from the VTR or the Remote Control Unit (RCU).

55. Audio Level Selection Switch (AUDIO LEVEL –20/–60 dB)

Two audio output levels to the VTR can be selected: –20 dB or –60 dB. The camera has been preset to –20 dB at the factory.

56. Earphone Selection Switch (EARPHONE OUT SEL, INT/PB)

This switch selects the audio signal from the Earphone jack (46) to be monitored.

INT: The sound picked up by the microphone can be monitored.

PB: The played back audio from a 3/4" U-vision recorder, 26-pin MII format portable VTR or 14-pin S-VHS portable VTR, obtained through the VTR/RCU Connector of this adaptor, can be monitored.

Note: The camera has been preset to the INT position at the factory.

57. VTR Video Output Selection Switch 1 (SIGNAL SELECT 1)

This switch select the video output signal supplied to the VTR/RCU connector (41).

ENC: A composite video signal is supplied for 1/2" VHS and 3/4" U-vision portable VTRs.

SELECT 2: The signal selected by the VTR Video Output Selection Switch (59) is output from the VTR/RCU Connector (41).

Note: The camera has been preset to the ENC position at the factory.

58. VTR Compatibility Switch ((+)1/(+)2/(–)1)

Set this switch according to the VTR type connected to the camera.

(+)1: For 1/2" VHS VTRs.

(+)2: For 3/4" U-vision VTRs, connected to the camera, S-VHS VTRs and MII portable VTRs.

(–)1: If a VTR of other manufacture is used, or if the VTR pauses when the tape should be running and vice versa, this switch should be set to this position.

Notes:

1. The switch has been preset to the (+)1 position at the factory.
2. Some VTRs may not operate properly when connected to this camera, even though the setting of this switch is changed. Please consult your dealer for further information.

59. VTR Video Output Selection Switch 2 (SELECT 2)

When the VTR Video Output Selection Switch 1 is set to the SELECT 2 position, this switch should be set according to the VTR type.

Y/C/B: The chrominance (C) and luminance (Y) signals are supplied from the R, G and B Output Connectors (145) of the RCU and from the VTR/RCU Connector (41) for S-VHS format VTR.

R/G/B: The R, G and B signals are supplied from the R, G and B Output Connector (145) of the RCU and from the VTR/RCU Connector (41).

Y/BP/PR: The color difference (R-Y & B-Y) signals and luminance (Y) signal are supplied from the VTR/RCU Connector (41) and the R, G and B Output Connectors (145) on the Remote Control Unit for MII and Betacam format VTRs.

60. Camera Adaptor Holding Screws/Knobs.

These screws/knobs are used to fix the camera adaptor to the Camera head.

61. 68-pin Multi Connector

When mounting the camera adaptor, engage the 68-pin connectors on the Camera and the Camera adaptor.

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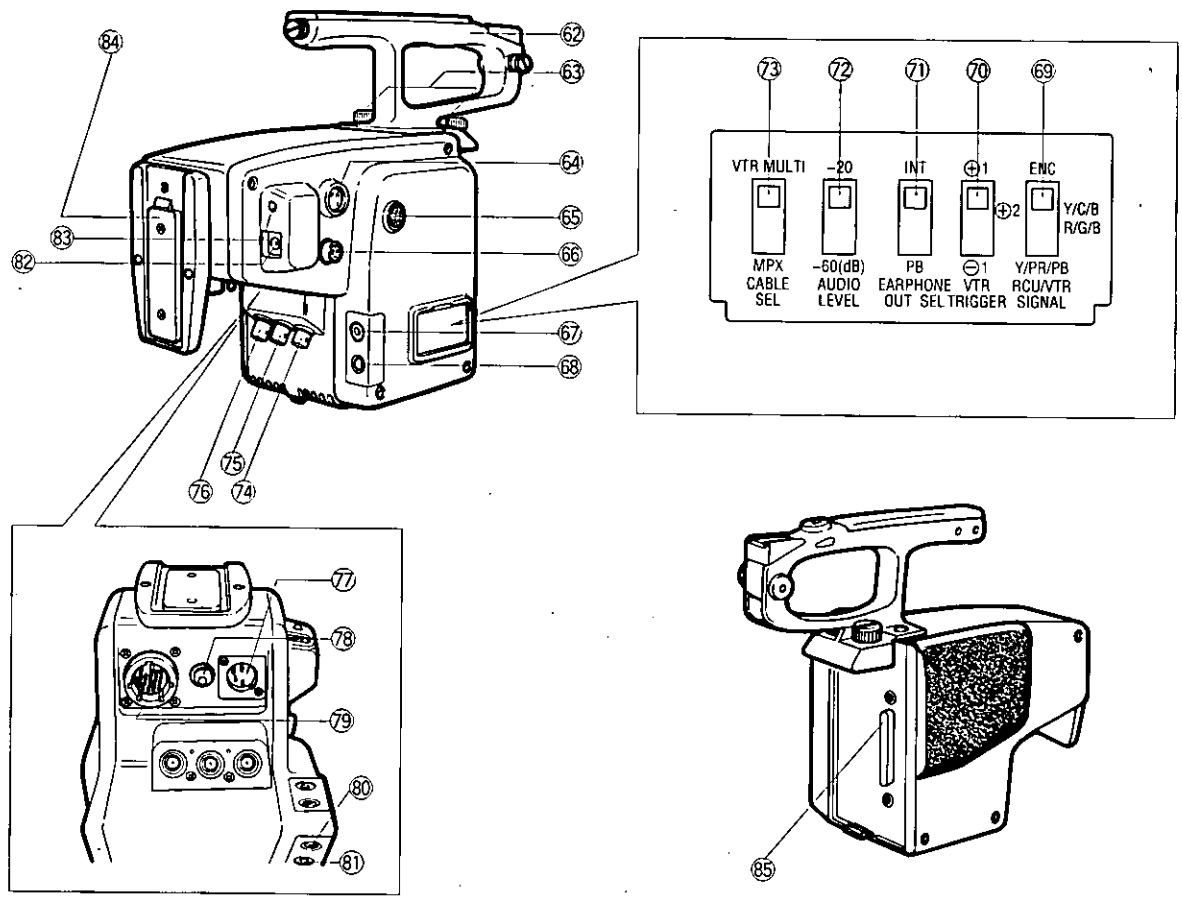


62. Camera Handle

63. Camera Adaptor Holding Screw/Knob
The camera adaptor can be removed from the camera after loosening two knobs on top of the adaptor and then pressing the release button underneath of the camera while pulling on rear of camera adaptor.

64. VTR Start/Stop Button (VTR) (parallel operation)
This button is used to change the recorder mode from pause (Recording Pause) to recording and functions in the same way as the VTR Start/Stop Button on the lens. Press once to start recording. While recording, the Tally Indicator in the viewfinder lights and the Tally Light on the viewfinder also lights.
When the button is pressed once more, the recorder is set to the Pause mode (Recording Pause), and the Recording/Tally Indicator and Tally Light will go off.

65. Intercom/Earphone Level Control (INCOM EARPHONE)
Use this control to freely adjust the volume level in the earphone connected to the Earphone Jack (68) or the headset connected to the Intercom Jack (67).

66. S-Video Output Connector (S-VIDEO OUT)
The luminance (Y) and chroma (C) signals for S-VHS VTR or monitor are provided at this connector.

67. Intercom Jack (M6) (INCOM)
This jack is used for communication between the camera operator and operators of the Remote Control Unit (RCU) and Special Effect Generator in the system.

68. Earphone Jack (M3) (EARPHONE)
When an earphone is connected, the sound picked up by the microphone or the played back audio from a 3/4" U-vision recorder, connected to the camera through the VTR 14-pin camera connector, can be monitored. Selection of the audio source is enabled by the Earphone Out Selection Switch (71).

69. RCU/VTR Signal Selection Switch (RCU/VTR SIGNAL ENC, Y/C/B, R/G/B, Y/PR/PB)
This switch selects the video output signal supplied at the VTR/RCU Connector (79) on the adaptor and the Red, Green and Blue Output Connectors on the Remote Control Unit (RCU). The switch has been set to the R/G/B position at the factory.
ENC: The composite output signal for the VTR, such as 1/2" VHS or 3/4" U Machic, is supplied.

Y/C/B: The chrominance (C) and luminance (Y) signals are supplied from the R, G and B Output Connectors for S-VHS format VTR.

R/G/B: The R, G and B signals are supplied from the R, G and B Output Connectors.

Y/PB/PR: The color difference (R-Y & B-Y) signals and luminance (Y) signal are supplied from the VTR/RCU Connector (79) and the R, G and B Output Connectors on the Remote Control Unit for MII and Betacam format VTRs.

70. VTR Compatibility Switch ((+)1/(+)2/(–)1)

Set this switch according to the VTR which is connected to the camera.

(+)1: For 1/2" VHS VTRs.

(+)2: For 3/4" U-vision VTRs, connected to the camera using a 14-pin connector, S-VHS VTRs and MII portable VTRs

(–)1: If a VTR of other manufacture is used, and if this VTR pauses when the tape should be running and vice versa, this switch should be set to this position.

Notes:

1. The switch has been preset to the (+)1 position at the factory.
2. Some VTRs may not operate properly when connected to this camera, even though the setting of this switch is changed. Please consult your dealer for further information.

71. Earphone Out Selection Switch (INT/PB)

This switch selects the audio signal from the Earphone Jack (68) to be monitored.

INT: The sound picked up by the microphone can be monitored.

PB: The played back audio can be monitored.

Note: The camera has been preset to the INT position at the factory.

72. Audio Level Selection Switch (AUDIO LEVEL –20/–60 dB)

Two audio output levels to the VTR can be selected: –20 dB or –60 dB

The camera has been preset to –20 dB at the factory. When using this adaptor with WV-RC700A, set this switch to the –20 dB position.

73. Cable Selection Switch (VTR MULTI/MPX)

This switch is used to select either the multi-cable VTR/RCU cable or the single coaxial multiplex cable. When using the multi-cable in the VTR or Remote Control Unit (RCU), set this switch to VTR MULTI position. In case of the multiplex or VP multiplex operation using a coaxial cable, set this switch to MPX position.

Note: Video Power (VP) Multiplex system is; multiplex signal and power are supplied using a single coaxial cable.

74. Video Output Connector (BNC) (VIDEO OUT)

A composite video signal is provided at this connector.

75. Gen-lock Input Connector (BNC) (GEN-LOCK)

The color video signal of the camera is automatically synchronized to the gen-lock signal (composite or black burst) which is supplied to this connector. The gen-lock signal is used for system reference, such as when using a Special Effects Generator.

Caution: If the gen-lock signal is jittery (such as when obtained from VTR playback), the camera may not be able to synchronize properly.

76. Multiplex Signal Input Connector (MPX)

Communications between the camera side and the Remote Control Unit (RCU) are available through a single coaxial cable by using this connector as the composite signal, gen-lock signal, control signal and intercom/audio signal are multiplexed, and the composite signal is output from the Remote Control Unit (RCU).

77. External DC Input Connector (XLR, 4-pin) (EXT DC)

This connector accepts the power cable from an external DC source supplying nominal power of 12V, 2A (a belt type battery or car battery for example). This connector also accepts the power cable from an AC adaptor. For powering the studio configuration, a 12V DC, 2.5A power source is required.

Cautions:

- Use only with a 12V DC power source with a Class 2 rating. Do not use with an external storage battery unless provided with an 8A rated fuse, located within 5 inches of the battery connecting means.
- An external DC source supplied to this connector gets the highest priority, i.e., it is selected before the battery connector or Mulitcore/VTR DC source.

78. Circuit Protector (BREAKER)

When excessive current flows into the camera due to some fault, the red button of this circuit protector protrudes to cut off the circuit power.

After solving the problem, press the red button again to reset the circuit protector.

Caution: Refer servicing to qualified service personnel to solve the problem.

79. VTR/RCU Connector (26-pin) (VTR/RCU)

When using the camera together with a Panasonic portable color VTR, the specified VTR Cable should be connected between the camera and VTR. This connector is also used for connection with the 26-pin studio cable from the Remote Control Unit (RCU) for comprehensive system operation. When connecting the 26-pin studio cable to this connector, the camera is automatically set to the Remote Control Unit (RCU) operation mode.

- 1/2" VHS and 3/4" U-vision portable VTR (10-pin)
  WV-CA26A10 (26P-10P cable)
  3/4" U-vision portable VTR (14-pin)
  WV-CA26A14 (26P-14P cable)
  MII portable VTR (26-pin)
  WV-CA26A26 (26P-26P cable)

- 26 pin Studio Cable (RCU Cable)
  WV-CA26U15
  WV-CA26U30
  WV-CA26U100

80. Lens Connector
This connector is used to connect the lens cable for zoom, focus or servo control.

81. Control Connector
This connector is used to connect the optional Pan/Tilt Control Cable WV-CA10U25.

82. Battery Connector (BATTERY)
Connect the cord from the Battery Pack to this connector.

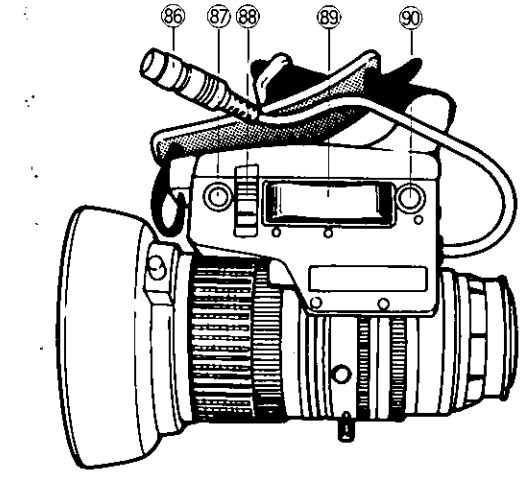
83. Recording/Tally Indicator (red) (REC TALLY)
This indicator lights when the VTR is set to the recording mode (through the VTR Start/Stop Button), and informs the person concerned of scenes being recorded. The Tally indicator also lights when the camera is in full system operation together with the Remote Control Unit and Special Effects Generator. In case a tape is not loaded or the tape end is reached, or if the servo mechanism is working improperly, this indicator will start blinking to warn the operator of such faults.

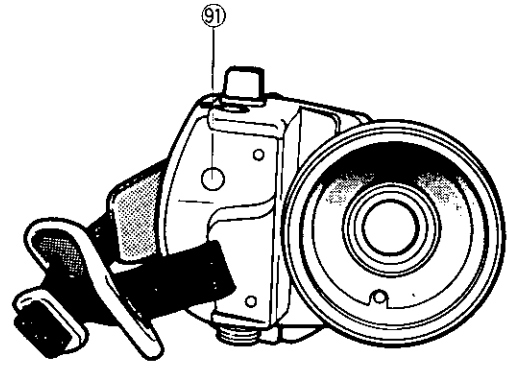
Note: If a portable VTR is not connected to the camera, the Recording/Tally Indicator will not light.

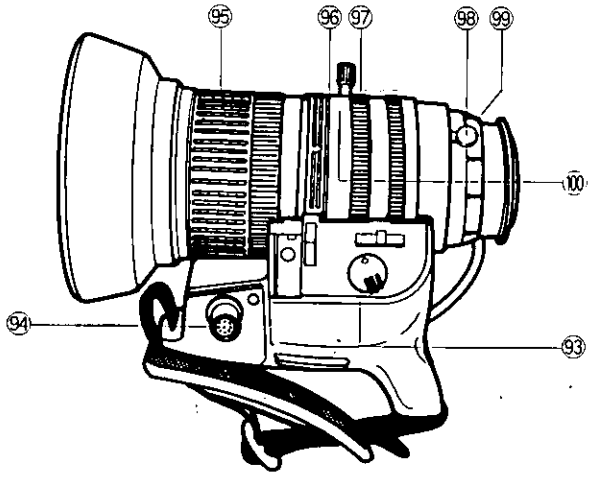
84. Battery Pack Mounting Angle
Mount the Battery Pack WV-PS60/WV-PS33, the AC Adaptor/Charger WV-PS34 or Power Separator WV-PS700 on the camera by sliding it down along this mounting angle.

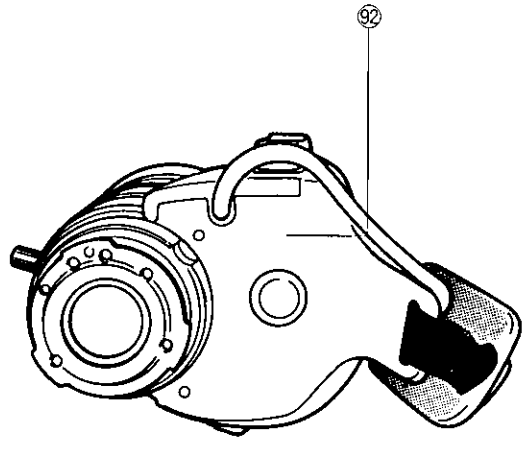
85. 68-pin Multi Connector
When mounting this adaptor engage the 68-pin connectors on the camera and this connector.

13X SERVO CONTROL ZOOM LENS YH13X75BKRS









86. Lens Cable with 12-pin Connector

This cable supplies power to the servo control zoom motor and the automatic iris control device.

The cable should be connected to the Lens Connector (1) on the camera.

87. Auto Iris Button (IRIS)

When this button is pressed while the Iris Control Selection Switch (88) is set to the M (manual) position, the lens iris is automatically set according to the light intensity reaching the lens.

Note: Button must be pressed for 5 seconds or improper iris setting will result.

88. Iris Control Selection Switch (A/M)

This switch selects the operational condition of the lens iris.

A (Auto): The lens iris is automatically controlled. When the camera is used in studio applications together with the Remote Control Unit (RCU), this switch should be set to the "A" position. In this case, the lens iris is remotely controlled from the RCU or RCB.

M (Manual): The lens iris can be manually controlled by rotating the Iris Ring (97). With this setting, the correct lens iris setting can also be set by pressing the Auto Iris Button (87).

89. Servo Zoom Control (Wide/Tele)

The zoom function of this 13:1 zoom lens can be controlled by pressing this control. Zooming to tele as well as wide angle is possible. Furthermore, the zooming speed can be controlled by changing the pressure applied on this control.

90. Return Video Button

When an auxiliary signal such as a lineview signal from a Special Effects Generator is supplied to the auxiliary connector of the Remote Control Unit (RCU) while the camera is set up for system operation, the signal can be previewed on the electronic viewfinder as long as this button is kept pressed. When a 3/4" U-vision portable recorder, connected through the VTR's 14-pin camera input connector, or an S-VHS VTR recorder is set to the playback mode, the played back picture can be viewed as long as this button is kept pressed.

91. Auto Iris Sensitivity Control (IRIS GAIN)

With setting the Iris Control Selection Switch (88) to the A position, adjust the Iris Gain by turning this control.

92. VTR Start/Stop Button (VTR)

This switch is used to start and pause the connected recorder. The function of this button is identical to the VTR Start/Stop Button (5) on the camera.

After having set the recorder to the recording standby mode, press this button to start and pause recording. While recording is in progress, the Recording/Tally indicator in the viewfinder and the Tally Light (101) on front of the viewfinder lights.

93. Servo/Manual Zoom Selection Switch (SERVO/MANU)

This switch is used to select between zooming by servo control or manually.

SERVO: Zoom operation is performed by pressing either side of the Servo Zoom Control (89).

MANU: Zoom operation is performed manually by rotating the Zoom Ring/Lever (96).

94. Connector for Zoom Remote Controller

The Zoom Remote Controller, included in the Lens Control Kit WV-LK35, should be connected to this connector. This will allow remote control of zooming.

95. Focus Ring

Rotating this ring will change the lens focus. By observing the picture in the viewfinder, correct focus can easily be set.

With the optional Lens Control Kit WV-LK35, including flexible cable for the Zoom Remote Controller and Focus Controller, zooming and focusing can be remotely controlled.

96. Zoom Ring/Lever

By setting the Servo/Manual Zoom Selection Switch (93) to the MANU (manual) position, zooming can be manually performed through use of this ring/lever. 15 times magnification is possible from wide angle to telephoto. When the Servo/Manual Zoom Selection Switch (93) is set to the SERVO position, zooming is performed with the Servo Zoom Control (89).

97. Iris Ring

When the Iris Control Selection Switch (88) is set to the M (manual) position, the lens iris can be manually adjusted by rotating this ring.

98. Flange-back Lock Knob

The Flange-back Adjustment Ring (99) can be locked by turning this knob.

99. Flange-back Adjustment Ring

The flange-back (or back focus) of the lens can be adjusted by rotating this ring. The Flange-back Lock Knob (98) should be released prior to adjustment.

100. Macro Ring/Button

For close-up shooting, rotate this ring to the macro area while pressing this button. After setting the Servo Zoom Control (89) to the WIDE position, close-up shooting up to approximately 2" (50 mm) from the lens surface is possible by rotating this ring.

1.5" ELECTRONIC VIEWFINDER WV-VF42

101. Tally Light

This light is lit when the Tally ON/OFF Switch (105) is set to ON position and the VTR has been set to the recording mode with the VTR Start/Stop Switch. This light indicates that recording is in progress.

102. Accessory Shoe

Do not mount a light source.

103. Eye Cap

The eye cap, besides blocking out stray light, offers comfortable viewing of the monitor picture. The cap may be flipped open if this is desired.

104. Diopter Adjustment Ring

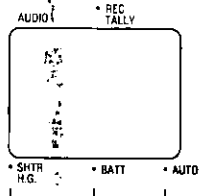
Rotate this ring for optimum diopter setting.

Note: Loosen the Lock Ring (110) before this adjustment.

105. Tally ON/OFF Switch (TALLY ON/OFF)

This switch turns ON/OFF the Tally Light (101) located on front of the viewfinder.

<LED Indicators in the Electronic Viewfinder>



Recording/Tally Indicator (Red)

This indicator lights when the VTR is set to the recording mode by pressing the VTR Start/Stop Switch. When using the camera with a 3/4" U-vision recorder or 1/2" S-VHS portable VTR, through the use of the VTR's 14-pin camera connector, MII portable VTR's 26-pin connector, if the video tape is not loaded, the tape end is reached, or if the servo mechanism is not working properly, this indicator blinks to warn the camera operator.

Note: If a portable VTR is not connected to the camera, the Recording/Tally Indicator will not light.

Auto Warning Indicator (Green)

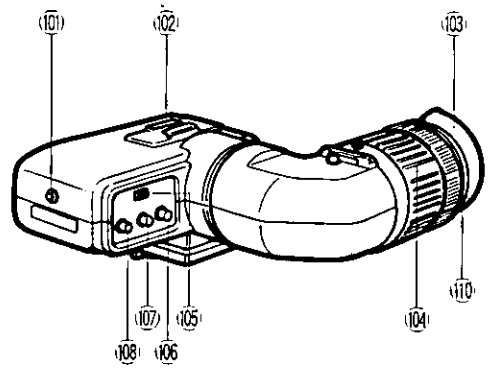
This indicator blinks while the white balance or black balance is being automatically set. This indicator lights when the white or black balance is set improperly. In this case, carry out the automatic setting procedure for white and/or black balance.

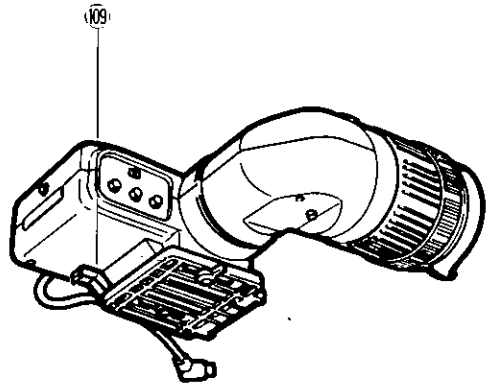
Battery Warning Indicator (Amber)

When this indicator blinks, the battery should be replaced. The battery will only supply sufficient power to the camera for a few minutes after the indicator starts blinking.

Shutter/High Gain Indicator (Green/Red)

The indicator lights red to indicate high gain selection of MID or HIGH has been selected with the High Gain Selection Switch (29).





When the shutter is turned on, this lights in green. This indicator lights yellow to indicate the shutter on when the high gain selection of MID or HIGH has been selected.

And also this indicator lights yellow to indicate the shutter on when the high gain selection of N.E. has been selected by the Color Bar/Night Eye/Camera Selection Switch (27).

106. Brightness Control (BRIGHT)

Turn this control clockwise to increase the brightness of the picture in the viewfinder.

107. Contrast Control (CONTRAST)

Turn this control clockwise to increase the contrast of the picture in the viewfinder.

108. Peaking Control (PEAKING)

When shooting under low light conditions, turning this control clockwise will facilitate easy focusing adjustment.

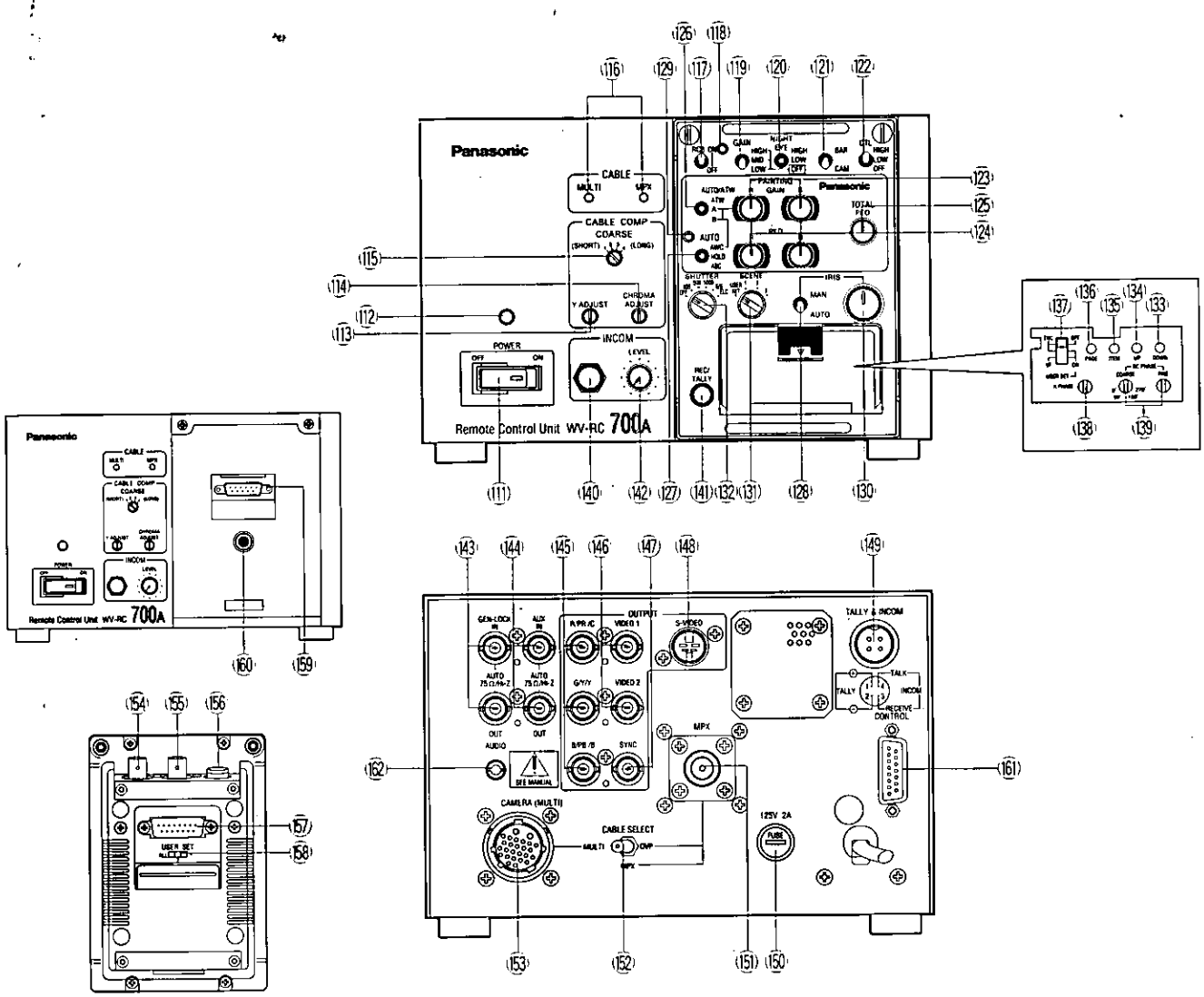
109. Viewfinder Slide Stopper

When removing the viewfinder from the camera, first release the Viewfinder Lock lever and then slide the viewfinder to the right (as viewed from the front) while pulling this stopper.

110. Lock Ring

After completing the diopter adjustment, tighten this ring.

REMOTE CONTROL UNIT WV-RC700A



• The illustration of the front panel shown above has been stuck the operation seat.

111. Power Switch (POWER, ON/OFF)

This switch turns on and off the power of the Remote Control Unit (RCU).

112. Power Indicator

This switch lights red whenever the unit is operating.

113. Luminance Gain Fine Control (Y ADJUST)

This control allows for fine adjustment of the luminance signal level for matching the levels of all cameras in a system. Adjust this control only after having set the Cable Length Compensation Switch (115) to the correct position.

114. Chroma Gain Fine Control (CHROMA ADJUST)

This control allows for fine adjustment of the chroma signal level for matching the chroma levels of all the cameras in a system. Adjust this control only after having set the Cable Length Compensation Switch (115) to the correct position.

115. Cable Length Compensation Switch (CABLE/COMP)

This switch is used to compensate for extensive cable lengths used with the 26-pin multi-cable between the camera and Remote Control Unit (RCU).

1. Use for cable length of less than 225 ft (75m)
2. Use for cable length of 225-450 ft (75-150m)
3. Use for cable length of 450-690 ft (150-230m)
4. Use for cable length of 690-900 ft (230-300m)

This switch is also used to compensate for extensive cable lengths used with the coaxial cable between the camera and Remote Control Unit (RCU).

1. Use for cable length of less than 450 ft (150m)
2. Use for cable length of 450-900 ft (150-300m)
3. Not available
4. Not available

116. Cable Indicator (CABLE, MULTI/MPX)

This indicator shows the setting position of the Cable Selection Switch (152) on the rear panel.

117. Remote Control Box (RCB) Operation Switch (RCB)

When connecting the Remote Control Box to the camera without using the Remote Control Unit, set this switch to ON position. When the RCB is installed in the RCU, this switch can not operate.

118. Remote Control Box (RCB) Indicator (ON/OFF)

This indicator lights while control data is communicated between the camera and Remote Control Unit (RCU) or Remote Control Box (RCB).

119. High Gain Selection Switch (GAIN, HIGH/MID/LOW)

The gain-up level can be selected by this switch.

The level of HIGH, MID and LOW can be set by the Sub Menu with the combination shown below.

HIGH	MID	LOW
18 dB	9 dB	0 dB
24 dB	12 dB	0 dB
12 dB	6 dB	0 dB
6 dB	3 dB	0 dB
12 dB	0 dB	-6 dB
6 dB	0 dB	-6 dB

120. Night Eye Selection Switch (NIGHT EYE, HIGH/LOW/OFF)

HIGH: Gain-up level of +35 dB can be obtained at this position.

LOW: Gain-up level of +30 dB can be obtained at this position.

OFF: Gain-up level can be set by the High Gain Selection Switch (119).

Note: When this switch is set the HIGH or LOW position, the High Gain Selection Switch (119) does not work.

121. Color Bar/Camera Selection Switch (BAR/CAM)

In a system configuration, this switch is used for signal selection between camera mode and color bar mode.

BAR: A color bar signal is provided from the Video Output Connector (146) on the Remote Control Unit (RCU).

CAM: The actual picture, as picked up through the lens, is displayed.

122. Detail Level Selection Switch (DTL, LEVEL-HIGH/LOW/OFF)

The detail/aperture level can be selected by this switch in three steps. Set this switch to the desired position while observing the sharpness of the picture.

123. Red and Blue Gain Controls (PAINTING, R GAIN/B GAIN)

These controls are used to manually adjust the white balance.

These controls only work when the White Balance Selection Switch (126) is set to the A or B position and PAINTING in No.2 Sub Menu is set to the ON.

Turn the controls clockwise to increase the red and blue signal levels, and counterclockwise to decrease these levels.

Note: As these controls employ Digital Processing, the Red and Blue signal levels will be changed in discrete steps.

124. Red and Blue Pedestal Level Controls (PED, R/B)

The black balance can be set manually by these controls when the White Balance Selection Switch (126) is set to the A or B position and PAINTING in No.2 Submenu is set to the ON. Turn these controls clockwise to increase the red and blue pedestal levels, and counterclockwise to decrease the levels.

Note: As these controls employ the Digital Processing, these levels will be changed in discrete steps.

125. Total Pedestal Level Control (TOTAL PED)

This control can adjust the pedestal level of the video signal (luminance) for matching the black level between two or more cameras in a system. Turn this control clockwise to increase the pedestal level, and counterclockwise to decrease the level.

Note: As this control employs the Digital Processing, this level will be changed in discrete steps.

126. White Balance Selection Switch (AUTO/ATW, ATW/A/B)

This switch is used to select the white balance modes as follows:

ATW: The white balance can be adjusted automatically.

A: The White Balance can be set automatically by pressing the Auto White/Auto Black Set Switch (127) upwards. The setting is stored in memory A.

B: Similar to A, but the setting is stored in memory B.

Note: Two white balance setting, one each for different lighting conditions such as indoor and outdoor, may be stored in the two memories, A and B.

127. Auto White/Auto Black Set Switch (AWC/HOLD/ABC)

This switch sets the white balance and black balance automatically as follows:

AWC: This position is used for setting the white balance when the White Balance Selection Switch (126) is set to the A or B position of the White/Black Balance Selection Switch. White balance adjustment is required when "AWC A NG" or "AWC B NG" is displayed in the viewfinder or when the Auto Warning Indicator (129) on lights.

HOLD: In this position, the white and black balances set at the AWC or ABC position can be held fixed, if so desired, for at least one year.

ABC: This position is used for setting the black balance when the White Balance Selection Switch (126) is set to the A or B position.

Black balance adjustment is required when "ABC NG" is displayed in the viewfinder or when the Auto Warning Indicator (129) on the Remote Control Unit (RCU) lights.

Note: While the black balance adjustment is being performed the picture will flash in the viewfinder and on the monitor screen. This flashing indicates that the adjustment is currently being performed and will cease once the adjustment is completed.

128. Lens Iris Selection Switch (IRIS, MAN/AUTO)

This switch is used to set the lens iris of the auto iris servo control zoom lens as follows.

Auto: The iris level of the lens is controlled automatically.

Note: Be sure to set the Iris Control Selection Switch on the zoom lens to the AUTO position.

MAN: The iris level of the lens is controlled to the desired level by using the Lens Iris Control (130).

129. Auto Warning Indicator (AUTO)

This indicator blinks while the white balance or black balance is being automatically set. It goes out once the white and black balances have been correctly set. This indicator lights when the white or black balance is set improperly. In this case, carry out the automatic setting procedure for white and/or black balance.

130. Lens Iris Control (IRIS)

The iris level of the zoom lens can be manually controlled by turning this control when the Lens Iris Selection Switch (128) is set to the MAN position.

131. Scene Selection Switch (SCENE USER SET, 1, 2, 3)

This switch is used to select the most suitable camera conditions, depending on scene conditions, to obtain the best picture possible.

Refer to page 78 for details.

132. Electronic Shutter Speed Selection Switch (SHUTTER OFF/100, 500, 1000, S/S, ELC)

This switch is operative only when a camera featuring the electronic shutter is connected with the Remote Control Unit.

When fast-moving objects are shot at the slow shutter speeds typically found in conventional cameras they will appear blurred.

OFF: Set this switch to this position when recording normally with standard shutter speeds.

100/500/1000: Choose the suitable shutter speed from these.

S/S: The shutter speed can be continual changed from 60.5 - 250 Hz at this position by using the "SYNCHRO-SCAN" on menu.

ELC: The ELC position makes the electric control for the luminance with the shutter.

Note: The smear may be appeared with the high light objects.

133. Down Switch (DOWN)

This switch is used to decrease the set value of the item pointed out by the cursor when in the User Set menu.

134. Up Switch (UP)

This switch is used to increase the set value of the desired item pointed out by the cursor when in the User Set menu.

135. Item Switch (ITEM)

This switch is used to choose the item in the set-up menus.

136. Page Switch (PAGE)

This switch is used to choose the desired set-up menu from the four menus.

137. Subcarrier Phase Coarse and Fine Controls (SC PHASE COARSE/FINE)

These controls allow for adjustment of the camera signal subcarrier phase from 0° to 360°, to match the phase with that of the burst signal at the Gen-lock Input Connector (143) in a system configuration.

The COARSE control adjusts the subcarrier phase from 0° to 360° in 90° steps, while the FINE control allows for continuous fine adjustment over a range of 90°.

138. Horizontal Phase Control for Gen-lock (H PHASE)

The horizontal phase of the camera signal can be adjusted to match the horizontal phase of the signal at the Gen-lock Input Connector (143).

139. ENC/VF Selection Switch (ENC/VF, OFF/ON)

This switch selects Encoder output or EVF (black and white) output from the Video Output Connector and whether the User Set Function is available as follows:

1. Switch set to position ENC/OFF:
   Encoder is output from the Video Output Connector on the RCB and the User Set function is not available.
2. Switch set to position ENC/ON:
   The User Set function is available.
3. Switch set to position VF/ON:
   User Set function is available and the User Set menu is displayed on the monitor.

140. Intercom Jack (INTERCOM)

This jack is used for communications between the camera operator and Remote Control Unit (RCU) operator in a system configuration with a Special Effects Generator.

141. Tally Indicator (REC/TALLY)

When the Remote Control Unit (RCU) is used in conjuction with a Special Effects Generator, the Tally Indicator inside the viewfinder as well as this indicator on the Remote Control Unit (RCU) will light to indicate that recording is in progress.

Note: When using the Remote Control Box (RCB) in the Remote Control Unit (RCU), the recording start/stop function is not available.

142. Intercom Level Control (INTERCOM, LEVEL)

Use this control to adjust the volume level in the headset connected to the Intercom Jack (140).

143. Gen-lock Input Connectors (BNC)
(GEN-LOCK IN AUTO 75Ω/Hi-Z OUT)

These connectors receive the gen-lock signal (black burst or composite) from the Special Effects Generator for system reference.

When connecting a coaxial cable with BNC connector to this connector, this connector is automatically terminated with 75 ohms.

Caution: As this connector is in parallel connection with the Remote Control Box Gen-lock Input Connector (155), do not input gen-lock signals to both of these connectors simultaneously.

144. Auxiliary Input Connectors
(AUX IN-AUTO/75Ω Hi-Z OUT)

These connectors receive the lineview signal from a Special Effects Generator. Two connectors are provided for bridging or looping application.

When connecting a coaxial cable with BNC connector to this connector, this connector is automatically terminated with 75 ohms.

145. Red, Green and Blue Output Connectors
(OUTPUT-R/PR/C, G/Y/Y, B/PB/B)

Signals supplied from these connectors are selected by the RCU/VTR Signal Selection Switch (69) on the Camera Adaptor. Refer to page 63 for setting the RCU/VTR Selection Switch.

Note: The RCU/VTR Signal Selection Switch (69) on the Camera Adaptor has been set to the ENC position at the factory.

146. Video Output Connectors
(OUTPUT-VIDEO 1, VIDEO 2)

These connectors supply a composite video signal to a Special Effects Generator, a Video Monitor or a VTR.

Note: This connector is in parallel connection with the Monitor Output Connector (154) on the Remote Control Box (RCB).

147. Sync Output Connector (SYNC OUTPUT)

This Connector supplies a negative 4Vp-p/75 sync signal to the Sync Input of an RGB Color Video Monitor for synchronization.

148. S-Video Output Connector (S-VIDEO)

This connector outputs the Y/C signal when the RCU/VTR Signal Selection Switch (69) on the camera adaptor is set to the Y/C/B Position.

149. Tally and Intercom Input Connector
(TALLY & INTERCOM)

Connect a 4-pin cable between this connector and the Tally and Intercom output of the Special Effects Generator.

150. Fuse (125V 1.6A)

151. Multiplex Connector (MPX)

This connector is connected to the Multiplex Connector of the camera with coaxial cable (5C-2V or equal).

Note: When using this connector, set the Cable Selection Switch (152) to MPX position.

152. Cable Selection Switch
(CABLE SELECT, MULTI/MPX)

Set this switch to the MULTI or MPX position according to the control cable used.

MULTI: Select this position when the 26-pin cable (Multi cable) is used to control the camera.

MPX: Select this position when the coaxial cable (5C-2V) is used to control the camera.

Caution: Do not use the multi-cable and the coaxial cable together.

153. Multi-cable Connector (CAMERA)

This connector is connected with the VTR/RCU Connector (41) by using the multi-cable (26-pin).

Note: Be sure to set the Cable Selection Switch (152) to the MULTI position.

154. Monitor Output Connector of the Remote Control Box (RCB)

As this connector is in parallel connection with the VIDEO 2 OUTPUT Connector (146), do not output the signal simultaneously from both connectors.

155. Gen-lock Input Connector of Remote Control Box

This connector is used to input the gen-lock signal to the Remote Control Box when using the Remote Control Box extended from the Remote Control Unit.

156. Remote Control Unit Extension Connector

This connector is used to extend the Remote Control Box from the Remote Control Unit or from the camera by using the optional RCB cable (WV-CA10B25/WV-CA10B50).

The maximum cable length for the extension is 300 ft (100m).

Refer to the following table.

Cable length	(ft)	6	75	150	300
	(m)	2	25	50	100
Decrement		10%	15%	20%	30%

Note: As the video level is changed by using various cable lengths, under certain conditions it may be out of the specification for the WV-F565.

157. Remote Control Unit Connector

This connector is used for directly connecting with the Remote Control Box Connector (159) on the Remote Control Unit.

158. Not used

159. Remote Control Box Connector

This connector is connected directly with the Remote Control Unit Connector (157) on the Remote Control Box.

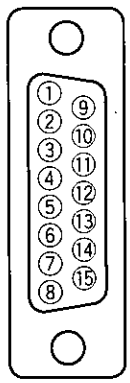
160. Remote Control Box Extension Connector

This is connected to the Remote Control Unit Extension Connector (156) on the Remote Control Box by using the optional cable.
Refer to item 156 for more details.

161. Control Connector (CONTROL)

This connector is connected with the control connector of the pan/tilt unit or lens control by using the multi-cable (15-pin).

1	LEFT
2	RIGHT
3	UP
4	DOWN
5	–
6	FOCUS
7	–
8	ZOOM
9	DEFROSTER
10	WIPER
11	–
12	+5V
13	+V (+7.5V)
14	–V (+2.5V)
15	GND



Pan/Tilt or Housing Control Voltage

	Operation	Stop
LEFT	2.5V	0
RIGHT	2.5V	0
UP	2.5V	0
DOWN	2.5V	0
DEFROSTER	2.5V	0
WIPER	2.5V	0

Lens Control Voltage

	Speed	
	Low	High
NEAR	4.0V	2.5V
FAR	6.0V	7.5V
WIDE	4.0V	2.5V
TELE	6.0V	7.5V

Note: The impedance for the control voltage should be 2 kohms or less.

162. Audio Output Jack (AUDIO OUT)

By setting the Audio Level Selection Switch of the Camera Adaptor WV-AD700AS to the –20 dB position, the audio output is available.

Note: In case of Multiplex or VP Multiplex operation, set the Audio Level Selection Switch of the Camera Adaptor WV-AD700AS to the –20 dB position, the Switch 1 on the Audio Board in side the Camera Adaptor WV-AD700AS and Switch 2 on the MOD board inside this unit to the AUDIO position for the Audio Output function to be activated.

REMOTE CONTROL UNIT RACK MOUNT FRAME WV-Q70

165. Rack-mounting Spacer

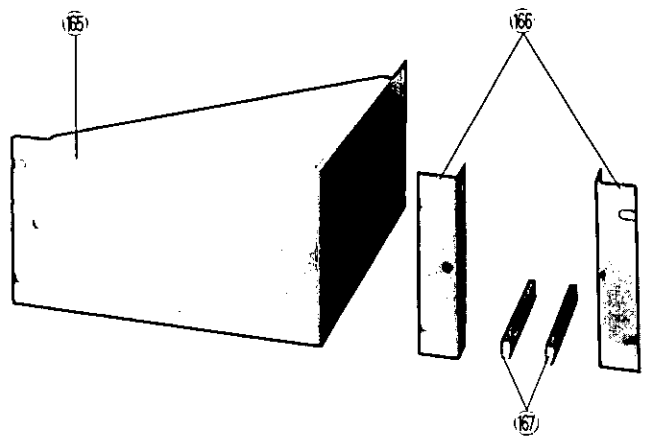
This is used when mounting a single Remote Control Unit in a rack.

166. Rack-mounting Angles

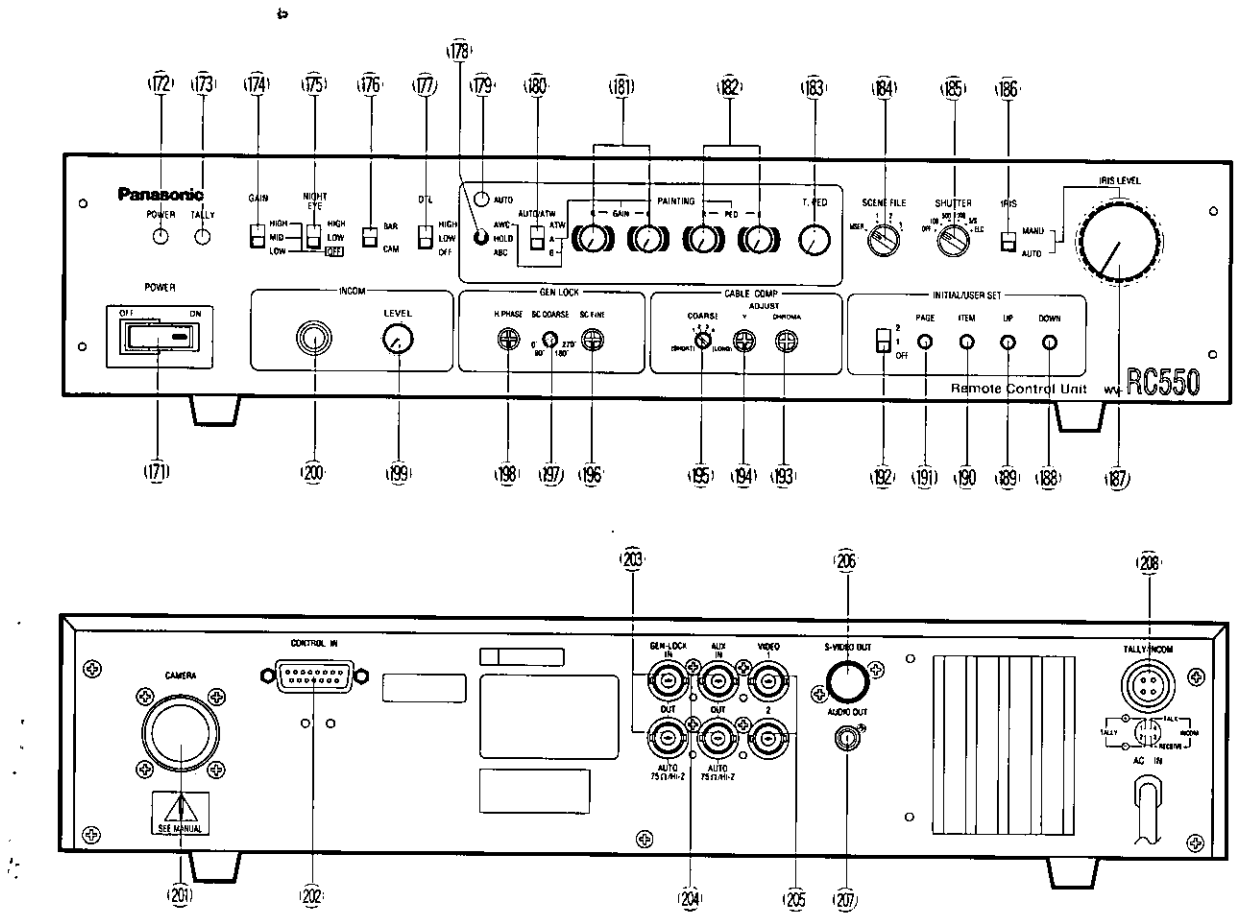
These two Rack-mounting Angles are used for mounting two Remote Control Units side by side in a rack.

167. Remote Control Unit Joining Bar

These bars are used to join two Remote Control Units together.



REMOTO CONTROL UNIT WV-RC550



The illustration of the front panel shown above has been stuck the Operation seat.

171. Power Switch (POWER ON/OFF)

This switch turns on and off the power of the Remote Control Unit (RCU).

172. Power Indicator

This switch lights red whenever the unit is operating.

173. Tally Indicator (TALLY)

When this unit is used in conjunction with a Special Effects Generator, this indicator will light to indicate the selection of this unit from a Special Effects Generator.

174. High Gain Selection Switch (GAIN, HIGH/MID/LOW)

The gain-up level can be selected.

The level of HIGH, MID and LOW can be set by the Sub Menu with the combination shown below.

HIGH	MID	LOW
18 dB	9 dB	0 dB
24 dB	12 dB	0 dB
12 dB	6 dB	0 dB
6 dB	3 dB	0 dB
12 dB	0 dB	-6 dB
6 dB	0 dB	-6 dB

175. Night Eye Selection Switch (NIGHT EYE, HIGH/LOW/OFF)

HIGH: Gain-up level of +35 dB can be obtained at this position.

LOW: Gain-up level of +30 dB can be obtained at this position.

OFF: Gain-up level can be set by the High Gain Selection Switch.

Note: When this switch is set to the HIGH or LOW position, the gain-level setting by the High Gain Selection Switch (174) is not available.

176. Color Bar/Camera Selection Switch(BAR/CAM)

In a system configuration, this switch is used for signal selection between camera mode and color bar mode.

BAR: A color bar signal is provided from the Video Output Connector (205) of this unit.

CAM: The actual camera picture, as picked up through the lens, is displayed.

177. Detail Level Selection Switch (DTL, LEVEL-HIGH/LOW/OFF)

The detail/aperture level can be selected by this switch in three steps. Set this switch to the desired position while observing the sharpness of the picture.

178. Auto White/Auto Black Set Switch (AWC/HOLD/ABC)

This switch sets the white balance and black balance automatically as follows.

AWC: This position is used for setting the white balance when the White Balance Selection Switch (180) is set to the A or B position of the White Balance Selection Switch (180). White balance adjustment is required when the Auto Warning Indicator on this unit lights.

HOLD: In this position, the white and black balances set at the AWC or ABC position can be held fixed, if so desired, for at least one year.

ABC: This position is used for setting the black balance even if the White Balance Selection Switch (180) is set to any position. Black balance adjustment is required when the Auto Warning Indicator on this unit lights.

Notes:

1. While the black balance adjustment is being performed the picture will flash on the monitor screen. This flashing indicates that the adjustment is currently being performed and will cease once the adjustment is completed.
2. If the Lens Iris Selection Switch is set to MAN position, Auto Black Balance may be not performed correctly.

179. Auto Warning Indicator (AUTO)

This indicator blinks while the white balance or black balance is being automatically set. It goes out once the white and black balances have been correctly set. This indicator lights when the white or black balance is set improperly. In this case, carry out the automatic setting procedure for white and/or black balance.

180. White Balance Selection Switch (AUTO/ATW, ATW/A/B)

This switch is used to select the white balance mode as follows.

ATW: The white balance can be adjusted automatically.

A: The white balance can be set automatically by pressing the Auto White/Auto Black Set Switch (178) upwards. The setting is stored in memory A.

B: Similar to A, but the setting is stored in memory B.

Note: When the PAINTING in No.2 Sub Menu or User menu has been set to the ON position, the white balance or red and blue pedestal levels can be adjusted fine by the Red and Blue Gain Controls (181) or Red and Blue Pedestal Level Controls (182).

When PAINTING in Page No.1 of the Initial set menu is set to the ON position, fine adjustment of white balance and R/B pedestal level can be acheived by using the Red and Blue Gain Controls (181) or Red and Blue Pedestal Level Controls (182).

When this switch is set to the ATW position, white balance can be continuously adjusted automatically.

181. Red and Blue Gain Controls (R GAIN/B GAIN)

These controls are used to manually adjust the fine level of white balance.

These controls only work when the White Balance Selection Switch (180) is set to A/B position and PAINTING in No.2 Sub Menu is set to the ON mode.

Turn these controls clockwise to increase the red and blue signal levels, and counterclockwise to decrease these levels.

Note: As these controls employ Digital Processing, the Red and Blue signal levels will be changed in discrete steps.

182. Red and Blue Pedestal Level Controls (PED, R/B)

The fine adjustment of black balance can be set manually by these controls.

These controls only work when PAINTING in No.2 Sub Menu is set to ON mode.

Turn these controls clockwise to increase the red and blue pedestal levels, and counterclockwise to decrease the levels.

Note: As this control employs Digital processing, these levels are changed in discrete steps.

183. Total Pedestal Level Control (T. PED)

This control can adjust the pedestal level of the video signal(luminance) for matching the black levels between two or more cameras in a system. Turn this control clockwise to increase the pedestal level, and counterclockwise to decrease the level.

Note: As this control employs Digital Processing, this level may be changed in the step.

184. Scene File Selection Switch (SCENE FILE, USER A/B/1/2/3)

This switch is used to select the most suitable camera conditions for various scenes to obtain the best picture.

1: Studio Mode

This position is suitable for shooting in normal condition.

Note: This level is adjusted under the condition of 2000 lux 3200 K at F8.

2: ENG Mode

This position is suitable for shooting under fluorescent, halogen or outdoor lighting.

Note: The shooting condition can be selected on the Main menu.

3: Low Light Mode

This position is suitable for low illumination level shooting.

USER: The camera conditions can be set to the desired level by the user.

185. Electronic Shutter Selection Switch (OFF/100/500/1000/ S/S/ELC)

This switch is operative only when a camera featuring the electronic shutter function is connected with this unit.OFF: Set this switch to this position when recording normally with standard shutter speeds.

100/500/1000: Choose the suitable shutter speed from these when recording high speed action.

S/S: Shutter speed can be adjusted to the desired position using SYNCRO in No.1 Sub Menu so that horizontal bar noise will be reduced when this switch is set to this position.

ELC: The ELC position makes the electric control for the luminance with the shutter.

Notes:

1. The smear may be appeared with the high light objects.
2. When the Lens Iris Selection Switch (186) has been set to the AUTO, the fine adjustment of Electronic Light Control (ELC) and lens iris can be made by the Iris Level Control (187) simultaneously.

186. Lens Iris Selection Switch (IRIS, MANU/AUTO)

AUTO: When the Iris Control Selection Switch of the lens has been set to the A (Auto) position, the iris level of the lens is controlled automatically.

When AUTO IRIS in No.1 Sub-menu has been set to ADJ ON, the iris level can be adjusted fine by means of the Iris Level Control (187).

MANU: The iris level of the lens is controlled manually by turning the Iris Level Control (187).

187. Iris Level Control (IRIS LEVEL)

This control is used to adjust the lens iris level. The iris level which had been automatically set, can be controlled fine by using this control when the Lens Iris Selection Switch (186) is set to the AUTO position and AUTO IRIS in No.1 Sub-menu is set to the ADJ ON position.

188. Down Switch (DOWN)

This switch is used to decrease the set value of the item pointed out by the cursor in a menu.

189. Up Switch (UP)

This switch is used to increase the set value of the desired item pointed out by the cursor in a menu.

190. Item Switch (ITEM)

This switch is used to choose the item in the set-up menus.

191. Page Switch (PAGE)

This switch is used to select the desired set-up menu from the available menus.

192. Setup Switch (OFF/1/2)

This switch selects Encorder output from the Video Output Connector and whether the User Set Function is available as follows.

OFF: Switch set to position #1:
Encorder is output from the Video Output Connector on this unit and the Setup function is not available.

1: Switch set to position #1:
The User Set function is available.

2: Switch set to position #2:
User Set function is available and the User Set menu is displayed on the monitor.

193. Chroma Gain Fine Control (ADJUST CHROMA)

This control allows for fine adjustment of the chroma signal level for matching the chroma levels of all the cameras in a system.

Adjust this control only after having set the Cable Length Compensation Switch (195) and the Luminance Gain Fine Control (194) to the correct position.

194. Luminance Gain Fine Control (ADJUST Y)

This control allows for fine adjustment of the luminance signal level for matching the levels of all cameras in a system. Adjust this control only after having set the Cable Length Compensation Switch (195) to the correct position.

195. Cable Length Compensation Switch (COARSE, 1/2/3/4)

This switch is used to compensate for extensive cable length used with the 26-pin studio cable between this unit and the camera.

1. Use for cable length of less than 225 ft (75m)
2. Use for cable length of 225-450 ft (75-150m)
3. Use for cable length of 450-690 ft (150-230m)
4. Use for cable length of 690-900 ft (230-300m)

196. Subcarrier Phase Fine Control for Gen-lock (SC FINE)

This control allows for adjustment of the camera signal subcarrier phase from 0° to 360°, to match the phase with that of the burst signal at the Gen-lock Input Connector in a system configuration.

197. Subcarrier Phase Coarse Control for Gen-lock (SC COARSE)

The Coarse control adjusts the subcarrier phase from 0° to 360° in 90° steps, while Fine control allows for continuous fine adjustment over a range of 90°.

198. Horizontal Phase Control for Gen-lock (H PHASE)

The horizontal phase of the camera signal can be adjusted to much the horizontal phase of the signal at the Gen-lock Input Connector.

199. Intercom Level Control (INTERCOM, LEVEL)

Use this control to adjust the volume level in the headset connected to the Intercom Jack.

200. Intercom Jack (INTERCOM)

This jack is used for communications between the camera-operator and the Remote Control Unit operator in a system configuration with a Special Effects Generator. (Only connection with WV-F565 or WV-F700 series)

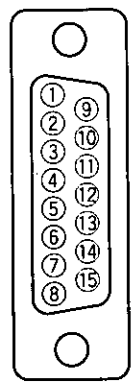
201. Camera Connector (CAMERA)

This connector is connected with the VTR/RCU Connector of camera by using the Conversion Cable (WV-CA26T20 with joint connector) and 26-pin studio cable.

202. Control Connector (CONTROL IN)

This connector is connected with the control connector of the pan/tilt unit or lens control by using the 15-pin multi cable.

1	LEFT
2	RIGHT
3	UP
4	DOWN
5	-
6	FOCUS
7	-
8	ZOOM
9	DEFROSTER
10	WIPER
11	-
12	+5V
13	+V (+7.5V)
14	–V (+2.5V)
15	GND



Pan/Tilt or Housing Control Voltage

	Operation	Stop
LEFT	2.5V	0
RIGHT	2.5V	0
UP	2.5V	0
DOWN	2.5V	0
DEFROSTER	2.5V	0
WIPER	2.5V	0

Lens Control Voltage

	Speed	
	Low	High
NEAR	4.0V	2.5V
FAR	6.0V	7.5V
WIDE	4.0V	2.5V
TELE	6.0V	7.5V

Note: The impedance for the control voltage circuit should be 2 kohms or less.

203. Gen-lock Connectors (GEN-LOCK IN/OUT/AUTO 75Ω/Hi-Z)

These connectors receive the gen-lock signal(black burst or composite) from the Special Effects Generator for system reference.

When connecting two coaxial cables with BNC connectors to these connectors, the high impedance video loop is automatically selected. At all other times, these connectors are automatically terminated with 75 ohms.

Note: When not looping the gen-lock signal, be sure to connect the coaxial cable to the GEN-LOCK IN Connector. Otherwise, these connectors can not be automatically terminated.

204. Auxiliary Input Connectors (AUX IN/OUT/AUTO 75Ω/Hi-Z)

These connectors receive the lineview signal from a Special Effects Generator. Two connectors are provided for bridging or looping application.

When connecting a single coaxial cable with BNC connector to this connector, these connectors can not be automatically terminated with 75 ohms.

Note: When not looping Aux, signal, be sure to connect the coaxial cable to AUX IN Connector. Otherwise, these connectors are automatically terminated with 75 ohms.

205. Video Output Connectors (VIDEO 1, VIDEO 2)

These connectors supply a composite video signal to a Special Effects Generator, a Video Monitor or a VTR.

206. S-video Output Connector (S-VIDEO OUT)

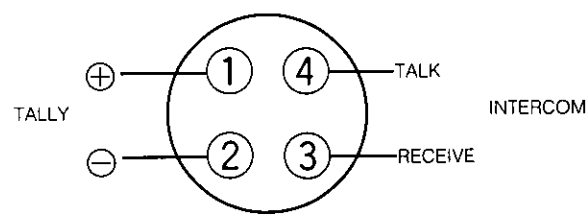
This connector outputs the Y/C signal when the Camera Output Signal Selector is set to Y/C position.

207. Audio Output Jack (AUDIO OUT)

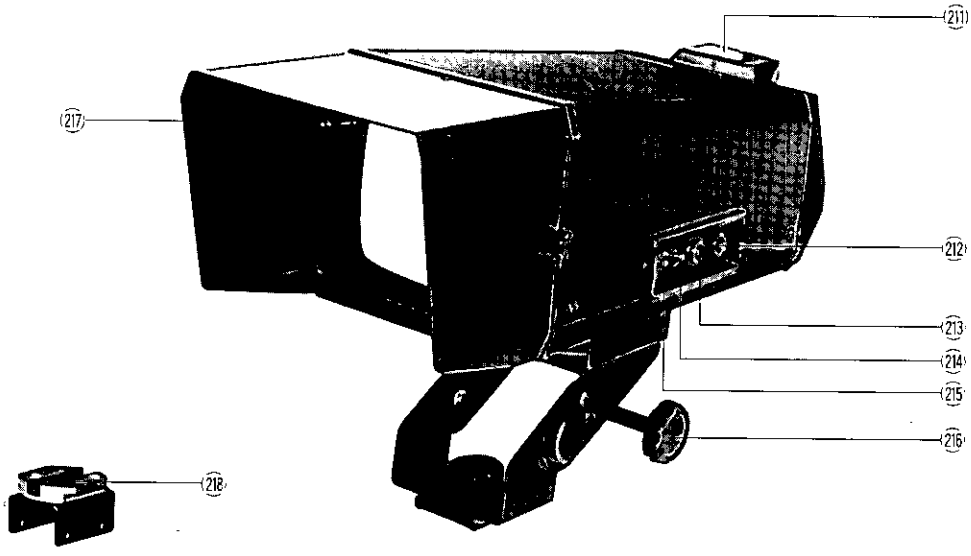
For the WV-F565 or WV-F700 series Color Camera operation.

208. Tally and Intercom Input Connector (TALLY & INTERCOM)

This connector is connected with the Tally/Incom connector of a Special Effects Generator.



5" ELECTRONIC VIEWFINDER WV-VF65B



211. Tally Light

This light only works when the camera is used in full system operation with the Remote Control Unit (RCU) and Special Effects Generator. This light indicates that recording is in progress.

212. Contrast Control

Turn this control clockwise to increase the contrast of the picture in the viewfinder.

213. Brightness Control (BRIGHT)

Turn this control clockwise to increase the brightness of the picture in the viewfinder.

214. Tally ON/OFF Switch (TALLY ON/OFF)

This switch turns on/off the Tally Light (211) located on front of the viewfinder.

215. Peaking On/Off Switch (PEAKING ON/OFF)

Normally this switch should be set to the OFF position. However, when shooting under low light conditions, setting this switch to the ON position will facilitate easier focusing adjustment.

216. Viewfinder Adjustment Knob

The angle of the 5" viewfinder can be adjusted for easy and comfortable viewing.

217. Tally Indicator

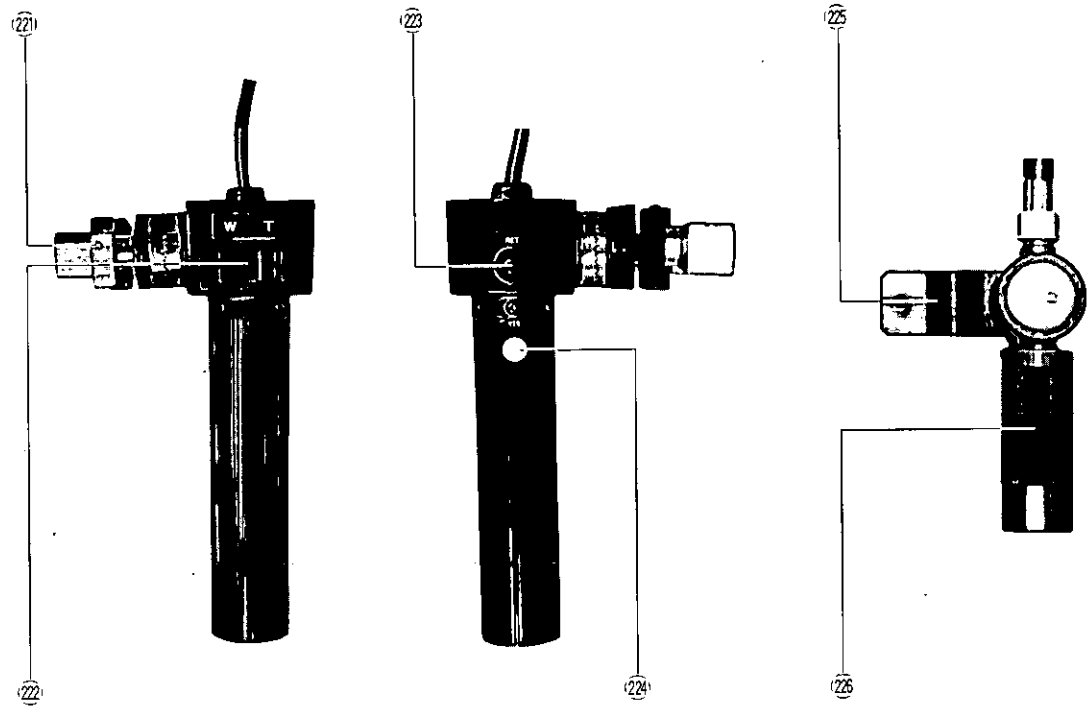
When used in full system operation with the Remote Control Unit (RCU) and Special Effects Generator, this indicator shows the camera operator that recording is in progress and the recording signal is being sent to the line output.

218. 5" Viewfinder Mounting Bracket WV-Q71

This is used to mount the 5" Electronic Viewfinder, WV-VF65B, on the WV-F565 Color Camera.

See page 52 for installation details.

LENS CONTROL KIT WV-LK35



221. Clamper

Install the zoom controller on the right tripod arm by using this clamper.

222. Servo Zoom Control

The 13:1 zoom lens can be controlled by pressing this control to zoom in/out for tele/wide picture with motor drive. The zoom speed can be adjusted by changing the pressure on this control.

223. Return Video Button

In a studio application using a special effects generator, the lineview signal is displayed on the viewfinder while this button is being pressed. When a Panasonic 3/4" U-vision portable VTR with 14-pin camera input connector or an S-VHS VTR is in the playback mode, the playback picture is seen by pressing this button.

224. VTR Start/Stop Button

This button is used to start or pause the VTR. Press this button for recording and press it again for pause.

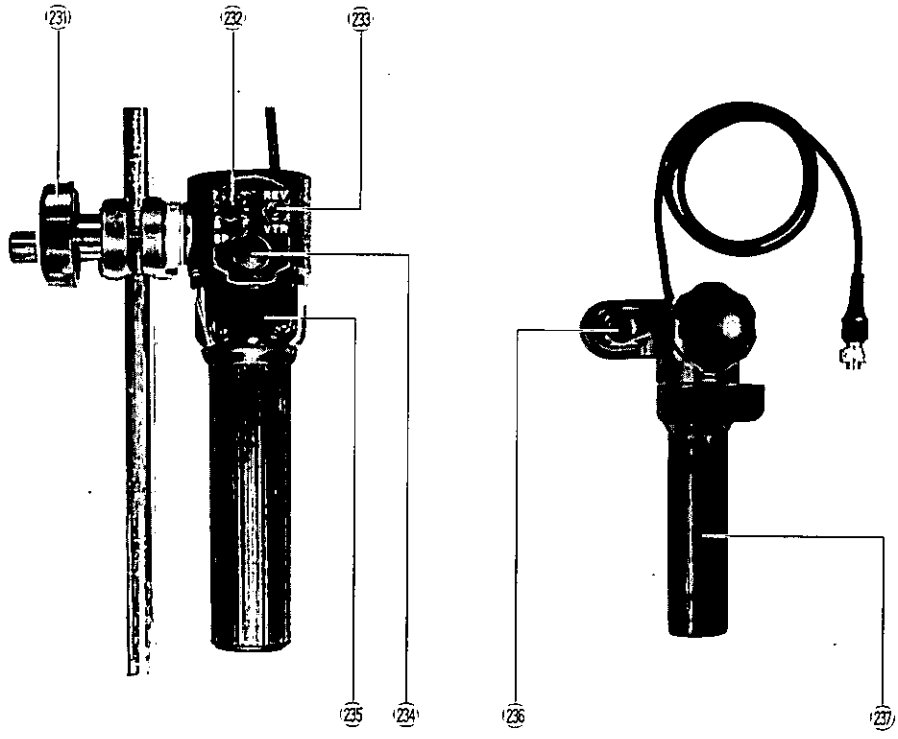
225. Clamper

Install the focus controller on the left tripod arm by using this clamper.

226. Focus Controller

Turn this controller for adjusting the lens focus.

LENS CONTROL KIT WV-LK36



231. Clamper

232. Speed Control (SP, S-F)
The maximum zoom speed can be adjusted by this control.

233. Reverse Button (REV)
This button is used to reverse the direction controlled by the Zoom Control Switch.
Use this button by removing the cap.

234. VTR Start/Stop Button (VTR)
This button is used to start or pause the VTR. Press this button for recording and press it again for pause.

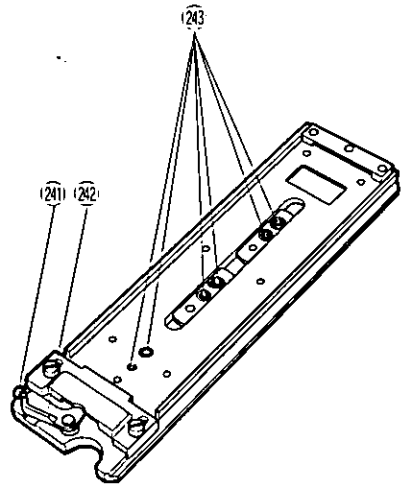
235. Servo Zoom Control
The 13:1 zoom lens can be controlled by pressing this control to zoom in/out for tele/wide picture with motor drive. The zoom speed can be adjusted by changing the pressure on this control.

236. Clamper

237. Focus Controller
Turn this controller for adjusting the lens focus.

Note: As for the lens selection to this lens control kit, refer to the qualified service personel.

TRIPOD MOUNTING ADAPTOR WV-QT700

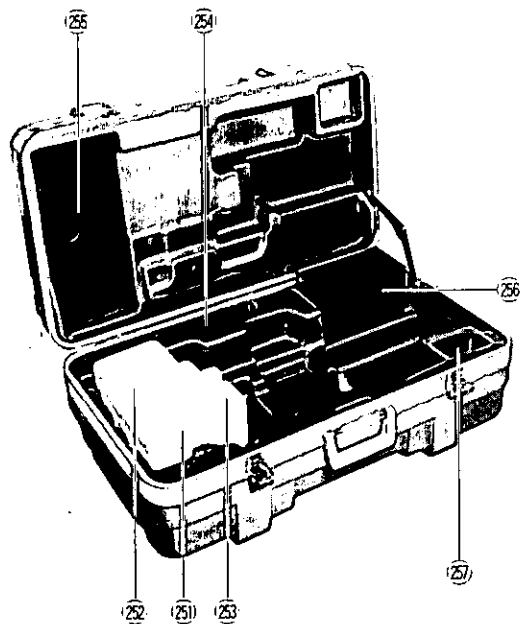


241. Release Button
The Lock Lever (242) can be unlocked by pressing this button.

242. Lock Lever
The mounting or removing of the camera from the Tripod Mounting Adaptor WV-QT700 is made by locking or unlocking this lever.

243. Mounting Holes
These holes are used to mount the Tripod Mounting Adaptor on the tripod.

CARRYING CASE WV-CC500A



251. Cushion 1 (for WV-AD500)
This cushion is used to contain the ENG configuration of the Color Camera WV-F565.

252. Cushion 2 (for WV-AD700AS)
This cushion is used to contain the ENG configuration of the Color Camera WV-F565.

253. Cushion 3
This cushion used to contain the Camera Recorder System MII format VTR AU-410 or S-VHS VTR AG-7450A.

254. Tripod Mounting Adaptor Compartment
This is provided for storing the Tripod Mounting Adaptor WV-QT700.

255. Microphone Compartment
This is provided for storing the Microphone WM-L30.

256. AC Adaptor/Battery Pack Compartment
This is provided for storing the AC Adaptor WV-PS34 or Battery Pack WV-PS33.

257. Battery Pack Compartment
This is provided for storing the Battery Pack WV-PS60.

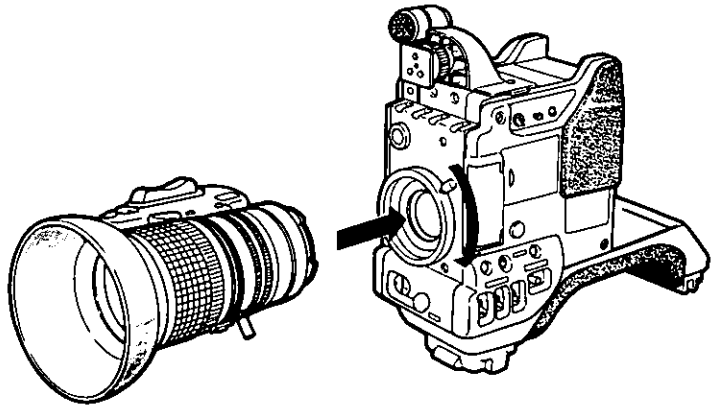
INSTALLATION FOR CAMERA/RECORDER SYSTEM APPLICATION

A. Installation of the Color Camera WV-F565H with S-VHS VTR

The optional Dockable Kit WV-DKT700S, ENG/EFP Kit WV-S550A, 13X Zoom Lens and the Battery Pack AU-BP220 are required. WV-S550A consists of the 1.5" Viewfinder, Tripod Mounting Adaptor, Carrying Case and Microphone Holder.
WV-DKT700S consists of the VTR Handle, Battery Mount Adaptor, Battery Case and Shoulder Strap.

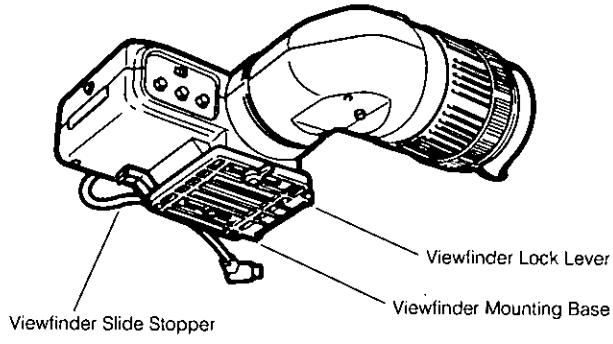
1. Mounting the Lens

1-1 Remove the Body Cap from the camera.
1-2 Attach the 13X Auto Iris Servo Control Zoom Lens into the Lens Mount Hole, and turn the Lens Hold Ring/Knob (30) clockwise to secure the lens to the camera body.
1-3 Check to make sure that the lens is mounted securely.
1-4 Connect the Lens Cable to the 12-pin Lens Connector (1) on the camera.

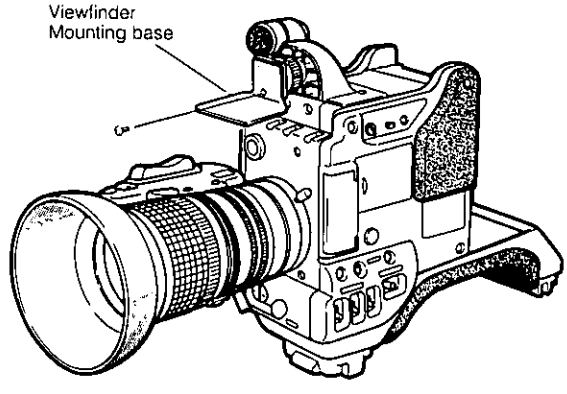


2. Mounting the 1.5" Electronic Viewfinder WV-VF42

2-1 Unlock the Viewfinder Lock Lever (32) on the Viewfinder.
2-2 While pulling the Viewfinder Slide Stopper, remove the Viewfinder Mounting Base (33) by sliding it out from the Viewfinder.
2-3 Loosen the screw from the Viewfinder Mounting Base.



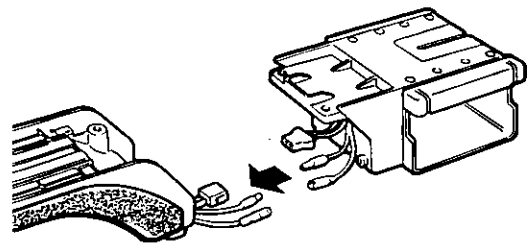
2-4 Install the Viewfinder Mounting Base (33) into the Viewfinder Mounting Plate by using the screw just removed.
2-5 Mount the Viewfinder on the Viewfinder Mounting Base (33) by sliding it onto the base.
2-6 Securely lock the Viewfinder in place by use of the Viewfinder Lock Lever (32).
2-7 Connect the Viewfinder Cable to the Viewfinder Connector (2) on the camera.

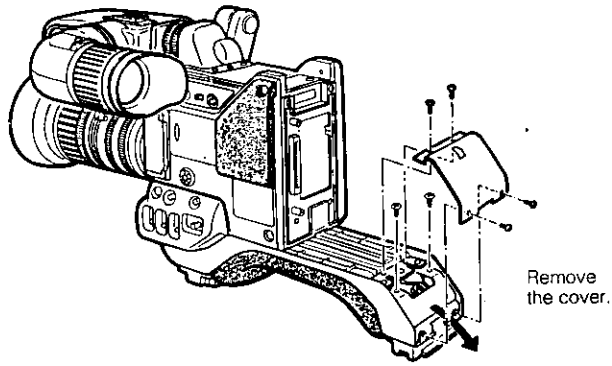


3. Mounting the Battery Mount Adaptor

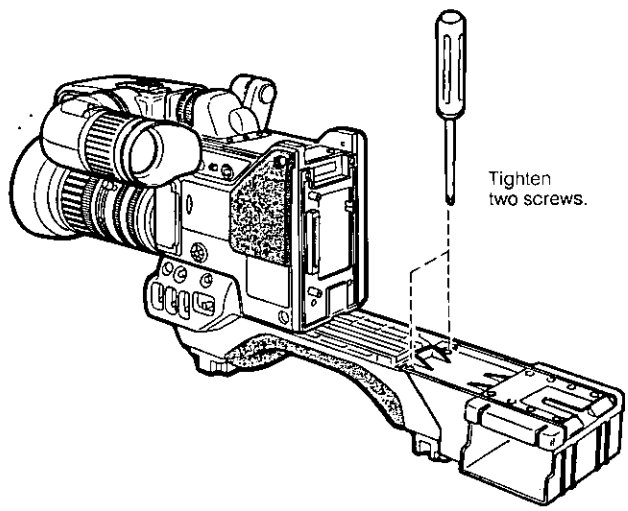
3-1 Remove four screws holding the cover and remove the cover. And then remove two screws holding the inside cover of the battery connectors and remove the inside cover.

3-2 Connect two lead wires and 2-pin connector from the camera and the Battery Mount Adaptor together.



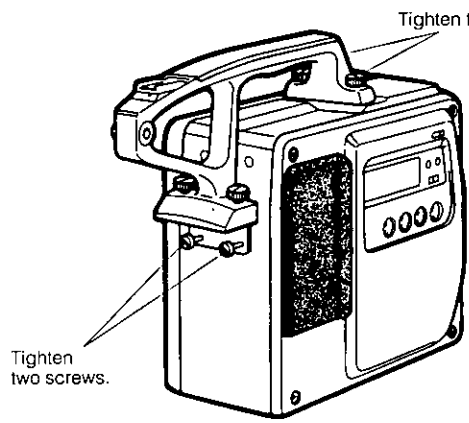


3-3 Attach the Battery Mount Adaptor to the camera by tightening two screws.

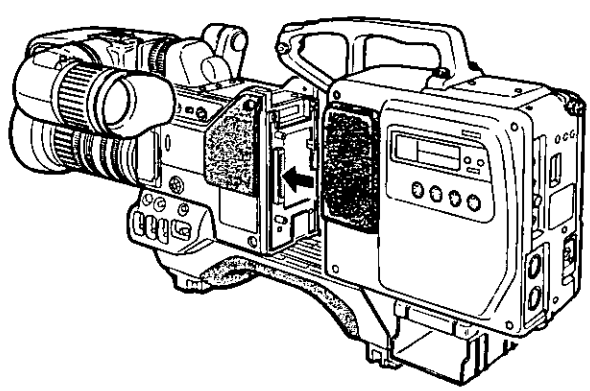


4. Mounting the VTR on the Camera

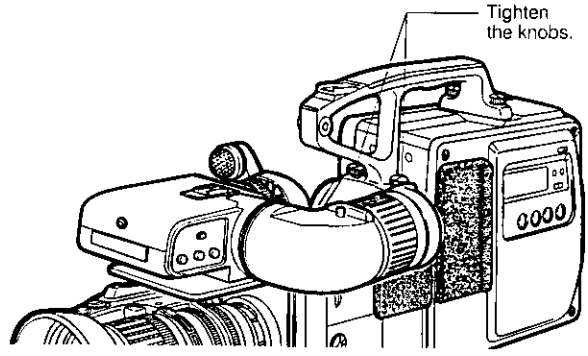
4-1 Mount the VTR Handle onto the VTR by using two screws and two knobs.



4-2 Mount the VTR to the camera by engaging the connectors and lock mechanism.



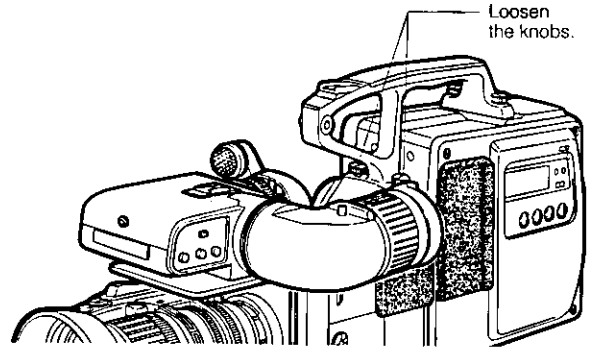
4-3 Tighten the VTR Lock Knobs on the VTR Handle firmly and make sure the VTR is securely fixed to the camera.



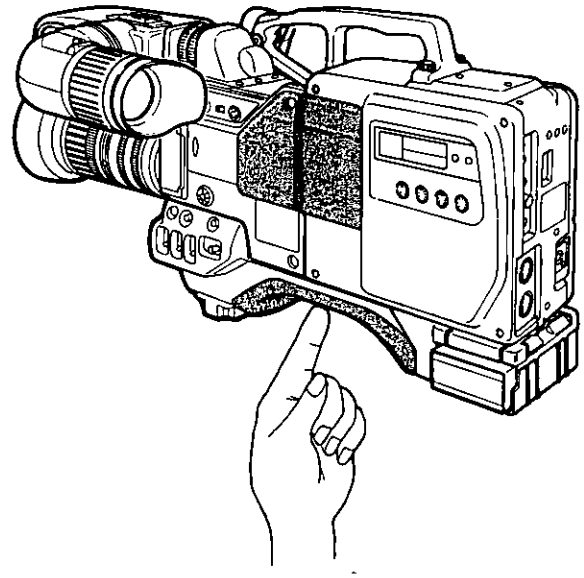
Caution: Mount the VTR by sliding it straight and engaging connectors and lock mechanism in order to not bend the pins of the connector and not create a short circuit.

5. Removing the VTR from the Camera

5-1 Loosen the VTR Lock Knobs on the VTR Handle.

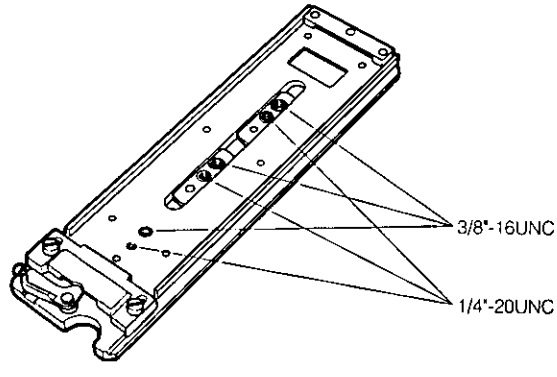


5-2 While pressing up the VTR Release Button, remove the VTR from the camera.



6. Mounting on the Tripod Mounting Adaptor

Mount the Tripod Mounting Adaptor on the tripod by matching one of the mounting holes (1/4" - 20 UNC or 1/8" - 16 UNC) on the Tripod Mounting Adaptor with the Tripod Mounting Screw, and securing the Tripod Mounting Adaptor with the mounting screw on the tripod.

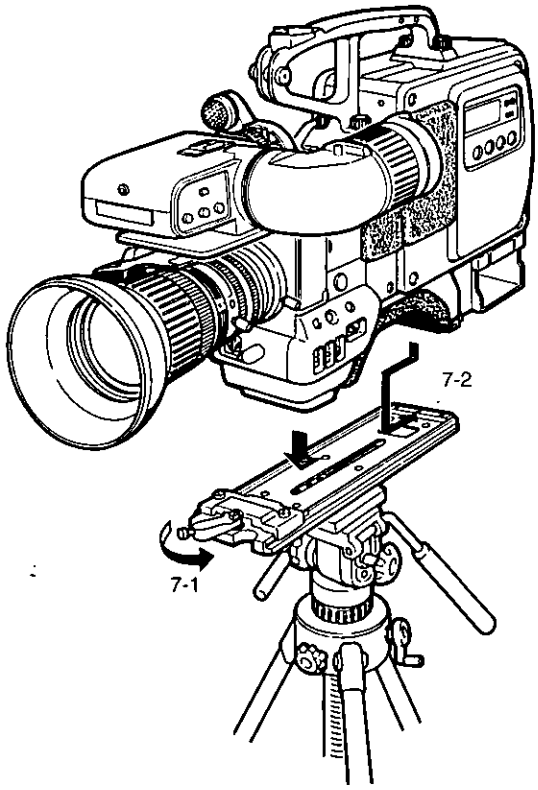


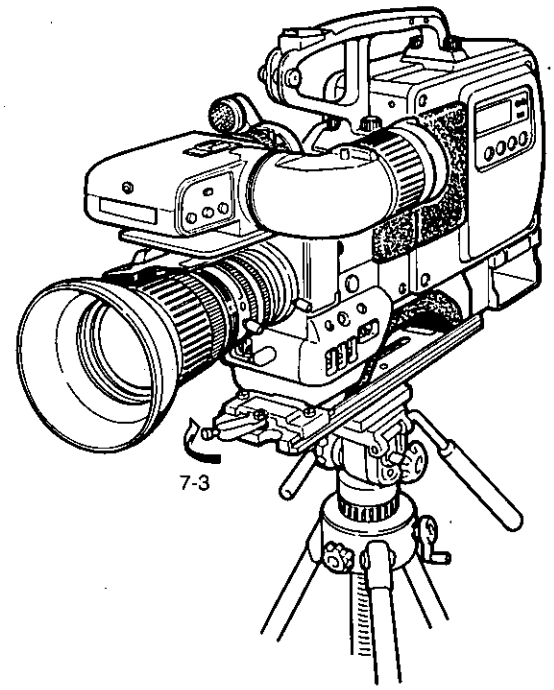
7. Mounting the Camera on the Tripod Mounting Adaptor

7-1 While pressing the Release Button (241) on the Lock Lever (242) of the Tripod Mounting Adaptor, unlock the lock lever by turning it counterclockwise as shown in the illustration.

7-2 Place the camera on the Tripod Mounting Adaptor and make sure the protrusion at the rear of the camera engages into the slot of the tripod mounting adaptor.

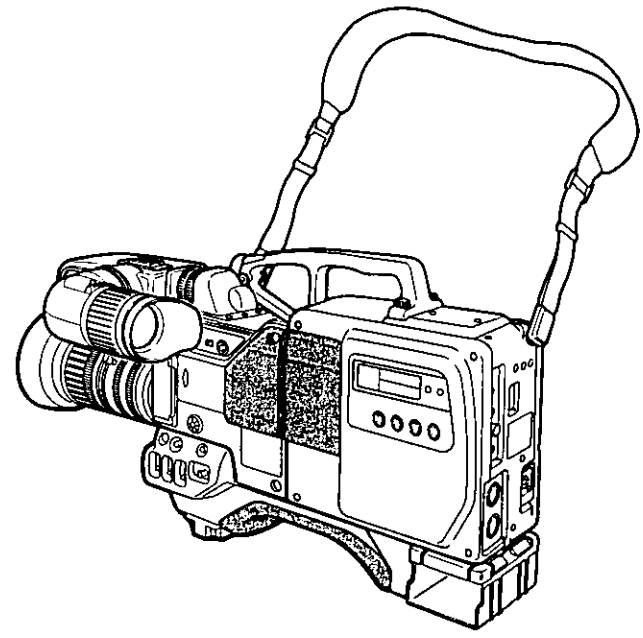
7-3 Turn the Lock Lever (242) of the Tripod Mounting Adaptor clockwise, as shown in the illustration. Make sure the camera is securely held and that it is in its back-most position in the adaptor.





8. Attaching the Shoulder Strap

Attach the shoulder strap to the camera/recorder system as shown below.



B. Installation of the Color Camera WV-F565H to MII format VTR AU-45H

The Optional ENG/EFP Kit WV-S550A, 13X Zoom Lens and Shoulder Strap WV-QB70 are required. WV-S550A consists of the 1.5" viewfinder, Tripod Mounting Adaptor, Carrying Case and Microphone Holder.

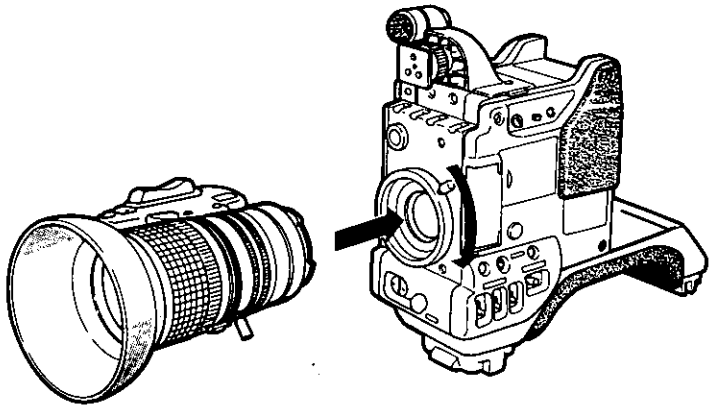
1. Mounting the Lens

1-1 Remove the Body Cap from the camera.

1-2 Attach the 13X Auto Iris Servo Control Zoom Lens into the Lens Mount Hole, and turn the Lens Hold Ring/Knob (30) clockwise to secure the lens to the camera body.

1-3 Check to make sure that the lens is mounted securely.

1-4 Connect the Lens Cable to the 12-pin Lens Connector (1) on the camera.

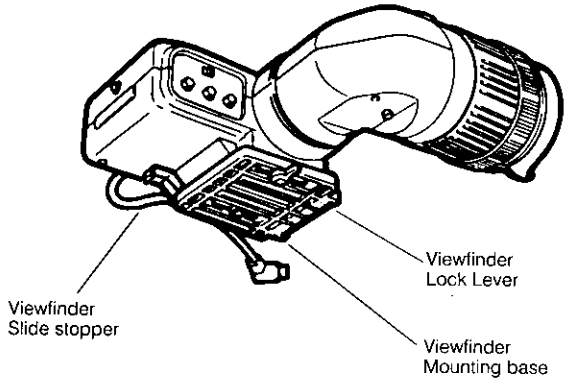


2. Mounting the 1.5" Electronic Viewfinder WV-VF42

2-1 Unlock the Viewfinder Lock Lever (32) on the Viewfinder.

2-2 While pulling the Viewfinder Slide Stopper, remove the Viewfinder Mounting Base (33) by sliding it out from the Viewfinder.

2-3 Remove the screw from the Viewfinder Mounting Base.

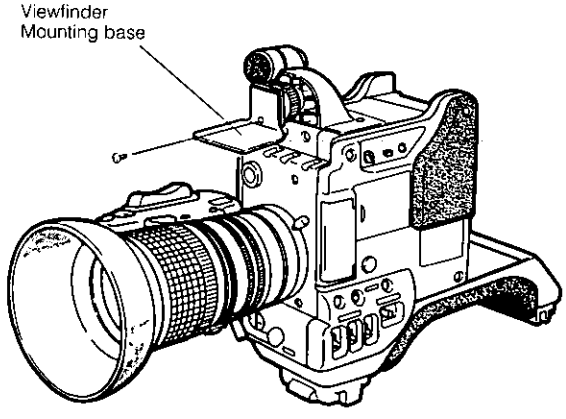


2-4 Install the Viewfinder Mounting Base (33) into the Viewfinder Mounting Plate by using the screw just removed.

2-5 Mount the Viewfinder on the Viewfinder Mounting Base (33) by sliding it onto the base.

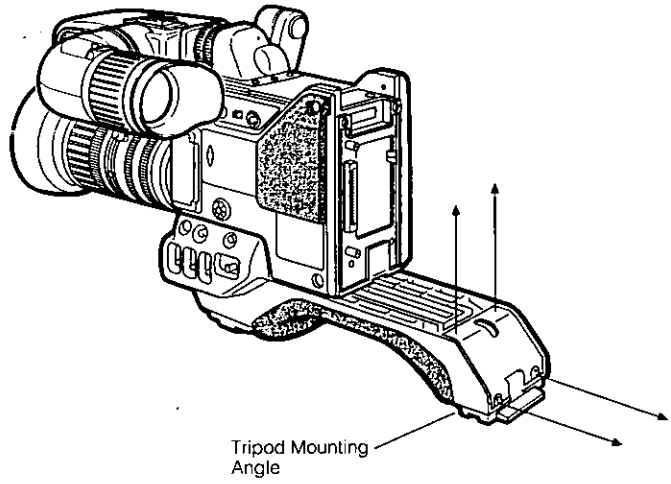
2-6 Securely lock the Viewfinder in place by use of the Viewfinder Lock Lever (32) on the camera.

2-7 Connect the Viewfinder Cable to the Viewfinder Connector (2) on the camera.



3. Mounting the VTR on the Camera

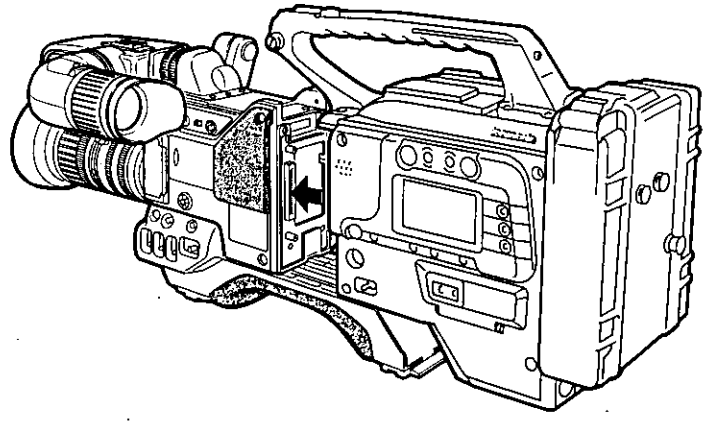
3-1 Remove four screws holding the cover for the battery connectors and remove the cover.



Note: When mounting the MII format VTR AU-45H on this camera, fix the Tripod Mounting Angle in the reverse position onto the Shoulder Pad.

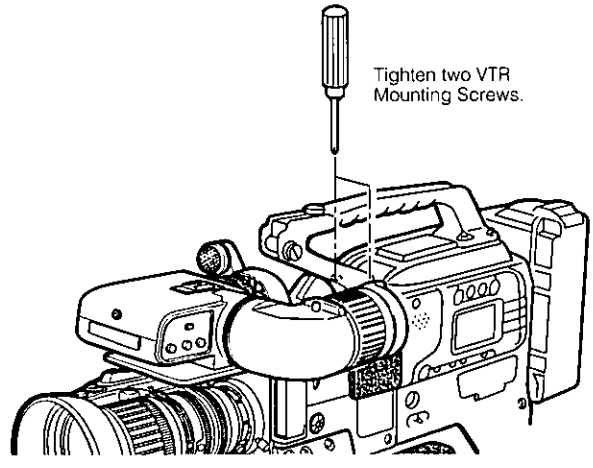
3-2 Mount the VTR to the camera by engaging the connectors and lock mechanism.

Caution: Mount the VTR by sliding it straight and engaging connectors and lock mechanism in order to not bend the pins of the connector and to not create a short circuit.



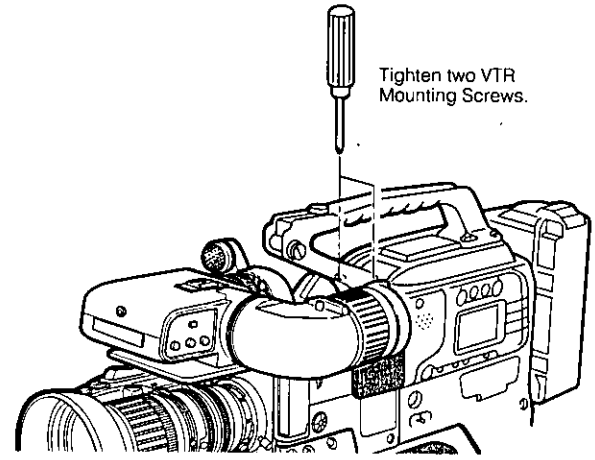
Note: The VTR on the right figure is mounted the Battery Holder AU-M402.

3-3 Tighten two VTR Mounting Screws on the VTR Handle firmly and make sure the VTR is securely fixed to the camera.

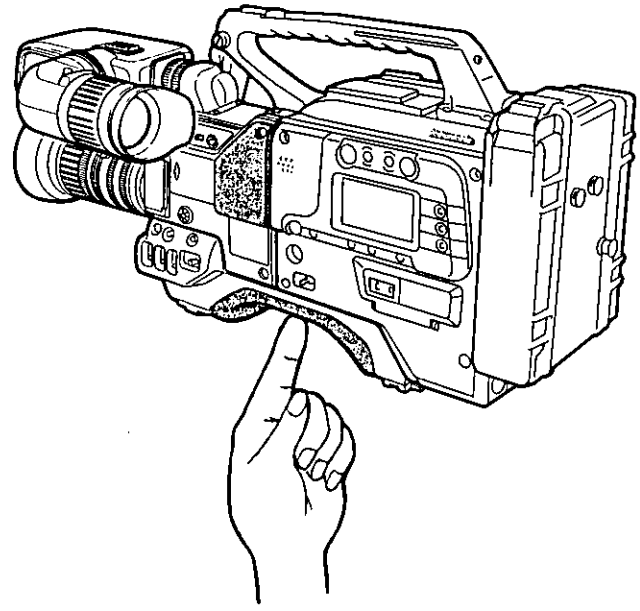


4. Removing the VTR from the Camera

4-1 Loosen two VTR Mounting Screws on the VTR Handle.



4-2 While pressing up on the VTR Release Button, remove the VTR from the camera.



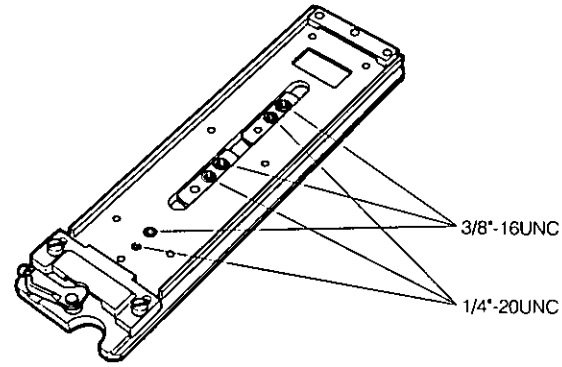
5. Mounting on the Tripod Mounting Adaptor

Mount the Tripod Mounting Adaptor on the tripod by matching one of the mounting holes (1/4" - 20 UNC or 3/8" - 16 UNC) on the Tripod Mounting Adaptor with the Tripod Mounting Screw, and securing the Tripod Mounting Adaptor with the mounting screw on the tripod.

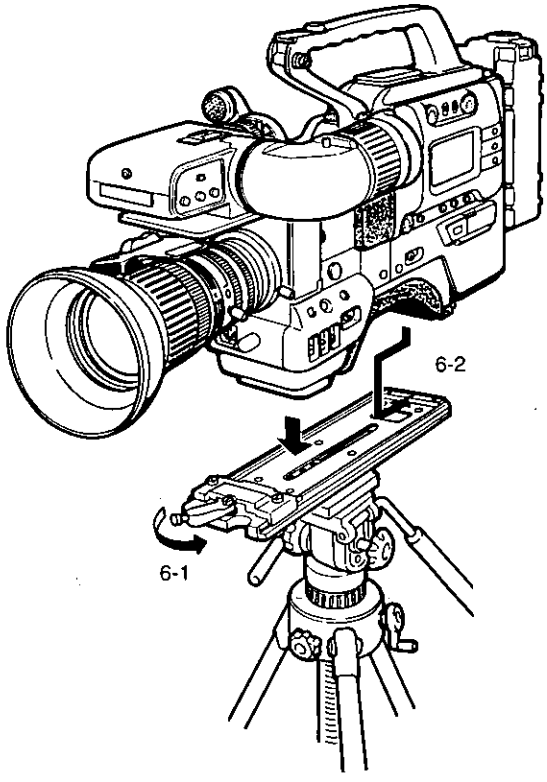
6. Mounting the Camera on the Tripod Mounting Adaptor

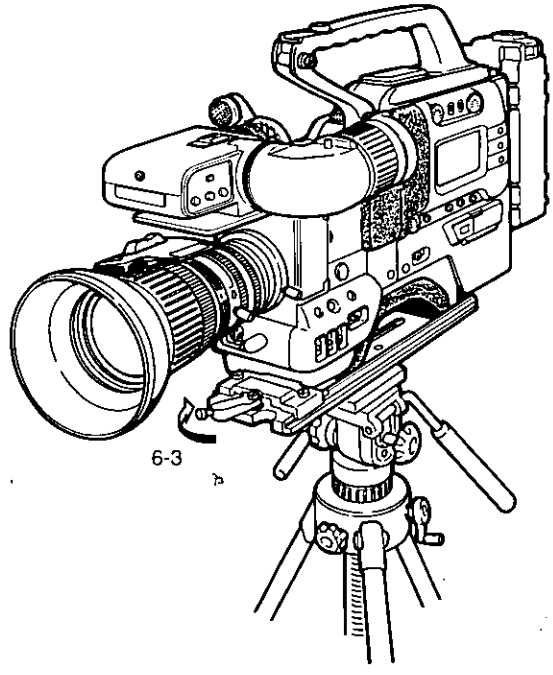
6-1 While pressing the Release Button (241) on the Lock Lever (242) of the Tripod Mounting Adaptor, unlock the lock lever by turning it counterclockwise as shown in the illustration.

6-2 Place the camera on the Tripod Mounting Adaptor and make sure the protrusion at the rear of the camera is properly engage with the slot at the rear of the Tripod Mounting Adaptor.



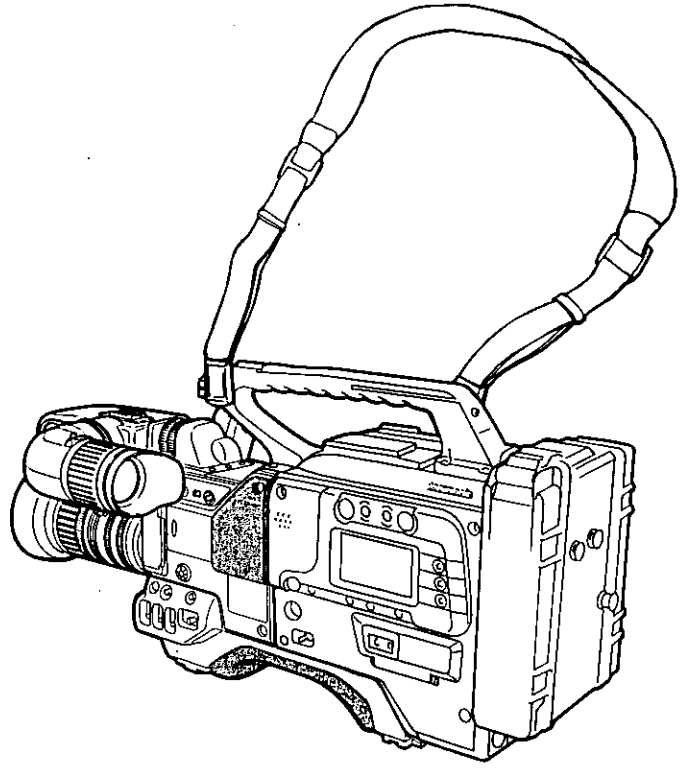
6-3 Turn the Lock Lever (242) of the Tripod Mounting Adaptor clockwise, as shown in the illustration. Make sure the camera is securely held and that it is in its back-most position in the adaptor.





7. Attaching the Shoulder Strap

Attach the shoulder strap to the camera/recorder system as shown below.

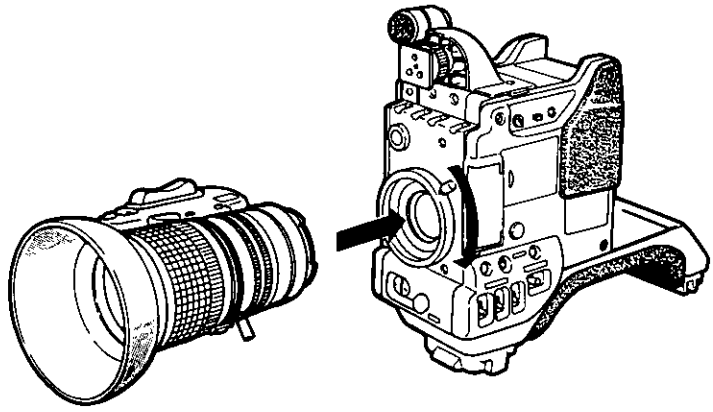


C. Installation of the Color Camera WV-F565H with Betacam format VTR

The optional ENG/EFP Kit WV-S550A, 13X Zoom Lens, the shoulder strap WV-QB70 and VTR Adaptor WV-VT16A are required.
WV-S550A consists of the 1.5" Viewfinder, Tripod Mounting Adaptor, Carrying Case and Microphone Holder.

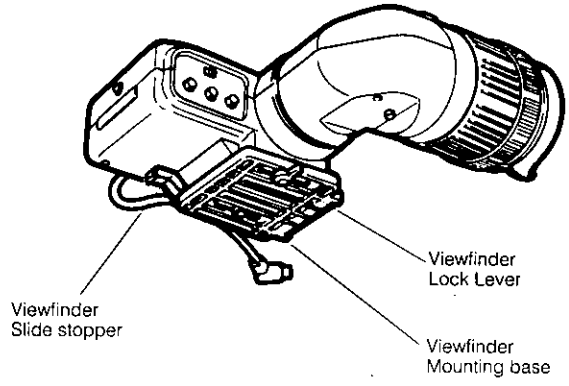
1. Mounting the Lens

1-1 Remove the Body Cap from the camera.
1-2 Attach the 13X Auto Iris Servo Control Zoom Lens into the Lens Mount Hole, and turn the Lens Hold Ring/Knob (30) clockwise to secure the lens to the camera body.
1-3 Check to make sure that the lens is mounted securely.
1-4 Connect the Lens Cable to the 12-pin Lens Connector (1) on the camera.

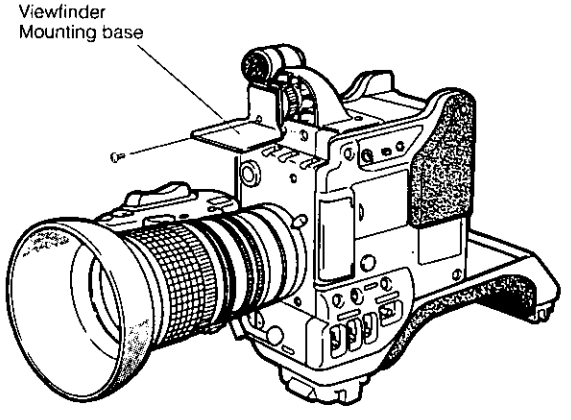


2. Mounting the 1.5" Electronic Viewfinder WV-VF42

2-1 Unlock the Viewfinder Lock Lever (32) on the Viewfinder.
2-2 While pulling the Viewfinder Slide Stopper, remove the Viewfinder Mounting Base (33) by sliding it out from the Viewfinder.
2-3 Remove the screw from the Viewfinder Mounting Base.

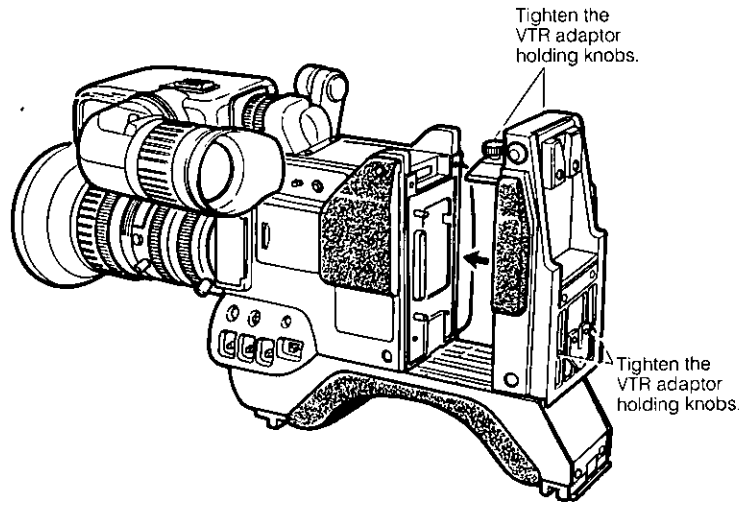


2-4 Install the Viewfinder Mounting Base (33) into the Viewfinder Mounting Plate by using the screw just removed.
2-5 Mount the Viewfinder on the Viewfinder Mounting Base (33) by sliding it onto the base.
2-6 Securely lock the Viewfinder in place by use of the Viewfinder Lock Lever (32).
2-7 Connect the Viewfinder cable to the Viewfinder Connector (2) on the camera.



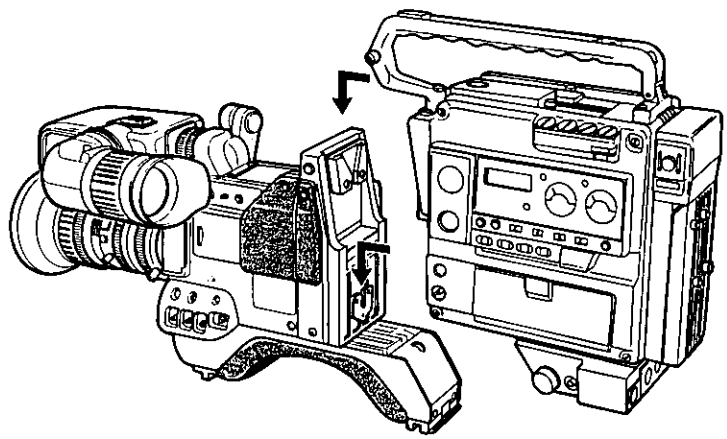
3. Mounting the optional VTR Adaptor WV-VT16A

Mount the VTR Adaptor by connecting the 68-pin connector on the camera and the VTR Adaptor, and engage the lock mechanism of the VTR Adaptor and the camera head. Then tighten two VTR Adaptor Holding Knobs firmly and make sure the VTR Adaptor is securely fixed to the camera.

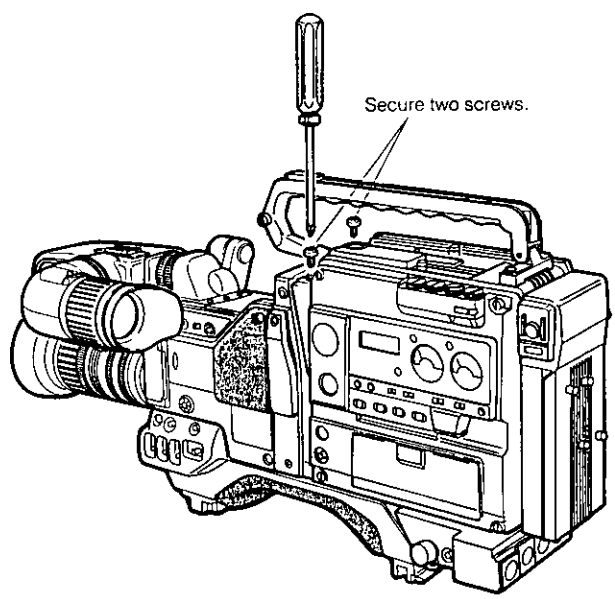


4. Mounting the VTR on the Camera

4-1 Mount the VTR on the VTR adaptor while engaging the connectors and lock mechanism.



4-2 Secure the VTR with two screws which come with the VTR.

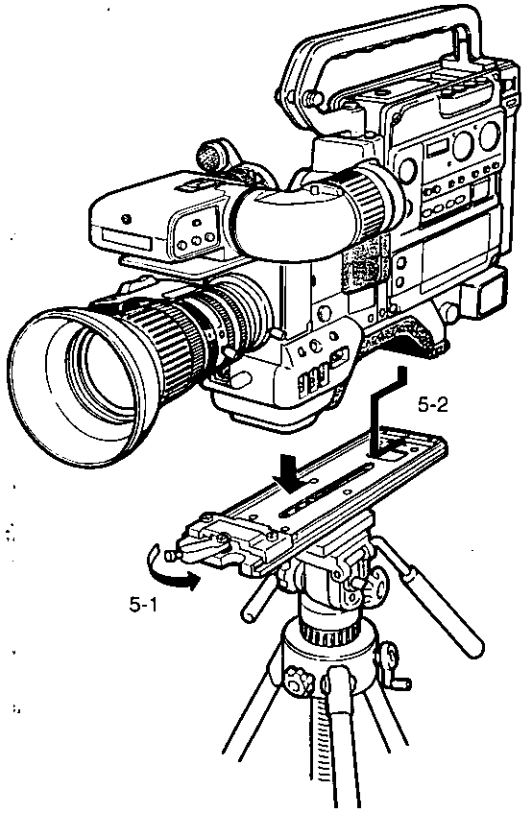


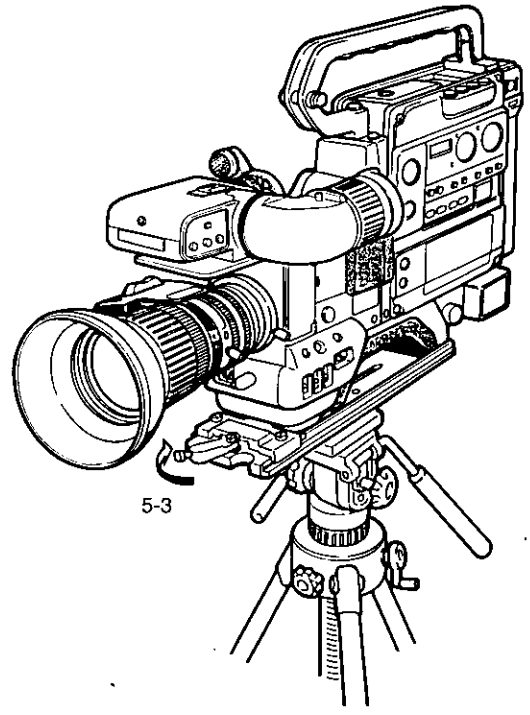
5. Mounting the Camera on the Tripod Mounting Adaptor

5-1 While pressing the Release Button (241) on the Lock Lever (242) of the Tripod Mounting Adaptor, unlock the lock lever by turning it counterclockwise as shown in the illustration.

5-2 Place the camera on the Tripod Mounting Adaptor and make sure the protrusion at the rear of the camera is properly engaged with the slot at the rear of the Tripod Mounting Adaptor.

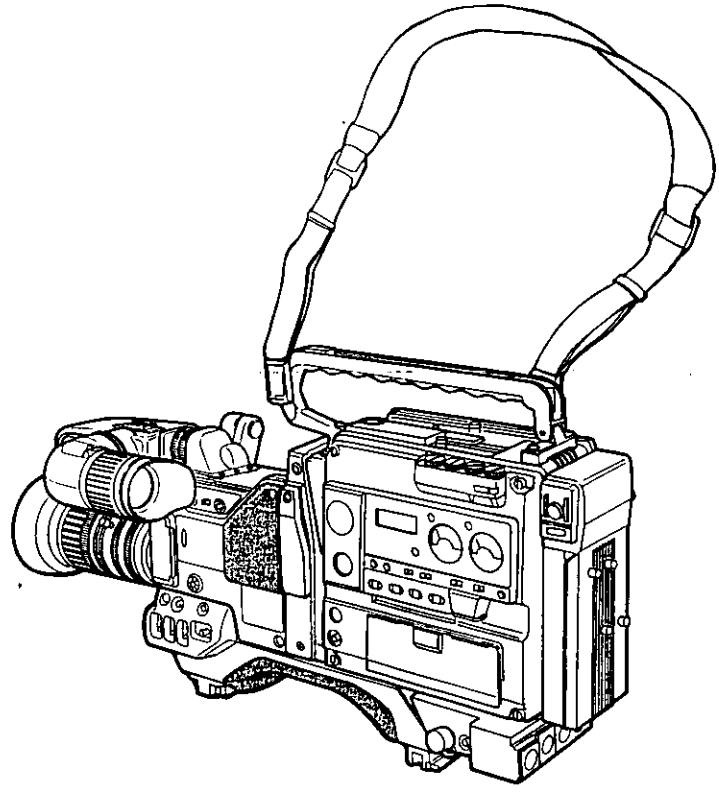
5-3 Turn the Lock Lever (242) of the Tripod Mounting Adaptor clockwise, as shown in the illustration. Make sure the camera is securely held and that it is in its back most position in the adaptor.





6. Attaching the Shoulder Strap

Attach the shoulder strap to the camera/recorder system as shown below.

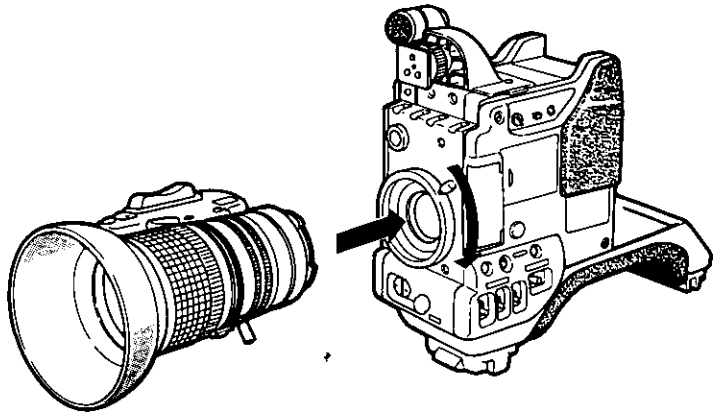


D. Installation of the Color Camera WV-F565H to MII format VTR AU410

The optional Dockable Kit WV-DKT700M, ENG/EFP Kit WV-S550A, 13X Zoom Lens and the Battery Pack AU-BP220 are required.
WV-S550A consists of the 1.5" Viewfinder, Tripod Mounting Adaptor, Carrying Case and Microphone Holder.
WV-DKT700M consists of the VTR Handle, Battery Mount Adaptor, Battery Case and Shoulder Strap.

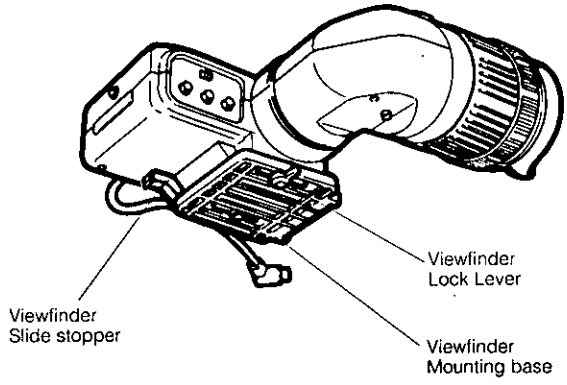
1. Mounting the Lens

1-1 Remove the Body Cap from the camera.
1-2 Attach the 13X Auto Iris Servo Control Zoom Lens into the Lens Mount Hole, and turn the Lens Hold Ring/Knob (30) clockwise to secure the lens to the camera body.
1-3 Check to make sure that the lens is mounted securely.
1-4 Connect the Lens Cable to the 12-pin Lens Connector (1) on the camera.

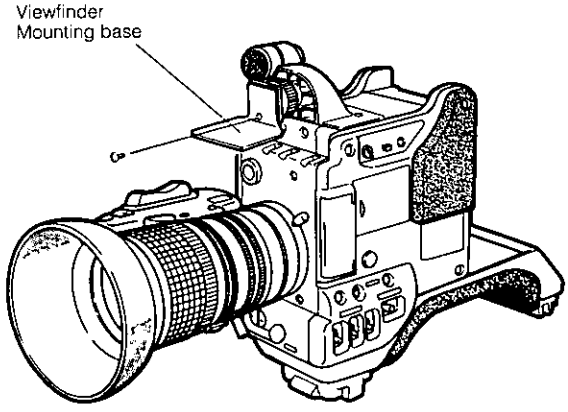


2. Mounting the 1.5" Electronic Viewfinder WV-VF42

2-1 Unlock the Viewfinder Lock Lever (32) on the Viewfinder.
2-2 While pulling the Viewfinder Slide Stopper, remove the Viewfinder Mounting Base (33) by sliding it out from the Viewfinder.
2-3 Remove the screw from the Viewfinder Mounting Base.

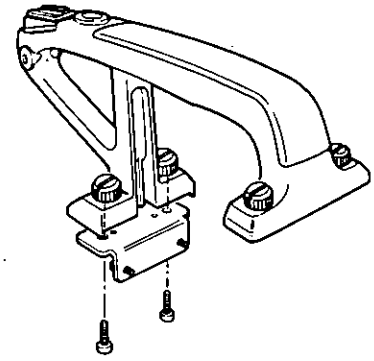


2-4 Install the Viewfinder Mounting Base (33) into the Viewfinder Mounting Plate by using the screw just removed.
2-5 Mount the Viewfinder on the Viewfinder Mounting Base (33) by sliding it onto the base.
2-6 Securely lock the Viewfinder in place by the Viewfinder Lock Lever (32).
2-7 Connect the Viewfinder Cable to the Viewfinder Connector (2) on the camera.

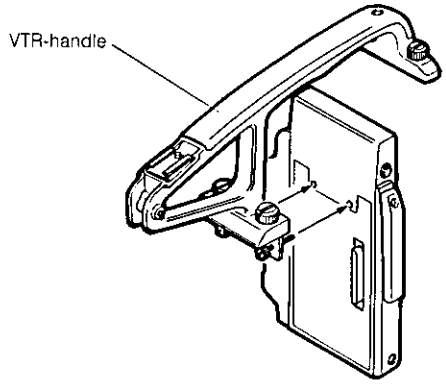


3. Mounting the Optional VTR Adaptor WV-VT15AH

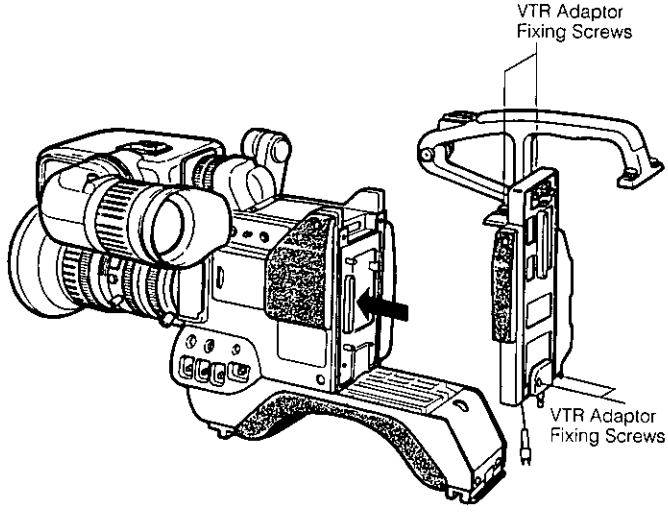
3-1 Fix the VTR Handle Angle onto the adaptor by using two VTR Handle Angle Fixing Screws (provided).



3-2 Attach the VTR Handle onto the VTR adaptor by using two screws.

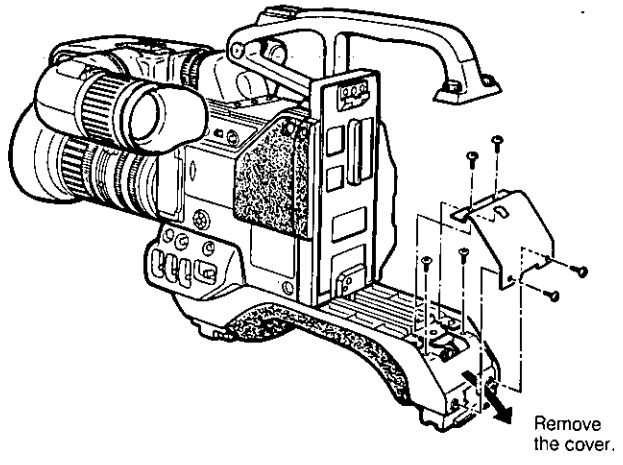


3-3 Mount the VTR adaptor by connecting the 68-pin connector on the camera and the VTR adaptor, and engaging the lock mechanism of the VTR adaptor (VTR Release Button) and the camera head. Next, tighten four VTR adaptor fixing screws firmly and make sure the VTR adaptor is securely fixed to the camera.



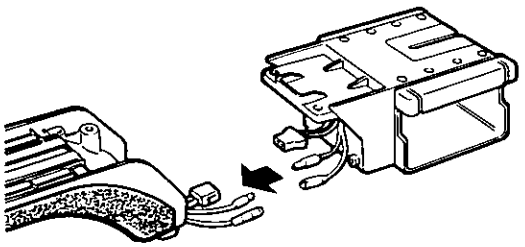
4. Mounting the Battery Mount Adaptor

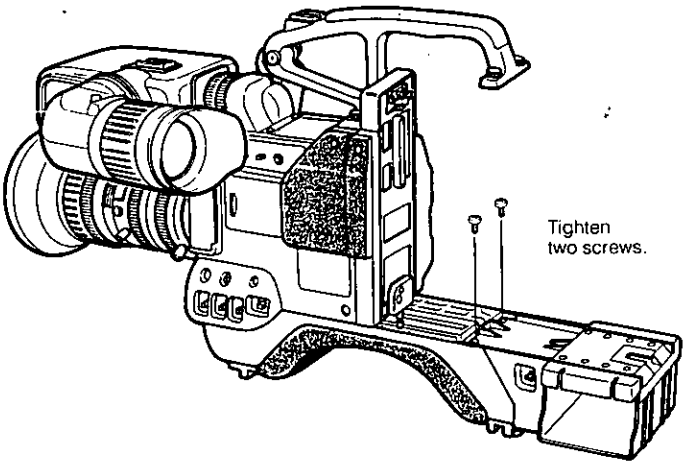
4-1 Remove four screws holding the cover and remove the cover. And then remove two screws holding the inside cover of the battery connectors and remove the inside cover.



4-2 Connect two lead wires and 2-pin connector from the camera and the Battery Mount Adaptor together.

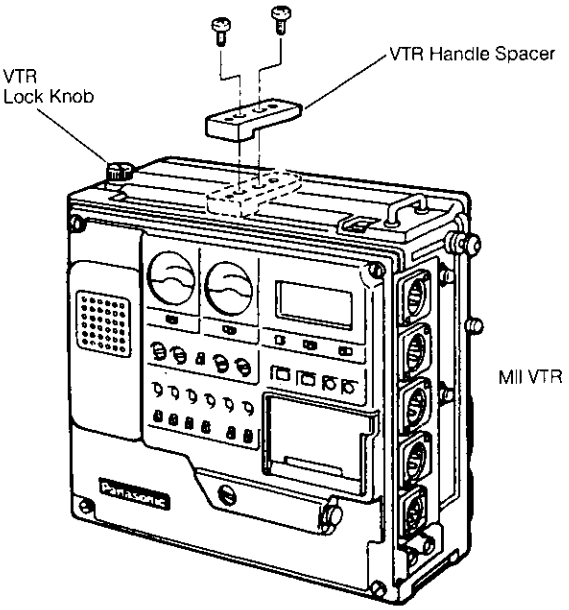
4-3 Attach the Battery Mount Adaptor to the camera by tightning two Battery Mount Adaptor Fixing screws (just removed).



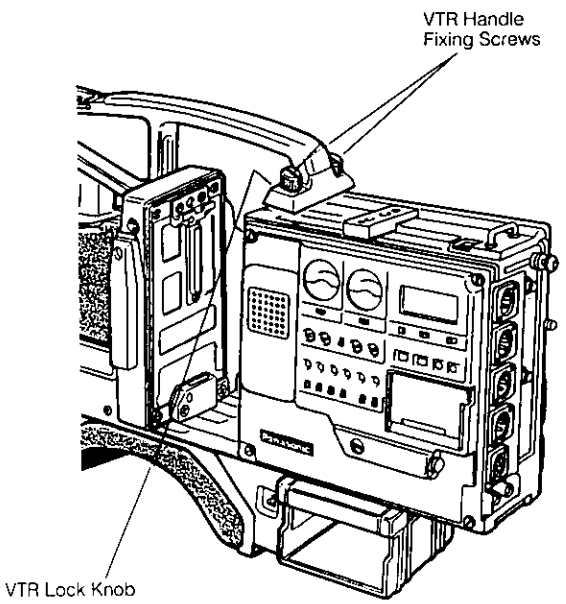


5. Mounting the VTR on the camera

5-1 Attach the VTR Handle Spacer on the VTR with two VTR Handle Spacer Fixing Screws (provided).

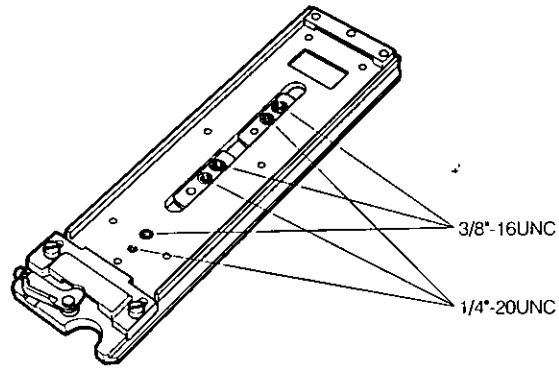


5-2 Mount the VTR to the camera by engaging the connectors and lock mechanism. Tighten the VTR Lock Knob on the VTR and the VTR Handle Fixing screws. Make sure the VTR is securely fixed on the camera.



6. Mounting on the Tripod Mounting Adaptor

Mount the Tripod Mounting Adaptor on the tripod by matching one of the mounting holes (1/4" - 20 UNC of 3/8" - 16 UNC) on the Tripod Mounting Adaptor with the Tripod Mounting Screw, and securing the Tripod Mounting Adaptor with the mounting screw on the tripod.

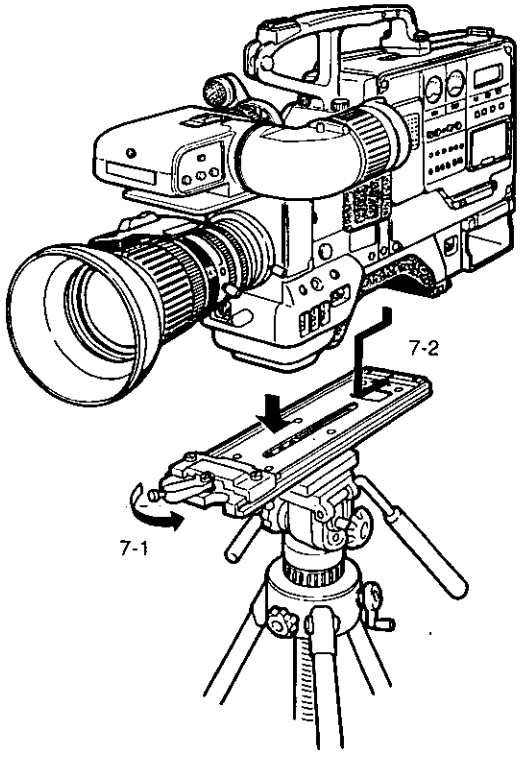


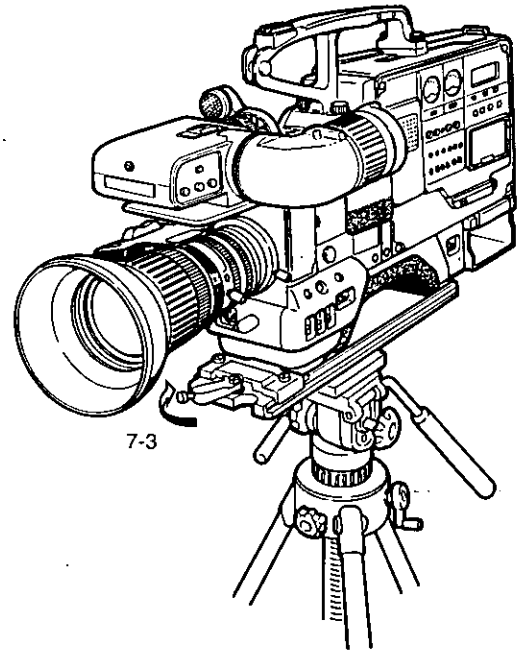
7. Mounting the Camera on the Tripod Mounting Adaptor

7-1 While pressing the Release Button (241) on the Lock Lever (242) of the Tripod Mounting Adaptor, unlock the lock lever by turning it counterclockwise as shown in the illustration.

7-2 Place the camera on the Tripod Mounting Adaptor and make sure the protrusion at the rear of the camera is properly engaged with the slot at the rear of the Tripod Mounting Adaptor.

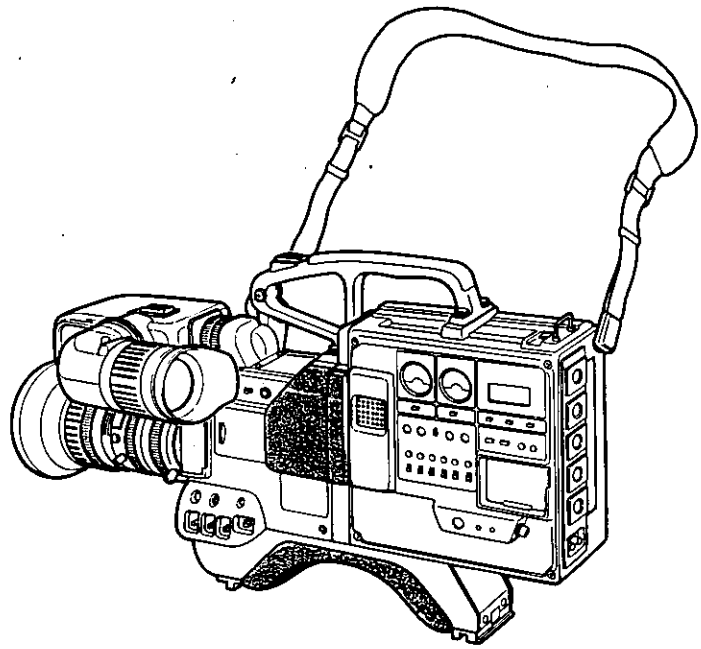
7-3 Turn the Lock Lever (242) of the Tripod Mounting Adaptor clockwise, as shown in the illustration. Make sure the camera is securely held and that it is in its back-most position in the adaptor.





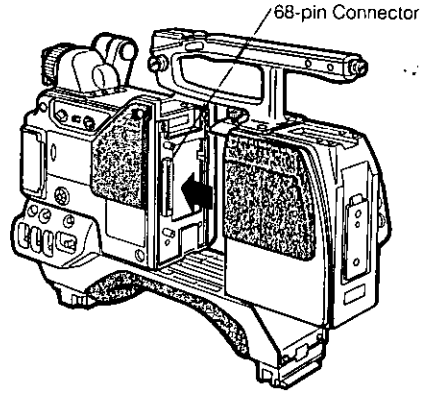
8. Attaching the Shoulder Strap

Attach the shoulder strap to the camera/recorder system as shown below.



INSTALLATION FOR ENG/EFP APPLICATION

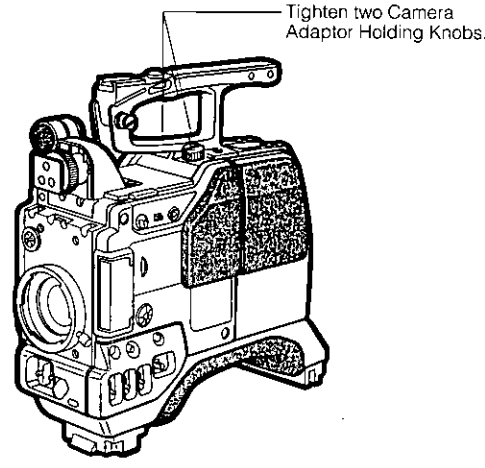
The optional ENG Kit WV-S550A, 13X Zoom Lens, Camera Adaptor WV-AD500, AC Adaptor/Charger WV-PS34, Battery Pack WV-PS33/WV-PS60 are required.
The ENG Kit WV-S550A consists of the 1.5" Viewfinder, Tripod Mounting Adaptor, Microphone Holder and Carrying Case.



1. Mounting the Camera Adaptor WV-AD500

1-1 Mount the Camera Adaptor on the Camera Head while engaging the 68-pin connector.

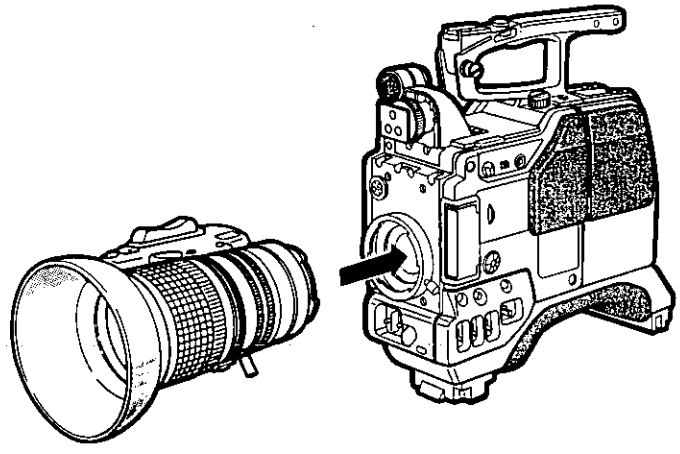
1-2 Tighten the two Camera Adaptor Holding Screw/Knobs firmly, and make sure the Camera Adaptor is securely fixed to the camera.



Caution: When mounting the Camera Adaptor make sure it slides back straight and engages the connectors and lock mechanism squarely in order to prevent bending of the pins in the connector.

2. Mounting the Lens

2-1 Remove the body cap from the camera.
2-2 Attach the 13X Auto Iris Servo Control Zoom Lens into the lens mount hole, and turn the Lens Hold Ring/Knob (30) clockwise to secure the lens to the camera body.
2-3 Check to make sure that the Lens is mounted securely.
2-4 Connect the Lens Cable to the 12-pin Lens Connector on the camera.

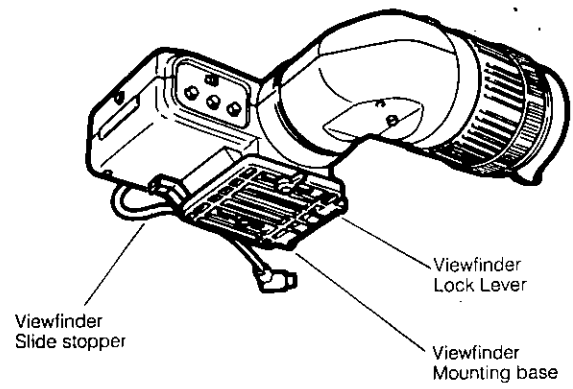


3. Mounting the 1.5" Electronic Viewfinder WV-VF42

3-1 Unlock the Viewfinder Lock Lever (32) on the Viewfinder.

3-2 While pulling the Viewfinder Slide Stopper, remove the Viewfinder Mounting Base (33) by sliding it out from the Viewfinder.

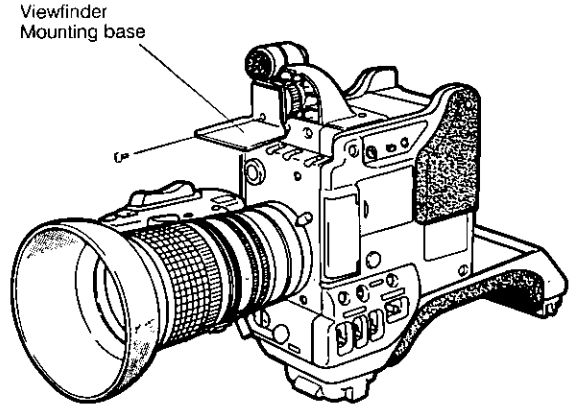
3-3 Remove the screw from the Viewfinder Mounting Base.



3-4 Install the Viewfinder Mounting Base (33) into the Viewfinder Mounting Plate by using the screw just removed.

3-5 Mount the Viewfinder on the Viewfinder Mounting Base (33) by sliding it onto the base.

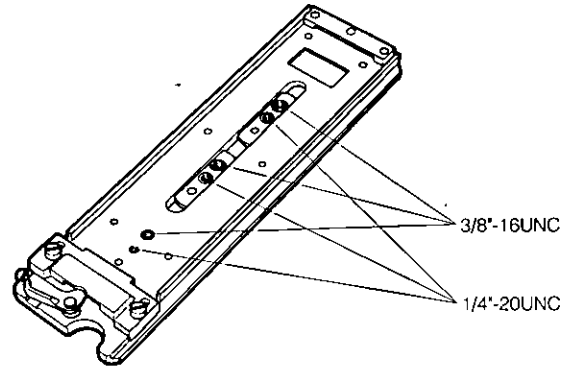
3-6 Securely lock the Viewfinder in place by use of the Viewfinder Lock Lever (32).



4. Mounting the Battery Pack or AC Adaptor/Charger, refer to "Installation of the AC Adaptor/Charger WV-PS34" on page 57 and "Installation of the Battery Pack" on page 57.

5. Mounting the Tripod Mounting Adaptor

Mount the Tripod Mounting Adaptor on the tripod by matching one of the mounting holes (1/4" - 20 UNC or 3/8" - 16 UNC) on the Tripod Mounting Adaptor with the tripod mounting screw, and securing the Tripod Mounting Adaptor with the mounting screw on the tripod.

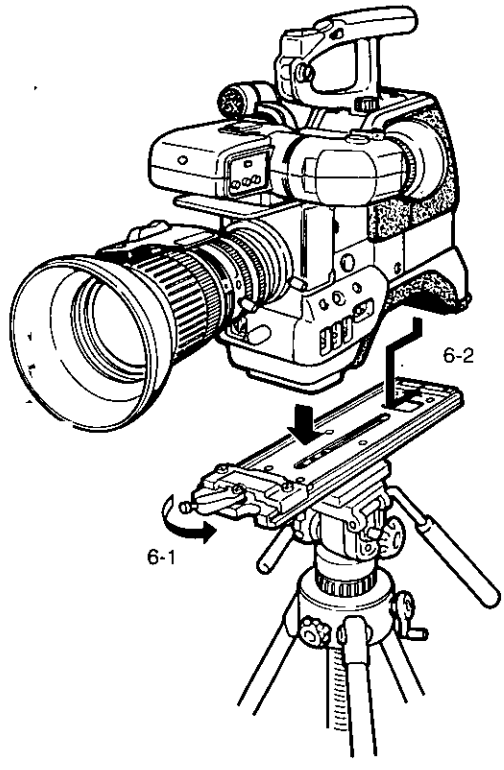


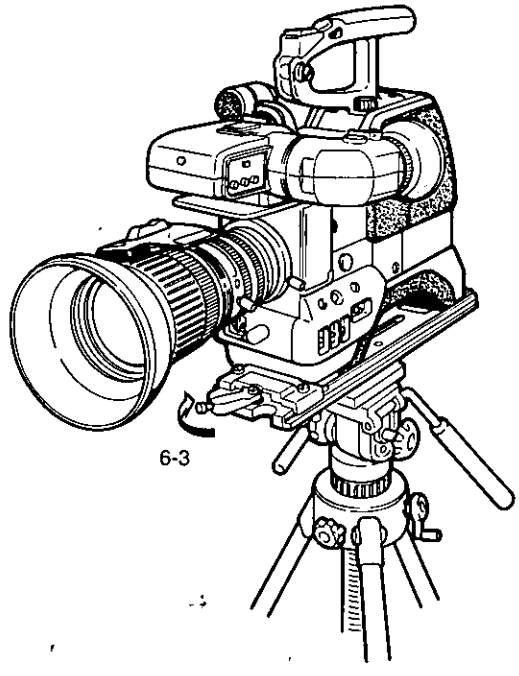
6. Mounting the Camera on the Tripod Mounting Adaptor

6-1 While pressing the Release Button (241) on the Lock Lever (242) of the Tripod Mounting Adaptor, unlock the lock lever by turning it counterclockwise as shown in the illustration.

6-2 Place the camera on the Tripod Mounting Adaptor and make sure the protrusion at the rear of the camera is properly engaged with the slot at the rear of the Tripod Mounting Adaptor.

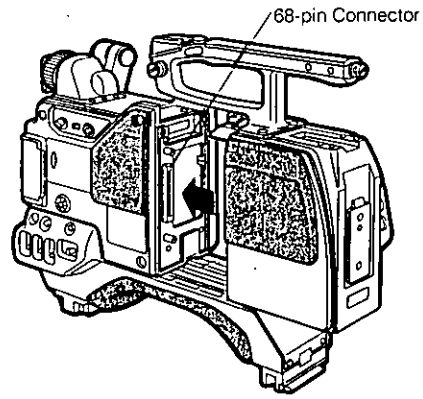
6-3 Turn the Lock Lever (242) of the Tripod Mounting Adaptor clockwise, as shown in the illustration. Make sure the camera is securely held and that it is in ist back-most position in the adaptor.





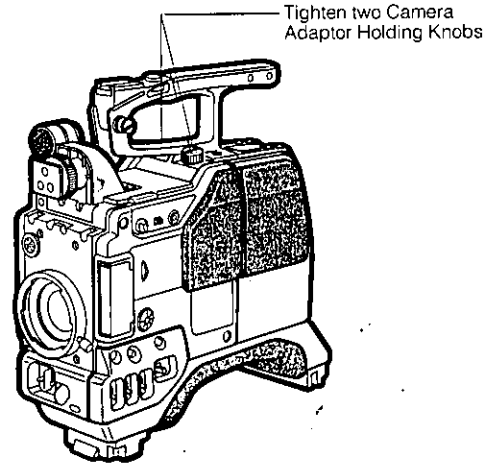
INSTALLATION FOR STUDIO OPERATION

The optional Camera Adaptor WV-AD500, 5" Viewfinder WV-VF65B, 5" Viewfinder Bracket WV-Q71, Tripod Mounting Adaptor WV-QT700, 13X Servo Control Zoom Lens YH13X75BKRS, Remote Control Unit WV-RC700A and Lens Control Kit WV-LK35 are required.



1. Mounting the Camera Adaptor WV-AD500

1-1 Mount the camera adaptor on the camera head while engaging the 68-pin connector.



1-2 Tighten the two Camera Adaptor Holding Screw/Knobs firmly, and make sure the adaptor is securely fixed to the camera.

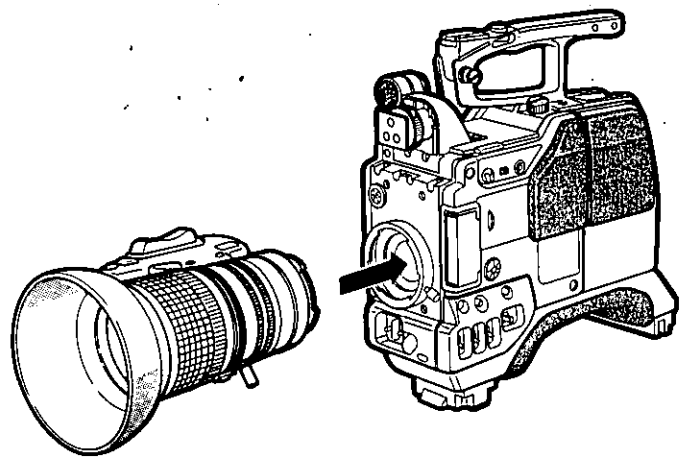
Caution: When mounting the Camera Adaptor make sure it slides back straight and engages the connectors and lock mechanism squarely in order to prevent bending of the pins in the connector.

2. Mounting the Lens

2-1 Remove the body cap from the camera.

2-2 Attach the 13X Auto Iris Servo Control Zoom Lens into the lens mount hole, and turn the lens Hold Ring/Knob (30) clockwise to secure the lens to the camera body.

2-3 After having checked that the lens is mounted securely, connect the lens cable to the 12-pin Lens Connector (1) on the camera.



3. Mounting the 5" Electronic Viewfinder

3-1 Remove four screws from the handle of the camera.

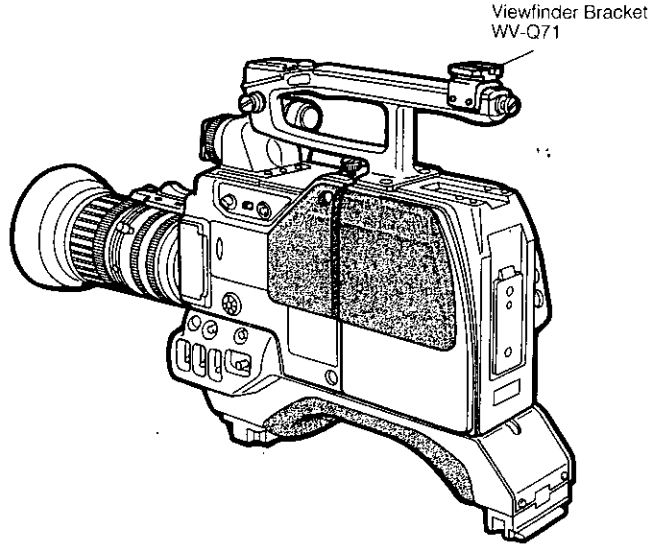
3-2 Mount the Viewfinder Bracket WV-Q71 on the Camera Handle of the Camera Adaptor by using the four screws just removed.

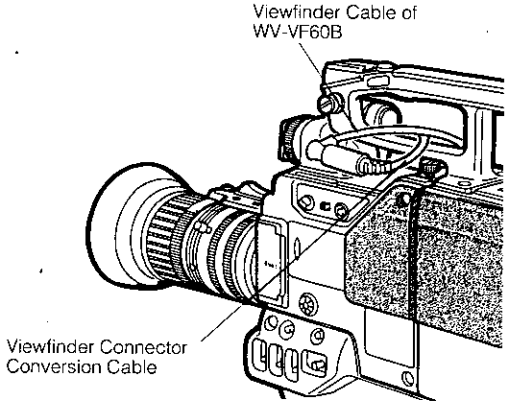
3-3 Slide the Viewfinder adjusting angle into the mounting base and tighten the Fixing Knob to secure the Viewfinder. Connect the viewfinder angle.

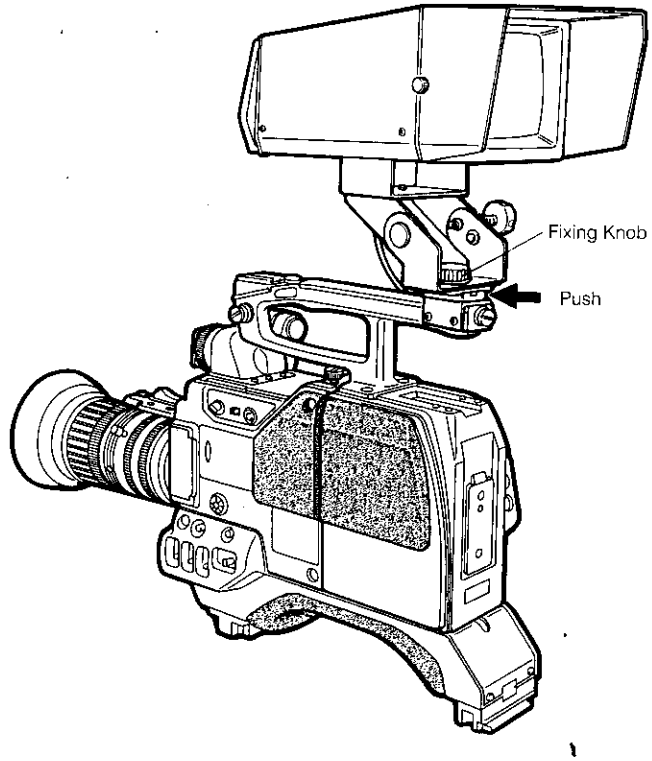
Note: When connecting the viewfinder cable of the WV-VF65B to the viewfinder connector on the camera.

Use the viewfinder connector conversion cable (supplied) in between the two.

After connection is completed, attach the conversion cable to the top cover of the camera by turning the wing screw.

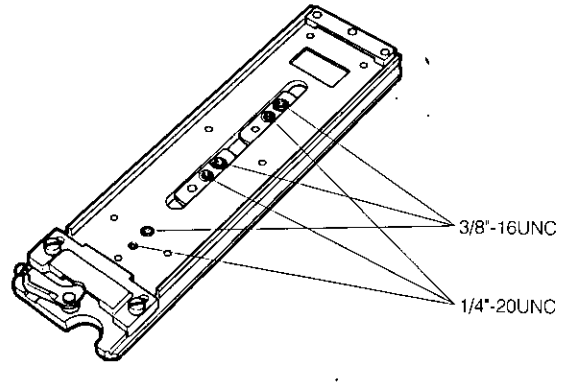






4. Mounting the Tripod Mounting Adaptor

Mount the Tripod Mounting Adaptor on the tripod by matching one of the mounting holes (1/4" - 20 UNC or 3/8" - 16 UNC) on the Tripod Mounting Adaptor with the tripod mounting screw, and securing the Tripod Mounting Adaptor with the mounting screw on the tripod.

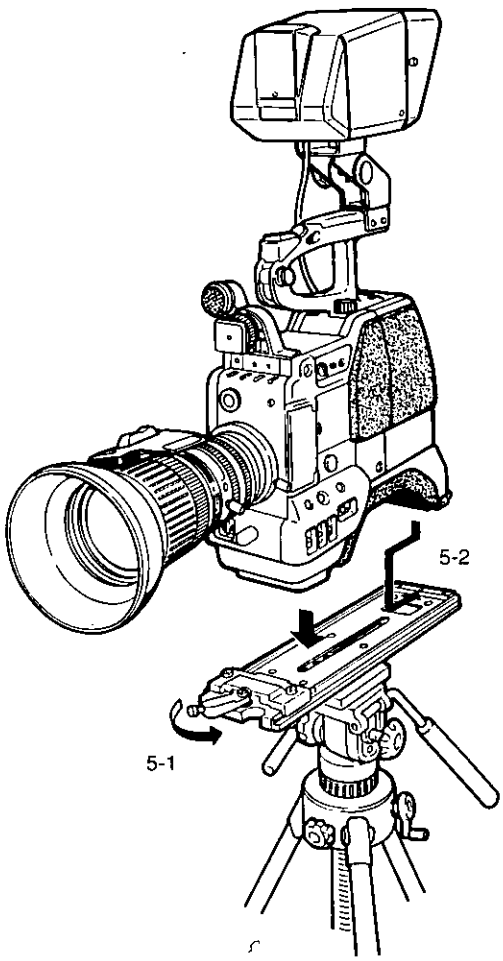


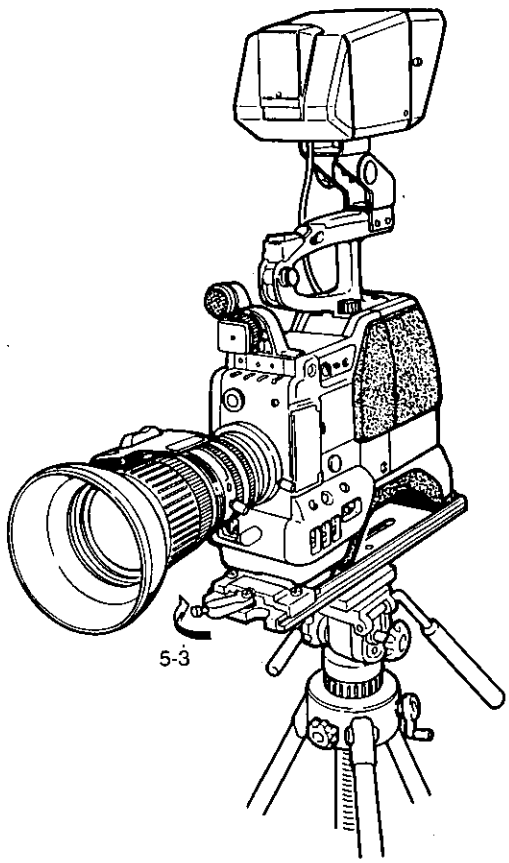
5. Mounting the Camera on the Tripod Mounting Adaptor

5-1 While pressing the Release Button (241) on the Lock Lever (242) of the Tripod Mounting Adaptor, unlock the lock lever by turning it counterclockwise as shown in the illustration.

5-2 Place the camera on the Tripod Mounting Adaptor and make sure the protrusion at the rear of the camera is properly engaged with the slot at the rear of the Tripod Mounting Adaptor.

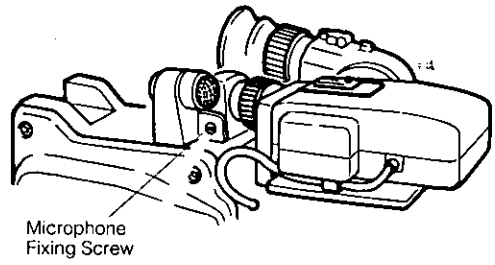
5-3 Turn the Lock Lever (242) of the Tripod Mounting Adaptor clockwise, as shown in the illustration. Make sure the camera is securely held and that it is in its back-most position in the adaptor.



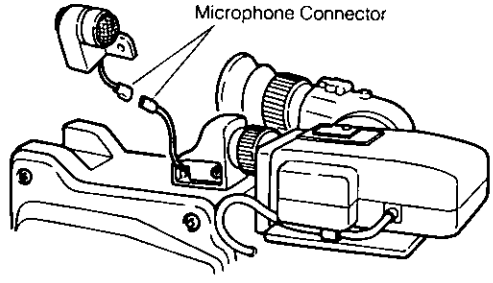


Installation of the Optional Microphone Holder WV-MH500

1. Remove the Microphone Fixing Screw on the Microphone of this camera.

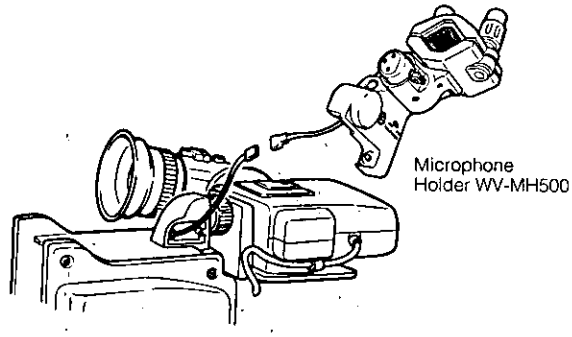


2. Disconnect the Microphone Connector (3-pin) of this Microphone from the Camera.



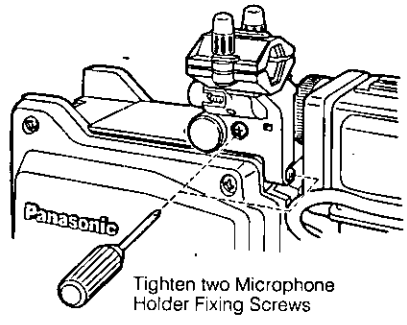
Note: Do not pull the Microphone Connector of this Microphone by the wires.

3. Connect the Microphone Connector of the optional Microphone Holder to the one of this camera as shown below.



4. Mount the Optional Microphone Holder on this camera with two Microphone Holder Fixing Screws.

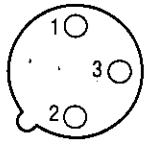
5. Loosen the two Microphone Holding Knobs, slide the microphone into the Microphone Holder, and turn the knobs to secure the microphone to the camera.
   Connect the plug of the microphone to the XLR type microphone connector on the Microphone Holder.
   Note: In case of the optional Microphone WM-L30, set the Microphone Power On/Off switch (MIC POWER < ON/OFF) to the ON position.



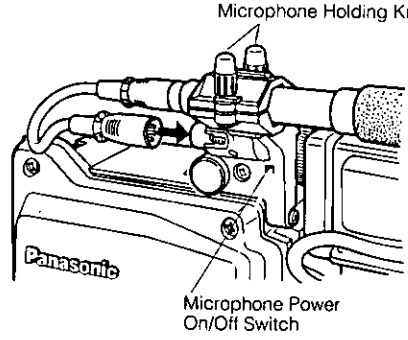
XLR type Microphone Connector (MICROPHONE) Information.

This Connector is used to connect the Microphone.

1 : Shield
2 : Hot
3 : Cold



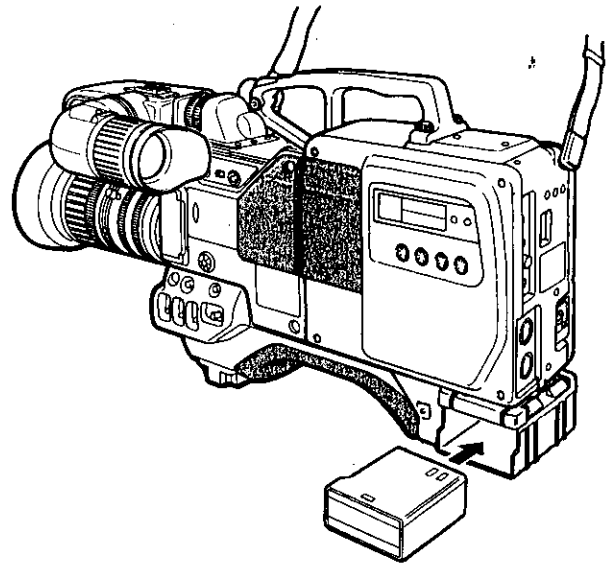
Note: When connecting a microphone connector whose pin designations are different from the above one, the audio output may be not available.



POWER SUPPLY

A. CAMERA/RECORDER SYSTEM APPLICATION

Power is supplied to the camera and VTR from the Battery Pack AU-BP220 or the AC Adaptor AG-B640.

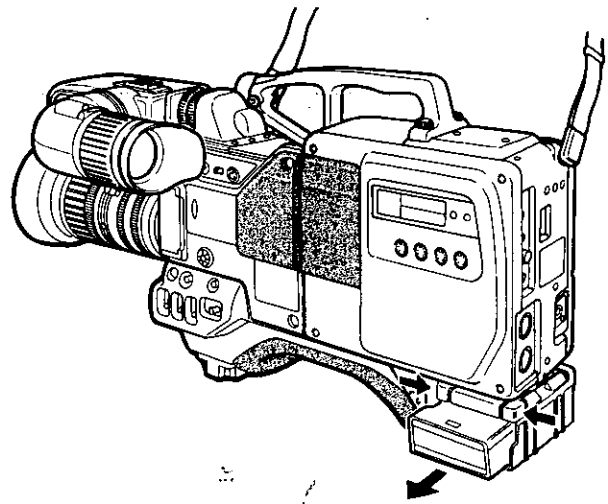


1. Battery Pack AU-BP220

Before using the battery pack, it must be fully charged first by using the battery charger AG-B745.
Refer to the operating instructions of the Battery Charger AG-B745.
Installation of Battery Pack
Insert the battery pack into the battery case until it stops and locks.

Notes:

1. With a full charge the battery pack AU-BP220 will supply power for 20 minutes.
2. If the VTR will not be used for a long period of time, it is recommended that the battery pack be removed.
3. When replacing the battery pack, remove the battery pack from the case while pressing the release buttons.



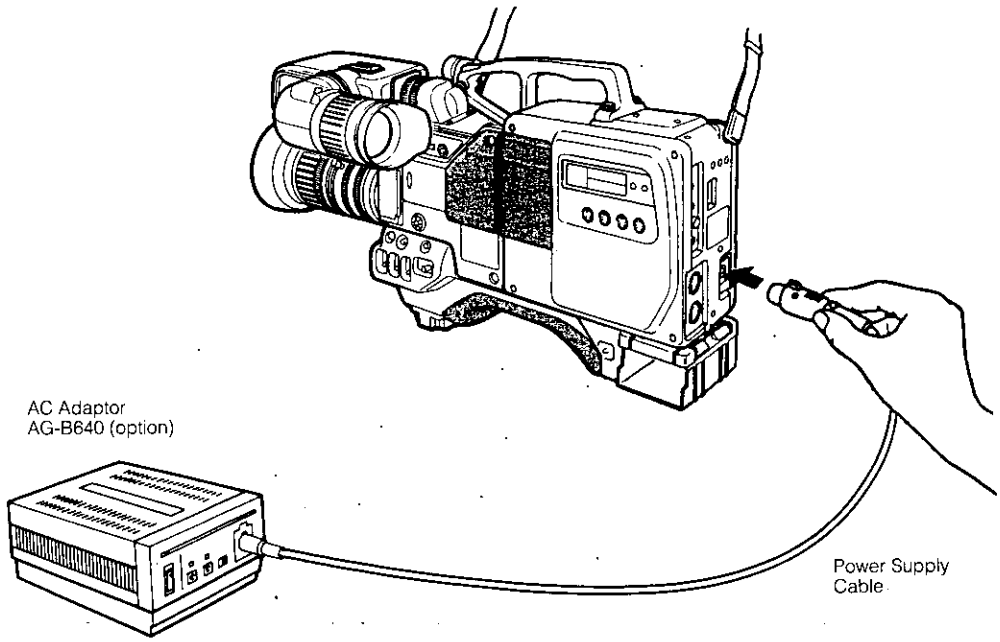
ATTENTION: The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of it's useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

Ni-Cd

2. AC Adaptor AG-B640

Connection of AC Adaptor

Connect the AC Adaptor AG-B640 to the EXT DC IN connector on the camera recorder AG-7450A by using the Power Supply cable.



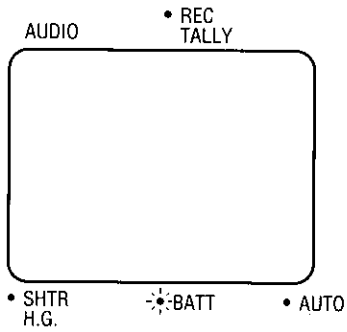
B. ENG/EFP APPLICATION

Installation of Battery Pack

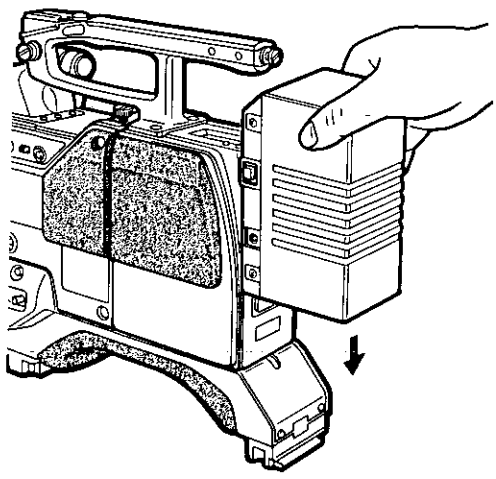
When the Battery Pack WV-PS60 or WV-PS33 is used with the ENG/EFP color camera, this installation procedure should be followed. Be sure the battery to be mounted has been fully recharged before proceeding with this installation.

(The following installation procedure depicts mounting of the Battery Pack WV-PS60. The WV-PS33 is installed in exactly the same manner.)

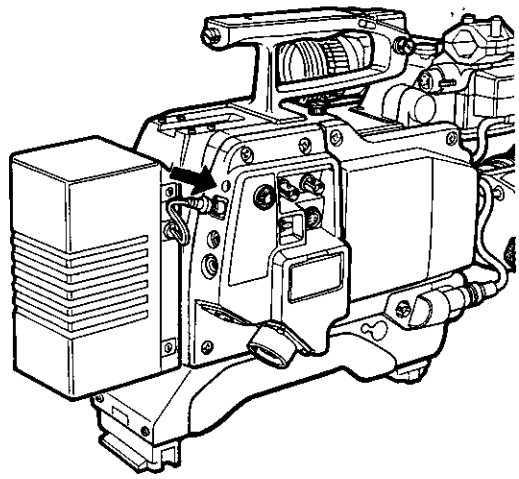
When "10.6" is displayed in the viewfinder the battery should be replaced and/or recharged. Please note that the battery pack will supply power for only a few minutes after the indicator has started to blink in the viewfinder.



1. Install the Battery Pack on the rear of the camera by matching the recesses in the Battery Pack with the rails on the camera and then sliding it down the rails.



2. Connect the battery cord to the battery connector.



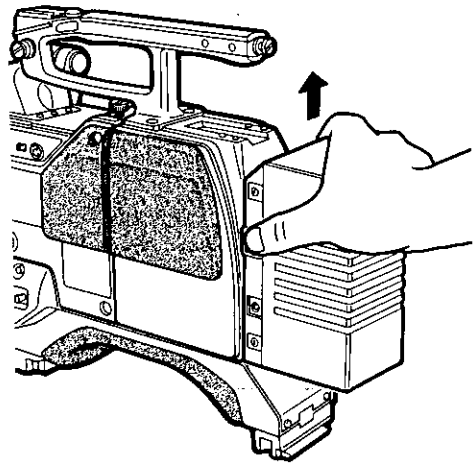
Note: The Battery Pack will gradually discharge over time, even if it is not used. Thus, a battery pack that had been fully charged, but not used for a long period of time, might become fully discharged without any use.

Make sure the Battery Pack is fully charged prior to recording; especially prior to recordings where you cannot afford to run out of power.

WV-PS60: 12V 1650 mAh

WV-PS33: 12V 3500 mAh

3. When replacing the Battery Pack, disconnect the battery cord and remove the Battery Pack by sliding it up while pressing the Battery Pack Release Button.



ATTENTION: The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of it's useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

Ni-Cd

CHARGING THE BATTERY PACK (WV-PS33 AND WV-PS60)

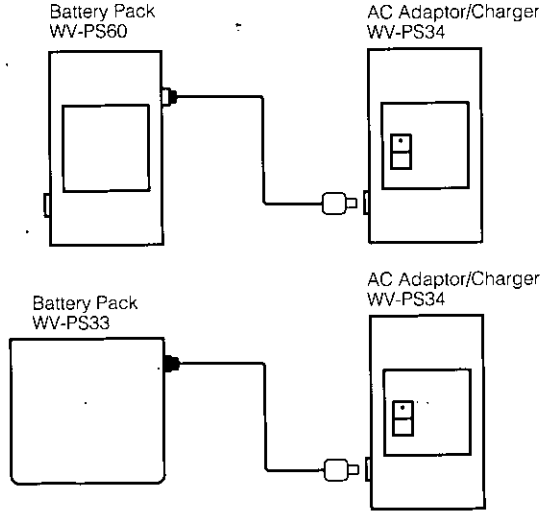
The Battery Pack can be charged by using the Charger, as follows.

Battery Pack	Battery Charger	Approx. Charging Time (Full Charge)
WV-PS33	AC Adaptor/Charger WV-PS34	4 hours in quick mode 6 hours in slow mode
	Charger WV-BC30	15 hours
WV-PS60	AC Adaptor/Charger WV-PS31	2 hours in quick mode 3 hours in slow mode
	Charger WV-PS34	15 hours

Notes:

1. A newly purchased battery should always be fully charged prior to usage.
2. Remove the Battery Pack from the camera while charging it.

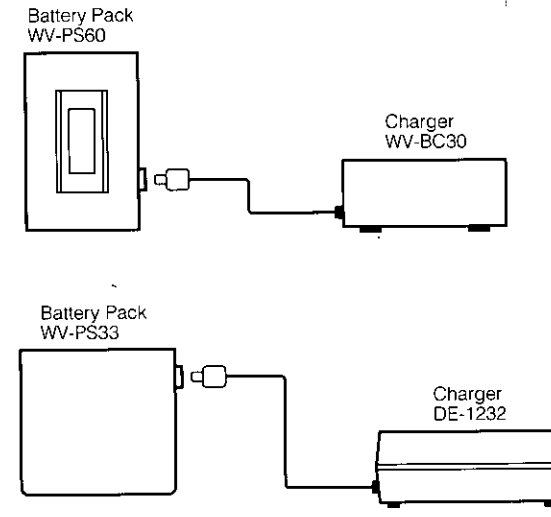
Quick Charging with the WV-PS34



Notes:

1. Quick charging is completed after approximately 4 hours for the WV-PS33 and 2 hours for the WV-PS60. The Charger Indicator on the Charger will change from red to green to indicate that the Charger has changed to the slow charge mode.
2. In order to fully charge and to prolong the service life of the Battery Pack as much as possible, slow charging of 6 hours for the WV-PS33 and 3 hours for the WV-PS60 is recommended. Quick charging should only be used in emergencies.

Slow Charging with the WV-BC30 and DE-1232

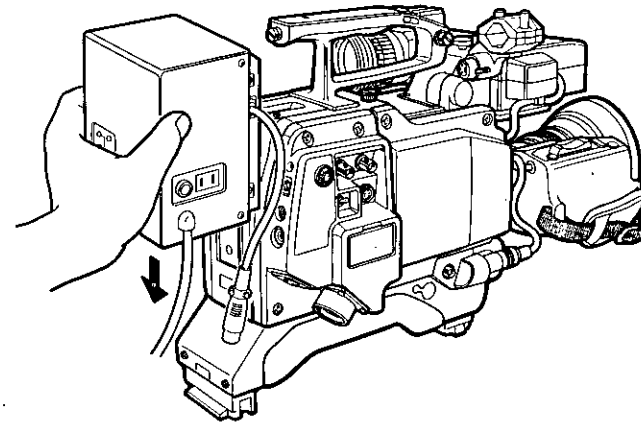


Note: In order to prolong the service life of the Battery Pack, when using the Charger, charge the battery for approximately 15 hours. However, do not charge for more than 24 hours as this will quickly wear out the Battery Pack.

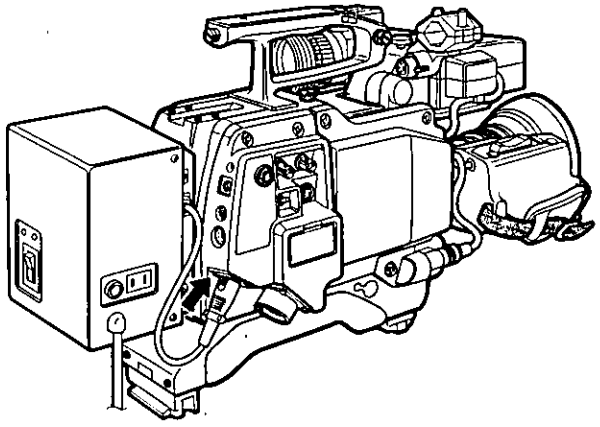
INSTALLATION OF THE AC ADAPTOR/ CHARGER WV-PS34

When the AC Adaptor/Charger, WV-PS34, is used with the ENG/EFP Color Camera as an AC Adaptor, this installation procedure should be followed:

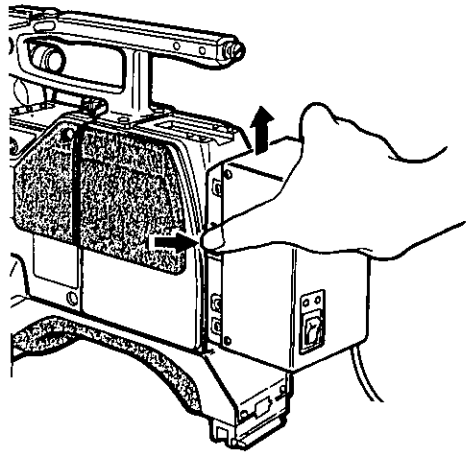
1. Install the AC Adaptor/Charger on the rear of the camera by matching the recesses in the AC Adaptor/Charger with the rails on the camera and then sliding it down the rails.



2. Connect the 4-pin cable to the 4-pin external DC input connector on the cameara.



3. When removing the AC Adaptor/Charger, disconnect the 4-pin cable and remove the AC Adaptor/Charger by sliding it up while pressing the Release Button.



SYSTEM CONNECTION

CAUTION: Keep the power switches of all units in the OFF position during connections.

A. ENG Application

1. Connection with the VTR

Connect the VTR cable between the camera and the Panasonic portable color VTR (The standard VTR cable length is 10 ft (3m).

Portable VTR with 10-pin camera connector, such as AG-6400:

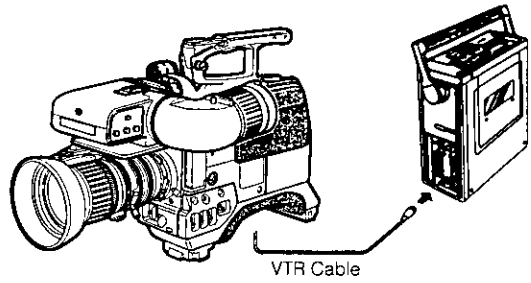
VTR cable WV-CA26A/10 (26P-10P cable)

Portable VTR with 14-pin camera connector such as AG-7400:

VTR cable WV-CA26A/14 (26P-14P cable)

Portable VTR with 26-pin camera connector (MII) such as AU-520:

VTR cable WV-CA26A/26 (26P-26P cable)



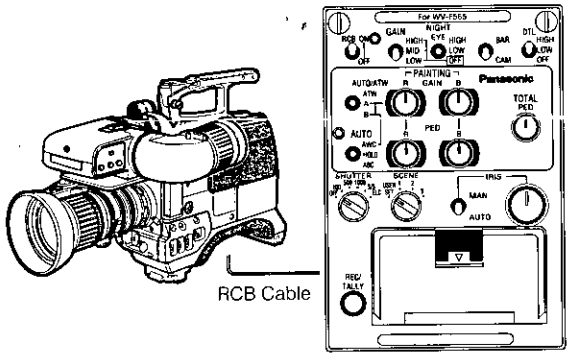
2. Connection with the Remote Control Box

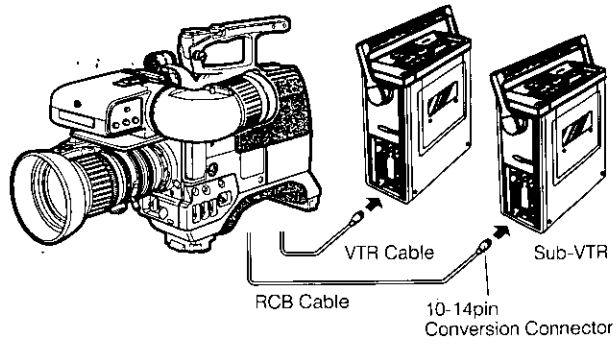
Connect the Remote Control Box Connector (37) on the Camera Head to the Remote Control Unit Extension Connector (156) on the Remote Control Box by using the optional RCB Cable WV-CA10B25 or WV-CA10B50.

Note: In the following system connection, the video signal from the Monitor Output Connector (36) on the Camera Head has priority of the video signal over the Monitor Output Connector (154) on the Remote Control Box, so the picture is not displayed on the monitor connected to the Remote Control Box.

The decrement of the video signal for the cable length is shown in the following.

The cable length	Decrement
2 m:	Approx.10%
25 m:	Approx. 15%
50 m:	Approx. 20%
100 m:	Approx. 30%





3. Connection with a sub-VTR (back-up VTR)

Connect the 10-14 pin conversion connector, WV-CA10T14, between the sub-VTR's 14 pin connector and the Camera's 10-pin Remote Control Box Connector.

Notes:

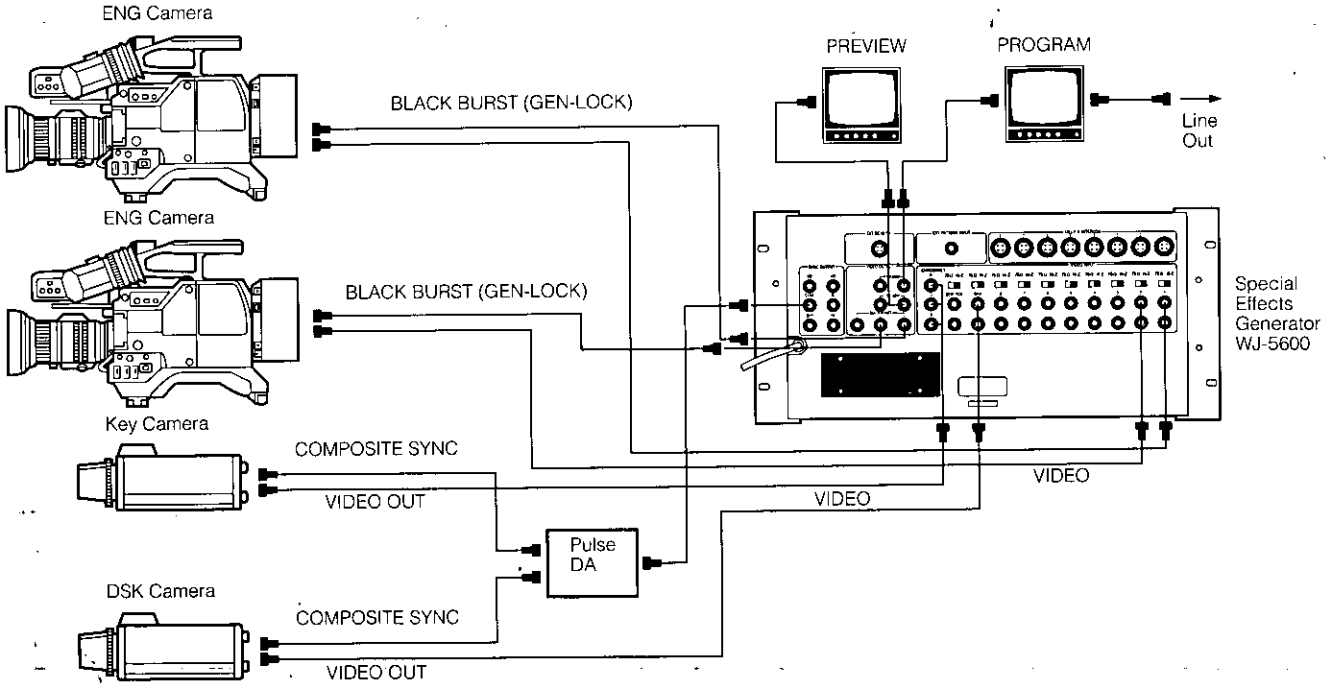
1. Only video signal, audio signal (–20 dB) and start/stop signal are sent to the sub-VTR.
2. The extension cable length for the sub-VTR is up to 30 ft (10m).
3. In the above system connection, the video signal from the Monitor Output Connector (37) on the Camera Head takes priority over the video signal from the Monitor Output Connector (154) on the Remote Control Box.
   So the picture is not displayed on the monitor connected to the Remote Control Box.

B. Gen-lock EFP Application

1. Connect a coaxial cable for the gen-lock signal between the Gen-lock Input Connector (51) (BNC-type) on the Camera Adaptor and the Black Burst Output Connector on the production system, such as the Special Effects Generator.
2. Connect the coaxial cable for the video output signal between the Monitor Output Connector (37) (BNC-type) on the camera and the Video Input Connector on the production system.

Notes:

1. The following signal outputs can be used as gen-lock signals: WJ-5600, WJ-4600: Black Burst output.
2. The Subcarrier Phase Coarse and Subcarrier Phase Fine as well as the Horizontal Phase on the camera should be set to match the other cameras in the system. Refer to page 68 for details.
3. Refer to the operating instructions accompanying the Special Effects Generator, such as WJ-5600, WJ-5500 and WJ-4600, for further details.
4. Do not connect the coaxial cable for the gen-lock signal to the Gen-lock Input Connectors (51) on the Camera Head and on the Camera Adaptor simultaneously.



C. Studio Application

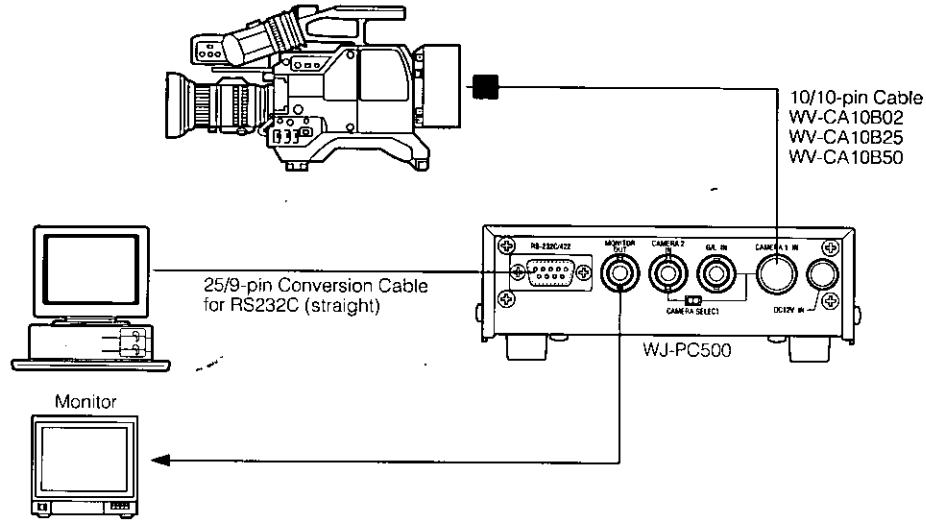
1. Connection with the Remote Control Unit by the 26-pin multi-cable
   Connect the 26-pin studio cable between the camera and the Remote Control Unit (RCU).

2. Connection with the Remote Control Unit by the coaxial cable
   Connect a coaxial cable between the Multiplex Signal Connector (50) on the Camera Adaptor and the Multiplex Connector (151) on the Remote Control Unit.

D. PC Mode System

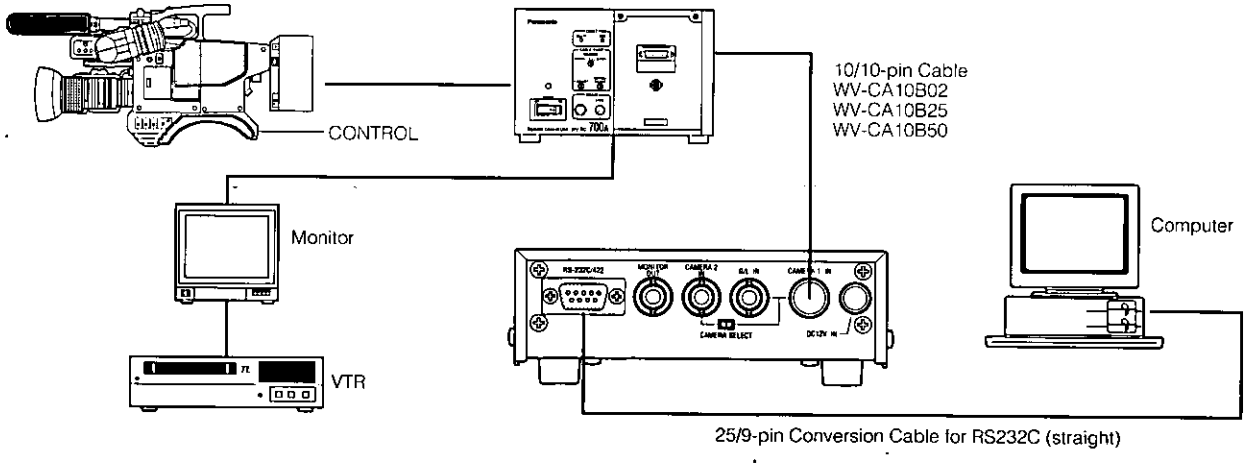
Precaution: The specified software should be required for this operation. Please contact with qualified service personel for this operation.

PC Mode System 1



Connect the WV-CA10B02, WV-CA10B25 or WV-CA10B50 10/10-pin cable between the Remote Control Box Connector (37) on this camera and Camera 1 Input Connector on the WJ-PC500.

PC Mode System 2



Connect the WV-CA10B02, WV-CA10B25 or WV-CA10B50 10/10-pin conversion cable between the Camera 1 Input Connector on this unit and the Remote Control Box Connector on the Remote Control Unit.
Connect the 25/9-pin conversion cable between the RS-232C/422 Connector on this unit and the computer.

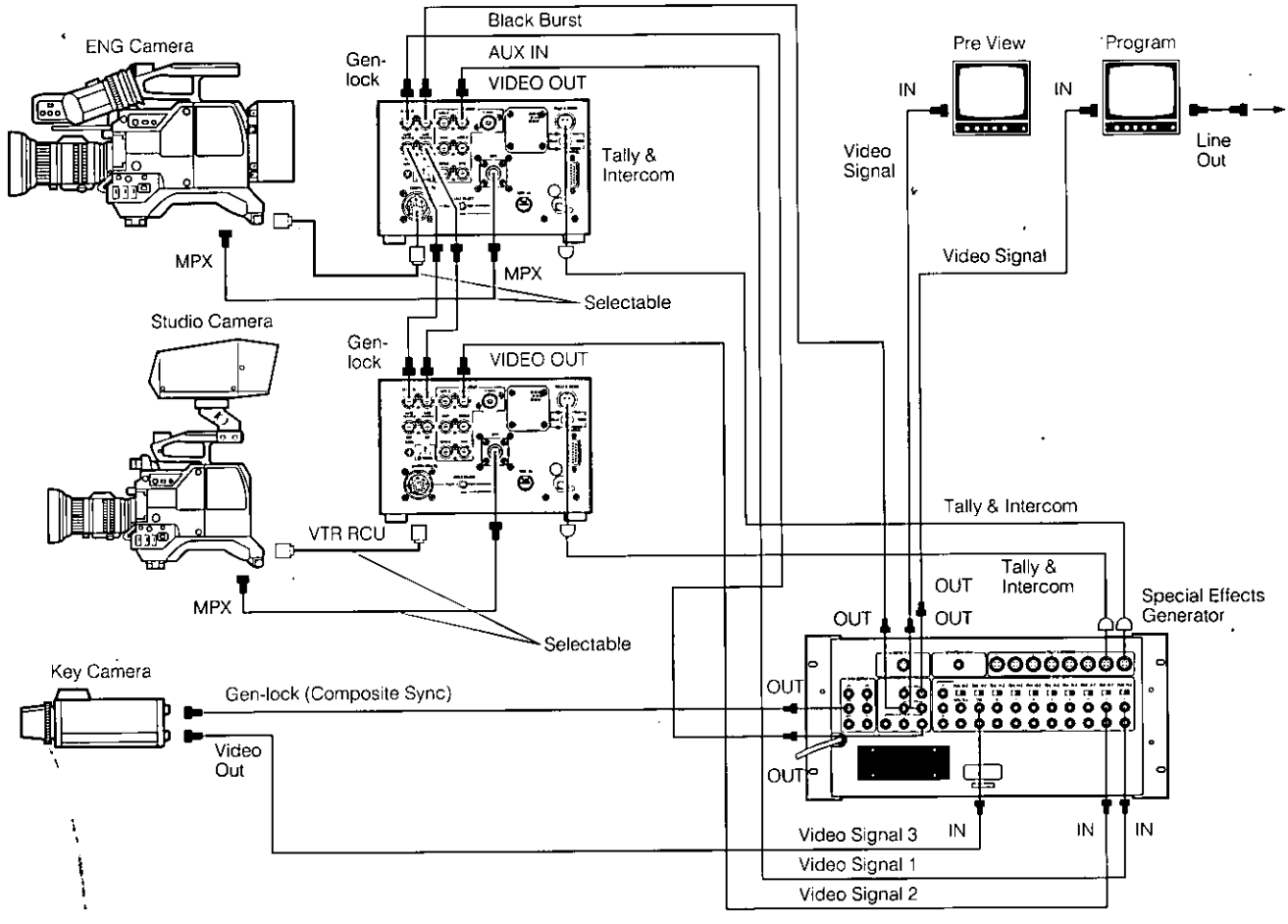
E. Gen-lock Studio Application

- Connect a coaxial cable for the gen-lock signal between the black burst output on the production system and Gen-lock Input Connectors (143) or (203) on the RCU. (The signal may be bridged or looped through to another RCU.)
- Connect the coaxial cable for the lineview signal between the effect output connector on the production system and the Auxiliary Input Connector (144) or (204) on the RCU. (The signal may be bridged or looped through to another RCU.)

Notes:

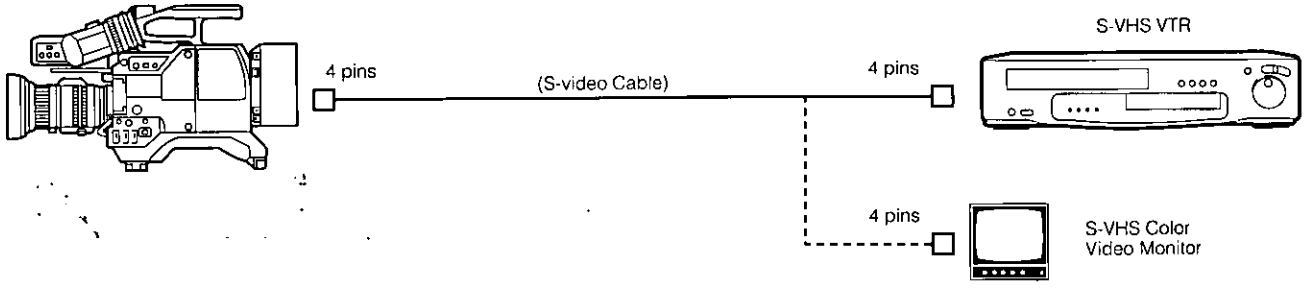
1. The Tally light and intercom between the camera, RCU and Special Effects Generator will function only when the 4-pin cable for the Tally light and intercom is connected between the RCU and Special Effects Generator.
2. The 26-pin studio cable can be extended up to a maximum of approx. 1000 ft (300m). When extending the cable, be sure to set the Cable Length Compensation Switch (115) to the position matching the extension length.
3. The Subcarrier Phase Coarse and Fine Controls (137) and the Horizontal Phase Control (138) or (196) on the RCU should be set to match other cameras in the system. Refer to page 68 for details.
4. Be sure to set the Cable Selection Switches (54) on the Camera Adaptor and (152) or (201) on the Remote Control Unit to MULTI position, if using the 26-pin multicores studio cable.

- The MPX mode is available when connecting the Camera Adaptor WV-AD700AS.

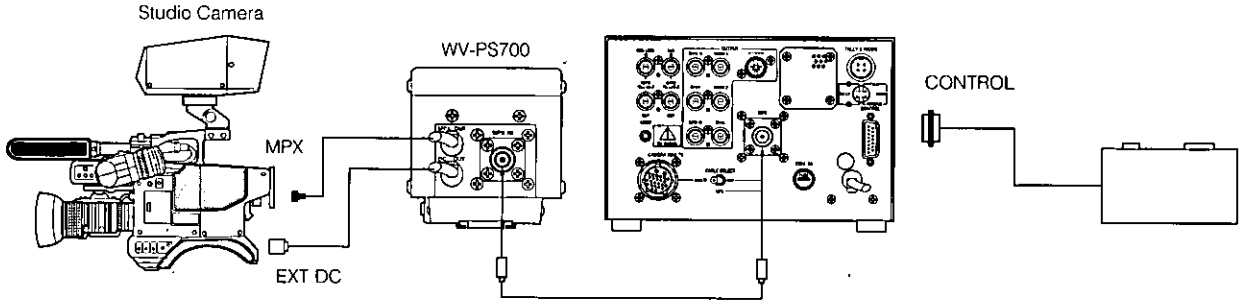


Notes:

1. When using the MPX mode by connecting the WV-AD700AS, INCOM, AUX and R/G/B outputs are not functioned.
2. When the Color Camera WV-F565 is connected to a desk-top type S-VHS VTR such as AG-7750 or directly to the video monitor for S-VHS format, the S-VHS cable (S-video cable) is required.



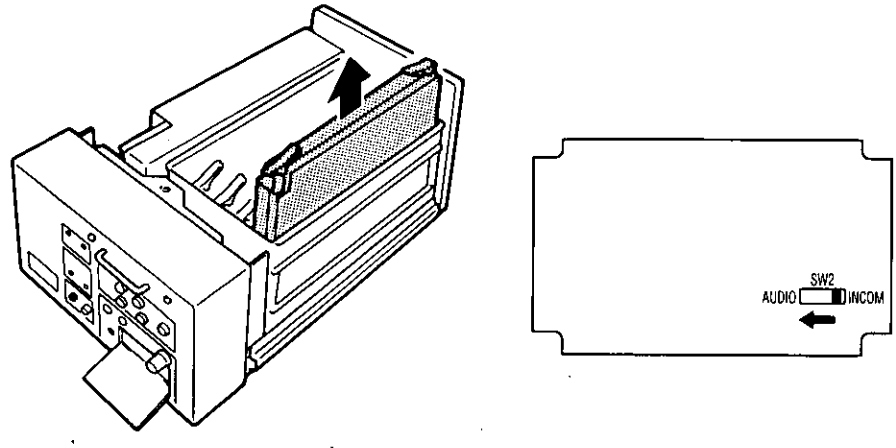
F. VP Multiplex System



- Connect the Multiplex Output Cable on the WV-PS700 to the Multiplex Signal Connector on the WV-AD700AS.
- Connect the Power Cable on the optional Power Separator WV-PS700 to the External DC Input Connector on the WV-AD700AS.
- Connect the coaxial cable between the Multiplex Input Connector on the Power Separator WV-PS700 and the Multiplex Connector on the RCU.
- To control the Zoom or Focus function of lens, connect the Control Cable on the lens having the Focus or Zoom function to the Lens Connector on WV-AD700AS.
  And then connect the multicable between the WV-RC700A and lens control unit.

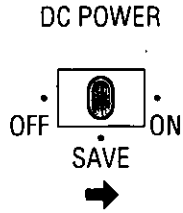
Notes:

1. The optional Power Separator WV-PS700 and the Camera Adaptor WV-AD700AS are required to supply the power to the camera from this unit.
2. The optional studio cable (26-pin) cannot be used in the VP Multiplex system simultaneously.
3. In this system, R/G/B, Y/C, Y/PR/PB and Aux cannot be supplied.
4. Be sure to set the Cable Selection Switch on the Camera Adaptor WV-AD700AS to the MPX position and the Cable Selection Switch on the RCU to the VP position.
5. After turning on the power of this unit and camera head, it takes approximately 8 seconds to control the camera.
6. When the Camera Adaptor WV-AD700AS is used in the above system, the following items are not available.
   a. Bidirectional Inter Communication
   b. Audio Output
   c. Zoom, or Focus Control
   d. Pan/Tilt Control
7. Pan/Tilt Control Signal input to the Control Connector on the RCU is output from Control Connector on WV-AD700AS.
8. For the Audio function, set the Switch 2 on the MOD board inside this unit as shown below.



OPERATING PROCEDURE FOR CAMERA RECORDER APPLICATION

1. Turn on the Power Switches on the camera and VTR.



Power Switch		Power Indicator	Operating mode of Dockable VTR/ camera	Operating mode of Portable VTR (SAVE is built-in)	Operating mode of Sub-VTR	
VTR	CAM				Power	Operating condition
OFF		lights off	Power off	The tape loading is released and the power is saved.	ON (operated from VTR.)	In the recording mode, the recording is stopped.
SAVE		lights green	VTR: The tape loading is released and the power is saved. Camera: The heater of the viewfinder's CRT is on.			
ON		lights red	The power of VTR and camera are turned on.	Power on		The recording mode is controlled by the VTR Start/Stop Button.

Notes:

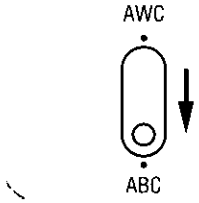
1. When the power of the camera is turned off from on, the sub-VTR is put in the recording stop mode from the recording start/stop mode.
   Then the recording Start/Stop is controlled the operating switch on the VTR.
   When the power of the camera is turned on from off, the recording is stopped by setting the operating switch on the VTR to the recording start mode.
   Then the recording start/stop mode is controlled by the VTR Start/Stop Button on the camera.
2. When pressing the VTR Start/Stop Button after setting the Dockable VTR to ON → SAVE → ON, the recording start/stop mode is reversed.
3. When turning off the power of the AU-45H in the camera recorder system, the power off control from the camera side is not available.

2. Insert a cassette in the VTR.
3. Set the switches on the camera as follows.

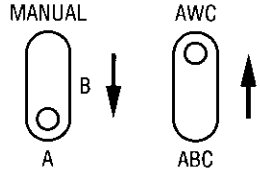
Switches	Positions
High Gain Selection Switch (29)	0 dB
Color Bar/Night Eye/Camera Selection Switch (27)	CAMERA
Iris Control Selection Switch (88) on lens	A (Auto)
Lens Iris Selection Switch (7)	NOR (Normal)
Scene File Selection Switch (10)	Scene 1

Note: Set these switches to the most suitable position, according to shooting conditions.

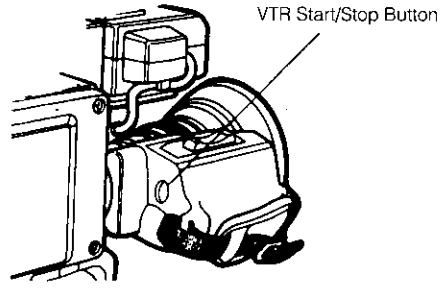
4. Select the proper CC filter according to the color temperature at the scene, using the Filter Selection Wheel (31) while referring to the Table on page 76.
5. Set the black balance as follows:
   Set the Auto White/Auto Black Set Switch (6) to the ABC position momentarily by pressing it down. The lens iris is automatically closed and the black balance is set automatically.

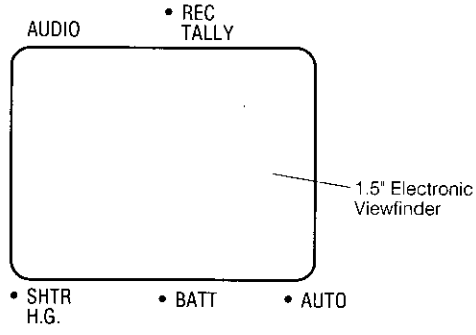


   When the black balance has been set, the lens iris returns automatically to its previous position. The Auto Warning Indicator in the viewfinder blinks while the black balance is being set and it goes off when the black balance has been correctly set. While the black balance is being set, ABC also blinks in the viewfinder screen, and ABC OK appears when the setting is completed. After a few seconds, ABC OK disappears from the screen. If the Auto Warning Indicator remains lit and ABC NG appears in the viewfinder screen, the black balance adjustment should be carried out once more. Refer to "Setting the Black Balance" on page 74 for details.
6. Set the white balance as follows:
   Set the White Balance Selection Switch (28) to either A or B position (stored in appropriate memory). While aiming the camera at a white object, e.g. gray scale chart or white paper, set the Auto White/Auto Black Set Switch (6) to the AWC position momentarily by pressing it up.
   Pay attention so that the light source or reflected light from metallic objects does not come in the view.
   The white balance is automatically set.



   When the white balance has been set, the blinking Auto Warning Indicator in the viewfinder goes out and the blinking AWC A or AWC B in the viewfinder screen turns into AWC A OK or AWC B OK, respectively. This indication disappears after a few seconds.
   If the Auto Warning Indicator remains lit and AWC A NG or AWC B NG appears in the viewfinder screen, the white balance adjustment should be carried out once more. However, before proceeding with the adjustment, make sure the Filter Selection Wheel (31) is set correctly. Refer to "Setting the White Balance" on page 75 for details.
7. Confirm the flange-back adjustment of the lens. If it is not correctly set, readjust the flange-back.
8. Adjust the audio level of the microphone.
   Turn the Audio Level Control (24) on the Camera Head to clockwise for increasing the audio level.
9. Confirm the audio level on the level meter of the VTR or in the viewfinder.
10. If the electronic shutter operation is desired, turn on the Electronic Shutter On/Off Switch (11) select the appropriate shutter speed by the Electronic Shutter Speed Selection Switch (12).
11. The camera's condition may be confirmed by pressing the Check Button (25) while a normal picture is being viewed. Refer to "Character Display" on page 85 for details.
12. Aim the camera at the scene to be recorded and adjust the focus and zoom of the lens accordingly.
13. Press the VTR Start/Stop Button (92) on the lens or on the camera (5). The Recording/Tally Indicator in the viewfinder, the Tally Light (101) on the front of the viewfinder Light, and the Top Tally lights while recording is in progress.



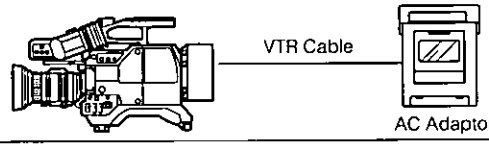
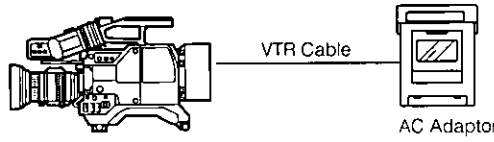
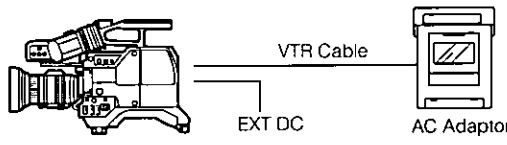
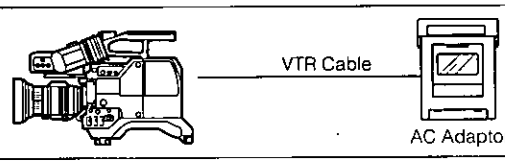


14. Press the VTR Start/Stop Button to stop recording when this is desired. The Recording/Tally Indicator and the Tally Light and Top Tally go out.
    To resume recording, simply press the VTR Start/Stop Button again.
15. After recording, you may review the picture in the viewfinder.
    1. Press the VTR Start/Stop Button and reverse the cassette tape.
    2. Set the VTR in the Play mode and press the Return Video Button (90) on the lens.

OPERATING PROCEDURE FOR ENG/EFP APPLICATION

1. ENG Application

(1) Make all required connections.
(2) Remove the Lens Cap.
(3) Select the power source according to the table below.

Case No.	Camera Power	Portable VTR Power	Connections
1	Battery Pack	Internal Battery	
2	AC Adaptor	Internal Battery or AC Adaptor	
3	External DC	Internal Battery or AC Adaptor	
4	Supplied from VTR	AC Adaptor	

Notes:

1. In case 4, the optional VTR Cable WV-CA26A26, WV-CA26A14 or WV-CA26A10 should be used.
2. It is not recommended to supply camera power from the built-in battery in the portable VTR since recording time would be much too short in this case.
3. In case 4, the AC Adaptor should have sufficient capacity to power both the camera and the VTR.
4. The power of camera is turned on/off automatically by the power supply connector.
   The order of priority for the power supply connectors is as follows:
   4-pin DC Connector > Battery Jack > 26-pin Connector

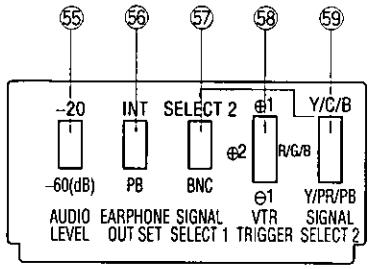
(4) Set the switches of the camera according to the VTR it is connected to.

Case No.	Portable VTR Used	VTR Compatibility Switch (58)	Audio Level Selection Switch (55)	Earphone Selection Switch (56)	VTR Video Output Selection Switch 2 (59)	VTR Video Output Selection Switch 1 (57)
1	1/2" or 3/4" portable VTR with 10-pin camera connector (such as AG-6400)	(+) 1 (Note: 2)	–20 dB	INT	R/G/B	ENC
2	3/4" portable VTR with 14-pin camera connector	(+) 2	–60 dB	PB	R/G/B	ENC
3	1/2" portable S-VHS VTR with 14-pin camera connector	(+) 2	–20 dB	PB	Y/C/B	SELECT 2
4	MII portable VTR with 26-pin camera connector	(+) 2	–60 dB	PB	Y/P R/P B	SELECT 2

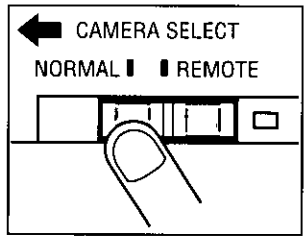
Notes:

1. If the VTR Video Output Selection Switch 1 or 2 is not set to the corrrect position, picture recording is not possible.
2. If the VTR is from a manufacturer other than Panasonic and it pauses while it should be recording, and vice versa, set the VTR Compatibility Switch (58) to the 1 position.

3. Some VTRs may not operate properly even though they are correctly connected to this camera. Please contact your dealer for detailed information.



(5) Turn the camera and the portable VTR on and set the portable VTR to the RECORD mode.
   (a) For portable VTRs with a Camera Select switch, such as Panasonic VTR AG-6400:
   Set the Camera Select switch on the VTR to NORMAL position.



   (b) For other portable VTRs without a Camera Select Switch:
   • Press the Recording and Play button together.

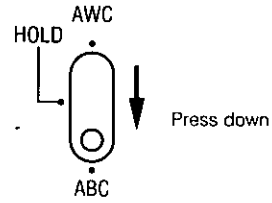
(6) Select the proper filter according to the color temperature at the scene, using the Filter Selection Wheel (31) while referring to the Table on page 76.

(7) Set the switches as follows:

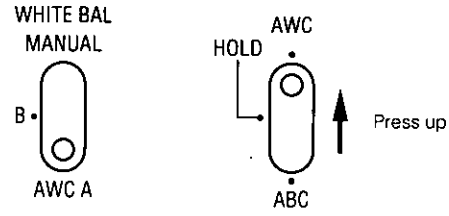
Switches	Positions
High Gain Selection Switch (29)	0 dB
Color Bar/Night Eye/Camera Selection Switch (27)	CAMERA
Iris Control Selection Switch (88) on lens	A (Auto)
Lens Iris Selection Switch (7)	NOR (Normal)
Scene File Selection Switch (10)	Scene 1
Power Switch (26)	ON

Note: Set these switches to the most suitable position, according to shooting condition.

(8) Set the black balance as follows:
Set the Auto White/Auto Black Set Switch (6) to the ABC position momentarily by pressing it down. The lens iris is automatically closed and the black balance is set automatically set. When the black balance has been set, the lens iris automatically returns to its previous position. The Auto Warning indicator blinks while the black balance is being set and it goes off when the black balance has been correctly set. While the black balance is being set, "ABC" also blinks in the viewfinder screen, and "ABC OK" appears when the setting is completed. After a few seconds "ABC OK" disappears from the screen.
If the Auto Warning indicator remains lit and "ABC NG" appears in the viewfinder screen, the black balance adjustment should be carried out once more. Refer to "Setting the Black Balance" on page 74 for details.

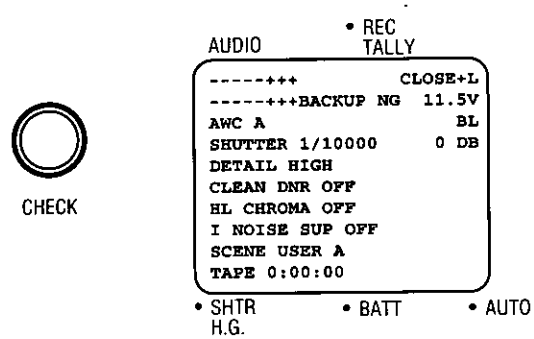


(9) Set the white balance as follows:
Set the White Balance Selection Switch (28) to the AWC A or AWC B position.
While aiming the camera at a white object, e.g. white paper or a white wall, set the Auto White/Auto Black Set Switch (6) to the AWC position momentarily by pressing it up. The white balance is automatically set. When the white balance has been set, the blinking Auto Warning indicator in the viewfinder screen goes out and the blinking "AWC A" or "AWC B" turns into "AWC A OK" or "AWC B OK", respectively. This indication disappears after a few seconds. If the Auto Warning indicator remains lit and "AWC A NG" or "AWC B NG" appears in the viewfinder screen, the white balance adjustment should be carried out once more. However, before proceeding with the adjustment, make sure the Filter Selection Wheel (31) is set correctly. Refer to "Setting the White Balance" on page 75 for details.



(10) Confirm the flange-back adjustment of the lens as follows:
- Aim the camera at a dark object more than 6 ft (2m) from the camera.
- Zoom in (from wide-angle to tele) with the Servo Zoom Control (89) and adjust the lens focus with the Focus Ring (95).
- Zoom out (from tele to wide-angle) and confirm that the picture is in focus. If not, the flange-back of the lens should be adjusted according to the instructions in "Flange-back Adjustment" on page 72.

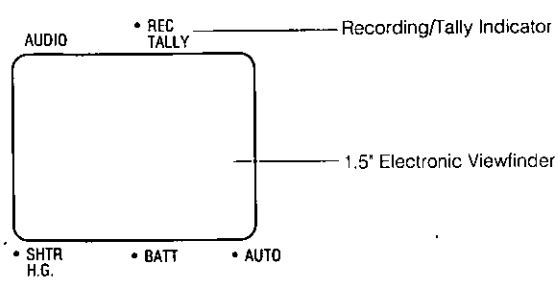
(11) The system condition may be confirmed by pressing the Check Button (25) while a normal picture is being viewed. Refer to "Character Display" on page 85 for details.



(12) Zoom in/out with the Servo Zoom Control (89) or Zoom Ring/Lever (96) until the desired composition is achieved.

(13) Turn the Focus Ring (95) until the object is in sharp focus by watching the picture in the viewfinder.
Close-up (macro) shooting:
After setting the Servo Zoom Control (89) to the WIDE position, turn the Macro Ring/Button (100) to the macro range while pressing the Macro Ring/Button (100).
In the macro mode, objects as close as 2" (50 mm) from the lens surface can be recorded.

(14) Press the VTR Start/Stop Button (5) on the camera or (92) on the lens. The Recording/Tally Indicator in the viewfinder, on the rear of the camera, the Tally light on the front of the viewfinder light, and the Top Tally lights while recording is in progress.



(15) Press the VTR Start/Stop Button (5) or (92) to stop recording when this is desired. The Recording/Tally indicator and the Tally light go out.
To resume recording, simply press the VTR Start/Stop Button (5) or (92) again.

(16) After recording, you may review the picture in the viewfinder. Press the Stop button on the recorder, rewind the tape to the beginning of the recording and start playback.
The played back picture can be observed on the viewfinder screen and the sound can be monitored in one of the following manners:

	VIDEO	AUDIO
3/4" VTR with 14-pin camera connector	Can be confirmed by pressing the Return Video Button on the lens.	Can be monitored through the Earphone Jack.
3/4" VTR with 10-pin camera connector 1/2" VHS VTR ... (AG-6400)	Can be confirmed by automatic switching.	Can be monitored through Audio Output on VTR.

2. Gen-lock Application

(1) Make all required connections.
Select the power source, either the Battery Pack WV-PS60/WV-PS33 or AC Adaptor/Charger WV-PS34.
Battery Pack: Limited time operation
AC Adaptor: Unlimited time operation

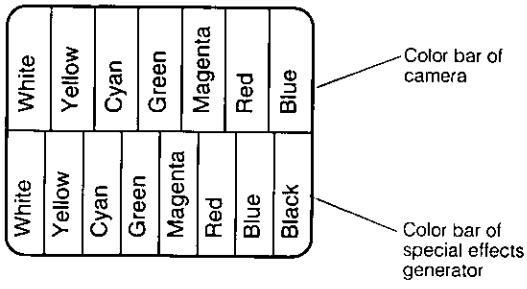
(2) Set the switches as follows:

Switches	Positions
High Gain Selection Switch (29)	0 dB
Color Bar/Night Eye/Camera Selection Switch (27)	BAR
Iris Control Selection Switch (88) on lens	A (Auto)
Lens Iris Selection Switch (7)	NOR (Normal)
Scene File Selection Switch (10)	Scene 1
Power Switch (26)	ON

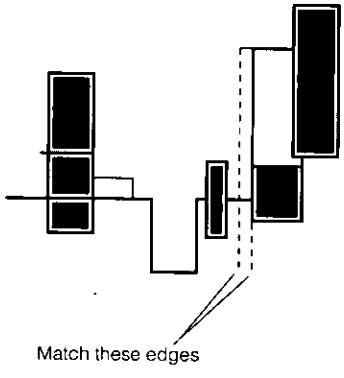
Note: Set these switches to the most suitable position, according to shooting condition.

Adjust the horizontal phase of the camera as follows:

- Set the switches and controls on the Special Effects Generator so that the split color bar picture is observed on the program monitor. Refer to the operating instructions accompanying the Special Effects Generator.



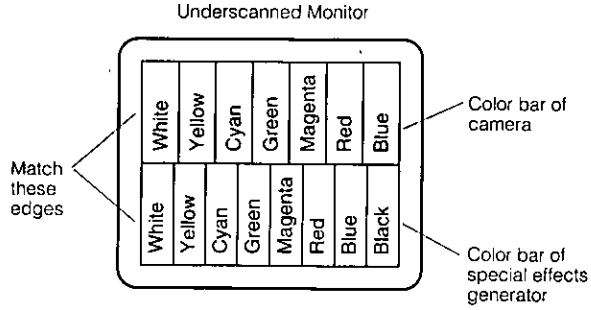
- Connect an oscilloscope to the Program Output Connector of the Special Effects Generator and check the horizontal blanking period of the Program Output signal.
- Adjust the Horizontal Phase so that the phase of the horizontal blanking of the color bar signal for the camera matches that for the Special Effects Generator.



- The horizontal phase of the camera can be roughly adjusted by observing the split color bar picture of the program monitor after all switches and controls have been correctly set. Adjust the Horizontal Phase so that the edges of the color bar of the camera and Special Effects Generator roughly match each other.

Notes:

1. The horizontal phase as well as the subcarrier phase explained in the next paragraph should be readjusted if the connections or coaxial cable length is changed in the system.
2. Refer to Horizontal Phase Adjustment on page 73.



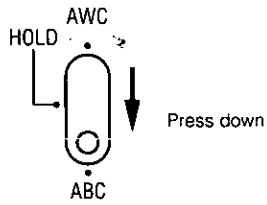
(4) Adjust the subcarrier phase of the camera as follows:

- Set the switches and controls on the Special Effects Generator so that the split color bar picture is observed on the program monitor. Refer to the operating instructions accompanying the Special Effects Generator for details.
- Adjust the Subcarrier Phase Coarse and Subcarrier Phase Fine on the initial set menu so that the colors of the color bars from the camera are similar to the colors of the color bars generated by the Special Effects Generator.
- For precise adjustment, the use of a vectorscope is recommended. In this case, supply the Program Output signal from the Special Effects Generator to the vectorscope. While observing the vectorscope, adjust the Subcarrier Phase Coarse and Subcarrier Phase Fine on the initial set menu so that the phase of the color bars from the camera matches that of the bars generated by the Special Effects Generator.
- Refer to ADJUSTMENT on page 73 for phase coarse and phase fine adjustment.

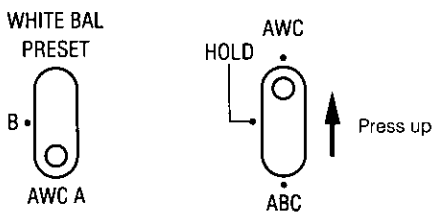
(5) Reset the Color Bar/Night Eye/Camera Selection Switch (27) from the BAR to the CAMERA position.

(6) Select the proper filter according to the color temperature at the scene, using the Filter Selection Wheel (31) while referring to the Table on page 76.

(7) Set the black balance as follows:
Set the Auto White/Auto Black Set Switch (6) to the ABC position momentarily by pressing it down. The lens iris is automatically closed and the black balance is set automatically. When the black balance has been set, the lens iris automatically returns to its previous position. The Auto Warning Indicator blinks while the black balance is being set and it goes off when the black balance has been correctly set. While the black balance is being set, "ABC" also blinks in the viewfinder screen, and "ABC OK" appears when the setting is completed. After a few seconds "ABC OK" disappears from the screen.
If the Auto Warning indicator remains lit and "ABC NG" appears in the viewfinder screen, the black balance adjustment should be carried out once more. Refer to "Setting the Black Balance" on page 74 for details.

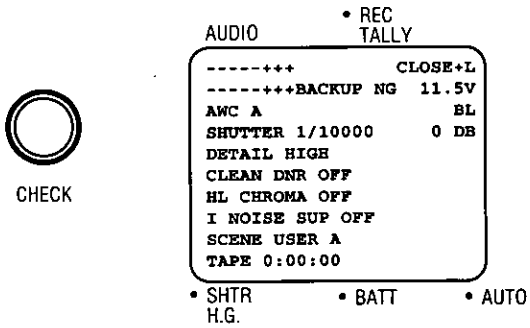


(8) Set the white balance as follows:
Set the White Balance Selection Switch (28) to the AWC A or AWC B position.
While aiming the camera at a white object, e.g. white paper or a white wall, set the Auto White/Auto Black Set Switch (6) to the AWC position momentarily by pressing it up. The white balance is automatically set. When the white balance has been set, the blinking Auto Warning indicator in the viewfinder screen goes out and the blinking "AWC A" or "AWC B" turns into "AWC A OK" or "AWC B OK", respectively. This indication disappears after a few seconds.
If the Auto Warning indicator remains lit and "AWC A NG" or "AWC B NG" appears in the viewfinder screen, the white balance adjustment should be carried out once more. However, before proceeding with the adjustment, make sure the Filter Selection Wheel (31) is set correctly. Refer to "Setting the White Balance" on page 75 for details.



(9) Confirm the flange-back adjustment of the lens as follows:
- Aim the camera at a dark object more than 6 ft (2m) from the camera.
- Zoom in (from wide-angle to tele) with the Servo Zoom Control (89) and adjust the lens focus with the Focus Ring (95).
- Zoom out (from tele to wide-angle) and confirm that the picture is in focus. If not, the flange-back of the lens should be adjusted according to the instructions in "Flange-back Adjustment" on page 72.

(10) The system condition may be confirmed by pressing the Check Button (25) while a normal picture is being viewed. Refer to "Character Display" on page 85 for details.



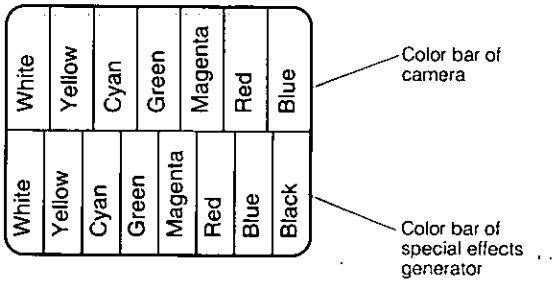
(11) Zoom in/out with the Servo Zoom Control (89) or Zoom Ring/Lever (96) until the desired composition is achieved.
Turn the Focus Ring (95) until the object is in sharp focus by watching the picture in the viewfinder.
Close-up (macro) shooting:
After setting the Servo Zoom Control (89) to the WIDE position, turn the Macro Ring/Button (100) to the macro range while pressing the Macro Ring/Button (100). In the macro mode, objects as close as 2" (50 mm) from the lens surface can be recorded.

OPERATING PROCEDURE FOR STUDIO APPLICATION

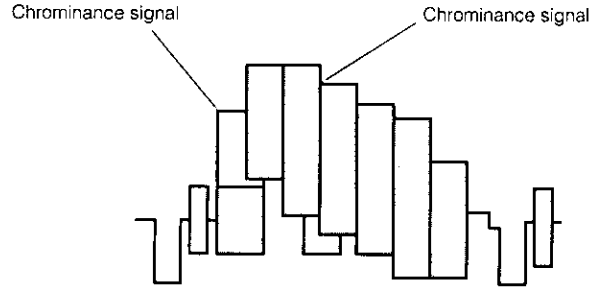
1. Make sure all required connections are properly set.
2. Set the switches as follows:

Unit	Switches	Positions
Camera	White Balance Selection Switch (28)	AWC A or AWC B
	Lens Iris Selection Switch (7)	NOR (Normal)
	Iris Control Selection Switch (88) on lens	A (Auto)
	Detail Level Selection Switch (20)	HIGH
	Power Selection Switch (54)	VTR/RCU
	Power Switch (26)	ON
RCU	High Gain Selection Switch (119) or (174)	0 dB
	Color Bar/Camera Selection Switch (121) or (176)	BAR
	White Balance Selection Switch (126) or (180)	AWC A or AWC B
	Lens Iris Selection Switch (128) or (186)	AUTO
	Power Switch (111) or (171)	ON

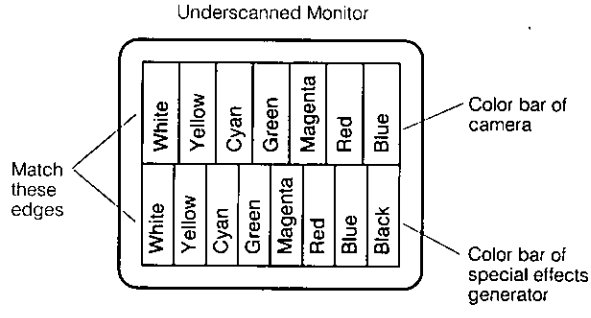
3. Set the Cable Length Compensation Switch (115) or (195) on the RCU according to the length of studio cable used.
4. Fine-adjust the luminance gain and chroma gains as follows:
- Set the switches and controls on the Special Effects Generator so that the split color bar picture is observed on the program monitor. Refer to the operating instructions accompanying the Special Effects Generator.



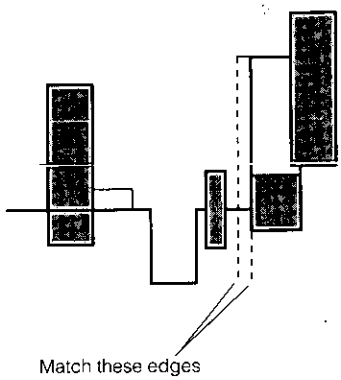
- Connect an oscilloscope to the Program Output Connector of the Special Effects Generator or feed the Program Output signal to a waveform monitor. Observe the horizontal period of the Program Output signal.
- Adjust the Luminance Gain Fine Control (113) or (194) so that the luminance signal levels of both color bar signals are equal. Adjust the Chroma Gain Fine Control (114) or (193) so that the chrominance signal levels of both color bar signals are equal.



5. Adjust the horizontal phase of the camera as follows:
- Set the switches and controls on the Special Effects Generator so that the split color bar picture is observed on the program monitor. Refer to the operating instructions accompanying the Special Effects Generator.

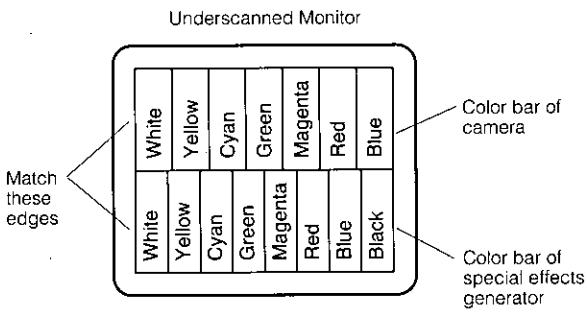


- Connect an oscilloscope to the Program Output Connector of the Special Effects Generator and check the horizontal blanking period of the Program Output signal.
- Adjust the Horizontal Phase Control for Gen-lock (138) or (198) on the RCU so that the phase of the horizontal blanking of the color bar signal for the camera matches that of the Special Effects Generator.

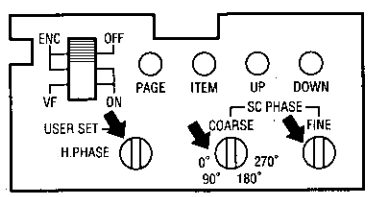


- The horizontal phase of the camera can be roughly adjusted by observing the split color bar picture on the program monitor after all switches and controls have been correctly set. Adjust the Horizontal Phase Control for Gen-lock (138) or (198) so that the edges of the color bar of the camera and Special Effects Generator roughly match each other.

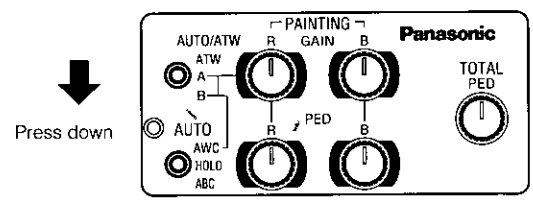
  Note: The horizontal phase as well as the subcarrier phase explained in the next paragraph should be readjusted if the coaxial cable length is changed in the system.



6. Adjust the subcarrier phase of the camera as follows:
   - Set the switches and controls on the Special Effects Generator so that the split color bar picture is observed on the program monitor. Refer to the operating instructions accompanying the Special Effects Generator for details.
   - Adjust the Subcarrier Phase Coarse and Fine Controls (137) or (197) on the RCU so that the colors of the color bars from the camera are similar to the colors of the color bars generated by the Special Effects Generator.

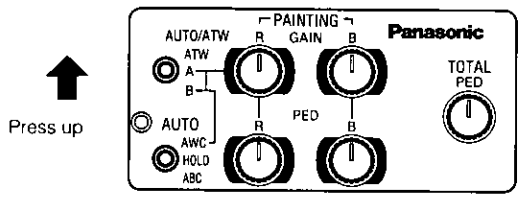


   - For precise adjustment, the use of a vectorscope is recommended. In this case, supply the Program Output signal from the Special Effects Generator to the vectorscope. While observing the vectorscope, adjust the Subcarrier Phase Coarse and Fine Controls (137) or (197) on the RCU so that the phase of the color bars from the camera matches that of the bars generated by the Special Effects Generator.
7. Reset the Color Bar/Camera Selection Switch (121) or (176) on the RCU from the BAR to the CAMERA position.
8. Select the proper filter according to the color temperature at the scene, using the Filter Selection Wheel (31) on the camera while referring to the Table on page 76.
9. Set the black balance as follows:
   Set the Auto White/Auto Black Set Switch (127) or (178) on the RCU to the ABC position momentarily by pressing it down.
   The lens iris is automatically closed and the black balance is set automatically in approximately 10 seconds. After the black balance has been set, the lens iris automatically returns to its previous position. The Auto Warning Indicator (129) or (179) on the RCU blinks while the black balance is being set and it shuts off when the black balance has been correctly set. While the black balance is being set, "ABC" also blinks in the viewfinder screen, and "ABC OK" appears when the setting is completed. After a few seconds "ABC OK" disappears from the screen.
   If the Auto Warning indicator remains lit and "ABC NG" appears in the viewfinder screen, the black balance adjustment should be carried out once more. Refer to "Setting the Black Balance" on page 74 for details.



10. Set the white balance as follows:
    Set the White Balance Selection Switch (126) or (180) on the RCU to the AWC A or AWC B position.
    While aiming the camera at a white object, e.g. white paper or a white wall, set the Auto White/Auto Black Set Switch (127) or (178) on the RCU to the AWC position momentarily by pressing it up. The white balance is automatically set. After the white balance has been set the blinking Auto Warning Indicator (129) or (179) on the RCU goes out and the blinking "AWC A" or "AWC B" in the viewfinder turns into "AWC A OK" or "AWC B OK", respectively. This indication disappears after a few seconds.

If the Auto Warning indicator remains lit and "AWC A NG" or AWC B NG" appears in the viewfinder screen, the white balance adjustment should be carried out once more. However, before proceeding with the adjustment, make sure the Filter Selection Wheel (31) is set correctly. Refer to "Setting the White Balance" on page 75 for details.

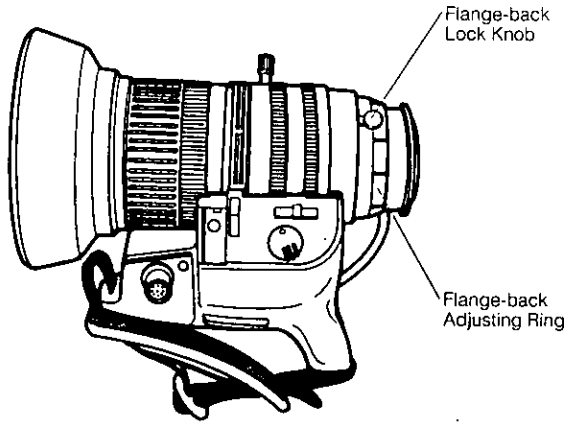


11. Confirm the flange-back adjustment of the lens as follows:
    - Aim the camera at a dark object more than 6 ft (2m) from the camera.
    - Zoom in (from wide-angle to tele) with the Zoom Ring/Lever (96) or the Zoom Controller (222) or (235) of the Lens Control Kit, and adjust the lens focus with the Focus Ring (95) or the Focus Controller (226) or (238) of the Lens Control Kit.
    - Zoom out (from tele to wide-angle) and confirm that the picture is in focus. If not, the flange-back of the lens should be adjusted according to the instructions in "Flange-back Adjustment" on page 72.
12. Zoom in/out until the desired composition is achieved. Focus the lens until the object is in sharp focus by watching the picture in the viewfinder.

LENS FLANGE-BACK ADJUSTMENT

If the flange-back is not adjusted correctly, correct focusing cannot be maintained through the entire zoom range.

- Aim the camera at a dark object more than 6 ft (2m) away from the camera and loosen the Flange-back Lock Knob (98).
- Zoom in (from wide-angle to tele) with the Servo Zoom Control (89) and adjust the lens focus with the Focus Ring (85).
- Zoom out (from tele to wide-angle) and adjust the focus by turning the Flange-back Adjustment Ring (99).



- Zoom in again and adjust the focus by turning the Focus Ring.
- Now, zoom out and, if necessary, adjust the focus with the Flange-back Adjustment ring.
- Repeat this process until correct focus is maintained throughout the entire zoom range. When the adjustment has been completed, tighten the Flange-back Lock knob.

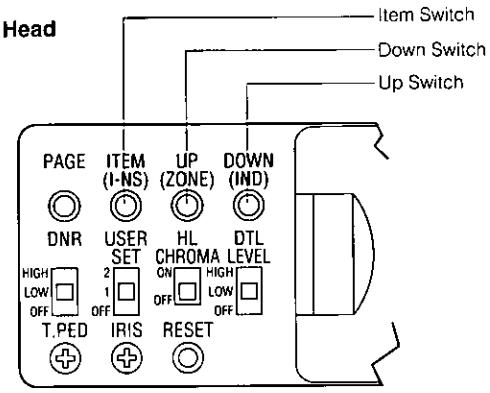
Note: Once the flange-back of the zoom lens has been adjusted, no further adjustment is necessary unless the lens is changed.

ADJUSTMENT

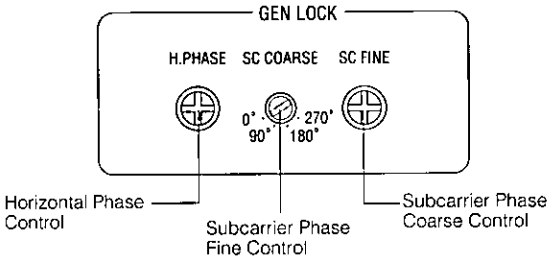
Gen-lock Adjustment

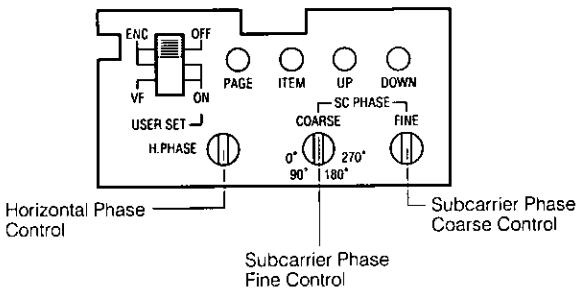
When using one or more cameras in a system which includes a special effect generator 1, a gen-lock adjustment is required.

Camera Head



Remote Control Unit





Horizontal Phase Adjustment

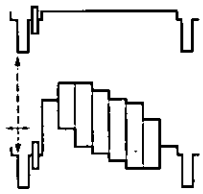
This should be adjusted so that the phase of the horizontal blanking of the color bar signal from the camera matches that from the Special Effects Generator by adjustment with either the camera or RCU (RCB) Controls.

Adjustment with the Camera Controls:

1. Set the Scene File Selection Switch (10) to the 1, 2 or 3 position.
2. Set the Color Bar/Night Eye/Camera Selection Switch (27) to the BAR position.
3. Set the User Set Switch (18) to the 1 position.
   Note: When Setting this switch to the 2 position, black and white video signal is output.
4. Move the cursor onto the H PHASE by using the Item Switch (14).
5. Adjust the Horizontal Phase by using the Up (15)/Down (16) Switch.

Adjustment with RCU (RCB) Controls:

The horizontal phase of the camera signal can be adjusted by using the Horizontal Phase Control for Gen-lock (138) inside the side cover of RCU (RCB).



External Gen-lock Input Signal (Black Burst Output of Special Effect Generator)

Video Signal

Color Phase Adjustment

This should be adjusted so that the colors of the color bars from the camera are similar to the colors of the color bars generated by the Special Effects Generator.

Adjustment with Camera Controls:

1. Set the Scene File Selection Switch (10) to the 1, 2 or 3 position.
2. Set the Color Bar/Night Eye/Camera Selection Switch (27) to the BAR position.
3. Set the User Set Switch (18) to the 1 position.
   Note: When Setting this switch to the 2 position, black and white video signal is output.
4. Move the cursor onto the SC COARSE position by using the Item Switch (14).
5. The Subcarrier Coarse Control can be made by using the Up (15) and Down (16) Switch.
6. Move the cursor onto the SC FINE position by using the Item Switch (14).
7. The Subcarrier Fine Control can be made by using the Up (15) and Down (16) Switch.

Adjustment with RCU (RCB) Controls:

The Color phase of the camera signal can be adjusted by using the SC Phase Controls for Gen-lock (137) or (197) inside the side over of RCU (RCB).

SETTING THE BLACK BALANCE

1. Black Balance

Correct setting of the black balance is required for producing correct colors, especially in low-light situations. Once the black balance has been correctly set, the setting is maintained in a special memory, for approximately 10 years. The setting will not be lost, even though camera power is turned off.

However, for best results, it is recommended that the black balance adjustment be carried out if the camera has not been used for a long period of time.

2. Automatic Black Balance Setting

- Set the Iris Control Selection Switch (88) on the zoom lens and the Lens Iris Selection Switch (128) or (186) on the Remote Control Unit (RCU) to the A (auto) position and AUTO position, respectively.

  Note: If you need to set the black balance while in the manual iris control mode, the incoming light should be blocked by capping the lens.

- When the Auto White/Auto Black Set Switch (6) on the camera, (127) or (178) on the RCU is pressed down toward the ABC position for less than 2 seconds, black balance is set to LOW, MID, HIGH, Night Eye Low or Night Eye High.

  The lens iris is closed, blocking incoming light, and the black balance is automatically set in approximately 5 seconds. When the black balance has been set, the lens iris returns to its previous position.

- In case of pressing the above switch for more than 2 seconds, the black balance is set as shown in the following.

  –6dB, 0dB, 3dB, 6dB, 9dB, 12dB, 18dB, 24dB, Night Eye Low, Night Eye High.

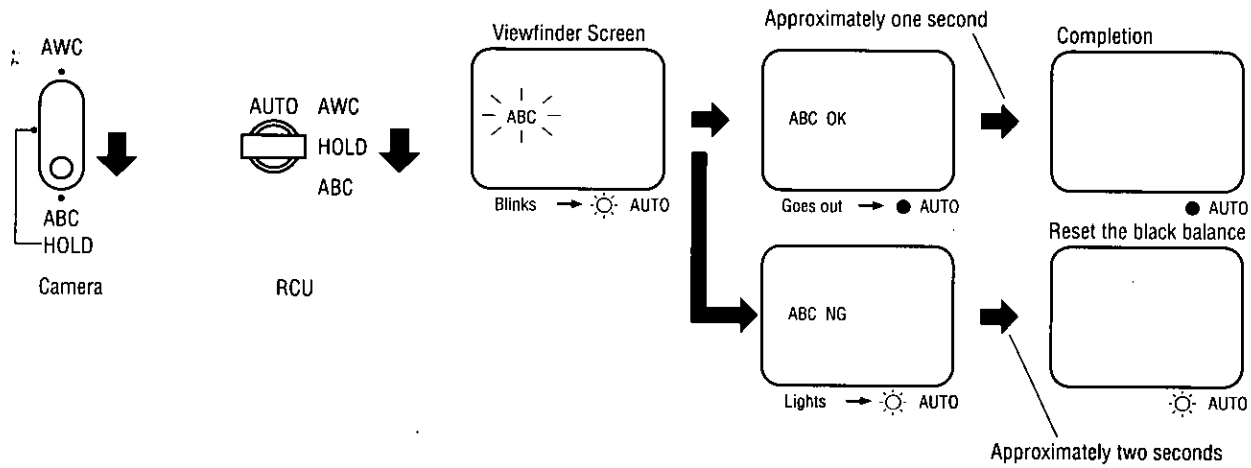
  The Auto Warning indicator in the 1.5" viewfinder and the Auto Warning Indicator (129) or (179) on the RCU blink while the black balance is being set. The indicators go out after the black balance has been set.

  While the black balance is being set, "ABC" blinks in the viewfinder, and "ABC OK" appears when the black balance has been correctly set.

  This indication disappears after a few seconds.

  If the Auto Warning indicators remain lit and "ABC NG" appears in the viewfinder screen, the black balance adjustment should be carried out once more.

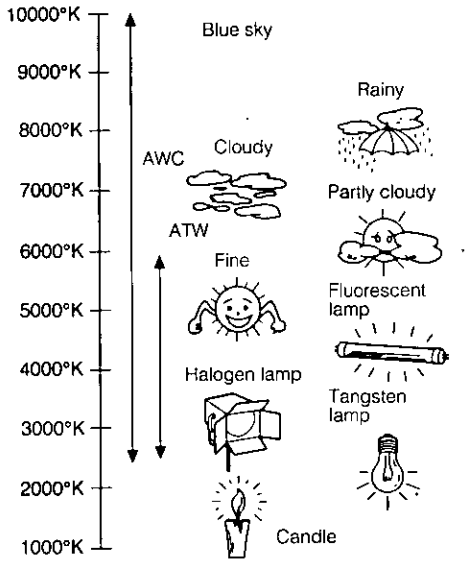
  Note: The black balance setting will be kept in the memory for approximately 10 years even if the power to the camera is turned off. It is recommended, however, that the black balance be reset if the camera has not been in use for a long time.



SETTING THE WHITE BALANCE

1. White Balance

- Light can be measured in terms of its color temperature, stated in degrees Kelvin (K). On a ranking scale, blue light has a higher color temperature than reddish light. Thus, when the camera is aimed at an object illuminated by a light source having high color temperature, the produced image will be somewhat bluish, while if the color temperature is low, the image will turn reddish.
- In order to correctly reproduce the colors of the scene, the white balance should be set before recording is begun.

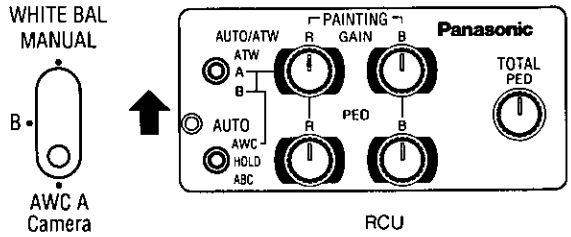


2. Automatic White Balance Setting

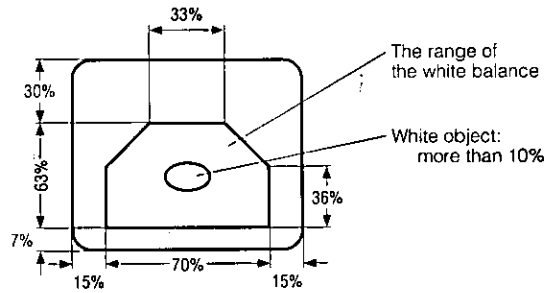
Note: Color Temperature range in which automatic white balance control is possible: Approximately 2200K - 11, 000K using the Filter Selection Wheel (31).

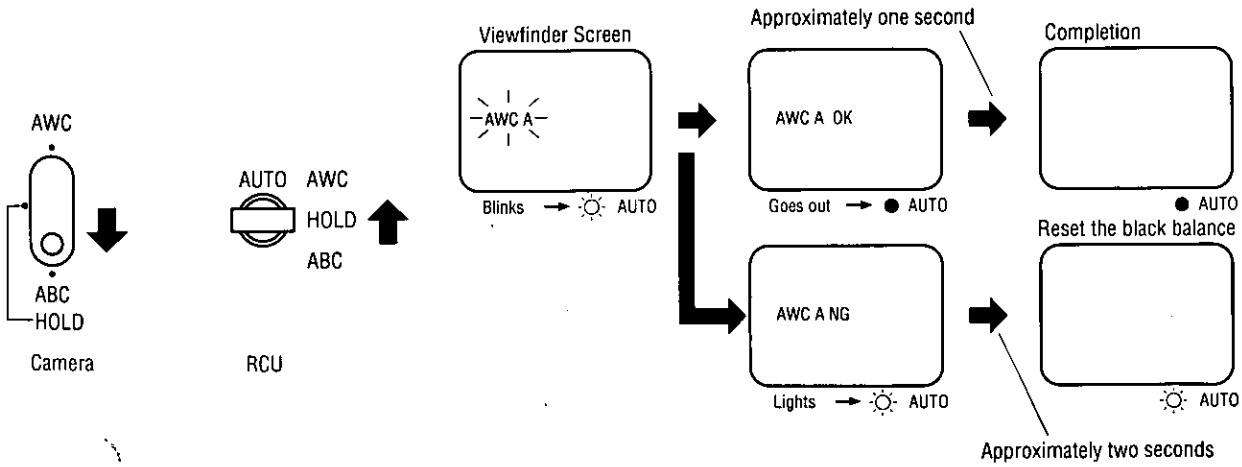
Two white balance settings, for two different lights sources such as indoors and outdoors, can be kept in the two white balance memories, as follows:

- Set the White Balance Selection Switch (28) on the camera to the AWC A or AWC B position. If camera is in studio application, set the White/Black Balance Selection Switch (126) or (180) on the RCU to the A or B position.



- Aim the camera at a white object e.g., white paper or a white wall, within the range of the white balance as shown in the following and make sure that at least 10% or the viewfinder screen is occupied by the white image.





- Set the Auto White/Auto Black Set Switch (6) on the camera, (127) or (178) on the RCU (in studio application) to the AWC position momentarily by pressing it up.

  The white balance is automatically set in approximately 2 seconds. While the white balance is being set, the Auto Warning indicator in the 1.5" viewfinder and the Auto Warning Indicator (129) or (179) on the RCU blink. These indicators go out after the adjustment is completed. When the white balance has been correctly set, the blinking "AWC A" or "AWC B" in the viewfinder turns into "AWC A OK" or "AWC B OK", respectively. This indication disappears after a few seconds.

  If the Auto Warning indicator remains lit and "AWC A NG" or "AWC B NG" appears in the viewfinder screen, the white balance adjustment should be carried out once more.

  However, before proceeding with the adjustment, make sure the Filter Selection Wheel (31) is set correctly.

Notes:

1. The white balance setting (as well as the black balance setting) will be kept in the memory for approximately 10 years even if the power to the camera is turned off. (The memory backup battery will supply power for up to ten years.) It is recommended, however, that the white balance be reset if the camera has not been in use for a long period of time.

   The white balance should also be reset when moving to another light source that is not covered by any of the settings in the two white balance memories.
2. When the white balance is reset, the previous setting in the corresponding memory is erased.
3. When two different white balance settings have been stored in the memories, moving between two light sources is easily accomplished by simply changing the White Balance Selection Switch (28) on the camera or (126) or (180) on the RCU to the position matching the light source. Recording is not interrupted when the white balance memory is switched.
4. If the camera has not been used for a long period of time, the white balance (as well as the black balance) should be reset before recording is begun.
5. Allow a few minutes of warm-up time before setting the white balance. This will allow a higher degree of precision when making the adjustment.
6. The white balance may not be correctly set under the following conditions:
   - In low light situations
   - In extremely bright light situations
7. If recording is to be carried out under sunlight, the white balance setting should be performed against a white surface exposed to the sun to avoid color distortion. Please note that if the white balance has been set in this manner, a slight color distortion might appear when turning the camera towards the shade.

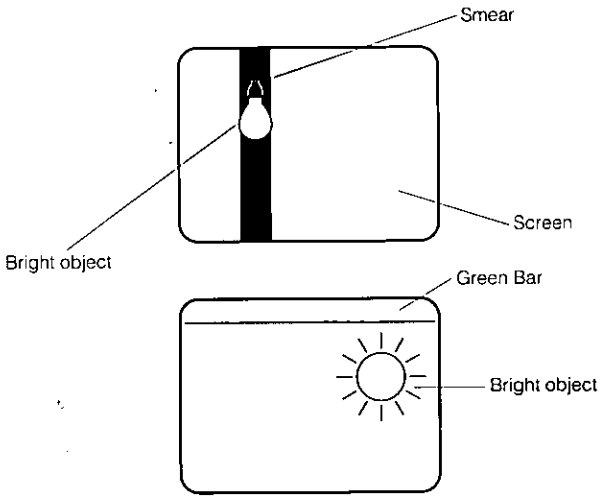
3. Filter Selection Wheel Settings

- Select the filter according to the light source at the scene.

	Object/Scene & Light Source Condition	Color Temperature	Wheel No.
Indoor	Halogen Lamp or Tungsten Lamp (Studio)	3200K	1
	Fluorescent Lamp (White)	4500K	3
	Fluorescent Lamp (Daylight)	6500K	3
Outdoor	Fluorescent Lamp (Daylight)	6500K	3
	Daylight (Sunny)	4500K	2
	Cloudy	7000 - 7500K	3

PECULIAR PHENOMENA OF THE CCD

1. **Vertical Smear**
   When the camera is aimed at a scene which contains excessively bright objects such as the sun, lamp or reflected light under the electronic shutter mode, vertical bars called smear may appear below the bright object in the picture.



2. **Fixed Pattern Noise**
   Fixed pattern noise may be seen in the entire picture area when the operating temperature of the camera is high.

3. **Horizontal Lines Under Electronic Shutter Mode**
   When an extremely bright object is in the picture under the electronic shutter operation, green horizontal bar or lines may be obtained as shown in figure.

4. **White blemish**
   When a white blemish appears in the picture when the camera is operating in high temperatures, do not use this camera in the +18 dB high gain mode.

USER SETTING PROCEDURE

This camera is provided with 3 menus: Main, Sub Scene Files 1, 2, 3, User A, User B.
The levels in these menus are preset at the factory.
An initial setting can be set for all scene files and can be changed from a preset condition to a desired one.

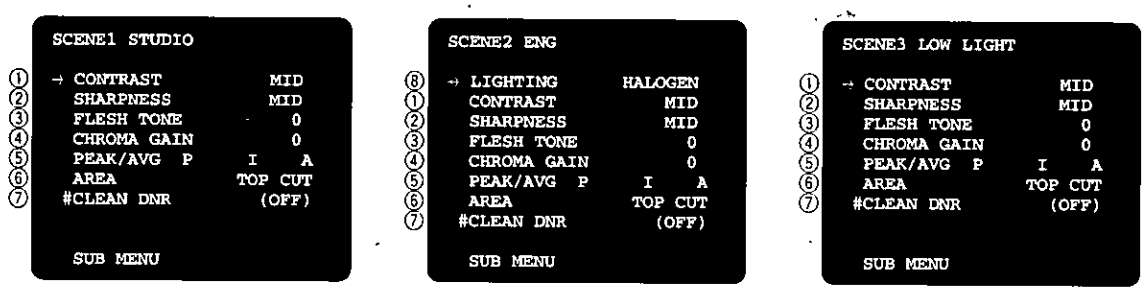
How to display the Main Menu

1. Set the Scene File Selection Switch (10) or (131)/(184) of RCU (RCB) to the 1, 2 or 3 position.
   The scene file number is displayed in the viewfinder for a few seconds, as SCENE1, SCENE2 or SCENE3.
2. Set the User Set Switch (18) in the side cover to the 1 position.
   The Main Menu is displayed in the viewfinder.

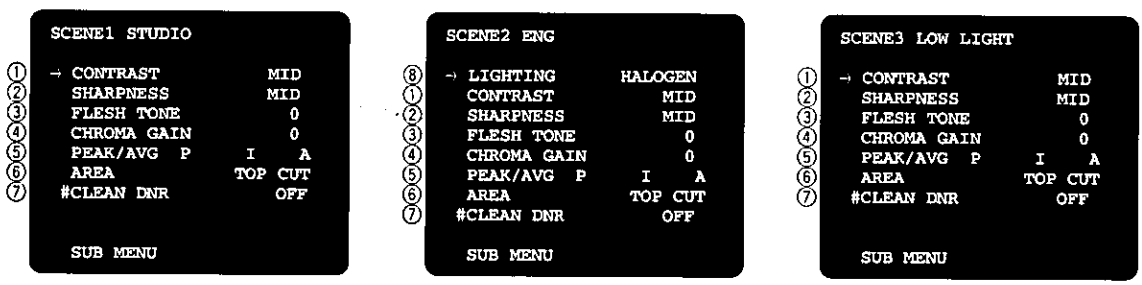
   Note: By setting this switch to the 2 position, the display to the monitor screen is available.
   The camera is now in the Main Menu Setting mode.
3. By repeated pressing of the Page Switch (13) of the camera or (136)/(191) of the RCU (RCB), the Main Menu can be displayed in the viewfinder or on the monitor screen.
4. By pressing the Item Switch (14) of the camera or (135)/(190) of RCU (RCB), the cursor is moved to the various items in the menu. The item identified by the cursor can have its level set or changed at this point.
5. Change of the mode or level is made by use of the Up (15)/Down (16) Switch of the camera.

Main Menus are shown in the following.

■ **Camera**



■ **RCU (RCB)**



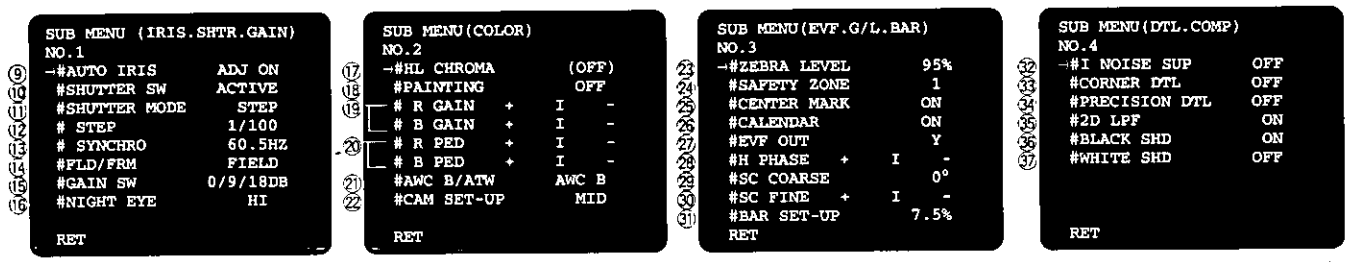
How to display the Sub-Menu. .

To display the Sub-menu, set the Scene File Selection Switch (10) or (131)/(184) of RCU (RCB) to the position 1, 2 or 3, move the cursor to the SUB MENU and press the Page Switch (15).

The Sub Menu is displayed in the viewfinder.
By setting the User Set Switch to the 2 position, this menu is also displayed on the monitor screen.

This menu is provided with No.1 - No.4 Sub Menus.
By pressing the Page Switch, the screen is changed.

Sub Menus are shown in the following.



USER SETTING

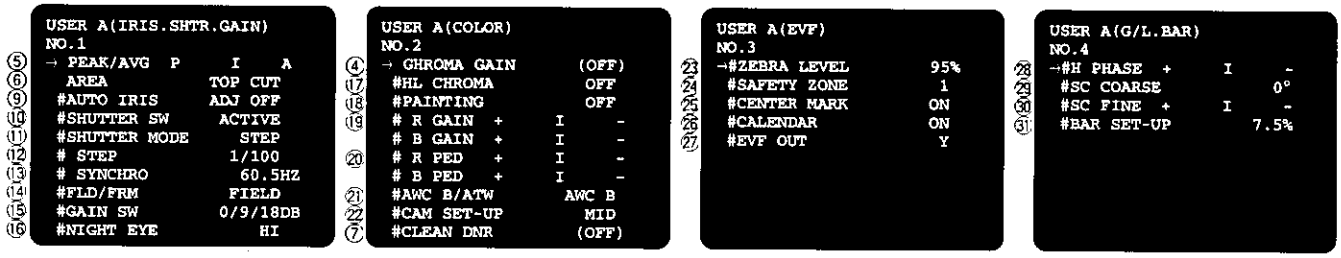
After setting the Scene File Selection Switch (10) of the camera or (131)/(184) of RCU (RCB) to the USER SET position, the camera operating condition can be changed by the user to the desired condition.

How to set the User Set Menu

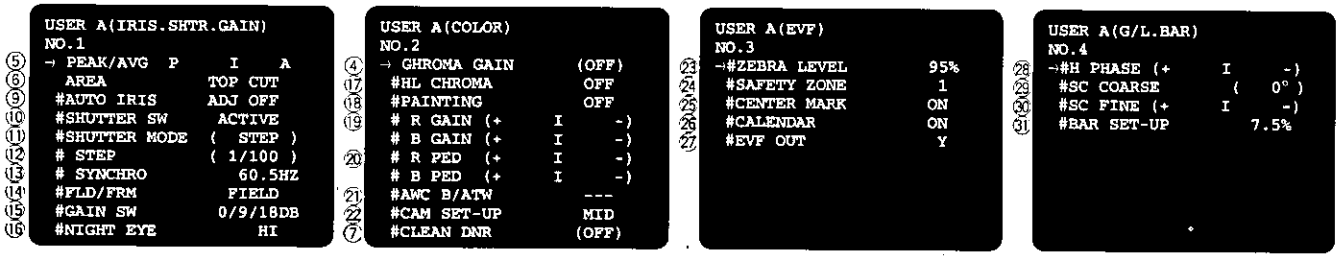
1. Set the Scene File Selection Switch (10) of the camera or (131)/(184) of the RCU to the USER position.
   SCENE USER A or SCENE USER B is displayed in the viewfinder.
   Notes:
   1. The selection of USER A and USER B can be made by setting the Scene File Selection Switch to the USER position while pressing the Page Switch (13) or Check Button (25).
   2. When only using the Scene File Selection Switch in the above procedure, the user file selected last will be displayed.
2. Set the User Set Switch in the side cover to 1 position.
   The User Set Menu is displayed in the viewfinder.
   Set the User Set Switch in the side cover to 2 position.
   The User Set Menu is also displayed on the monitor.
   No.1 - No.8 menus can be displayed by every pressing the Page Switch and setting is available from Camera or Remote Control Unit side.

User Set Menus are shown in the following.

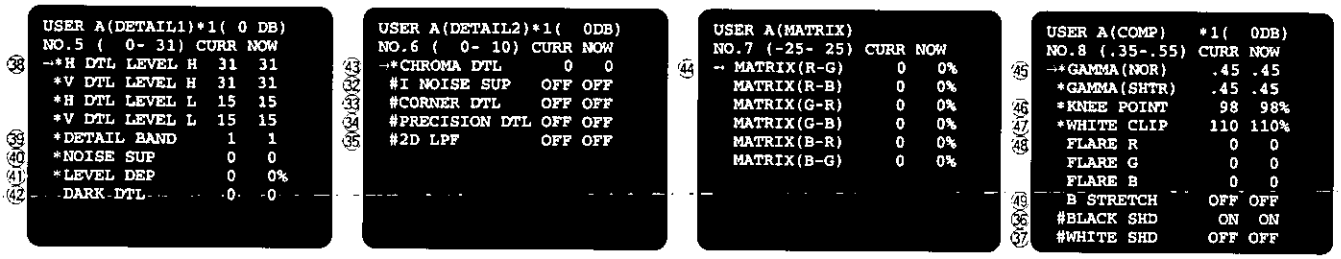
■ **Camera**



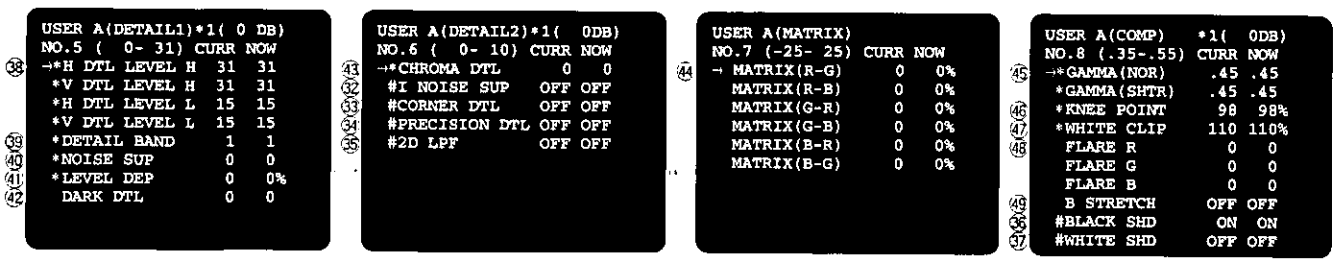
■ **RCU (RCB)**



■ **Camera**



■ **RCU (RCB)**



Menu Description

1. **CONTRAST (LOW, MID, HI) (Contrast Level Setting)**
   The contrast level can be selected.

2. **SHARPNESS (LOW, MID, HI)**
   The detail signal level can be selected.

3. **FLESH TONE (–2 - 2)**
   Flesh tone can be adjusted from –2 to 2 range in 5-step.

4. **CHROMA GAIN (–2 - 2)**
   The chroma gain can be selected from –2 to 2 range in 5-step.

5. **PEAK/AVG (Detecting ratio Adjustment)**
   The ratio of AUTO IRIS/ELC detected peak to average can be adjusted in a range of 9 steps.

6. **AREA: ALL, CENTER, TOP CUT, BOT CUT, R/L CUT (Photometric Measurement Method Setting)**
   A photometric measurement method can be selected for AUTO IRIS/ELC.
   ALL: All the screen area is measured.
   CENTER: The screen is measured mainly in the center area, approx. one-third each of the top and bottom and one third each of the right and left parts of the screen are cut out from measurement.
   TOP CUT: Approx. one-third of the top part of the screen is cut out from measurement.
   BOT CUT: Approx. one-third of the bottom part of the screen is cut out from measurement.
   R/L CUT: Approx. one-third each of the right and left parts of the screen is cut out from measurement.

7. **CLEAN DNR, OFF/LOW/HI**
   (Clean DNR (Digital Noise Reduction) Switch)
   The S/N ratio on the screen can be improved by this switch.
   Note: When the camera is operating alone, this function can be made by the DNR Switch inside the camera.
   In this case, the display in the menu shows the set switch condition.

8. **LIGHTING: HALOGEN/FLUORESCENT/OUTDOOR**
   (Lighting Selection) (Only Scene 2)
   HALOGEN: This position is suitable for shooting under halogen lighting.
   FLUORESCENT: This position is suitable for shooting under fluorescent lighting.
   OUTDOOR: This position is suitable for shooting under outdoor lighting.

   After the setting is completed, set the User Set Switch to the OFF position.

9. **AUTO IRIS: ADJ ON/ADJ OFF**
   (Auto Iris Level Fine Adjustment)
   When the mode is set to ADJ ON, fine adjustment of ALC/ELC convergence level can be made with the iris VR control on the RCU (RCB) if the camera is used with an RCU (RCB) and the iris mode is set to AUTO in the SETUP menu.

10. **SHUTTER SW, ACTIVE, INHIBIT**
    (Shutter Active Inhibit Selection Switch)
    When the INHIBIT position is selected, shutter function is not available even if the Shutter On/Off Switch is turned on.

11. **SHUTTER MODE, STEP/SYNCHRO/ELC (Shutter Mode Setting)**
    STEP: Select this mode to set the shutter speed by the Step mode shutter setting.
    SYNCHRO: Select this mode for the fine adjustment of the shutter speed.
    ELC: Select this mode to control the electronic shutter speed automatically to regulate the amount of light.

12. **STEP, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (Step Mode Shutter Setting)**
    When the Shutter Mode Setting is set to STEP, the shutter speed should be selected by this item.

13. **SYNCHRO, 60.5 - 250.0 Hz**
    (Synchro Mode Shutter Adjustment)
    When the Shutter Mode Setting is set to SYNCHRO, the shutter speed can be adjusted by this item.
    This mode can prevent the line noise when shooting the CRT display.

14. **FLD/FRM, FIELD/FRAME (Field/Frame Setting)**
    The FIELD means CCD field storage. The FRAME means frame storage, in which case vertical resolution increases.
    FIELD: Set to this mode when shooting moving object.
    FRAME 1: Set to this mode when shooting still object.
    FRAME 2: Set to this mode when better resolution is required.
    Note: It is recommended that FRAME is normally selected, because the residual image will increase if FIELD is set.

15. **GAIN SW, 0/9/18, 0/12/24, 0/3/6, –6/0/12, –6/0/6dB**
    (Gain Setting)
    The HIGH/MID/LOW level of the High Gain Selection Switch can be set as shown below.

HIGH	MID	LOW
18 dB	9 dB	0 dB
24 dB	12 dB	0 dB
12 dB	6 dB	0 dB
6 dB	3 dB	0 dB
12 dB	0 dB	–6 dB
6 dB	0 dB	–6 dB

16. NIGHT EYE, LOW/HI (Night Eye Setting)
The gain level of Night Eye mode can be selected.

17. HL CHROMA, OFF/LOW/HI
(High Light Chroma Setting)
This is used to add chroma signal to highly saturated color for expanding dynamic range.

18. PAINTING, OFF/ON (Painting Setting)
If white balance is set to either AWC A or AWC B when the painting switch is turned on, fine adjustment of white balance can be made after AWC setting by red/blue gain control.
Fine adjustment of black balance after ABC setting can also be made by red/blue pedestal adjustment.
When setting this switch to the OFF position, the fine adjustment of white balance is not available.

19. R GAIN (Red Gain Adjustment)
B GAIN (Blue Gain Adjustment)
Fine adjustment of white balance can be made after AWC setting by red/blue gain control when the white balance setting is set to AWC A or AWC B and the painting mode is ON.
Note: A memory is provided for each of AWC A and AWC B.
If AWC setting is executed when the camera is used alone, the memories for AWC A and AWC B are reset.

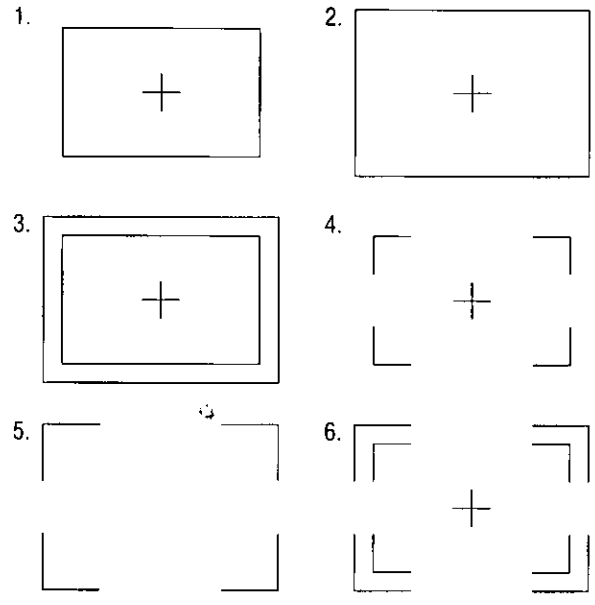
20. R PED (Red Pedestal Adjustment)
B PED (Blue Pedestal Adjustment)
Fine adjustment of black balance can also be made after ABC setting by red/blue pedestal adjustment when the painting mode is turned on.
Note: If ABC is executed when the camera is used alone, the value of R/B PED returns to the center.

21. AWC B/ATW (Automatic White balance Control B/Automatic Tracing White balance Control Setting)
When operating the camera alone, AWC B or ATW can be selected.
With the RCU operation, this setting can be made by the Auto/ATW Selection Switch.
When connecting with RCU or RCB, select the AWC B or ATW by the AUTO/ATW Switch on the RCU.

22. CAM SET-UP, LOW/MID/HI
(Camera Set-up Level Setting)
The Set-up level of the camera can be selected.
When the Total Pedestal Level Control (23) is set to the center position.
LOW position is selected; the set-up level is approx. 0 IRE.
MID position is selected; the set-up level is approx. 7.5 IRE.
HIGH position is selected; the set-up level is approx. 10 IRE.

23. ZEBRA, 50-110% (Zebra Level Setting)
The video signal level that causes the zebra pattern to be displayed can be selected from 50% to 110%.

24. SAFETY ZONE, 1-6 (Safety Zone Setting)
6 patterns as shown below are provided for the safety zone display.



Notes:
1. The inside frame Safety Zone is 90% and the outside frame Safety Zone is 95%.
2. The marker show the electronic center of the picture and might not coincide with the optical center of the picture.

25. CENTER MARK, ON/OFF
(Center Mark On/Off Setting)
The center mark can be turned on or off.

26. CALENDAR, ON/OFF (Calendar On/Off Setting)
The display of the calendar, time and date on the color bar can be turned on or off.

27. EVF OUT, Y, NAM
(Electronic Viewfinder Output Signal Setting)
The video output signal to the viewfinder can be selected from Luminance Signal (Y) or Non Additive Mixing (NAM) signal.
The color bar signal can be also output with Non Additive Mixing Signal (NAM) when selecting the NAM.

28. H PHASE (Horizontal Phase Adjustment)
The horizontal phase, when in the gen-lock mode can be adjusted.

29. SC COARSE (Sub carrier Coarse Adjustment)
The sub carrier phase when in the gen-lock mode can be adjusted.

30. SC FINE (Sub carrier Fine Adjustment)
The sub carrier phase when in the gen-lock mode can be adjusted fine.

31. BAR SET-UP, 0.0/7.5%
(Camera Set-up Level Setting)
The set-up level of the color bar can be selected.

32. I NOISE SUP, OFF/LOW/HI
(I Signal Suppression On/Off Setting)
Noise of the I axis on the vector can be suppressed.

33. CORNER DTL, ON/OFF
(Corner Detail On/Off Setting)
By setting to the ON position, the corner detail of picture is improved when the Detail Level Selection Switch (20) is set to the LOW or HIGH position.

34. PRECISION DTL, ON/OFF
(Precision Detail On/Off Setting)
When setting to On, the frequency band in the detail signal narrows

35. 2D LPF, ON/OFF
(Two-dimensional Low Pass Filter On/Off Setting)
This is used to reduce the cross color on the picture.

36. BLACK SHD, ON/OFF
(Black Shading On/Off Setting)
The black shading compensation mode can be turned on or off.

37. WHITE SHD, ON/OFF
(White Shading On/Off Setting)
The white shading compensation mode can be turned on or off.

38. H. DTL LEVEL H
(Horizontal Detail High Level Setting)
V. DTL LEVEL H (Vertical Detail High Level Setting)
H. DTL LEVEL L
(Horizontal Detail Low Level Setting)
V. DTL LEVEL L (Vertical Detail Low Level Setting)
The Horizontal/Vertical Detail Level in the HIGH or LOW position can be set.
The setting level range of the vertical direction is from 0 to 63.
Note: The setting value of the Level High should be set higher than the level Low.

39. DTL BAND, 1-5 (Detail Band Selection Switch)
The frequency band in the detail and the "thickness" of the detail can be selected.
The selectable range is from 1 to 5.
1 is Low Band and 5 is High Band.

40. NOISE SUP, 0-10
(Noise Suppress Compensation Level Setting)
When setting the Detail Level Selection Switch inside the camera to the HIGH or LOW position, noise component can be reduced.
Note: When setting level is too high, the sharpness of the object is reduced.

41. LEVEL DEP, 0-25%
(Level Dependent Compensation Level Setting)
Picture noise caused by the detail signal in dark scene areas can be reduced.

42. DARK DTL, 0-5 (Dark Detail Level Setting)
The dark detail level can be set from 0 to 15.
Note: When setting this level, the Level Dependent Compensation Level should be set to 0.

43. CHROMA DTL, 0-15
(Chroma Aperture Compensation Level Setting)
The detail of objects in a high chroma content scene can be adjusted.

44. MATRIX (Matrix Compensation Setting)
The adjustment of Matrix Compensation is available.
(R-G) The tints of red and magenta can be adjusted.
(R-B) The tints of red and yellow can be adjusted.
(G-R) The tints of green and cyan can be adjusted.
(G-B) The yellow green tints can be adjusted.
(B-R) The tints of blue and cyan can be adjusted.
(B-G) Purple tint can be adjusted.

45. GAMMA (NOR) .35 - .55/GAMMA (SHT) .35 - .55
(Gamma Compensation Level Setting)
In the Electronic Shutter Off mode, the level of GAMMA (NOR) can be set from 0.35 to 0.55.
In the Electronic Shutter On mode, the level of GAMMA (SHT) can be set from 0.35 to 0.55.

46. KNEE POINT, 88% - 98%
(Knee Compensation Level Setting)
The knee point level can be set from 88% to 98%.

47. WHITE CLIP, 95% - 110% (White Clip Level Setting)
The White Clip Level can be set from 95% to 110%.

48. FLARE (Flare Compensation Setting)
The adjustment of Flare Compensation is available.
RED: The flare compensation of red is adjustable.
GREEN: The flare compensation of green is adjustable.
BLUE: The flare compensation of blue is adjustable.
Note: This level is preset at the factory.

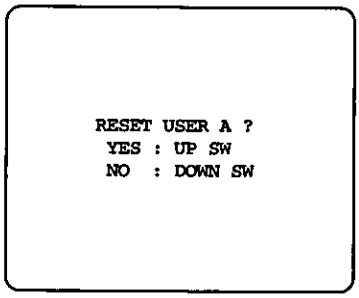
49. B-STRETCH, ON/OFF
(Black Stretch On/Off Setting)
To emphasize details in dark area, Black Stretch On mode should be set.
Note: When this is set to the Black Stretch On mode, the gamma on/off setting is not available.

Reset of the setting data

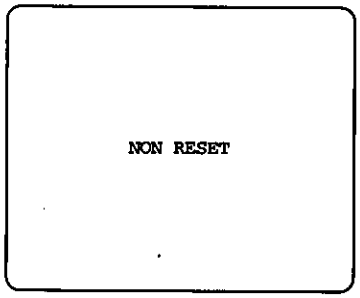
To return the menus to the condition·preset at the factory, a reset function is provided with this camera.

How to Reset

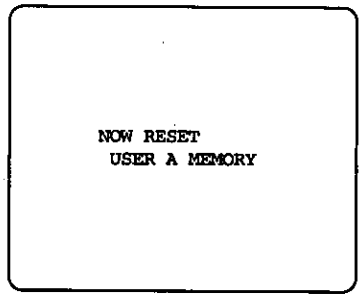
1. Select a menu to reset.
2. Turn off the power of the camera once.
3. Turn on the power of the camera while pressing the Page Switch (13) of the camera.
   The following reset screen is displayed in the viewfinder or monitor.



Note: To cancel the reset, press the Down Switch before pressing Up Switch.
When the Down or Up Switch is not pressed, the reset is canceled automatically.



4. Press the Up Switch (15).
   The following display is indicated and the setting conditions is reset.



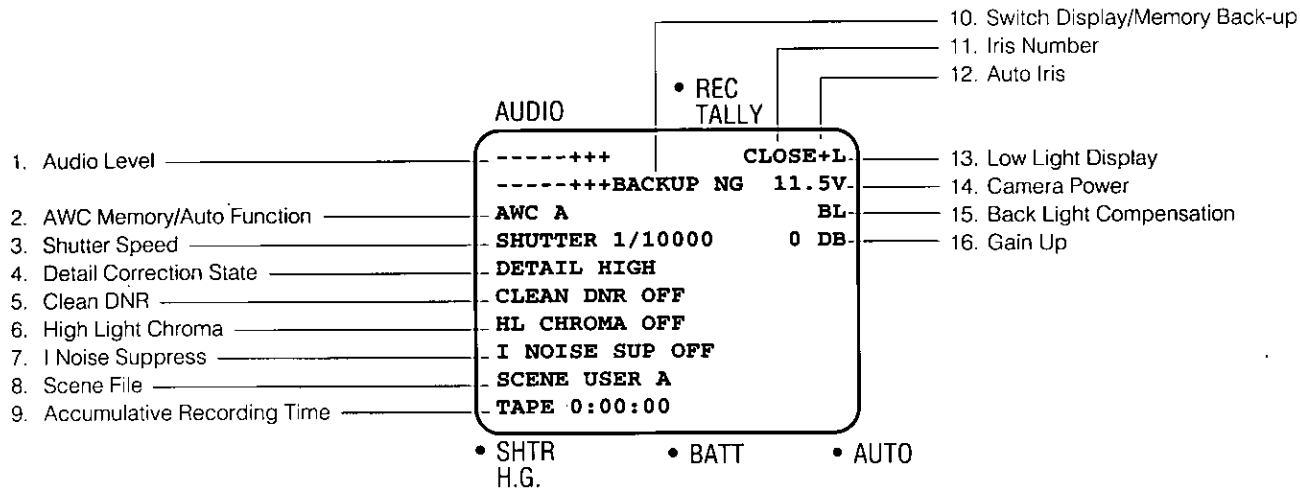
CHARACTER DISPLAY

The following operation & warning displays are shown in the viewfinder to show the operating conditions of the camera.

Notes:

1. The displays in the viewfinder are not recorded.
2. The displays are not shown while a playback picture is on the viewfinder screen.

• Display Positions



• Timing of Displays

The viewfinder displays appear in the viewfinder as stated below:

No.	Display	Displayed all the time	Displayed in short intervals only when the condition changes	Displayed only when the Check Button (19) is pressed.
1	Audio Level	O	×	O
2	AWC Memory/Auto Function	×	O	O
3	Shutter Speed	×	O	O
4	Detail Correction State	×	O	O
5	Clean DNR	×	O	O
6	High Light Chroma	×	O	O
7	I Noise Suppress	×	O	O
8	Scene File	×	O	O
9	Accumulative Recording Time	×	×	O
10	Switch Display	×	O	O
	Memory Back-up	*O	×	O
11	Iris Number	O	×	O
12	Auto Iris	O	×	O
13	Low Light Display	O	×	O
14	Camera Power	O	×	O
15	Back Light Compensation	O	×	O
16	Gain Up	×	O	O

* This display appears only when the memory back-up battery has any failure.

1. Audio Level Display

The audio output level from the camera or the playback audio level of the 3/4" U-vision or 1/2" S-VHS VTR is displayed by minus (–) and plus.(+) letters with the 8-step. (One step equals to 3dB)

Note: By pressing the Check Switch on the camera, this display is also made.

Display	Audio Level
–	Low Level
– –	
– – –	
– – – –	
– – – – –	Standard Level
– – – – – +	
– – – – – + +	
– – – – – + + +	High Level

2. AWC Memory/Auto Function Display

2-1. When the White Balance Selection Switch (28) setting is changed, one of the following displays appears for one second.

Display	Description
AWC A	The White Balance Selection Switch has been set to AWC A. The automatic white balance control memorized in A is being activated.
AWC B	The White Balance Selection Switch has been set to AWC B. The automatic white balance control memorized in B is being activated.
ATW	The White Balance Selection Switch has been set to AWC Band AWC B/ATW of the No.2 Sub-menu has been set to ATW. The Auto Tracing White Balance is being activated.
AWC PSET	The White Balance Selection Switch has been set to PRESET. This camera is in the preset condition (Color temperature is 3200 K).

Note: By pressing the Check Button (25) on the camera, this display is also made.

2-2. Auto Function Display

Automatic white Balance Control (AWC)

If the following displays are shown in the viewfinder, the AWC can not be functioned.

Set the Auto White/Auto Black Set Switch (6) on the camera or (127)/(178) on the RCU to the AWC position.

Display	Display Time	Auto Warning Indicator	Cause	Remedy
HIGH LIGHT	2 seconds	ON	Excessive bright light	Reduce lighting on object or reduce lens iris. Reset the white balance.
AWC PSET	2 seconds	ON	White Balance Selection Switch is set to PRESET.	Set this switch to AWC A or AWC B.
LOW LIGHT	2 seconds	ON	Insufficient light	Prepare an additional light source. Reset the white balance.
AWC NG	2 seconds	ON	Out of white balance setting range	Change the object or filter.
ATW	2 seconds	—	ATW operation	Set this switch to the AWC A or AWC B.
—	—	—	Color Bar/Night Eye/Camera Selection Switch (27) on the camera or (121) on the RCU is set to BAR.	Set the Color Bar/Night Eye/Camera Selection Switch to CAMERA.
AWC A	2 seconds	Blinking	White balance is being set.	The White Balance Selection Switch has been to AWC A.
AWC B	2 seconds	Blinking	White balance is being set.	The White Balance Selection Switch has been to AWC B.
AWC A/AWC B OK	1 second	OFF	White balance setting is completed.	The White Balance Selection Switch has been to AWC A.

2-3. Automatic Black Balance Control (ABC)

When the Auto White/Auto Black Set Switch (6) on the camera or (127)/(178) on the RCU is set to the ABC position, the black balance is automatically set. Refer to "Setting the Black Balance" on page 74 for details.

Display	Display Time	Auto Warning Indicator	Cause	Remedy
LENS OPEN	2 seconds	ON	Lens iris is not closed.	Check the lens connector.
ABC NG (RGB)	2 seconds	ON	Out of the black balance setting range	Refer to the qualified service personnel.
ABC	2 seconds	Blinking	Black balance is being set.	
ABC OK	1 second	OFF	Black balance setting is completed.	

3. Shutter Speed Display

One of the following displays appears for one second when the position of the Electronic shutter Speed Selection Switch (12) is changed.

Display	Shutter/High Gain Indicator (LED)	Description
SHUTTER OFF	OFF	The Electronic Shutter On/Off Switch is set to OFF. Normal camera operation.
SHUTTER 1/100	ON	Camera is set to electronic shutter mode with shutter speed of 1/100 seconds.
SHUTTER 1/250	ON	Camera is set to electronic shutter mode with shutter speed of 1/250 seconds.
SHUTTER 1/500	ON	Camera is set to electronic shutter mode with shutter speed of 1/500 seconds.
SHUTTER 1/1000	ON	Camera is set to electronic shutter mode with shutter speed of 1/1000 seconds.
SHUTTER 1/2000	ON	Camera is set to electronic Shutter mode with shutter speed of 1/2000 seconds.
SHUTTER 1/4000	ON	Camera is set to electronic Shutter mode with shutter speed of 1/4000 seconds.
SHUTTER 1/10000	ON	Camera is set to electronic Shutter mode with shutter speed of 1/10000 seconds.
SYNCHRO SCAN	ON	Camera is set to the Synchro Scan mode.
ELC	ON	The Electronic Light Control is being activated.

4. Detail Correction State

The detail/aperture correction state is displayed for one second when the setting of the Detail Level Selection Switch (20) is changed.

Note: The detail/aperture correction state is also displayed when the Check Button (25) is pressed.

Display	Position of the Detail Selection Switch (20)
DETAIL OFF	OFF
DETAIL LOW	LOW
DETAIL HIGH	HIGH

The above displays are indicated by pressing the Check Button (25).

5. Clean DNR Display

The clean DNR state is displayed for one second when the position of the Clean DNR Selection Switch (17).

Display	Position of the Clean DNR Selection Switch
CLEAN DNR OFF	OFF
CLEAN DNR LOW	LOW
CLEAN DNR HIGH	HIGH

6. High-light chroma display

The high-light chroma state is displayed for one second when the High-Light Chroma Switch is pressed.

Note: When the Remote Control Unit is used, the OFF, LOW or HIGH can be selected on the menu.

Display	Position of High Light Chroma Switch
HL CHROMA OFF	OFF
HL CHROMA LOW	ON (LOW position had been set in the No.2 Sub Menu)
HL CHROMA HIGH	ON (HIGH position had been set the No.2 Sub Menu)

The above displays are indicated by pressing the Check Button (25).

7. I Noise Suppress Display

The I Noise Suppress state is displayed for one second when the Item/I Noise Suppress Switch is pressed in the menu off mode.

Note: These selections can be made by the menu.

Display	Position of Item/I Noise Suppress Switch
I NOISE SUP OFF	OFF
I NOISE SUP LOW	LOW
I NOISE SUP HIGH	HIGH

Note: The above displays are indicated by pressing the Check Button (25).

8. Scene File Display

The scene file setting is changed or Check Button (25) is pressed, the following display appears for one second.

SCENE 1 STUDIO: Scene File Selection Switch had been set to SCENE 1.

SCENE 2 ENG: Scene File Selection Switch had been set to SCENE 2 and LIGHTING in No.1 Main Menu is set to HALOGEN.

SCENE 3 OUTDOOR: Scene File Selection Switch had been set to SCENE 2 and LIGHTING in No.1 Main Menu is set to FLUORESCENT.

SCENE USER A: Scene file condition is under the User A state.

SCENE USER B: Scene file condition is under the User B state.

9. Accumulative Recording time Display

While the Check Button (25) is pressed, the accumulative recording time is displayed during ENG/EFP operation.

When a camera/recorder system utilizes an AG-7450A or AU-45H, the tape counter is displayed instead of accumulative recording time.

Notes:

1. The display value is reset to 0 HOUR 00 MIN oo SEC (0:00:00) by either the Recording Time Reset Button (21) on the camera or the Reset button on the AG-7450 S-VHS VTR.
2. The maximum recording time that can be displayed is 7 HOURS 59 MIN 59 SEC (7:59:59). If the recording time should exceed this value, the display will start counting again from 0:00:00.

10. Switch Display/Back-up Battery State Display

When the back-up battery for white balance and black balance memories, as well as the character display, has a low charge "BACK UP NG" is displayed.

Replace the back-up battery immediately.

When pressing the switches on the front or side of the camera, the switch name pressed can be displayed in the viewfinder as shown below.

Display	Description
GAIN	High Gain Selection Switch (29) is pressed.
WHITE BAL	White Balance Selection Switch (28) is pressed.
CAM/NE/BAR	Color Bar/Night Eye/Camera Selection Switch (6) is pressed.
AUTO W/B	Auto White/Auto Black Set Switch (6) is pressed.
LENS IRIS	Lens Iris Selection Switch (7) is pressed.
NONE	Back-up can not be operated.
BACK-UP NG	Back-up can not be operated.

11. Lens Aperture Display

The lens aperture/iris is adjusted automatically according to the incoming light intensity. The F-number, i.e. aperture/iris opening, is displayed in the viewfinder when a specified zoom lens, with a 12-pin lens connector, is used.

Display
OPEN
F2
F2.8
F4
F5.6
F8
F11
F16
CLOSE

Note: If the F-number displayed differs from the actual F-number is use, refer adjustment to qualified service personnel.

12. Lens Iris Selection Display

Display	Description
+	The Lens Iris Selection Switch (7) is set to 1/2 OPEN. The lens iris is opened an extra 1/2 F-stop from the standard lens iris/aperture.
no display	The Lens Iris Selection Switch (7) is set to NOR (normal). Lens iris/aperture is normal.
–	The Lens Iris Selection Switch (7) is set to 1/2 CLOSE. The lens iris is closed an extra 1/2 F-step from the standard lens iris/aperture.

13. Low Light Display

When the peak level of the incoming light results in a video signal of 40 IRE or less, "L" is displayed constantly. The Auto White Balance Control (AWC) is not available when the "L" is displayed.

Display	Description
None	The peak level of incoming light generates 40 IRE or more.
L	The peak level of incoming light generates 40 IRE or less.

14. Camera Power and Anton Bauer Intelligent-Digital Battery.

The voltage level supplied to the camera, from the Battery Pack, AC Adaptor/Charger or VTR is displayed.

Display	LED (orange)	Present Voltage Level
HIGH (blinking)	OFF	17V or more
17V	OFF	Approx. 17V
16V	OFF	Approx 16V
15V	OFF	Approx. 15V
14V	OFF	Approx. 14V
13V	OFF	Approx. 13V
12V	OFF	Approx. 12V
11.5V	OFF	Approx. 11.5V
11V	OFF	Approx. 11V
10.8V	OFF	Approx. 10.8V
10.6V	OFF	Approx. 10.6V
BATT	Blinking	10.6V or less

Note: If "BATT" is displayed, replace the battery pack. the battery pack will supply sufficient power for only a few minutes after this display lights.
This is also indicated when the Check Button (25) is pressed.

The battery's condition can be monitored when using the MII VTR AU-45H with Anton Bauer Intelligent Digital Battery.
Remove the Left Side Cover and set the Battery Indication Switch to the ANTON position.
The remaining battery life is indicated as shown below.

Display	LED (orange)	Present Voltage Level
MAX	OFF	Full charge condition
90%	OFF	Remaining 90%
80%	OFF	Remaining 80%
70%	OFF	Remaining 70%
60%	OFF	Remaining 60%
50%	OFF	Remaining 50%
40%	OFF	Remaining 40%
30%	OFF	Remaining 30%
20%	OFF	Remaining 20%
10%	OFF	Remaining 10%
EMP	Blinking	No remaining

Caution: Do not use the camera with "HIGH" display.

15. Back Light Compensation Display

When the back light compensation state is displayed for one second when this switch is turned on.

None	Off mode
BL	On mode

16. High Gain Selection Display

When the setting of the High Gain Selection Switch (29) on the camera (119) or (174) on the Remote Control Unit is changed, this is indicated in the viewfinder for one second.

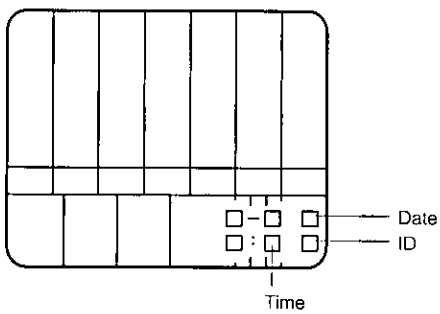
Display	LED (orange)	Gain Level
–6 dB	OFF	below –6 dB
0 dB	ON	below 0 dB
3 dB	ON	below 3 dB
6 dB	ON	below 6 dB
9 dB	OFF	below 9 dB
12 dB	ON	below 12 dB
18 dB	ON	below 18 dB
24 dB	ON	below 24 dB
N.E. (L)	ON	Night Eye (LOW)
N.E. (H)	ON	Night Eye (HIGH)

DATE/TIME DISPLAY

DISPLAY

- The date/time is displayed and can be recorded together with the color bar signal by setting the Color Bar/Night Eye/Camera Selection Switch to the BAR position.
- Menu, calender, date and camera identification are not displayed on the screen.

DISPLAY POSITION

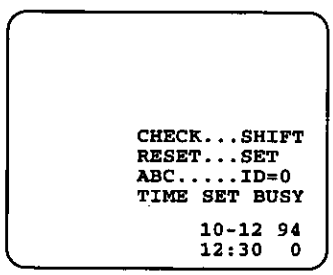


[For example]

Day		Month	Year
↓		↓	↓
12	-	**10**	**94**
12	:	**30**	**1**
↑		↑	↑
Hour		Minute	ID

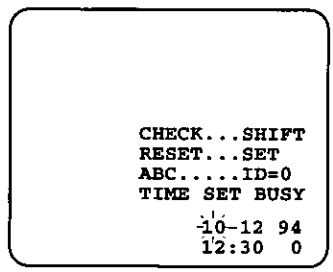
DATE/TIME SETTING PROCEDURE

1. Set the Color Bar/Night Eye/Camera Selection Switch (27) to the the BAR position to show the date and time.
2. While pressing the Check Button (25), press the Auto White/Auto Black Set Switch (6) to the AWC position and then release the Check Button (25) in order to shift to the time setting mode as shown in the figure.



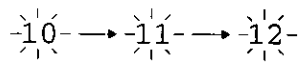
CAUTION: Release the Check Button (25) after pressing the Auto White/Auto Black Set Switch (6) to the AWC position. If the Check Button is kept pressed, the camera will not be shifted to the time setting mode.

3. After releasing the Check Button (25), press the Check Button once again within 10 seconds to cause the "Month" section to blink.

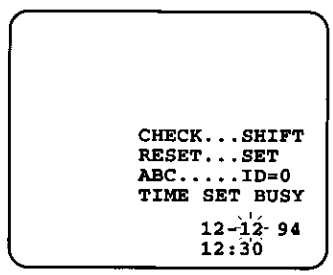


CAUTION: If the Check Button (25) has not been pressed within 10 seconds and no character is blinking, the time setting mode will be reset to normal display mode.

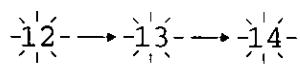
4. To increase the "Month", press the Recording Time Reset Button (21).



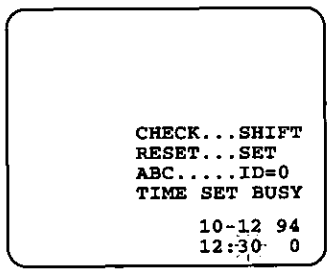
5. For fast increment mode, keep pressing the Recording Time Reset Button (21).



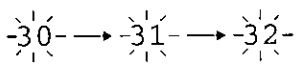
6. After setting the correct "Month", press the Check Button (25) to set the "Day". The "Day" characters start to blink.



7. Press the Recording Time Reset Button (21) to change the "Day".
8. After setting the correct "Day" press the Check Button (25).
9. For setting the "Year" and "Hour", follow the same procedure used for the "Month" or "Day".
10. For setting the "Minute", press the Check Button (25) after setting the "Hour".



11. Press the Recording Time Reset Button (21) to change the "Minute".



12. If it is desired to set the "Second", wait for the Time tone from a radio etc., (the "Minute" section is blinking). As soon as the tone at the Time is heard press the Check Button (25).
    The clock starts running and the character "TIME SET END" will be displayed for 1 second and then the display mode will be changed to the normal display mode.

Notes:

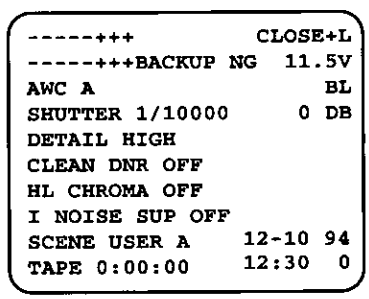
1. The date and time (clock) will be powered by the back-up battery even if the camera is turned off.
2. The back-up battery lasts approximately 10 years.
3. The accuracy of displayed date and Time (clock) is approximately ±60 seconds per month.

ID SETTING

The setting of 0 - 9 and blank at the ID position is available.
By each pressing down of the Auto Black/Auto White Set Switch (6) toward the ABC position when in the data/time setting mode, the ID setting is advanced.

CAMERA STATUS DISPLAY

The camera status can be recorded together with the color bar signal and the Date/Time character by keeping the Check Button (25) pressed while the Color Bar/Night Eye/Camera Selection Switch (27) is set to the BAR position.



SPECIFICATIONS

NTSC COLOR CAMERA WV-F565

Pick-up System:	Middle index prism system (F1.4)
Image Sensor:	Three 1/2" frame interline transfer (FIT) super high sensitivity CCDs
Pixels:	771 (Horizontal) x 492 (Vertical)
Scanning Standard:	525 lines, 60 fields, 30 frames
Synchronizing System:	Internal or external (gen-lock), automatically switchable
Internal:	NTSC standard
External (gen-lock) Input:	NTSC composite (VBS) signal or black burst signal
Subcarrier Phase for Gen-lock:	Freely adjustable over 360°
Horizontal Phase for Gen-lock:	Adjustable
Video Output:	1.0 Vp-p NTSC composite/75 ohms x 2 (BNC connector)
	Y/C (S-VIDEO) Output:
	0.714 Vp-p Luminance level (Y) composite/75 ohms x 1 (S-VIDEO connector)
	0.286 Vp-p burst level chrominance/75 ohms x 1 (S-VIDEO Connector)
	1.0 Vp-p NTSC composite/75 ohms x 1 (26 pin VTR/RCU connector)
	R/G/B, Y/PB (B-Y)/PR (R-Y), Y/C/B, ENC, Switchable)
	R/G/B:
	0.7 Vp-p/75 ohms x 1 each
	Y/PB/PR:
	Y: 1.0 Vp-p (Sync: 0.286 Vp-p)/75 ohms x 1
	PB/PR: 0.486 Vp-p/75 ohms (at SMPTE color bar) x 1 each
	Y/C/B:
	Y: 0.714 Vp-p Luminance level (Y) Composite/75 ohms x 1
	C: 0.286 Vp-p burst level chrominance/75 ohms x 1
	B: 0.7 Vp-p/75 ohms x 1
	ENC:
	NTSC: 1.0 Vp-p composite/75 ohms x 1
Auxiliary Input:	1.0 Vp-p composite/75 ohms through 26 pin VTR/RCU connector
Audio Output:	−20 dBm or −60 dBm/unbalanced, switchable (26 pin VTR/RCU connector)
Illumination Required:	2000 Lux at F8.0, 3200K
Minimum Illumination:	1 lux at F1.4 with Night Eye, more than 70% output level
Signal-to noise Ratio:	65 dB (typical, luminance) without aperture correction
Horizontal Resolution (at center):	850 lines (Y signal)
	Hi Band DTL ON
Registration:	0.05% (entire picture area, excluding lens)
Detail/Aperture:	Horizontal and vertical (2-line type)
White Balance:	Automatic white balance setting (AWC with two memories) and PRESET, white balance, ATW
Black Balance:	Automatic with pulse canceler
Encoder:	Y, R-Y, B-Y
Color Bar:	Built-in SMPTE color bar generator with time, date generator and camera ID.
Electronic Shutter:	1/100 sec., 1/250 sec., 1/500 sec., 1/1000 sec., 1/2000 sec., 1/4000 sec., 1/10000 sec., synchro-scan ELC
Color Conversion Filters:	3200K, 5600K with 6.25% ND, 5600K, 3200K with Cross Filter
Maximum Cable Length:	26 pin Studio Cable: Max. 300m
Switches:	
Camera:	Power, Color Bar/N.E./Camera Selection, High Gain Selection, White Balance Selection, Auto White/Auto Black Set, Level Indicator/Zone, VTR Start/Stop, Check, Lens Iris Selection, Detail Level Selection, Highlight CHROMA, Recording Time Reset, Electronic Shutter On/Off Back Light Comp., Scene File Selection, Page, Item, Up, Down
Camera Adaptor:	VTR Compatibility, Audio Level Selection, Earphone Out Selection, VTR Video Output Selection Switch 1, VTR Video Output Selection 2,
Power Selection	
Viewfinder:	Tally ON/OFF
Zoom Lens (Canon 13x Lens):	Servo/Manual Zoom Selection, Servo Zoom Control, Iris Control Selection, Auto Iris, Return Video, Macro VTR Start/Stop

Controls:	
Camera:	Total Pedestal, Lens Iris, Audio (with AU-45H)
Camera Adaptor:	Earphone/Intercom Level
Viewfinder:	Brightness, Contrast Peaking
Standard Lens (Canon 13X Lens):	13:1 auto iris servo control zoom lens, 7.5 - 97.5 mm with macro mode, 1.4
Lens Iris:	Automatic or manual
Lens Mount:	Bayonet mount for 1/2" pickup device
Lens Filter Size:	82 mm P=0.75 (with food), 72 mm P=0.75 (with lens)
Viewfinder:	1.5" (1-3/8" actual image size) electronic viewfinder with character display, safety zone, Date/Time and zebra level indicator
Power Source:	12V DC, 5 sources as follows: (1) Battery Pack (2) AC Adaptor (3) External DC source through 4-pin DC connector (4) VTR (external AC adaptor) (5) Remote control Unit through VTR/RCU connector
Battery Pack Operating Time:	WV-PS60: 12V 1650 mAh WV-PS33: 12V 3500 mAh
Power Consumption:	Camera Head: (12V DC) 11.4W ENG Configuration (12V DC): 16.0W (with WV-AD500, WV-VF42) Studio Configuration (12V DC): 25.6W (with WV-AD500, WV-VF42)
Ambient Operating Temperature:	50°F - 113°F (–10°C - +45°C)
Ambient Operating Humidity:	30% - 90%
Dimensions:	
• Camera Head Only	5-1/4" (W) x 9-5/8" (H) x 11-3/16" (D) 134 (W) x 244.5 (H) x 287 (D) mm
• ENG Configuration (Exclude the Tripod Mounting Adaptor)	9-9/16" (W) x 11-1/8" (H) x 18-1/8" (D) 268.5 (W) x 283 (H) x 460 (D) mm
• Studio Configuration (Exclude the Tripod Mounting Adaptor)	7-3/16" (W) x 20-1/16" (H) x 20-7/8" (D) 183 (W) x 510 (H) x 531 (D) mm
Weight:	
• Camera Head only	5.3 lbs. (2.2 kg)
• ENG Configuration (Exclude the Tripod Mounting Adaptor)	11.5 lbs. (5.0 kg)
• Studio Configuration (Exclude the Tripod Mounting Adaptor)	16.5 lbs. (7.3 kg)

Dimensions and weights are approximate.
Specifications are subject to change without notice.

SYSTEM ACCESSORIES

ENG/EFP Kit WV-S550A
1.5" Viewfinder WV-VF42 ..... 1 set
Microphone Holder ..... 1 set
Tripod Mounting Adaptor WV-QT700 ..... 1 set
Carrying Case WV-CC500A ..... 1 set

MAIN OPTIONAL ACCESSORIES

Camera Adaptor WV-AD500/WV-AD700AS
Dockable Kit WV-DKT700S/WV-DKT700M
AC Adaptor/Charger WV-PS34
Battery Pack (1.65 Ah) WV-PS60
Battery Pack (3.5 Ah) WV-PS33
Battery Charger ..... DE-1232 (for WV-PS60)
Battery Charger ..... WV-BC30 (for WV-PS33, WV-PS34)
Battery Adaptor ..... WV-BA71 (for AU-BP402)
Battery Adaptor ..... WV-BA72 (for AU-BP220)
Carrying Case WV-CC500A
Computer Interface Adaptor WJ-PC500
Battery Adaptor WV-AD19
1.5" Electronic Viewfinder WV-VF42
5" Electronic Viewfinder WV-VF65B
Remote Control Unit (RCU) WV-RC700A
Remote Control Box (RCB) WV-CB700A
Gun-type Electret Condencer Microphone WM-L30
Lens Control Kit WV-LK35/WV-LK36
Tripod Mounting Adaptor WV-QT700
RCU Rack Mount Frame WV-Q70
5" Viewfinder Bracket WV-Q71
Shoulder Strap WV-QB70
Microphone Holder WV-MH500

OTHER OPTIONAL ACCESSORIES

VTR Cable:
- WV-CA26A10 (26P-10P) 10 ft (3 m)
- WV-CA26A14 (26P-14P) 10 ft (3 m)
- WV-CA26A26 (26P-26P) 10 ft (3 m)

Joint Connector
- WV-CA26T26

26/32 Conversion Cable
- WV-CA26T32

32/26 Conversion Cable
- WV-CA32T26

10/14 Conversion Connector
- WV-CA10T14

Studio Cable:
- WV-CA26U15 15 m
- WV-CA26U30 30 m
- WV-CA26U100 100 m

RCB Cable
- WV-CA10B02 2m
- WV-CA10B25 25m
- WV-CA10B50 50m

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