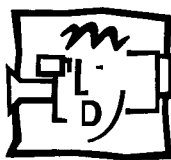


# *Camera Control Unit*

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## **Operating Instructions**

Before operating the unit, please read this manual thoroughly and retain it for future reference.



**\$25 charge  
if not returned**

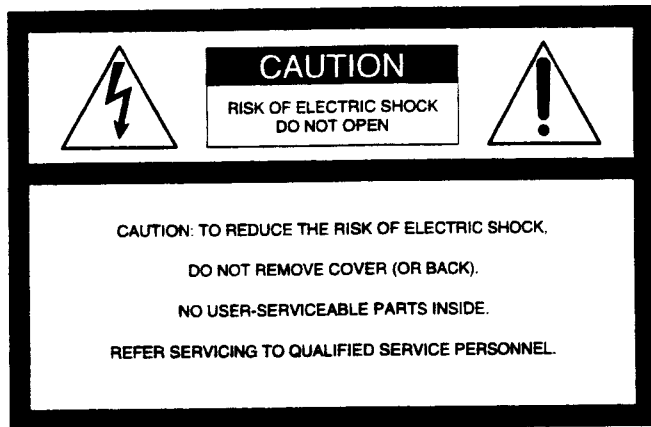
MLD Equipment Rental  
800-343-2167

## **CCU-TX7/TX7P**



## WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.



This symbol 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.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## Owner's Record

The model and serial numbers are located at the rear. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

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

## For the customers in the USA

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

This device requires shielded interface cables to comply with FCC emission limits.

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# Overview

## Product Features

The CCU-TX7/TX7P is a camera control unit that connects to DXC-637 Series and DXC-D30 Series Color Video Cameras via the CA-TX7/TX7P Camera Adaptor.

This product's features are described below.

### Full-featured signal transfer functions

- The CCU-TX7/TX7P is able to transfer wideband component video signals. (Y signals at 9 MHz or above, and R-Y and B-Y signals at 4.5 MHz or above)
- When using a triaxial cable, audio signals can be transferred up to 750 meters (2460 feet) (when cable diameter is 8.5 mm ( $^{11}/_{32}$  inch)) or 1,500 meters (4920 feet) (when cable diameter is 14.5 mm ( $^{19}/_{32}$  inch)).
- Transfer functions are provided for the following signals.  
Return video, teleprompter signal, microphone audio, program audio, red tally and green tally signals
- An intercom switch is also provided.

### Flexibly adaptable camera control functions

- The optional COU-TX7 Camera Operation Unit, which can be installed on the CCU-TX7/TX7P's front panel, enables video camera operations to be controlled from the CCU-TX7/TX7P.
- When several CCU-TX7/TX7P units are connected in parallel, the optional RCP-TX7 Remote Control Panel can be used to control video camera operations as well as the color balance between cameras.
- An RS-232C connector is provided for the CCU-TX7/TX7P, allowing a personal computer to be connected for computer-based control of video camera operations.

### Wide array of input/output signals

The input and output connectors provided for the CCU-TX7/TX7P include those for outputting such signals as a composite video signal (VBS), component video signals (switchable to RGB), video signals for video and waveform monitors, and for inputting a reference signal for external synchronization.

### Rack mountable

Two CCU-TX7/TX7P units can be installed side by side in the optional RMM-TXC7 Rack Mount Bracket.

## Connections

Examples of how to connect other devices to this unit are shown in the following.

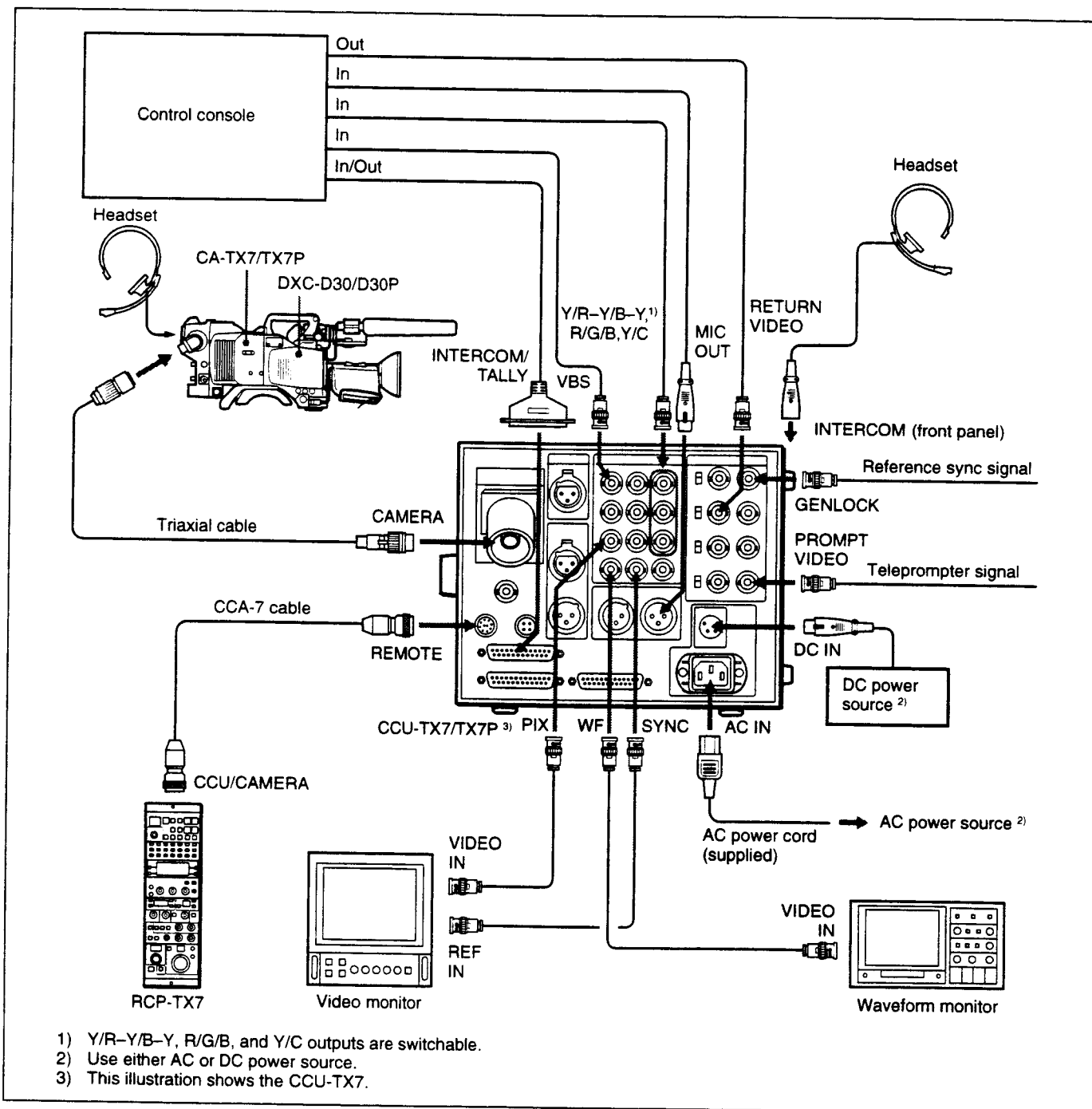
### Notes

- Be sure to power the CCU-TX7/TX7P off before inserting or removing the triaxial cable connector.

- Some of the video camera's switches and buttons may not operate while the CCU-TX7/TX7P is connected to it.

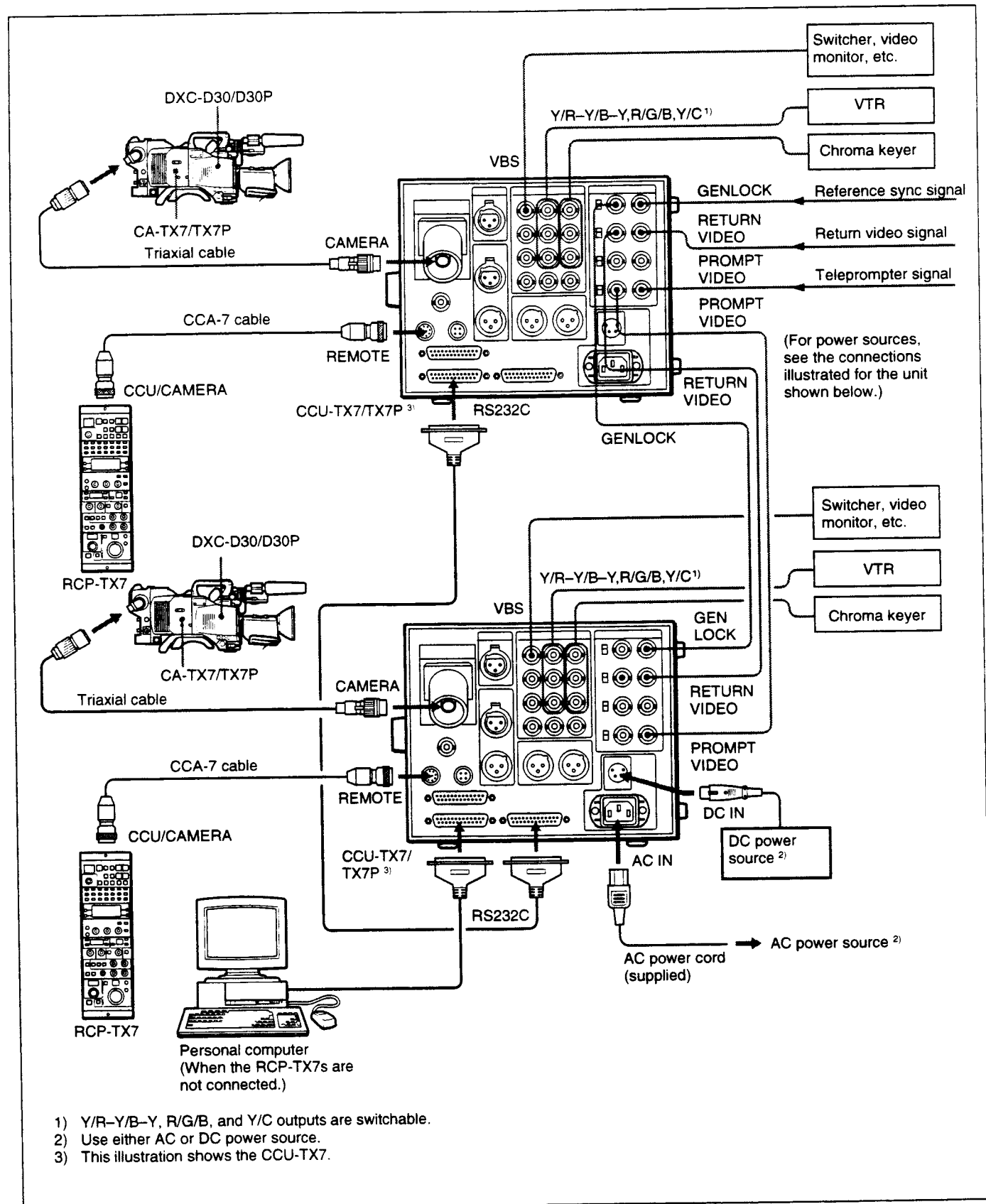
For details, see the operation manual for the video camera or camera adaptor.

### When using one CCU-TX7/TX7P unit



# Overview

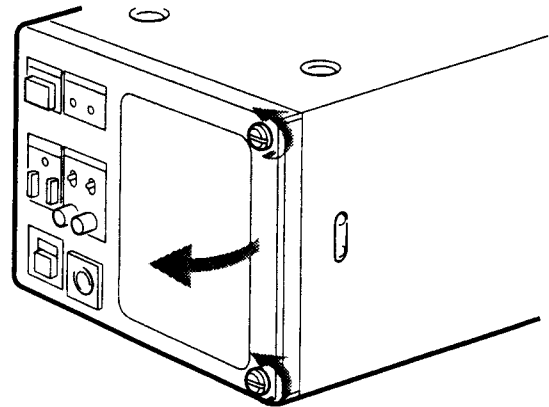
## When using two CCU-TX7/TX7P units



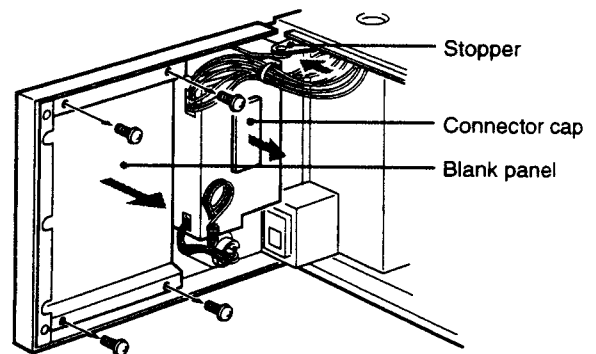
## Installing the Camera Operation Unit

The following describes how to fit the optional COU-TX7 Camera Operation Unit to the CCU-TX7/TX7P's front panel.

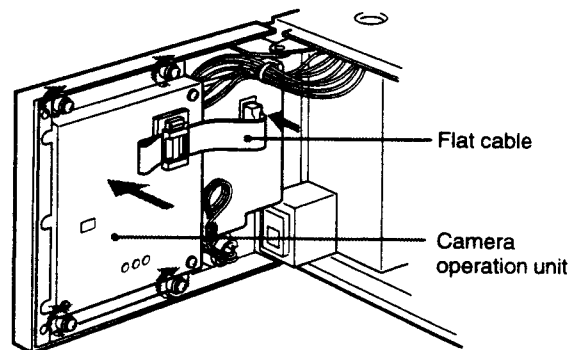
- 1 Open the CCU-TX7/TX7P's front panel.



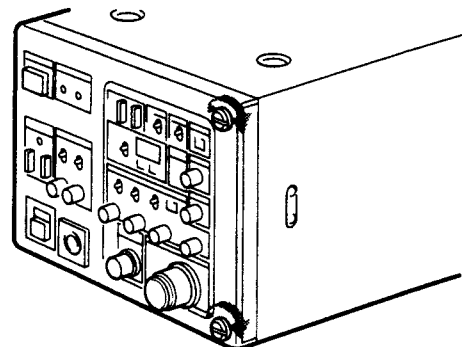
- 2 Remove the blank panel and the connector cap.



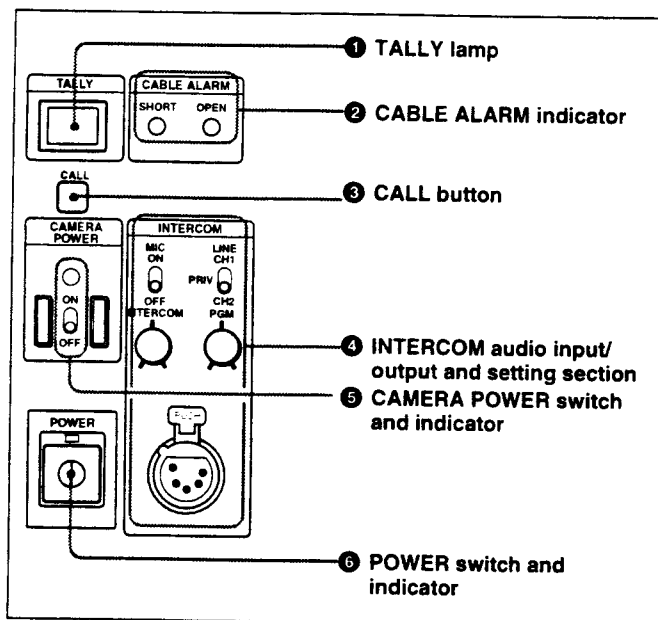
- 3 Attach the camera operation unit to the front panel and connect the flat cable to the connector.



- 4 Close the front panel and fasten the screws.

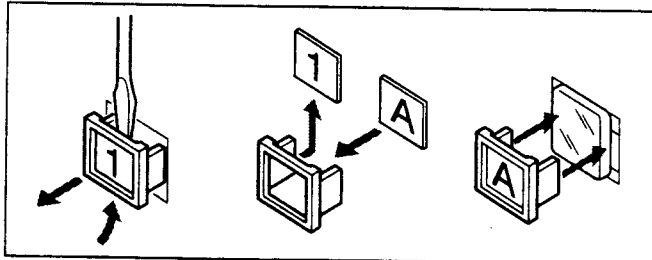


## CCU-TX7/TX7P switches and knobs



### 1 TALLY lamp

The lamp lights red when a red tally signal is received and green when a green tally signal is received. It also lights red when the CALL button is pressed on the CA-TX7/TX7P Camera Adaptor or RCP-TX7 Remote Control Panel connected to this unit. The camera number plate (provided) can be attached to this lamp.



### 2 CABLE ALARM indicator

**SHORT:** this indicator lights when an overcurrent occurs in the triaxial cable connected to the CAMERA connector on the rear panel.

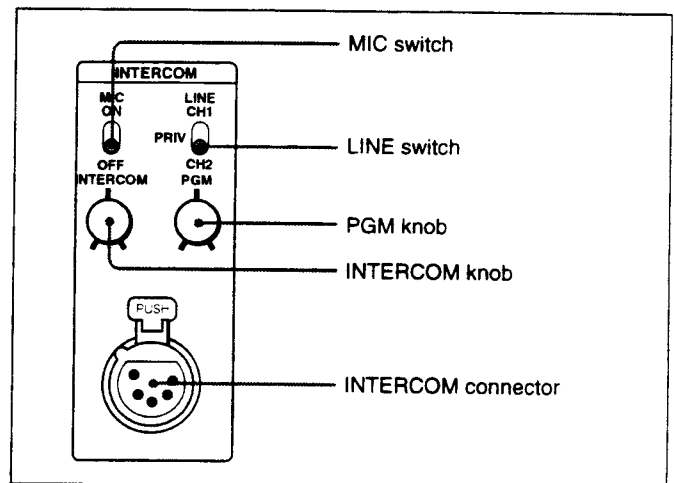
**OPEN:** this indicator lights when there is no triaxial cable connected to the CAMERA connector on the rear panel or when the current flowing in the connected triaxial cable is excessively small.

### 3 CALL button

When you press this button, it lights along with the red TALLY lamps and CALL buttons on the video camera, camera adaptor, and remote control panel connected to this unit. This function can be used to call the video camera or remote control panel operator.

You can then talk with the operator via the intercom. This button also lights when the CALL button is pressed on the camera adaptor or remote control panel.

### 4 INTERCOM audio input/output and setting section



**INTERCOM connector (XLR 5-pin):** Use this to connect a headset.

**INTERCOM (intercom level) knob:** Use this to adjust the intercom sound volume.

**PGM (program audio level) knob:** Use this to adjust the sound volume when monitoring program audio via a headset.

**MIC switch:** Use this switch to turn the headset's microphone ON or OFF.

**LINE switch:** Use this switch to select the channel for intercom signals that are input and output via the INTERCOM connector.

- CH1: Connects to channel 1

- CH2: Connects to channel 2

- PRIV: Does not connect to channel 1 or channel 2. Instead, the intercom operates only between this unit and the connected video camera.

### 5 CAMERA POWER switch and indicator

When the POWER switch is on, use this switch to switch the power on and off to the video camera and camera adaptor connected to this unit. The indicator lights when this switch is turned on powering the camera adaptor.

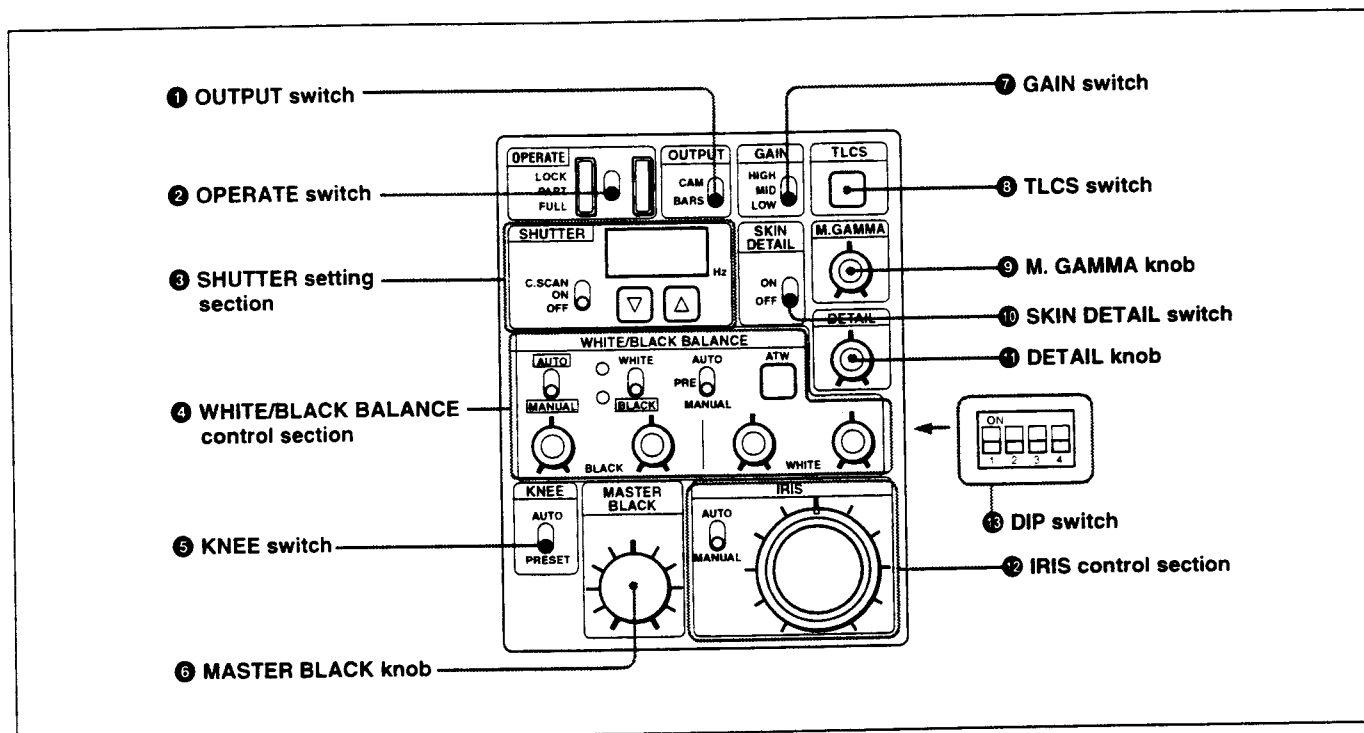
### 6 POWER switch and indicator

This switches the power to this unit on or off. The indicator lights when the power is on.



## Location and Function of Parts

### Camera operation unit switches and knobs



The camera operation unit's switches and knobs are used to set and adjust video camera functions.

*For details about the video camera functions and settings, see your video camera's operation manual.*

#### 1 OUTPUT switch

Use this switch to select the video to be output from this unit.

**CAM:** Image being shot via video camera

**BARS:** Color bars generated by this unit

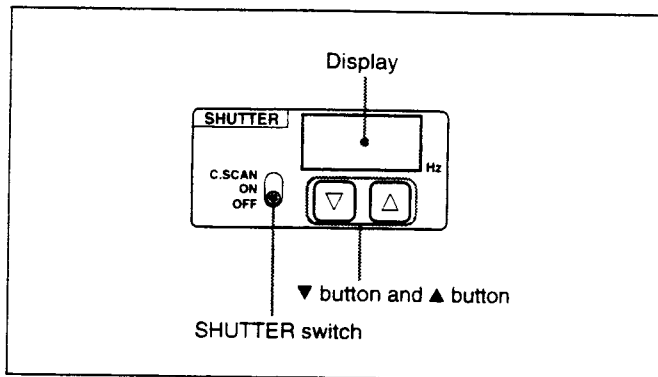
**2 OPERATE (operation range setting) switch**  
Use this switch to set the operation range of the camera operation unit.

**LOCK:** This setting disables all of the camera operation unit's functions.

**PART:** This setting enables only the IRIS control section and MASTER BLACK knob to be operated.

**FULL:** This setting enables all of the camera operation unit's functions to be used. Settings changed while this switch was set to LOCK become valid when this switch is set to FULL.

### ③ SHUTTER setting section



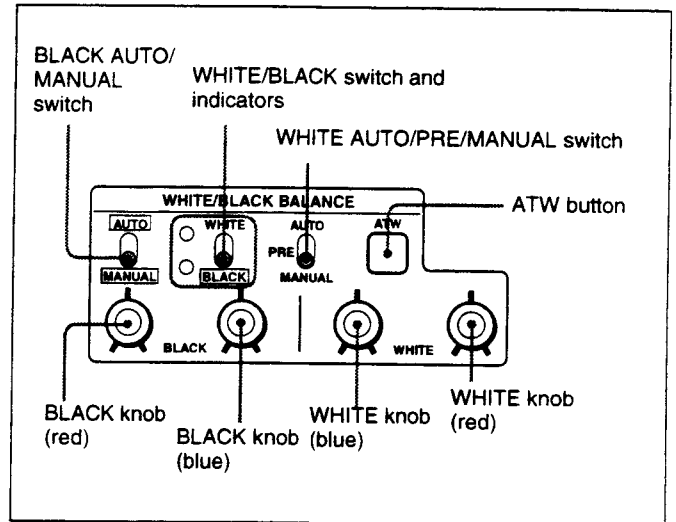
**SHUTTER switch:** Use this switch to select a shutter setting. This switch does not function when the TLCS switch is on.

- **C. SCAN:** This activates the clear scan function.
- **ON:** This activates the normal shutter function.
- **OFF:** This turns off the shutter.

- ▼ **button and ▲ button:** When the SHUTTER switch is set to either C. SCAN or ON, pressing one of these buttons changes the shutter speed or clear scan frequency as described below.
  - When SHUTTER switch is set to C. SCAN Pressing and holding one of these buttons gradually reduces (▼ button) or increases (▲ button) the clear scan frequency.
  - When SHUTTER switch is set to ON Each time one of these buttons is pressed, the shutter speed is reduced (▼ button) or increased (▲ button) by one step.
 If you press both of these buttons at once, it resets the clear scan frequency or shutter speed (depending on the SHUTTER switch's position) to their factory settings.

**Display:** This displays the clear scan frequency when the SHUTTER switch is set to C. SCAN or the shutter speed when it is set to ON. "OFF" is displayed here when the SHUTTER switch is set to the OFF position.  
When the TLCS switch is on, the display is blank.

### ④ WHITE/BLACK BALANCE control section



#### BLACK AUTO/MANUAL switch

Use this switch to select whether to automatically (AUTO) or manually (MANUAL) adjust the black balance.

(When a DXC-637 series video camera is connected, this switch is invalid and the black balance mode is determined by the position of the WHITE AUTO/PRE/MANUAL switch.)

#### WHITE/BLACK (white/black balance adjustment) switch and indicators

When the WHITE AUTO/PRE/MANUAL switch is set to AUTO, press this switch to the WHITE position to automatically adjust the white balance.

When the BLACK AUTO/MANUAL switch is set to AUTO, press this switch to the BLACK position to automatically adjust the black balance.

The indicator by the WHITE or BLACK position blinks at a one-second interval while the white balance or black balance is being automatically adjusted. When the automatic adjustment is completed, it stays lit for about ten seconds, then goes out. If the automatic adjustment fails, it blinks at a half-second interval for about ten seconds and then goes out.

## Location and Function of Parts

### **WHITE AUTO/PRE/MANUAL (white balance auto/preset/manual) switch**

Use this switch to select the white balance adjustment mode. This switch does not function while the ATW function is being used (while the ATW button is lit).

**AUTO:** This sets auto adjustment mode. It enables the white balance to be automatically adjusted using the WHITE/BLACK switch.

(When a DXC-637 series video camera is connected: this also sets auto adjustment mode for the black balance. The black balance can be automatically adjusted even while the ATW function is being used.)

**PRE:** This sets preset mode. The white balance is maintained at the preset value.

(When a DXC-637 series video camera is connected: this also sets auto adjustment mode for the black balance. The black balance can be automatically adjusted even while the ATW function is being used.)

**MANUAL:** Sets manual adjustment mode. It enables the white balance to be manually adjusted using the WHITE knob (red) and WHITE knob (blue).

(When a DXC-637 series video camera is connected: this also sets manual adjustment mode for the black balance. The black balance can be adjusted manually even while the ATW function is being used.)

### **ATW (auto tracing white balance) button**

Press this button (which lights up when pressed) to have the white balance adjusted automatically when lighting conditions change.

### **BLACK (black balance) knob (red)**

When the BLACK AUTO/MANUAL switch is set to MANUAL, this knob can be used to adjust the black level of the R signal.

### **BLACK (black balance) knob (blue)**

When the BLACK AUTO/MANUAL switch is set to MANUAL, this knob can be used to adjust the black level of the B signal.

### **WHITE (white balance) knob (red)**

When the WHITE AUTO/PRE/MANUAL switch is set to MANUAL, this knob can be used to adjust the gain of the R signal.

### **WHITE (white balance) knob (blue)**

When the WHITE AUTO/PRE/MANUAL switch is set to MANUAL, this knob can be used to adjust the gain of the B signal.

### **5 KNEE switch**

Use this switch to adjust the knee setting.

**AUTO:** Knee is automatically adjusted

**PRESET:** Knee is adjusted to preset value

### **6 MASTER BLACK knob**

This adjusts the master black (master pedestal level) setting. The click position of the knob provides a typical setting.

### **7 GAIN switch**

Use this switch to set any of three video amp gain levels (HIGH, MID, or LOW). The gain value corresponding to these levels can be set using a menu on the video camera.

### **8 TLCS (total level control system) switch**

Press this switch to turn the total level control system on or off. The switch lights when it is turned on. When this switch is on, settings made with the GAIN switch and SHUTTER switch are ignored.

(This function cannot be used when a DXC-637 series video camera is connected.)

### **9 M. GAMMA (master gamma) knob**

Use this knob to adjust the gamma curve. The click position of the knob provides a typical setting.

(This function cannot be used when a DXC-637 series video camera is connected.)

### **10 SKIN DETAIL switch**

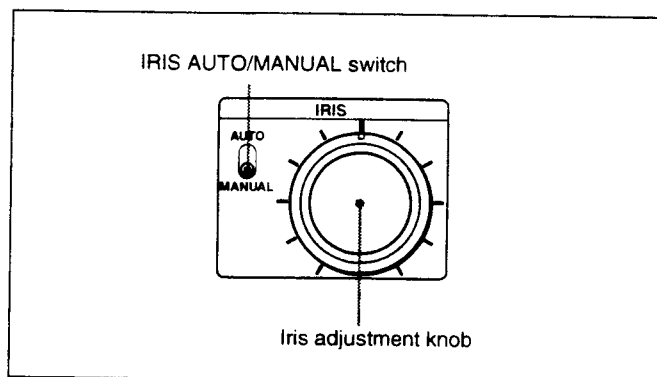
Use this switch to turn the skin detail correction function on or off.

(This function cannot be used when a DXC-637 series video camera is connected.)

### **11 DETAIL knob**

Use this knob to adjust the detail level. The click position of the knob provides a typical setting.

## 12 IRIS control section



### IRIS AUTO/MANUAL switch

Use this switch to select between AUTO and MANUAL iris adjustment modes. Be sure that the IRIS switch on the video camera is set to AUTO.

**AUTO:** Iris is automatically adjusted.

**MANUAL:** Iris is adjusted with the iris adjustment knob.

### Iris adjustment knob

When the IRIS AUTO/MANUAL switch is set to MANUAL, this knob can be used to manually adjust the iris.

When the IRIS AUTO/MANUAL switch is set to AUTO, this knob can be used to manually fine-tune the automatic iris adjustment.

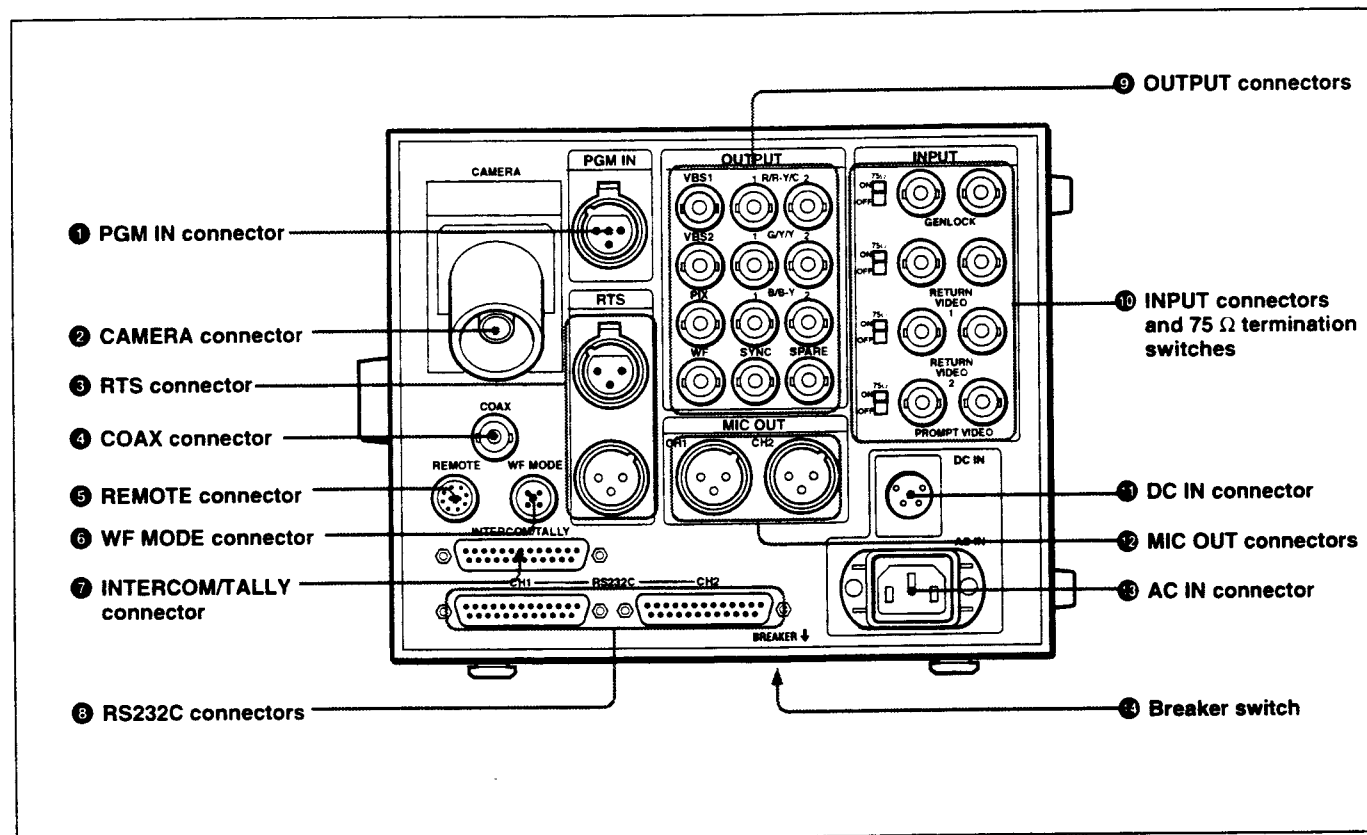
## 13 DIP switch

Use the four switches numbered 1 to 4 to make the following settings.

<b>No.1 OFF/No.2 OFF</b>	Standard color matrix setting (This setting has no effect when a DXC-D30 series video camera is connected.)
<b>No.1 OFF/No.2 ON</b>	
<b>No.1 ON/No.2 OFF</b>	Color matrix set for fluorescent lighting (FL). (This setting has no effect when a DXC-D30 series video camera is connected.)
<b>No.1 ON/No.2 ON</b>	Color matrix set for color emphasis (H.SAT). (This setting has no effect when a DXC-D30 series video camera is connected.)
<b>No.3 ON</b>	EVS function set on for the shutter. (Has priority over the SHUTTER switch setting on the camera operation unit.)
<b>No.4 ON</b>	Date and time display set on for the output picture.

# Location and Function of Parts

## Rear Panel



### 1 PGM IN (program audio input) connector (XLR 3-pin)

The program audio signal is input via this connector.

### 2 CAMERA connector (triaxial)

Connect a triaxial cable here to connect this unit to the CA-TX7/TX7P Camera Adaptor attached to a video camera.

### 3 RTS (intercom) connector (XLR 3-pin)

Use this connector to connect an RTS intercom system or a Clear-Com intercom system.

*Contact a Sony service representative before using this connector.*

### 4 COAX (coaxial) connector (BNC type)

Use this connector for input and output of signals from the video camera connected via a coaxial cable. No power is supplied to the video camera or camera adaptor via the coaxial cable.

*Internal board settings must be changed before using this connector. For details, contact a Sony service representative.*

### 5 REMOTE (remote control panel) connector (10-pin)

Use this connector to connect the RCP-TX7 Remote Control Panel via a CCA-7 cable.

### 6 WF MODE (waveform monitor mode) connector (4-pin)

Connect to the corresponding connector on a waveform monitor when monitoring signals in sequential mode.

*Internal board settings must be changed before using this connector. For details, contact a Sony service representative.*

### 7 INTERCOM/TALLY connector (D-sub 25-pin)

Intercom signals and tally signals are input and output via this connector. Connect to the intercom system's INTERCOM/TALLY connector.

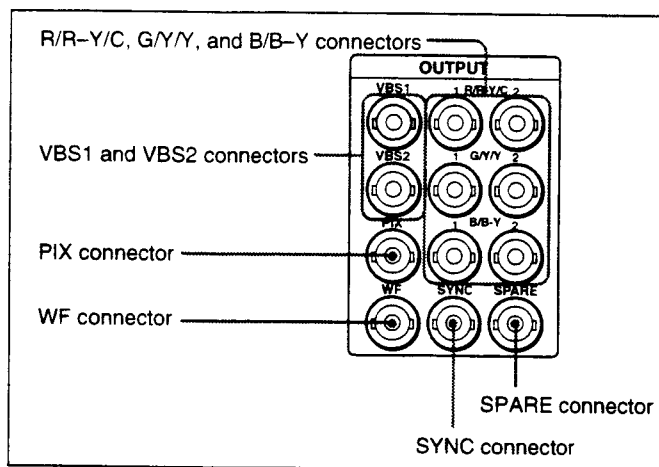
### ⑧ RS232C connectors (D-sub 25-pin)

There are two connectors, CH1 and CH2. You can use these connectors to connect a personal computer to control the video camera.

You may also use these connectors to connect this unit to another CCU-TX7/TX7P unit. It is possible to carry out color balancing or linked iris adjustment between two or more interconnected CCU-TX7/TX7P units using the RCP-TX7 Remote Control Panel.

*For details, see the RCP-TX7 Operation Manual.*

### ⑨ OUTPUT connectors (BNC type)



#### R/R-Y/C, G/Y/Y, and B/B-Y (component video signal/RGB signal/Y and C signal output) connectors

Use these connectors to output component signals (R-Y, B-Y, and Y), R, G, and B signals (for chroma key), and Y and C signals. Use a switch on an internal board (ES-20) to select the type of output signal.

#### VBS1 and VBS2 (composite video signal 1 and 2 output) connectors

Use these connectors to output signals from a video camera as composite video signals.

#### SYNC (sync signal output) connector

This connector outputs a SYNC signal (0.3 Vp-p, 75  $\Omega$ ). Connect to the synchronization signal input connector on a waveform monitor or video monitor.

#### PIX (picture monitor output) connector

Use this connector to output a video signal to a video monitor. Use the MONITOR SELECT button on the RCP-TX7 Remote Control Panel to set the type of signal to be output. Selection of the signal type also applies to the output from the WF connector.

#### WF (waveform monitor output) connector

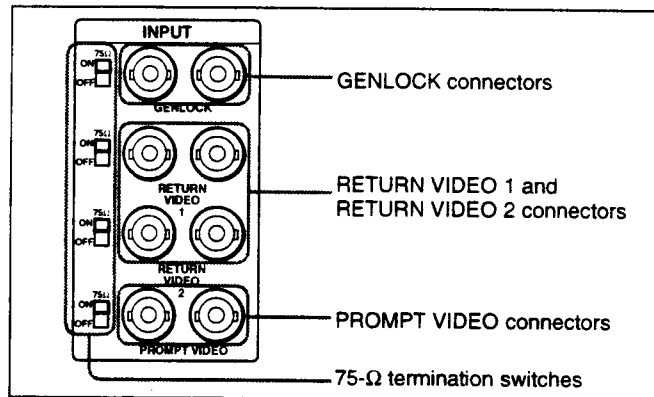
Use this connector to output a video signal to a waveform monitor. Use the MONITOR SELECT button on the RCP-TX7 Remote Control Panel to set the type of signal to be output. Selection of the signal type also applies to the output from the PIX connector.

#### SPARE connector

This connector is not used (it is reserved for future use).

### ⑩ INPUT connectors (BNC type) and 75- $\Omega$ termination switches

This section includes four pairs of loop-through connectors and corresponding 75- $\Omega$  termination switches.



#### GENLOCK (generator lock) connectors

Use these connectors to input a reference sync signal (black burst signal or composite video signal) for external synchronization.

#### RETURN VIDEO 1 and RETURN VIDEO 2 connectors

These connectors correspond to the RETURN 1 and RETURN 2 buttons on the CA-TX7/TX7P Camera Adaptor. Two sets of return video signals can be input via these two pairs of connectors.

#### PROMPT VIDEO connectors

Use these connectors to input teleprompter signals.

#### 75- $\Omega$ termination switches

When only one loop-through connector is used and the other connector in the pair is not connected to any external device, set the corresponding 75- $\Omega$  termination switch to the ON position.

### ⑪ DC IN connector (XLR 4-pin)

Use this connector to operate this unit using a DC power source (10.5 to 17 V).

## Location and Function of Parts

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### **⑫ MIC OUT connectors (XLR 3-pin)**

Use these connectors to output microphone signals (CH1 and CH2) from the connected video camera.

### **⑬ AC IN connector**

Use this connector to connect an AC power source via the supplied power cord. Use the supplied plug retainer to attach the power cord to this unit.

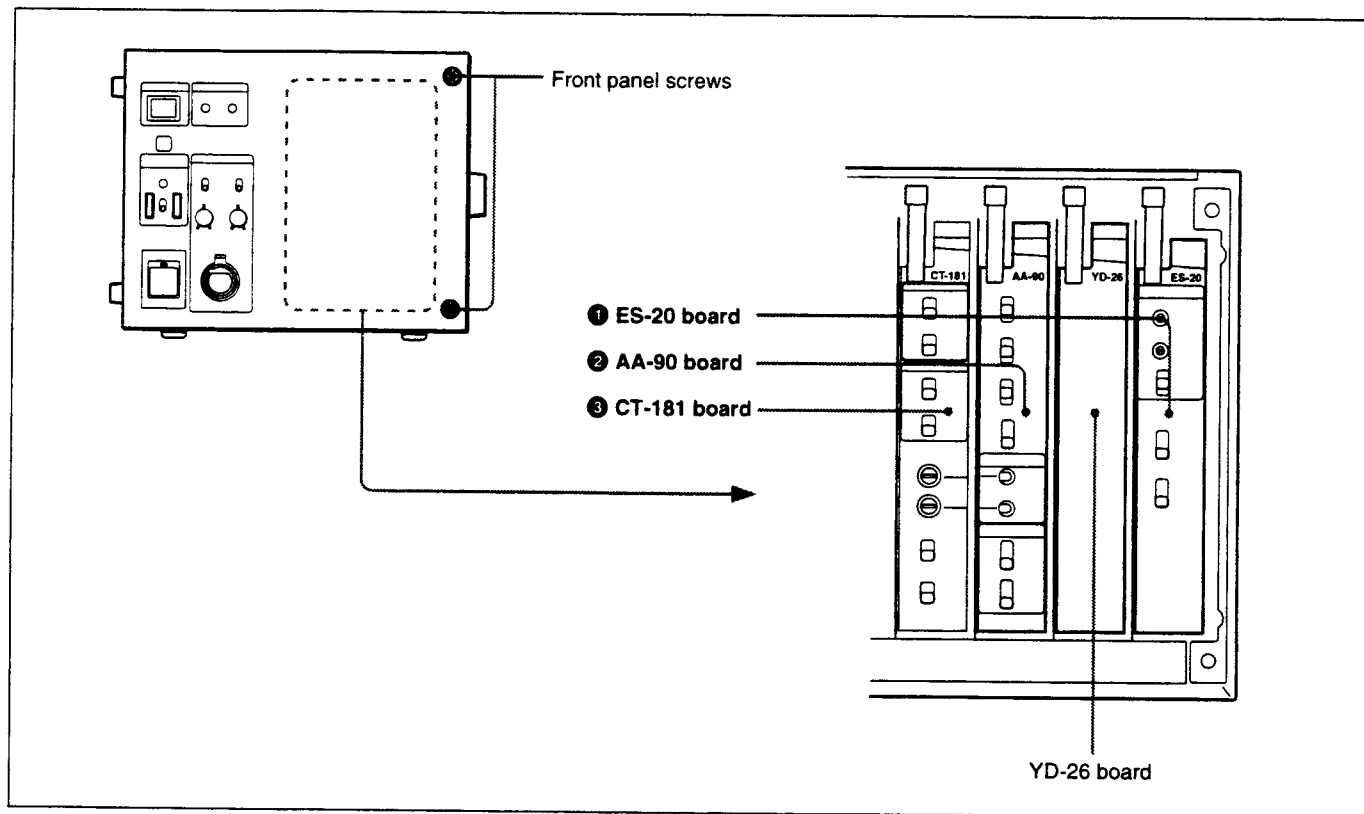
### **⑭ Breaker switch**

If the input current exceeds 10 A during operation of the unit on a DC power source, the breaker is actuated to shut off the power supply. To resume operation, push in the breaker switch after making sure the input current does not exceed 10 A.

## Internal Board Switches and Knobs

Loosen the two screws on the right side of the front panel to expose switches and knobs on the edges of internal boards.

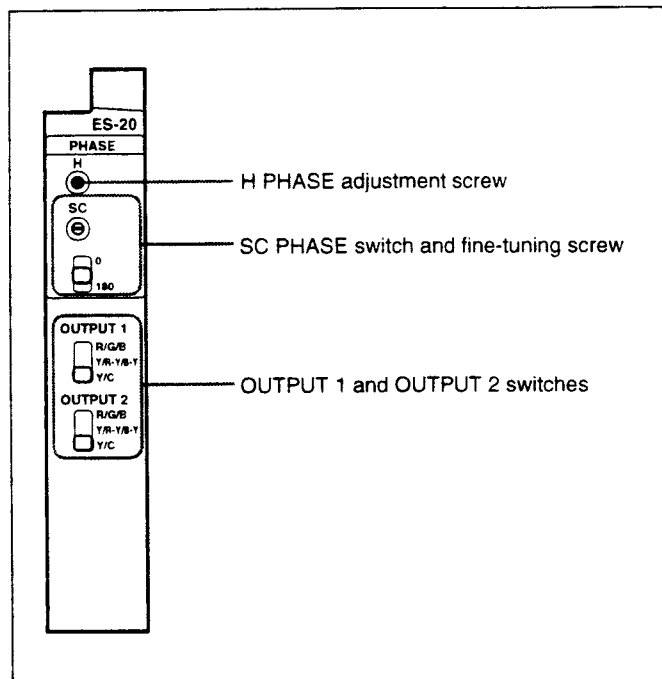
*For details concerning adjustment of internal board switches and knobs, contact a Sony service representative.*





## Location and Function of Parts

### ① ES-20 board



#### H PHASE (horizontal phase) adjustment screw

Turn this screw with a screwdriver to adjust the horizontal phase alignment between an external sync signal and the output signal.

#### SC PHASE (subcarrier phase setting) switch and fine-tuning screw

Use this switch and screw to adjust the output signal subcarrier phase with respect to an external sync signal. After setting the SC PHASE switch, turn the fine-tuning screw to make fine adjustments.

#### OUTPUT 1 and OUTPUT 2 switches

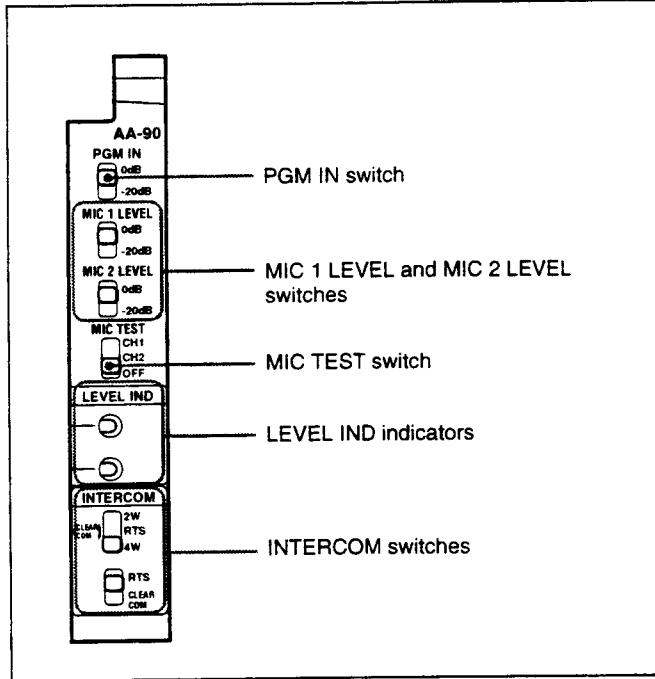
Use these switches to select the type of signal to be output via the OUTPUT connectors (R/R-Y/C, G/Y/Y, B/B-Y). The OUTPUT 1 switch corresponds to the three OUTPUT connectors on the left side and the OUTPUT 2 switch to the three OUTPUT connectors on the right side.

**R/G/B:** Selects output of R, G, and B signals from the OUTPUT connectors.

**Y/R-Y/B-Y:** Selects output of R-Y, Y, and B-Y component signals from the OUTPUT connectors.

**Y/C:** Selects output of Y and C signals from the OUTPUT connectors.

### ② AA-90 board



#### PGM IN (program audio input level setting) switch

Use this switch to set the program audio input level to 0 dB or -20 dB.

#### MIC 1 LEVEL and MIC 2 LEVEL switches

Use these switches to set the microphone output levels for channel 1 (CH1) and channel 2 (CH2) to 0 dB or -20 dB.

#### MIC TEST switch

Set this switch to CH1 or CH2 to mix that channel's microphone signals from the video camera with the program audio, so that the mixed input can be monitored via a headset connected to this unit or a camera adaptor. This switch is used to check the microphone signals.

#### LEVEL IND (microphone level) indicators

The transfer levels for microphone signals (CH1 and CH2) are indicated by colors. The upper indicator corresponds to channel 1 (CH1) and the lower one to channel 2 (CH2).

**Green:** Approximately -12 dB to 0 dB

**Orange:** Approximately 0 dB to +12 dB

**Red:** Approximately +12 dB or higher

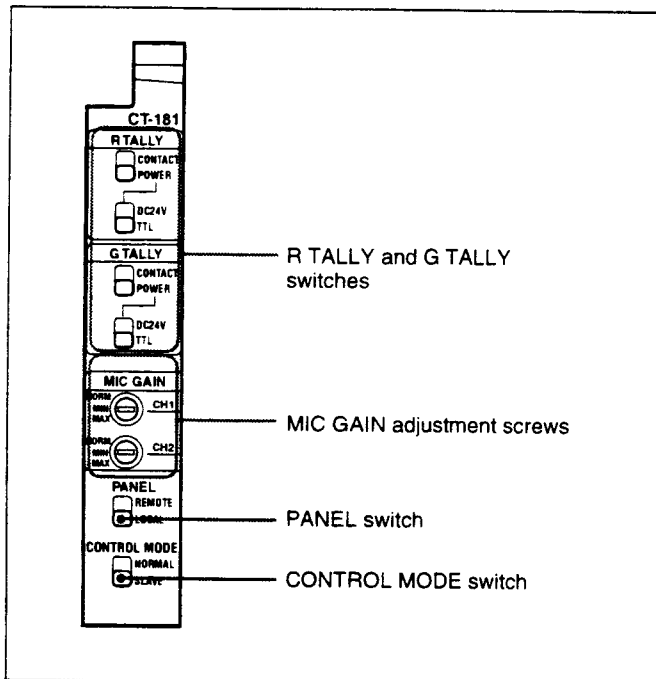
Use these indicators along with the MIC TEST switch to check microphone signal lines or as an adjustment indicator when adjusting the microphone gain with a MIC GAIN adjustment screw on the CT-181 board.

### INTERCOM (intercom system select) switches

Use these switches to select the type of external intercom system to be used. Set the upper switch to 4W if no external intercom is connected.

If you set the upper switch to RTS, select either RTS or CLEARCOM with the lower switch.

### ③ CT-181 board



### R TALLY (red tally) and G TALLY (green tally) switches

Set these switches to CONTACT (to use contact signals) or POWER (to use voltage signals) for the red tally and green tally. If you set them to POWER, select either DC24V or TTL.

### MIC GAIN adjustment screws

Use these screws to adjust the microphone amplifier gain for the camera adaptor. The standard level (NORM) is 0 dB, and the gain setting can be adjusted to any of 16 levels from -12 dB (MIX) to +12 dB. Adjust the gain so that, on the AA-90 board, the green and orange LEVEL IND indicators are lit while the audio level is normal with the red indicator lighting only when the maximum audio level is reached. If the red indicator does not light at all, or if the orange indicator lights only intermittently, raise the gain level. If the red indicator stays lit, lower the gain.

### PANEL (panel control) switch

When the COU-TX7 Camera Operation Unit has been installed on this unit while the RCP-TX7 Remote Control Panel is also connected to the unit, use this switch to select the camera operation unit or the remote control panel as the control device.

**REMOTE:** Enables the video camera to be controlled from the remote control panel.

**LOCAL:** Disables remote control (via the remote control panel) of the video camera.

### CONTROL MODE switch

If another CCU-TX7/TX7P unit is connected to this unit, use this switch to select whether the video camera is controlled directly from this unit or from the other CCU-TX7/TX7P unit.

**NORMAL:** Video camera is controlled directly from this unit.

**SLAVE:** Video camera is controlled from other CCU-TX7/TX7P unit.

This switch does not operate when the RCP-TX7 Remote Control Panel is connected to this unit. In this case, use the remote control panel to make the above selection.

# Notes on Use

## Use and storage locations

Avoid using or storing the unit in the following places:

- Where it is subject to extremes of temperature (operating temperature: 5°C to 40°C (41°F to 104°F)).

Note that in summer the temperature in a car with the windows closed can reach 50°C (122°F).

- Very damp or dusty places.
- Where rain is likely to reach the unit.
- Places subject to severe vibration.
- Near strong magnetic fields
- Near transmitting stations generating strong radio waves.

## Avoid violent impacts

Dropping the unit, or otherwise imparting a violent shock to it, is likely to cause it to malfunction.

## Do not cover with cloth

While the unit is in operation, do not cover it with a cloth or other material. This can cause the temperature to rise, leading to a malfunction.

## After use

Turn the unit off.

## Care

If the body of the unit is dirty, wipe it with a dry cloth. For severe dirt, use a soft cloth steeped in a small amount of neutral detergent, then wipe dry. Do not use volatile solvents such as alcohol or thinners, as these may damage the finish.

# Specifications

## General

### Power requirements

CCU-TX7: 120 VAC, 50/60 Hz  
CCU-TX7P: 220 to 240 VAC, 50/  
60 Hz, 0.45 A  
10.5 to 17.0 VDC

### Power consumption

95 W

Cable length 1500 m max. (diameter: 14.5 mm)

### Operating temperature

5°C to 40°C (41°F to 104°F)

Mass About 8.45 kg (18 lb 10 oz)

Dimensions (w/h/d, excluding protruding parts)

200 × 164 × 370 mm (7 7/8 × 6 1/2 ×  
14 5/8 inches)

## Input connectors

GENLOCK BNC type (2, loop-through)  
VBS/BS, 1.0Vp-p, 75 Ω

RETURN VIDEO 1, 2 BNC type (2 each, loop-through)  
VBS, 1.0 Vp-p, 75 Ω

PROMPT VIDEO BNC type (2, loop-through)  
VBS, 1.0 Vp-p, 75 Ω

PGM IN XLR 3-pin (1)

## Output connectors

VBS1, VBS2 BNC type (1 each)  
VBS, 1.0 Vp-p, 75 Ω

Y/R-Y/B-Y<sup>1)</sup> BNC type (2 each)  
Y: 1.0 Vp-p, 75 Ω  
R-Y/B-Y: 700 mVp-p (CCU-  
TX7)/525 mVp-p (CCU-TX7P),  
75 Ω

R/G/B<sup>1)</sup> BNC type (2 each)  
700 mVp-p, 75 Ω

PIX BNC type (1), 1.0 Vp-p, 75 Ω

WF BNC type (1)  
700 mVp-p, 75 Ω

WF MODE Encoded output: 1.0 Vp-p, 75 Ω  
4-pin (1)

MIC OUT XLR 3-pin (2)  
0 dBu/-20 dBu balanced,  
2 channels

Y/C<sup>1)</sup> BNC type (2 each)  
Y: 1.0 Vp-p, 75 Ω  
C: 286 mV (CCU-TX7)/300 mV  
(CCU-TX7P) (burst), 75 Ω

SYNC BNC type (1)  
0.3 Vp-p, 75 Ω, negative polarity

## Camera control input/output connectors

CAMERA Triaxial (1)

COAX BNC type (1)

REMOTE 10-pin (1)

INTERCOM/TALLY D-sub 25-pin (1)  
4W/2W

TALLY: 24 VDC, TTL level or  
contact signals switchable

RTS XLR 3-pin (2)

RS232C D-sub 25-pin (2)

INTERCOM(on the front panel)  
XLR 5-pin (1)

## Accessories supplied

AC power cord (1)

Power cord plug retainer (1)

Number plates (1 set)

Operation Manual (1)

## Optional accessories

COU-TX7 Camera Operation Unit

RCP-TX7 Remote Control Panel

RMM-TXC7 Rack Mount Bracket

Design and specifications are subject to change  
without notice.

1) Y/R-Y/B-Y, R/G/B, and Y/C outputs are switchable.