

Camera Adaptor

Operating Instructions

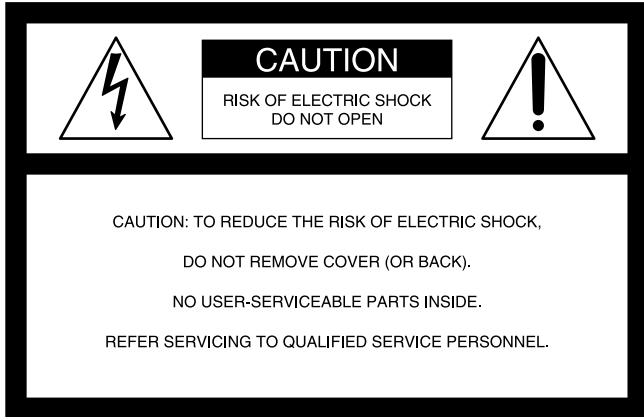
Before operating the unit, please read this manual thoroughly and retain it for future reference.

CA-TX7/TX7P

WARNING

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

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.



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.

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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The CA-TX7/TX7P Camera Adaptor, which is docked with a DXC-D30/D30P or DXC-637 series Color Video Camera, allows connecting the camera to the CCU-TX7/TX7P Camera Control Unit via a triaxial cable.

Component signal transfer method

This unit enables transfer of Y, R–Y and B–Y signals for high picture quality.

Long-distance transfer

The maximum triaxial cable length that can be used to connect this unit to a camera control unit is max. 750 m (when using a Belden ø8.5 mm cable) or 1125 m (when using a Belden ø13.2 mm cable).

Electrical shock prevention function

To prevent electrical shock, this unit shuts off any high-voltage power supply whenever there is an incomplete connection.

Coaxial cable connection

When necessary, this unit can be connected to a camera control unit via a coaxial cable.¹⁾

Variety of input/output connectors

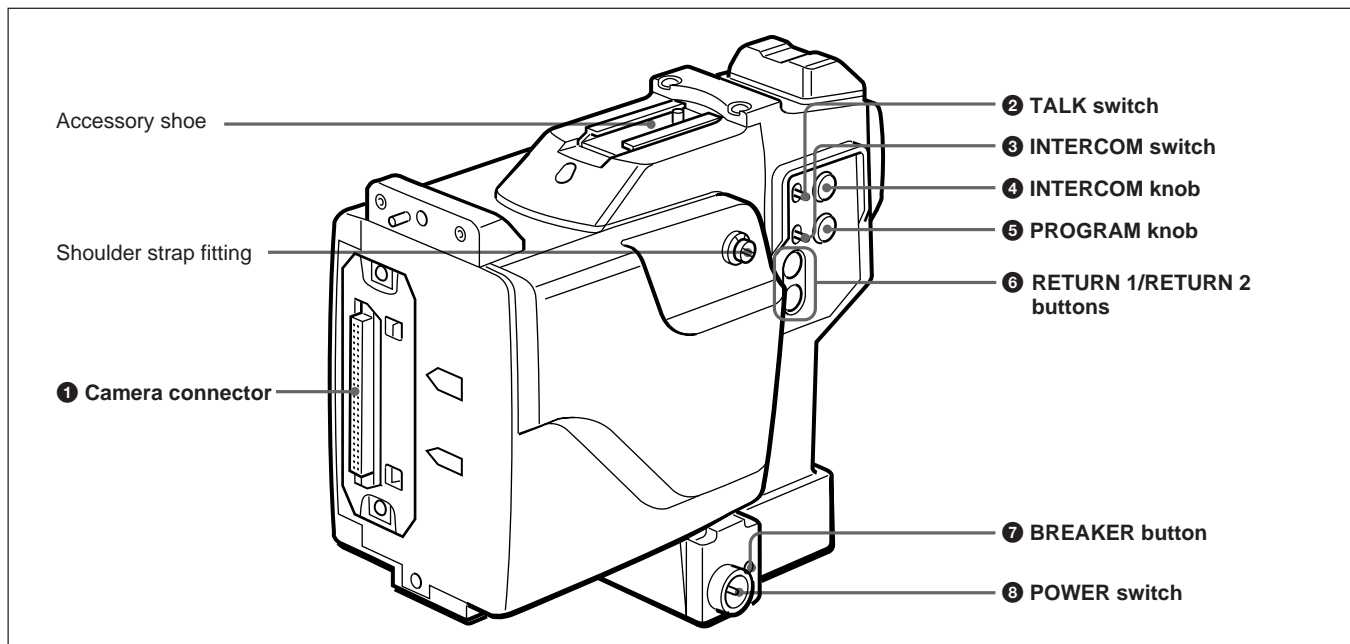
Input/output connectors for the following signals are provided:

- Video signal output for teleprompter
- Return video signal output
- Intercom/program output for connected headset
- Microphone or line-in audio input
- Lens or tripod head control signal output

1) This unit's triaxial connector must be refitted to enable connection of a coaxial cable. Consult your Sony dealer for details.

Location and Function of Parts

Front and Left Side



❶ Camera connector (PRO 76-pin DIGITAL or PRO 50-pin)

Connects to the camera's VTR connector. Two types of connectors are provided and can be replaced according to the camera.

PRO 76-pin DIGITAL: Use this connector for docking with the DXC-D30/D30P digital video cameras.

PRO 50-pin: Use this connector for docking with the DXC-637 series analog video cameras.

For details on replacing these connectors, see "Mounting on video Camera" on page 11.

Note

Use a DXC-D30/D30P with ROM of ver. 1.1 or later. For version check and ROM change, consult your Sony dealer.

❷ TALK switch

Selects whether or not to transfer intercom audio from the camera to the camera control unit.

ON: Transfers intercom audio from camera to camera control unit.

OFF: Do not transfer intercom audio from camera to camera control unit.

REMOTE: Transfers intercom audio from camera to camera control unit only while the VTR START button on camera or lens is being pressed.

❸ INTERCOM switch

Selects the channel for transferring intercom audio.

CH1: Selects CH1 (channel 1).

CH2: Selects CH2 (channel 2).

Note

When the LINE switch on the CCU-TX7/TX7P Camera Control Unit is in the PRIV position, the intercom operates only between the camera and the camera control unit regardless of the INTERCOM switch position.

❹ INTERCOM knob

Adjusts the intercom audio reception level.

When using a DXC-D30/D30P, setting the TALK switch ❷ to REMOTE will enable the audio level knob on the DXC-D30/D30P's front panel to adjust both the intercom audio and program audio levels.

❺ PROGRAM knob

Adjusts the program audio reception level.

When using a DXC-D30/D30P camera, setting the TALK switch ❷ to REMOTE will enable this knob to adjust the balance between the program audio and intercom audio levels. Turn clockwise to raise the program audio level, and turn counterclockwise to raise the intercom audio level.

Location and Function of Parts

⑥ RETURN 1/RETURN 2 buttons

Select the return video signal¹⁾ to be output from the RETURN OUT connector and to the camera's viewfinder.

Press the RETURN 1 or RETURN 2 button to select the return video signal 1 or return video signal 2 from the camera control unit.

To show the shooting picture on the viewfinder screen, release the button. The return video signal which selected last is still output from the RETURN OUT connector if the button is released.

⑦ BREAKER button

The power to this unit is cut off when the circuit breaker is activated by a power source or connection problem. After resolving the problem, press this button to reset the breaker.

If the breaker gets activated even after correcting the connection, contact your Sony dealer.

⑧ POWER switch

Turns this unit's power supply on and off.

To power the unit, set the switch to EXT or CCU according to the type of power source being used.

EXT	Power supplied via an optional CMA-8A/8ACE AC Adaptor connected to the DC IN connector (when this unit is connected to a camera control unit via a coaxial cable)
CCU	Power supplied via camera control unit (when this unit is connected to a camera control unit via a triaxial cable)

Set this to OFF to turn off the power supply.

When this unit is connected to a camera control unit via a triaxial cable, the following functions continue to operate even after the power is turned off.

- Intercom communication
- On/off control of the back tally indicator (when TALLY switch is ON)
- Calling via CALL button

1) Return video: Video signals that are sent from a camera to a camera control unit and returned to the same or another camera so that the camera operators can check the recorded image.

Switches and Knobs on the Rear and Right Side

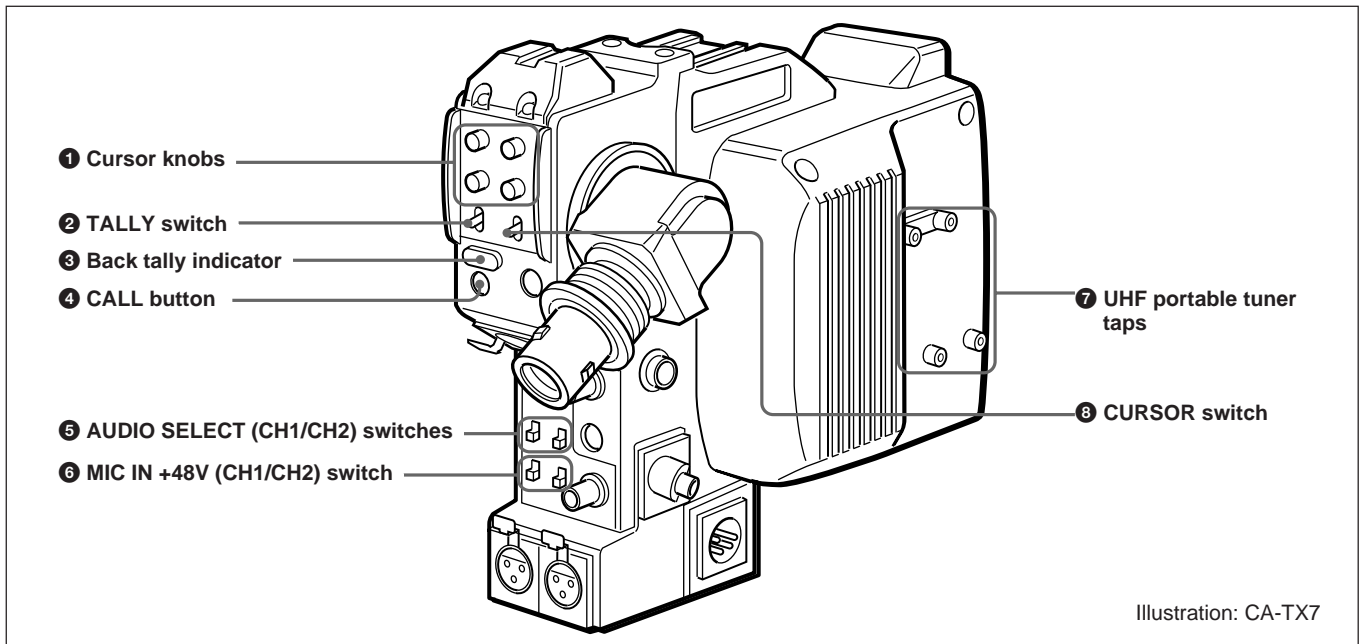


Illustration: CA-TX7

❶ Cursor knobs (for DXC-D30/D30P)

When the CURSOR switch ❸ is set to A or B, this adjusts the position and size of the box cursor that is displayed in the viewfinder of the DXC-D30/D30P.

H-POSITION: Adjusts the horizontal position of the box cursor.

V-POSITION: Adjusts the vertical position of the box cursor.

WIDTH: Adjusts the width of the box cursor.

HEIGHT: Adjusts the height of the box cursor.

❷ TALLY switch

Set this switch to the ON position to activate the back tally indicator ❸.

❸ Back tally indicator (red)

When the TALLY switch ❷ is in the ON position, this indicator lights (in red) in response to this unit's operating status. It also lights when the CALL button on the camera control unit or remote control panel has been pressed.

❹ CALL button

Press this button to call the operator of the camera control unit or remote control panel. Pressing this button lights the tally indicator (red) on the camera control unit, on the remote control panel, and in the camera's viewfinder. This unit's back tally indicator ❸ also lights if the TALLY switch ❷ is in the ON position.

❺ AUDIO SELECT (CH1/CH2) switches

Select the source for signals to be transferred via the camera control unit's channel 1 and channel 2.

CAMERA: Transfers audio from a microphone on the camera to the camera control unit.

CA-MIC: Transfers audio from a microphone connected to this unit's MIC IN (CH1/CH2) connector to the camera control unit.

CA-LINE: Transfers audio from a line output connected to this unit's MIC IN (CH1/CH2) connector to the camera control unit.

Location and Function of Parts

⑥ MIC IN +48V (CH1/CH2) switch

Selects whether or not to supply power to a microphone connected via the MIC IN CH1 and CH2 connectors.

ON: Supplies +48-V power to microphone.

OFF: Do not supply power to microphone.

Leave this switch in the ON position when using a microphone of phantom powering¹⁾ type.

⑦ UHF portable tuner taps

When using an optional WRR-810A UHF Portable Tuner, attach the holder and bracket (supplied with the WRR-810A) for the portable tuner mounting adapter.

For details of attaching and using the WRR-810A, see the Operating Instructions for the WRR-810A.

⑧ CURSOR switch (for DXC-D30/D30P)

Selects whether or not to display a box cursor in the DXC-D30/D30P Color Video Camera's viewfinder.

B: Displays box cursor B.

A: Displays box cursor A.

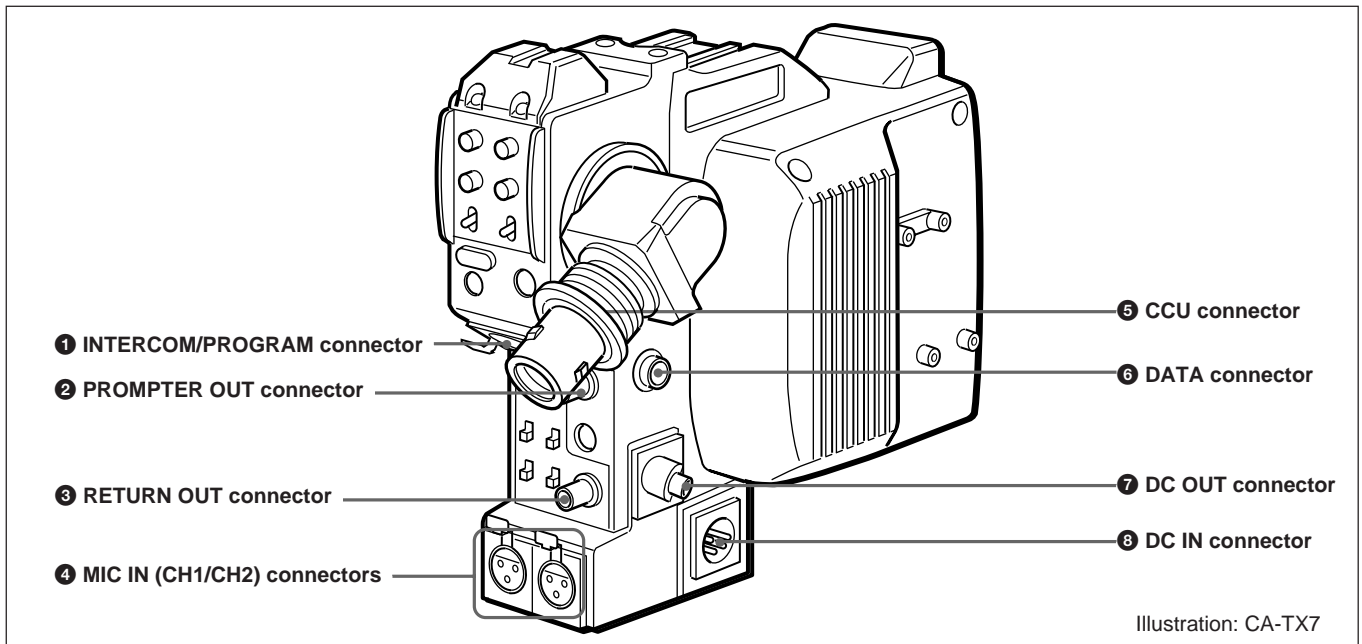
OFF: No box cursor is displayed.

Note

No cursor is displayed in the viewfinder when using a DXC-637 series camera.

1) Phantom powering: Powering method for operating condenser microphones by supplying power via a bias power source and an amplifier. Because no DC voltage is present in the audio channel, it is called "phantom powering".

Connectors on the Rear and Right Side



1 INTERCOM/PROGRAM connector (XLR 5-pin, male)

Connect a headset for monitoring intercom audio or program audio. Normally, a monaural (one-side) headset should be connected.

An internal adjustment can be made to enable both sides of the headset to receive audio, with intercom audio on the left side and program audio on the right side.

Contact your Sony dealer for further information on this internal adjustment.

2 PROMPTER OUT (teleprompter video signal output) connector (BNC type)

Outputs teleprompter video signals¹⁾ from the camera control unit. (This unit can treat color teleprompter video signals.)

If you have made the internal adjustment to change the teleprompter video signal transfer direction so that signals are transferred from this unit to the camera control unit, this connector becomes the input connector for teleprompter video signals.

Contact your Sony dealer for further information on the internal adjustment to change the teleprompter video signal transfer direction.

3 RETURN OUT (return video signal output) connector (BNC type)

Outputs return video signals from a camera control unit. Use the RETURN 1 and RETURN 2 buttons to switch between the two return video signals.

4 MIC IN (CH1/CH2) (MIC inputs, channel 1 and channel 2) connectors (XLR 3-pin, female)

Connect external microphones or other equipment as sources for audio to be transferred to the camera control unit's channel 1 or 2.

Set the AUDIO SELECT (CH1/CH2) switch to select the channel for the connected equipment.

1) Teleprompter video signals: Video signals for prompter which displays scripts in the television monitor by the camera lens or on the face of a one-way mirror

positioned directly in front of the camera lens so that performers can read scripts while looking into the camera lens.

Location and Function of Parts

⑤ CCU (Camera control unit) connector (CA-TX7: Kings triaxial connector, CA-TX7P: Fischer triaxial connector)

Connect a camera control unit via a triaxial cable. In addition to supporting signal transmission between this unit and the connected camera control unit, the triaxial cable enables this unit to receive its power supply via the camera control unit.

Using a coaxial cable to connect the camera control unit

The CCU connector must be refitted to enable connection of a coaxial cable. Note that connecting a coaxial cable makes it impossible for this unit to receive power from the camera control unit. Use a CMA-8A/8ACE AC Adaptor for AC power sources.

Contact your Sony dealer for more information on refitting the CCU connector.

⑥ DATA connector (10-pin)

Outputs control signals for the lens (focus or zoom control) and the tripod head (panning or tilting) that are sent from a remote control panel connected to the camera control unit.

For further information about using this connector, consult your Sony dealer.

⑦ DC OUT connector (4-pin)

Use this connector when supplying power (DC 12V, Max. 12 W) to a WRR-810A UHF Portable Tuner (supplied separately) or an LCD teleprompter unit.

Note

Never connect a unit that has a power consumption rating of more than 12 W.

⑧ DC IN connector (XLR 4-pin)

When connecting this unit to a camera control unit via a coaxial cable, use this connector for a CMA-8A/8ACE AC Adaptor (supplied separately). Use the CCQX-3 DC power cord to connect the CMA-8A/8ACE to this unit.

Mounting on Video Camera

This unit is dockable with the DXC-D30/D30P digital video camera or with a DXC-637 series analog video camera.

Replace the camera connector according to the camera to be used.

Using a DXC-D30/D30P : Use the PRO 76-pin DIGITAL connector.

Using a DXC-637 series camera : Use the PRO 50-pin connector.

Note

Turn the POWER switch off before mounting the unit on the camera.

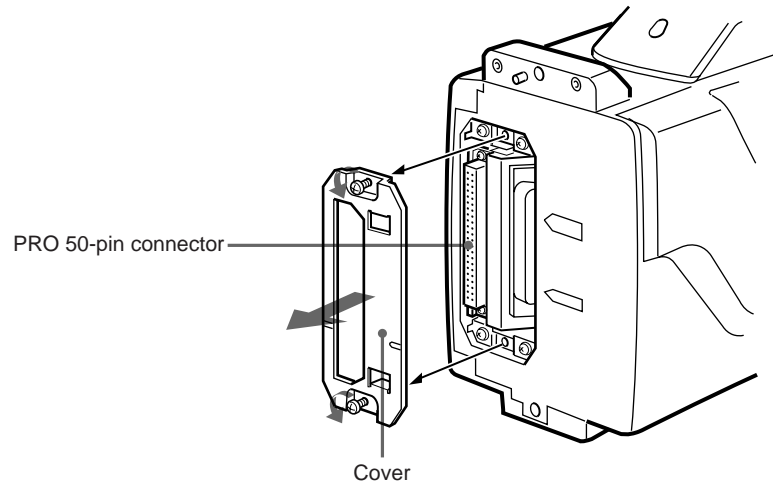
Using the DXC-D30/D30P

Replace the PRO 50-pin connector with the PRO 76-pin DIGITAL connector.

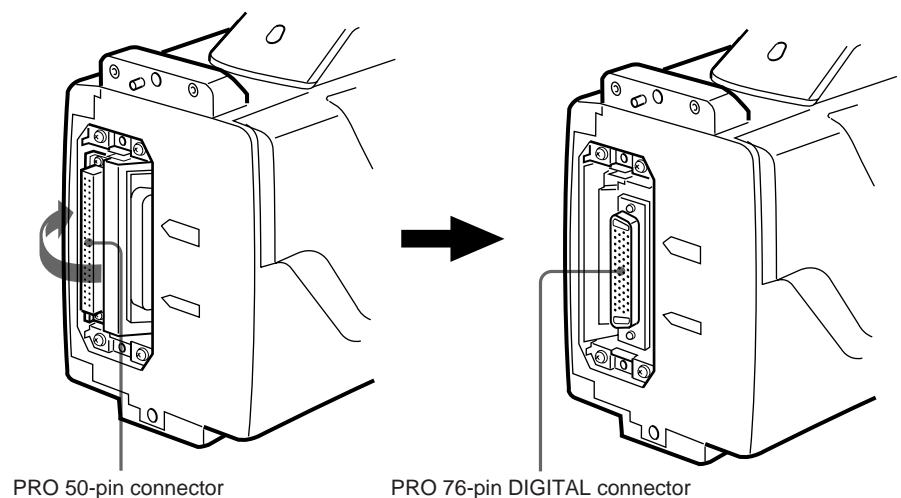
- 1 Loosen the two screws (M3) and remove the cover from the PRO 50-pin connector.

Note

Never loosen the other screws.



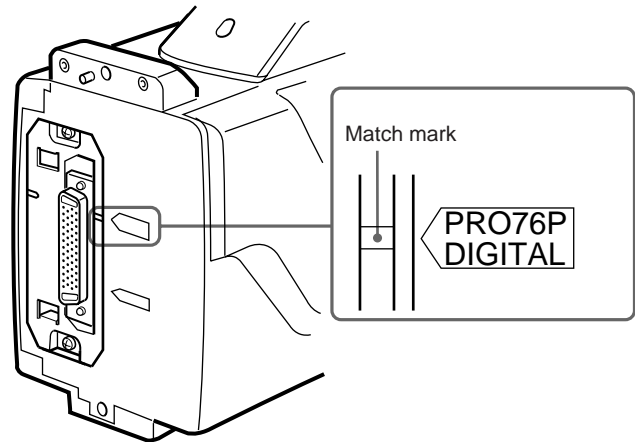
- 2 Press the right side of the PRO 50-pin connector until the PRO 76-pin DIGITAL connector appears. The both connectors swing to switch the positions by pressing either of them.



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Mounting on Video Camera

- 3 Attach the cover upside down. Make sure that the match mark lines up with “PRO 76P DIGITAL” indication.



Using the DXC-637 series camera

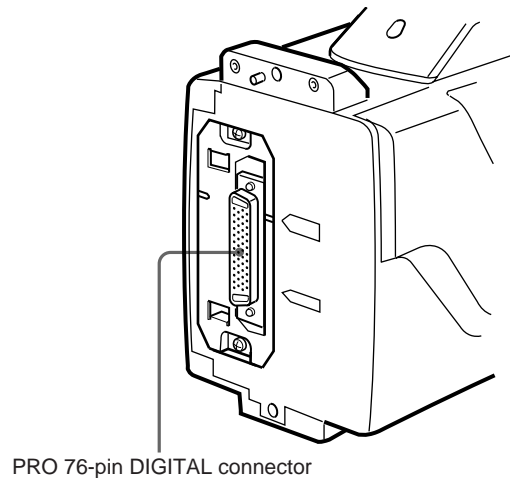
Replace the PRO 76-pin DIGITAL connector with the PRO 50-pin connector. Press the left side of the PRO 76-pin DIGITAL connector until the PRO 50-pin connector appears. Make sure that the match mark lines up with “PRO 50P” indication.

Mounting on the camera

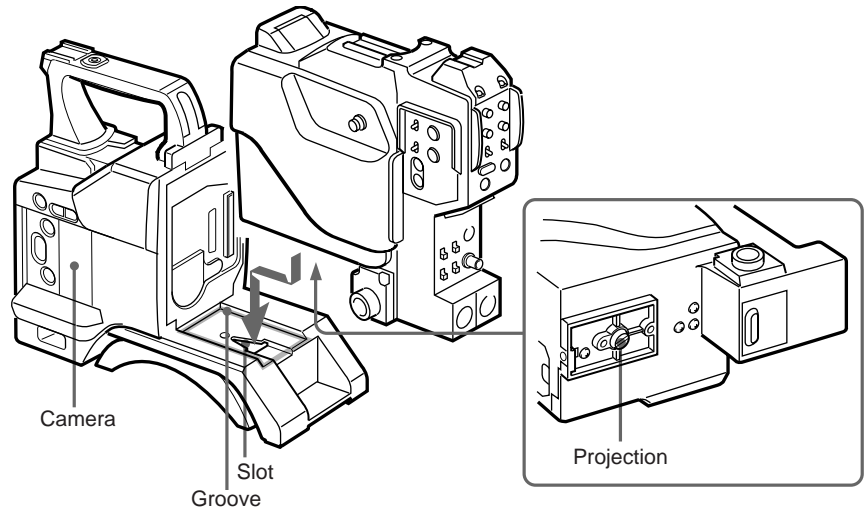
This section describes the procedure for mounting this unit on a DXC-D30/D30P. Use the same procedure for mounting on a DXC-637 series camera. (Replace the PRO 76-pin DIGITAL connector with the PRO 50-pin connector.)

- 1 If necessary, replace the PRO 50-pin connector with the PRO 76-pin DIGITAL connector.

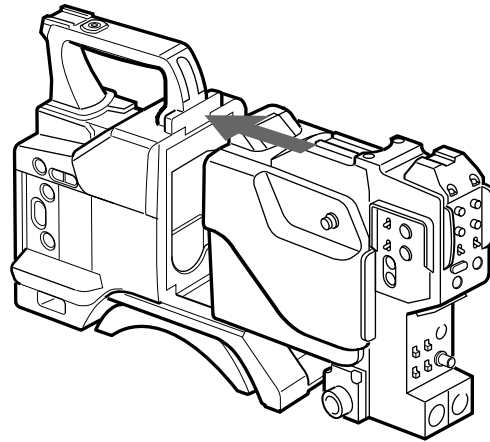
For details, see “Using the DXC-D30/D30P” (page 11).



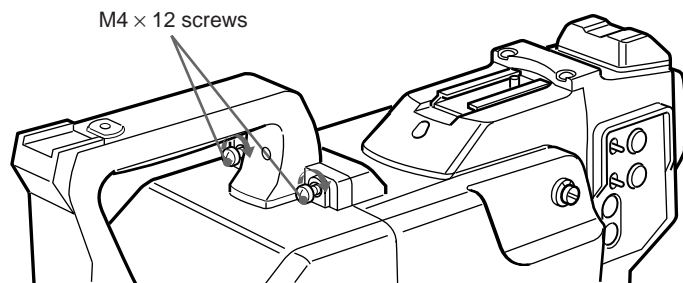
-
- 2** Fit the projection on the bottom of this unit into the slot on the camera.



- 3** Slide the unit along the groove on the camera, and press firmly until fixed.



- 4** Tighten the two screws (M4 × 12) in the figure.



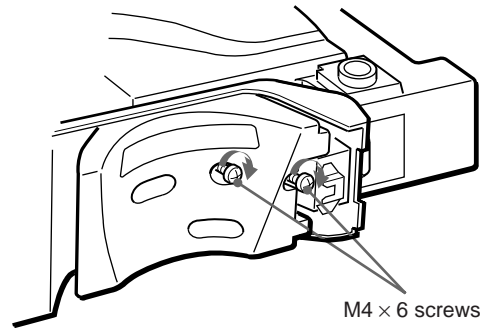
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Mounting on Video Camera

- 5** Tighten the two screws (M4 × 6) to fix the shoulder pad.

Note

Slide the shoulder pad to its central position before tightening the screws. Otherwise the screws may not be properly fixed.



Removing from the camera

Follow the procedure above in reverse.

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: -10°C to $+45^{\circ}\text{C}$ (14°F to 113°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 POWER switches on the unit and camera control 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

When supplied via the CCU connector: 120 V AC
 When supplied via the DC IN connector: 12 V DC (10.5 to 17 V DC)

Power consumption

Varies according to connected equipment as shown in the following tables¹⁾:

When power is supplied via the CCU connector

	Power consumption	
	CA-TX7/TX7P	CA-TX7/TX7P and connected equipment
CA-TX7/TX7P	10.5 W	
CA-TX7/TX7P+DXC-D30/D30P	11 W	23.7 W
CA-TX7/TX7P+DXC-D30/D30P+DXF-701/701CE	11.2 W	26 W
CA-TX7/TX7P+DXC-D30/D30P+DXF-51/51CE	12.3 W	35 W
CA-TX7/TX7P outputting 12 W from the DC OUT connector+DXC-D30/D30P+DXF-51/51CE	13.3 W	48 W

When power is supplied via the DC IN connector

	Power consumption	
	CA-TX7/TX7P	CA-TX7/TX7P and connected equipment
CA-TX7/TX7P	7.5 W	
CA-TX7/TX7P+DXC-D30/D30P	7.5 W	20.2 W
CA-TX7/TX7P+DXC-D30/D30P+DXF-701/701CE	7.5 W	22.3 W
CA-TX7/TX7P+DXC-D30/D30P+DXF-51/51CE	7.5 W	30.2 W
CA-TX7/TX7P outputting 12 W from the DC OUT connector+DXC-D30/D30P+DXF-51/51CE	7.5 W	42.2 W

Operating temperature

-10°C to +45°C (14°F to 113°F)

Operating humidity

20% to 90%

Storage temperature

-20°C to +60°C (-4°F to 140°F)

Mass

Approx. 2.7 kg (5 lb 15 oz)

External dimensions

226 × 221 × 131 mm (9 × 8³/₄ × 5¹/₄ inches) (w/h/d)

1) The power consumption indicated on the name plate of the unit is total consumption of the CA-TX7/TX7P outputting 12 W from the DC OUT connector, DXC-D30/D30P, and DXF-51/51CE.

Specifications

Input/output connectors

CCU	CA-TX7: Kings triaxial connector (made by Lemo) CA-TX7P: Fischer triaxial connector
PROMPTER OUT	BNC, 1.0 V _{p-p} , 75 Ω
RETURN OUT	BNC, 1.0 V _{p-p} , 75 Ω
INTERCOM/PROGRAM	XLR 5-pin Input level: -60 dBs (dynamic) Output level: -∞ to +12 dBs
MIC IN 1,2	XLR 3-pin, female, 600 Ω, balanced Input level: -60 dB (for microphone input) or -20 dB (for line input)
DC IN	XLR 4-pin, 10.5 to 17 V DC
DC OUT	4-pin, 10.5 to 17 V DC, max. 12 W
DATA	10-pin Analog: 0 to 5 V DC × 4 Digital: 0 or 5 V DC × 2
Camera connector	PRO 76-pin DIGITAL or PRO 50- pin

Accessories supplied

Operating instructions (1)

Accessories not supplied

Triaxial cable (Belden)
CCQX-3 DC Power Cord
CMA-8A/8ACE AC Adaptor
WRR-810A UHF Portable Tuner

Design and specifications are subject to change
without notice.