

SONY[®]

HD DIGITAL VIDEOCASSETTE RECORDER

SRW-5800

HDCAM SR[™] **HDCAM**

 **Tele-File** 

INSTALLATION MANUAL

1st Edition

Serial No. 10001 and Higher

⚠ 警告

このマニュアルは、サービス専用です。

お客様が、このマニュアルに記載された設置や保守、点検、修理などを行うと感電や火災、人身事故につながる可能性があります。

危険をさけるため、サービストレーニングを受けた技術者のみご使用ください。

⚠ WARNING

This manual is intended for qualified service personnel only.

To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠ WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.

Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠ AVERTISSEMENT

Ce manuel est destiné uniquement aux personnes compétentes en charge de l'entretien. Afin de réduire les risques de décharge électrique, d'incendie ou de blessure n'effectuer que les réparations indiquées dans le mode d'emploi à moins d'être qualifié pour en effectuer d'autres. Pour toute réparation faire appel à une personne compétente uniquement.

Attention-when the product is installed in Rack:

1. Prevention against overloading of branch circuit

When this product is installed in a rack and is supplied power from an outlet on the rack, please make sure that the rack does not overload the supply circuit.

2. Providing protective earth

When this product is installed in a rack and is supplied power from an outlet on the rack, please confirm that the outlet is provided with a suitable protective earth connection.

3. Internal air ambient temperature of the rack

When this product is installed in a rack, please make sure that the internal air ambient temperature of the rack is within the specified limit of this product.

4. Prevention against achieving hazardous condition due to uneven mechanical loading

When this product is installed in a rack, please make sure that the rack does not achieve hazardous condition due to uneven mechanical loading.

5. Install the equipment while taking the operating temperature of the equipment into consideration

For the operating temperature of the equipment, refer to the "1-3. Operating Conditions" in this manual.

6. When performing the installation, keep the following space away from walls in order to obtain proper exhaust and radiation of heat.

Right, Left: 4 cm (1.6 inches) or more
Rear: 10 cm (4 inches) or more

When using a Ethernet cable:

For safety,do not connect to the connector for peripheral device wiring that might have excessive voltage.

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Manual Structure

Purpose of this manual

This manual is the installation manual of the HD Digital Videocassette Recorder SRW-5800.

This manual is intended for use by trained system and service engineers, and provides the information that is required to install (environment, connection information, initial setting, etc.) and the setting check sheet.

Related manuals

Besides this “installation manual”, the following manuals are available for this unit. If these manuals are required, please contact your local Sony Sales Office/Service Center.

- **Operation Manual (PDF) (Supplied with this unit. (CD-ROM))**

This manual is necessary for application and operation (and installation) of this unit.

- **Maintenance Manual (Available on request)**

Volume 1 : Service Instruction

Volume 2 : Parts List, Block Diagrams, and Board Layouts

Volume 3 : Schematic Diagrams

These manuals describe the maintenance and service information (service overview, adjustments, board layouts, schematic diagrams, detailed parts list, etc.) for this unit.

- **Protocol Manual of Remote (9-pin) Connector (Available on request)**

This manual explains the protocol for controlling the VTR via the RS-422A (9-pin serial remote).

- **Interface Manual of Parallel I/O (50-pin) Connector (Available on request)**

This manual explains the protocol for controlling the VTR via the parallel (50-pin).

- **“Semiconductor Pin Assignments” CD-ROM (Available on request)**

This “Semiconductor Pin Assignments” CD-ROM allows you to search for semiconductors used in Broadcast and Professional equipment.

This manual (Volume 2) contains a complete list of semiconductors and their ID Nos., and thus should be used together with the CD-ROM.

Part number: 9-968-546-06

Trademark

Registered trademark used in this manual is as follows.

- Ethernet is a registered trademark of Xerox Corporation.

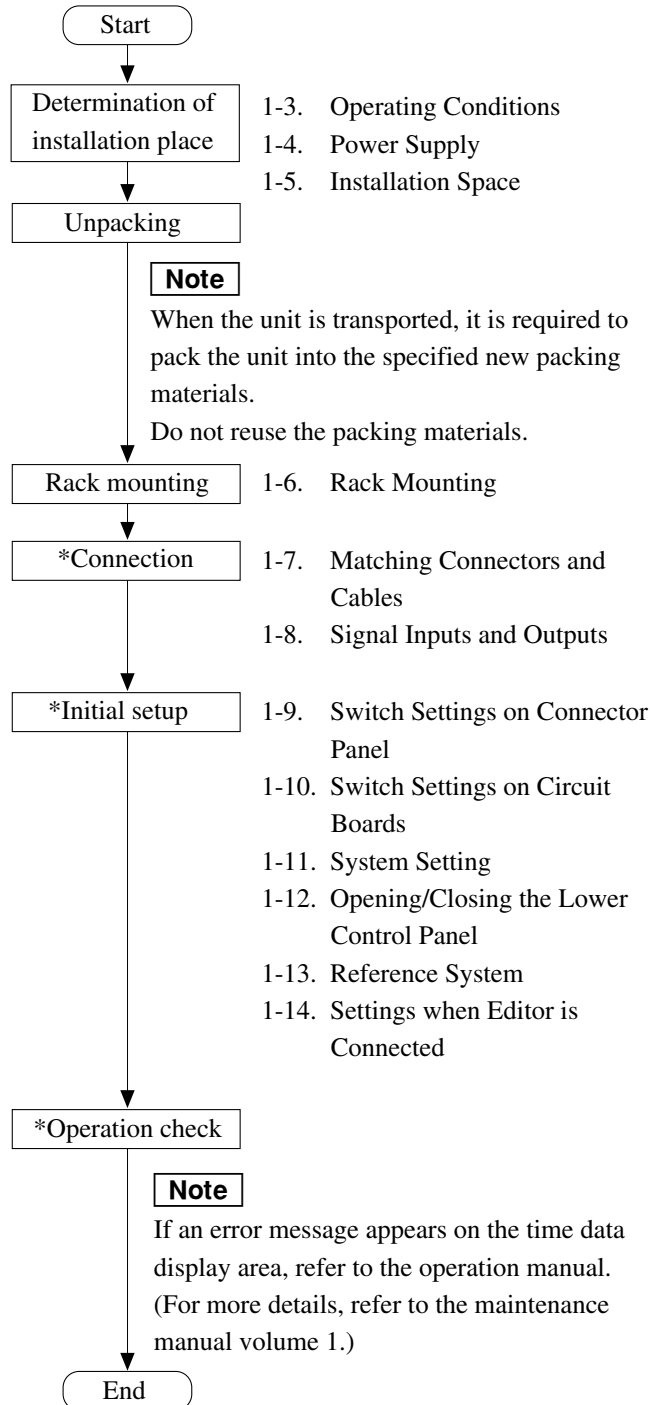
Section 1 Installation

1-1. Installation Procedure

Installation procedure of this unit is shown on the following flowchart.

Refer to each section about detail of each flow.

The operation manual is also required to do *-marked flow.



1-2. Supplied Accessories

Operation manual CD-ROM (PDF)	1
Installation manual	1

1-3. Operating Conditions

CAUTION

Good air circulation is essential to prevent internal heat build-up. Place the unit in location with sufficient air circulation.

Do not block the ventilation holes of the cabinet and the front and rear panels.

Operating temperature: 5 °C to 40 °C

Operating humidity: 25 % to 80 % (non-condensing)

Storage temperature: -20 °C to 60 °C

Locations to avoid:

- Areas where the unit will be exposed to direct sunlight of any other strong lights.
- Areas near heat sources.
- Dusty areas or areas subject to vibration.
- Areas with strong magnetic field.
- Areas with much electrical noise.
- Areas with much static electricity.
- Areas that is impossible to find a specified room for installation. (Refer to “1-5. Installation Space”.)
- Areas windtight.

Tilt allowance: Within 30° (Do not slant the front and rear of the unit more than 30°.)

CAUTION

Fix the unit securely to avoid drop when the unit is operated at not-horizontal place.

1-4. Power Supply

1-4-1. Voltage and Power Requirements

This unit's power line has a switching regulator.

CAUTION

Be sure to operate the unit within the range of following power voltage.

Power voltage: AC 100 to 240 V \pm 10 %
Power frequency: 50 Hz or 60 Hz
Power consumption: Maximum 380 W
(With all of the presumed optional kits.)

Note

The power consumption becomes the maximum at record-starting.

Rush current: Power voltage 100 V IN: 17 A
Power voltage 240 V IN: 54 A

Note

AC power supply is required a capacity which is commensurate with rush current.

If the capacity of the AC power supply is not enough, the breaker of AC power of a supply side may operate or this unit may not operate normally.

1-4-2. Recommended Power Cord

This unit does not come with a power cord.

To get a power cord, please contact your local Sony Sales Office/Service Center.

WARNING

- Use the approved Power Cord (3-core mains lead)/Appliance Connector/Plug with earthing-contacts that conforms to the safety regulations of each country if applicable.
- Use the Power Cord (3-core mains lead)/Appliance Connector/Plug conforming to the proper ratings (Voltage, Ampere).

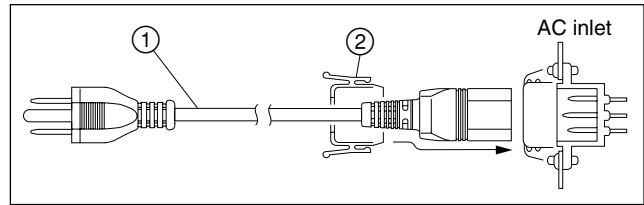
If you have questions on the use of the above Power Cord/ Appliance Connector/Plug, please contact your local Sony Sales Office/Service Center.

WARNING

- Never use an injured power cord.

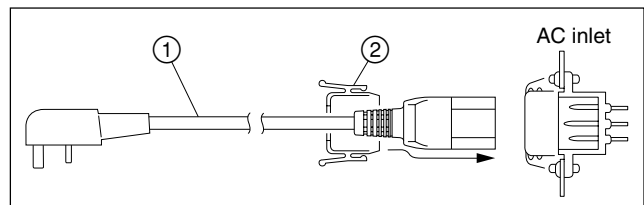
For customers in the U.S.A. and Canada:

- ① Power cord 125 V 10 A (2.4 m): Δ 1-557-377-11
- ② Plug holder (Brown): 3-613-640-01



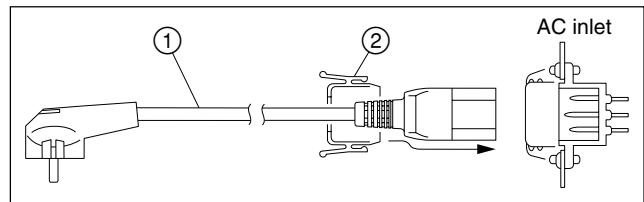
For customers in the United Kingdom:

- ① Power cord 250 V 10 A (2.4 m): Δ 1-782-165-11
- ② Plug holder (Brown): 3-613-640-01



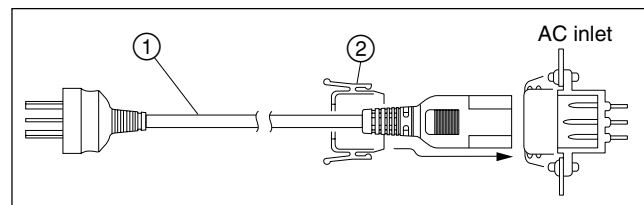
For customers in European countries except the United Kingdom:

- ① Power cord 250 V 10 A (2.0 m): Δ 1-551-631-00
- ② Plug holder (Brown): 3-613-640-01



For customers in the China:

- ① Power cord 250 V 10 A (1.8 m): Δ 1-783-481-41
- ② Plug holder (Brown): 3-613-640-01



If the unit is used in the area except above, please contact your local Sony Sales Office/Service Center.

1-5. Installation Space

When installing, the installation space must be secured in consideration of the ventilation and service operation.

- Do not block the ventilation slots at the left side and right side panels, and vents of the fans.
- Leave a space around the unit for ventilation.
- Leave more than 40 centimeters of space in the rear of the unit to secure the operation area.

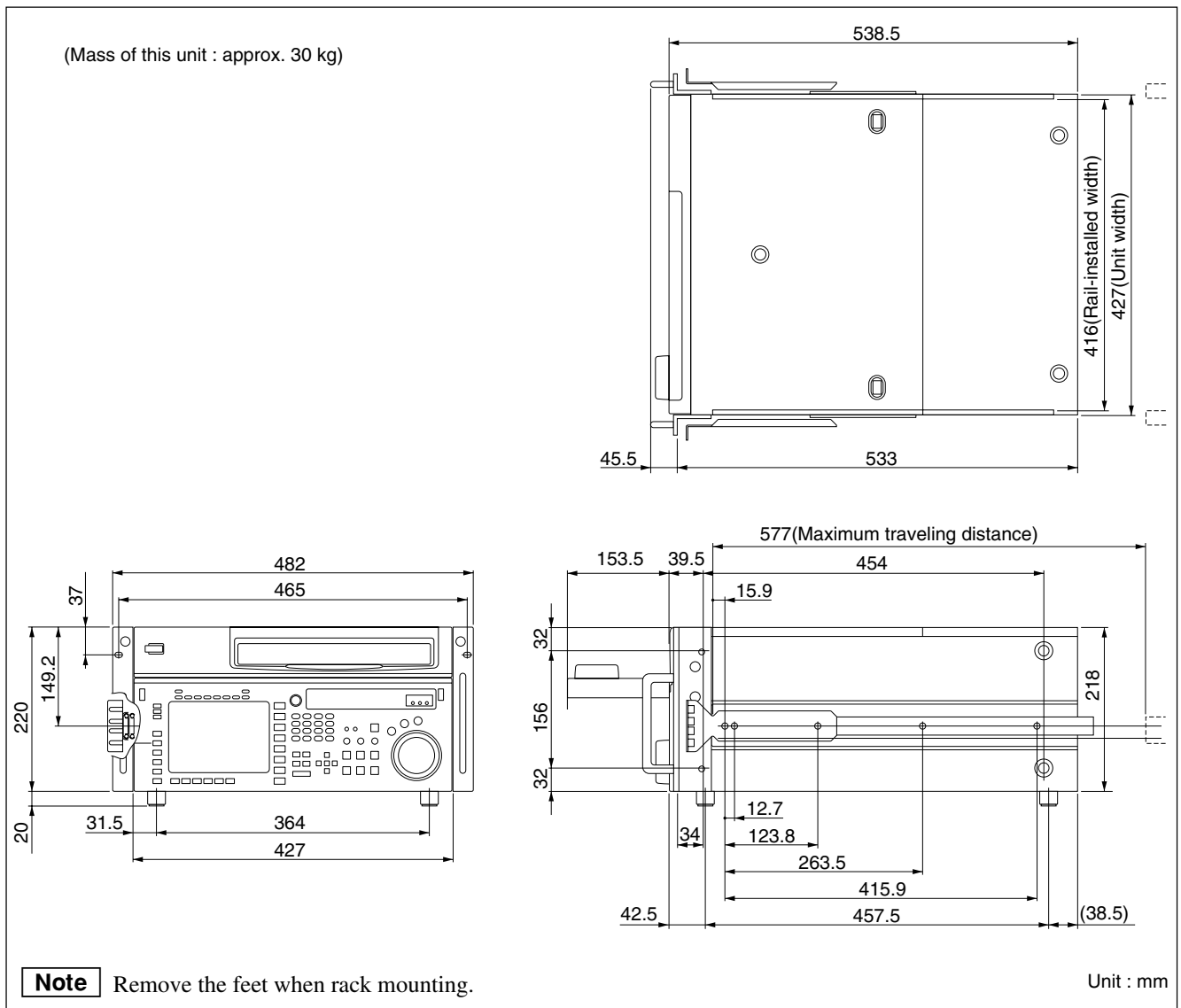
When the unit is installed on the desk or the like, leave at least four centimeters of space in the left and right sides.

Leaving 40 centimeters or more of space above the unit is recommended for service operation.

Moreover, an air flow that is effective in cooling the unit is essential. If the ventilation is not enough, the unit may be damaged because of an increase of the internal temperature.

Note

This unit is air-cooled by the fans. The operation with the upper lid is removed affects the air cooling by the fans. Complete the work in a short time as possible when operating the unit for inspection with the upper lid removed. If it takes a long time, blow to the unit by an electric fan to cool the unit.



Dimensions when Rack-Mounting

1-6. Rack Mounting

Explains how to mount this unit into a 19-inch standard rack.

Be sure to mount this unit into a rack accurately following the procedure and notes mentioned below.

WARNING

- To prevent toppling over the rack, fix it on the horizontal and firm floor securely with bolts, etc.
- When installing the unit in an Outside Broadcasting van, be sure to fix the unit to the rack using the screws and ornamental washers supplied with the rack mount kit.

CAUTION

- Use the specified rack mount rail.
The use of other rail of low strength may drop the unit and cause the risk of injury.
- Mount the unit into a rack with a steady posture.

Notes

- When other equipment with built-in hard disk drive is already mounted in the same rack for mounting this unit, turn off the power of the equipment before mounting this unit.
- Connect long enough cables on the connector panel, considering that the unit is pulled out from the rack.
- Do not operate this unit without the upper lid and bottom plate except when servicing it.
- To reduce an increase in the internal temperature of this unit, keep the following space away from walls.
Right, Left: 4 cm (1.6 inches) or more
Rear: 10 cm (4 inches) or more
- Adjust the temperature inside the rack within the range of the unit's operating temperature.
(Refer to Section 1-3.)

Specified Rack Mount Kit

RMM-110 (Optional accessory) or
RMM-111 (Optional accessory)

The color of rack angle of RMM-110 fits to the unit.
RMM-111 is the same consistency, strength and dimension as RMM-110, but the color of rack angle is different.

Notes

- When mounting this unit into Sony LMS (Library Management System) VTR console, it is necessary to modify the VTR console.
- When mounting this unit into Flexicart, be sure to use the specified kit below.
VTR Mounting Kit: BKFC-53/3

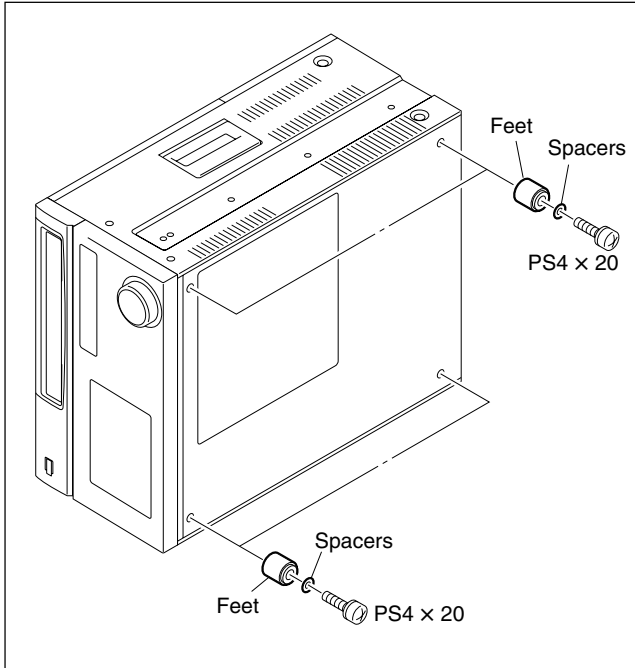
Parts Packed in RMM-110/111

- Slide rails 2
- Rack angles (handles) 2
- Rail brackets 4
- Plate nuts (large) 4
- Plate nuts (small) 4
- Screws (PSW4 × 16) 4
- Screws (B4 × 8) 8
- Hexagon socket head cap screws 8
- Flat washers 8
- Screws (RK5 × 14) 2
- Ornamental washers 2
- L-shaped hexagon wrench 1

Rack Mounting Procedure

• Removing the feet

1. Set the unit its side panel down.
2. Unscrew the four screws to remove the feet and spacers from the bottom plate of the unit.
3. Set the unit in a horizontal position.

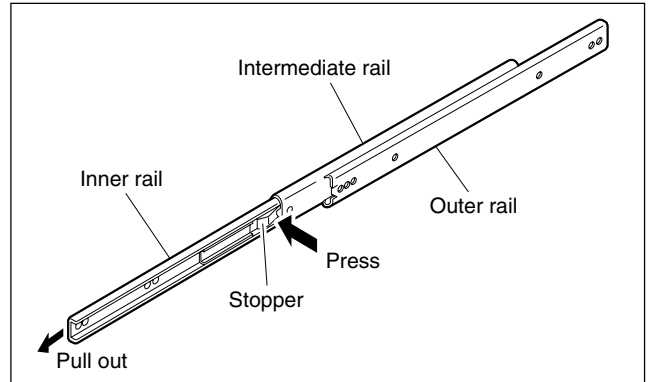


Note

Keep these screws, spacers and the feet.
When operating the unit after demounting it from the rack, be sure to reattach the feet.
Tightening torque: $98 \times 10^{-2} \text{ N}\cdot\text{m}$ {10 kgf·cm}

• Attaching the inner rails

4. Pull each inner rail from the two intermediate rails.
5. Pull each inner rail out of the intermediate rails while pressing each stopper.

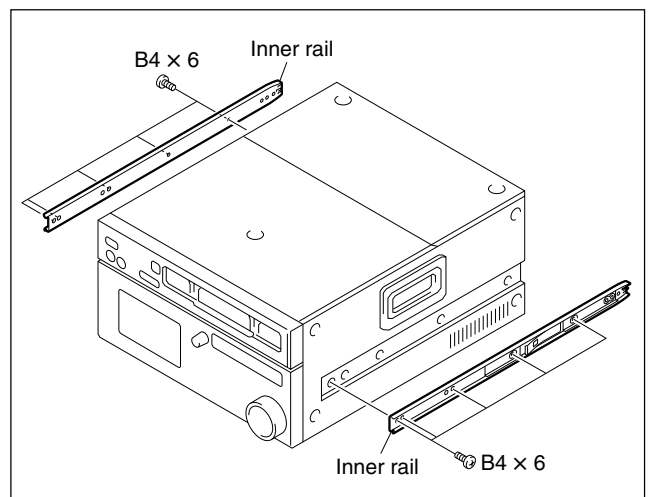


6. Remove the ten screws from both sides (left and right) of the unit as shown in the figure below.
7. Attach the two inner rails to both sides (left and right) of unit with the removed screws in the step 6.

Tightening torque: $120 \times 10^{-2} \text{ N}\cdot\text{m}$ {12.2 kgf·cm}

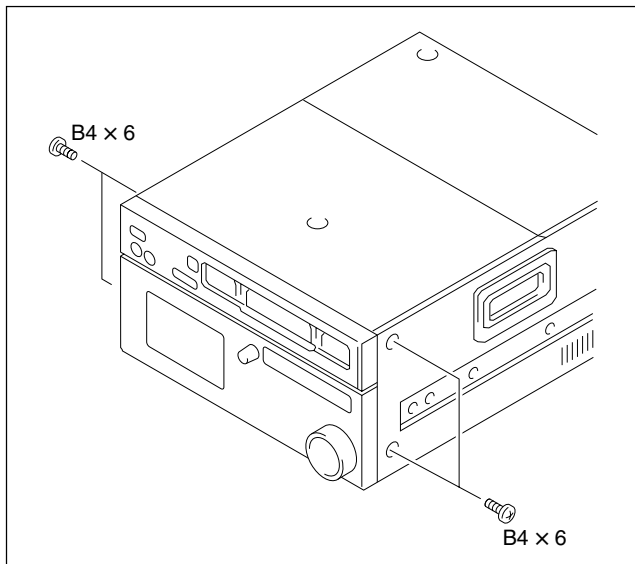
Notes

- Be sure to use the (B4 x 6) screws when attaching the inner rail. The use other-sized screws may cause a malfunction.
- Pay attention not to fasten the screws to the screw holes other than actually used screw holes for fixing the inner rails on both sides of the unit. If unnecessary screws are fastened, rack mounting will be unenabled.



• **Attaching the rack angles (handles)**

8. Remove the four screws from both sides (left and right) of the unit.



Note

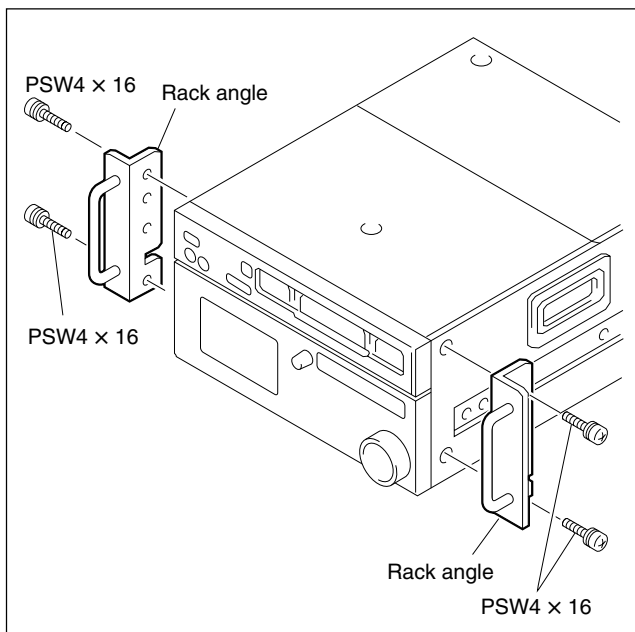
Keep these screws (B4 x 6).

Be sure to use these screws when directly fixing the side panels without the rack angles.

The use of longer screws such as the screws (PSW 4 x 16) for fixing the rack angles will cause a malfunction of the unit.

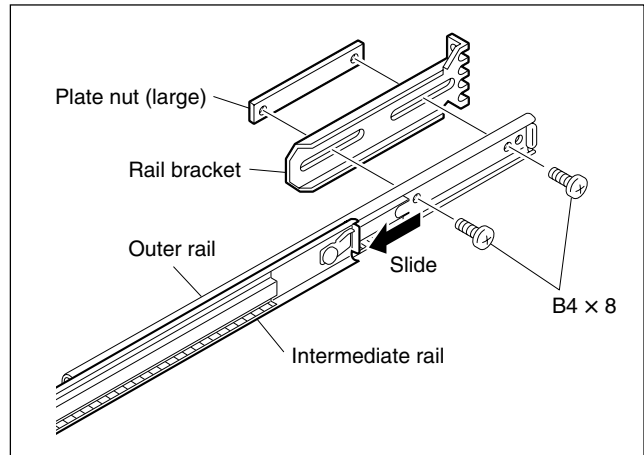
9. Attach the two rack angles to both sides (left and right) of the unit with the four screws (PSW4 x 16) supplied with the rack mount kit.

Tightening torque: $120 \times 10^{-2} \text{ N}\cdot\text{m}$ {12.2 kgf·cm}

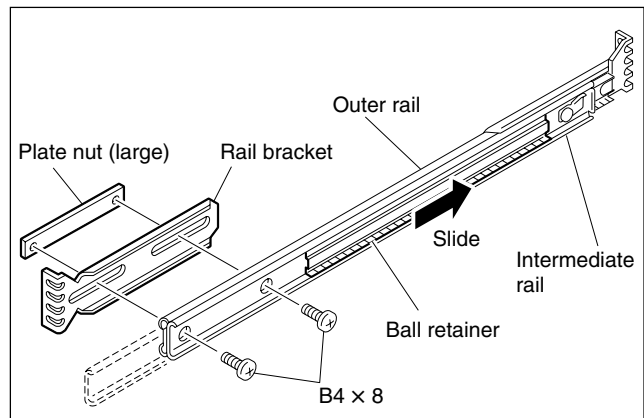


• **Loosely attaching the rail brackets**

10. Slide the intermediate rail as shown in the figure, and then loosely attach the rear rail bracket to the outer rail with a plate nut (large) and the two screws.

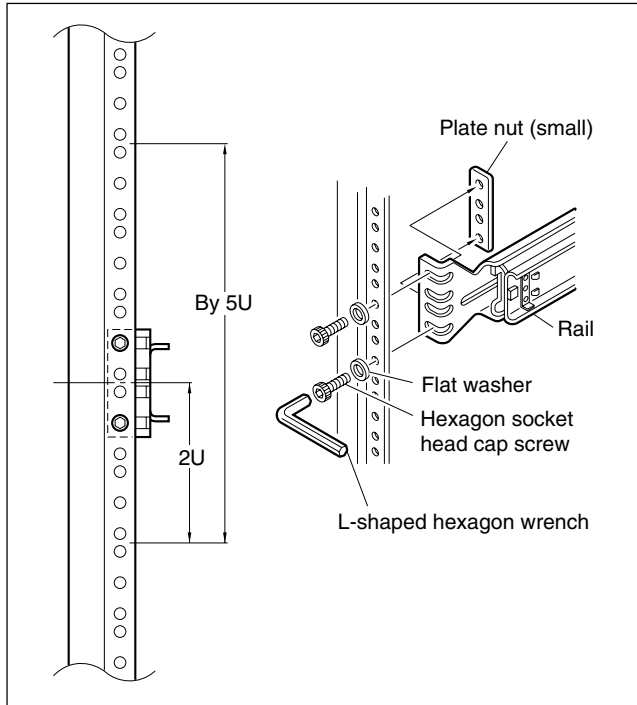


11. Slide the ball retainer in the direction of the arrow, and then loosely attach the front rail bracket to the outer rail with a plate nut (large) and the two screws.

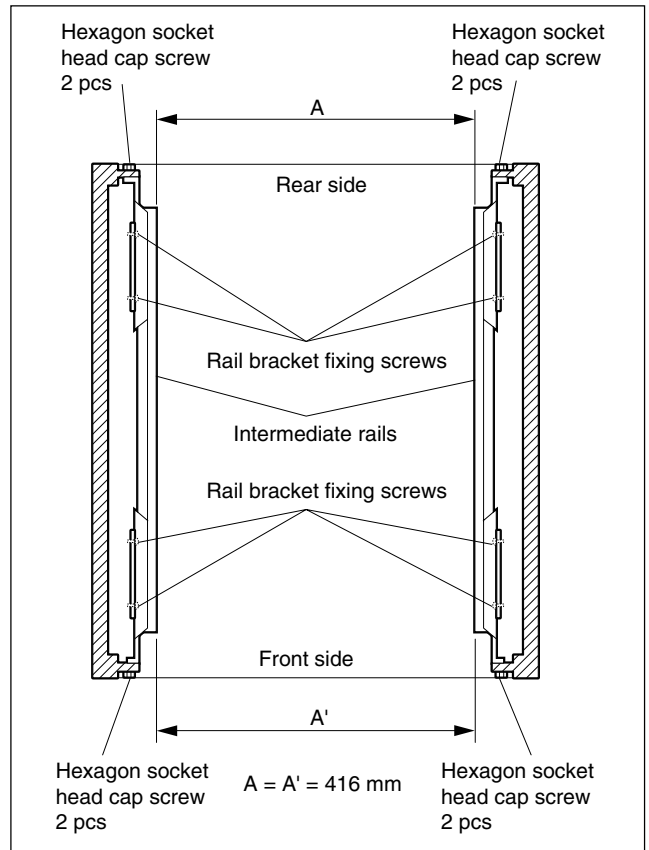


• **Attaching the outer rails**

12. Loosely attach the two outer rails to the middle of the 5U space in the rack for mounting this unit, with the eight hexagon socket head cap screws, eight flat washers, and four plate nuts (small).



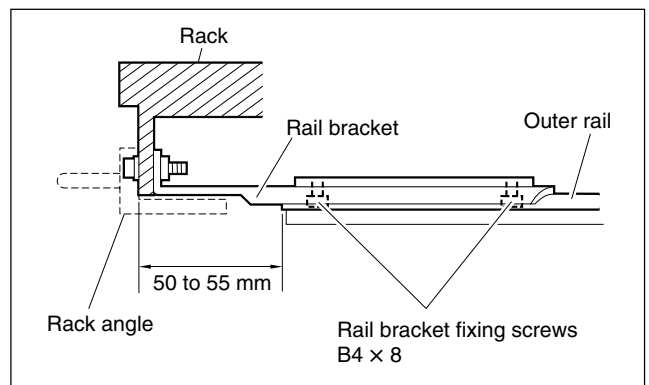
13. Check that the two intermediate rails attached to the rack are parallel.



14. As shown in the following figure, adjust each front-side position of the outer rails on both sides (left and right) so that the distance from the surface of the rack to the tip of the rail becomes within the range of 50 to 55 millimeters.

15. To fix the four rail brackets, fully tighten the eight loosely fitted rail bracket fixing screws (B4 × 8) in steps 10 and 11.

Tightening torque: $120 \times 10^{-2} \text{ N}\cdot\text{m}$ {12.2 kgf•cm}



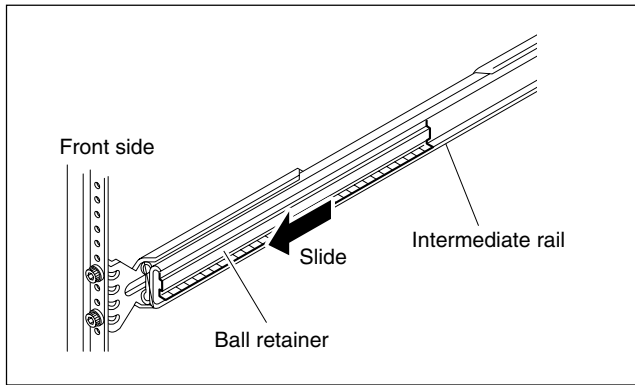
16. To fix the two outer rails to the rack, fully tighten the eight loosely fitted hexagon socket head cap screws in step 12 using the L-shaped hexagon wrench.

• **Mounting in rack**

CAUTION

Be sure to carry the unit by the two persons or more.

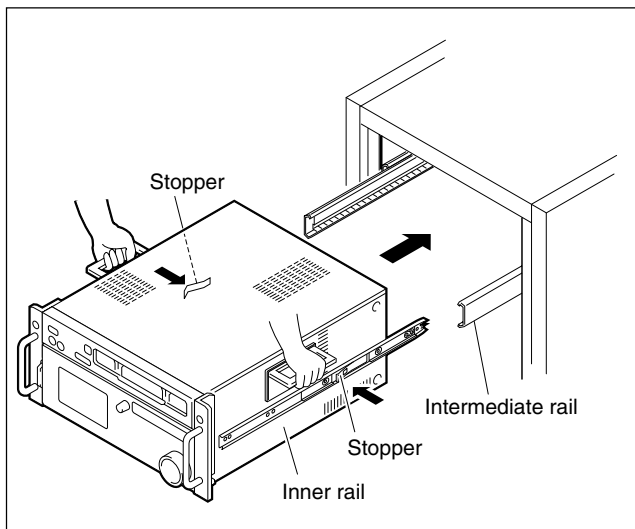
17. Set each ball retainer to the position as shown in the figure in the direction of the arrow.



18. Pull equal length of each rail on both sides out.
 19. Lift the unit holding the gripes on both sides, slowly insert the inner rails into the intermediate rails.
 20. While pressing each stopper of inner rails on both sides, slowly push the unit into the rack.

CAUTION

Be careful not to catch your finger or hand in rack mount rail.



21. Slide the unit in and out from the rack about three times and check that the slide rails move smoothly. If they are not smoothly, demount the unit and go back to “Attaching the outer rails” (step 12).

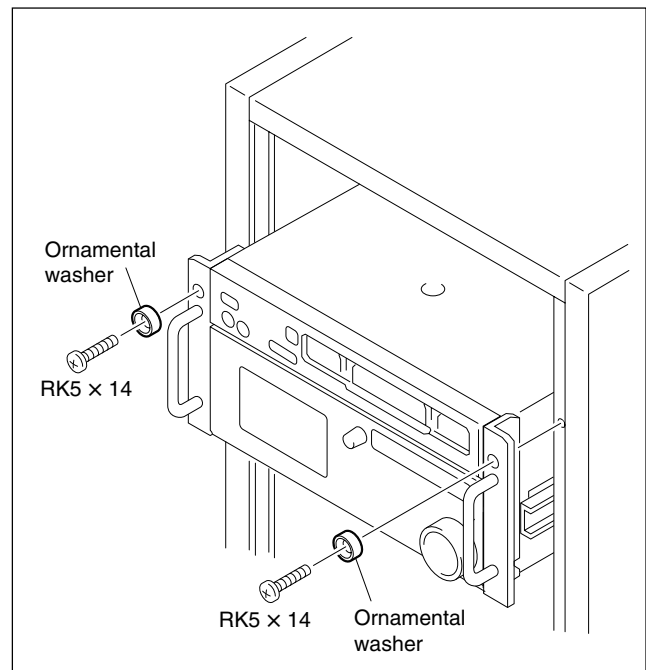
CAUTION

When demounting the unit, carry it by the two persons or more.

Note

This unit does not have the feet at this operating. Put down the unit on the floor or other, being careful not to damage the unit.

22. Push the unit in the depths of the rack. The unit is fixed to the rack by the lock mechanism. Attempt to pull the rack angles and confirm that the unit cannot be pulled out of the rack.
 23. Secure the unit to the rack with the four screws (RK5 × 14) and four ornamental washers.
 Tightening torque: $120 \times 10^{-2} \text{ N}\cdot\text{m}$ {12.2 kgf·cm}



1-7. Matching Connectors and Cables

When external cables are connected to the connector of this unit, the hardware listed below (or equivalents) must be used.

Panel indication	Matching connector (cable)	Sony part No.	Remarks
TIME CODE IN	XLR 3P, MALE	1-508-084-00	
CUE OUT MONITOR OUTPUT TIME CODE OUT	XLR 3P, FEMALE	1-508-083-00	
REF. INPUT HD REF. OUTPUT SD OUTPUT	BNC 75Ω, MALE	1-569-370-12	
AUDIO INPUT (AES/EBU) AUDIO OUTPUT (AES/EBU)	BNC 75Ω, MALE (*1)	1-569-370-12	
REMOTE 2 PARALLEL I/O (50P)	D-SUB 50P, MALE and JUNCTION SHELL 50P	1-565-516-11 1-563-379-11	
REMOTE 1-IN (9P) REMOTE 1-I/O (9P)	9P remote control cable (RCC-G series) or D-SUB 9P, MALE and JUNCTION SHEEL 9P	– or 1-560-651-00 1-561-749-00	
VIDEO CONTROL (9P)	D-SUB 9P, MALE and JUNCTION SHELL 9P	1-561-651-00 1-561-749-00	
HD SDI INPUT HD SDI OUTPUT FORMAT CONV. OUT (OPTION) FC OUT B (OPTION)	BNC 75Ω, MALE (*2)	1-569-370-12	
SD SDI OUTPUT	BNC 75Ω, MALE (*3)	1-569-370-12	
PHONES	JM-60 stereo phone plug	–	Upper control panel
NETWORK 1	Separately available		

*1: Coaxial cable length : max. 600 meters (Reference value based on this unit)

It is recommended to connect the BELDEN 8281 cable or equivalent to this connector.

*2: Coaxial cable length : max. 100 meters (Reference value based on this unit)

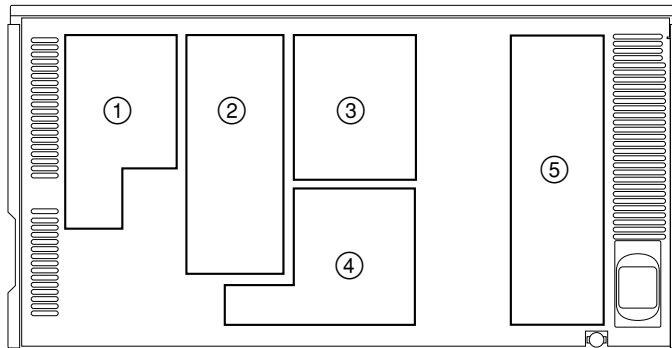
It is recommended to connect the BELDEN 1694A cable or equivalent to this connector.

*3: Coaxial cable length : max. 200 meters (Reference value based on this unit)

It is recommended to connect the BELDEN 8281 cable or equivalent to this connector.

1-8. Signal Inputs and Outputs

〈 Reduced drawing of rear panel 〉



Input connectors

① TIME CODE IN	XLR 3-pin × 1 Time code 0.5 to 18 V p-p, 10 kΩ, balanced
② REF. INPUT 1 REF. INPUT 2 (OPTION)	BNC × 4 (Loop through output × 2) External reference video signal HD : 0.6 V p-p, 75 Ω, sync negative (HD analog tri-level sync) SD : 0.3 V p-p, 75 Ω, sync negative (Black burst or composite sync)
③ AUDIO INPUT (AES/EBU)	BNC × 6 (1 set : CH1/2, CH3/4, CH5/6, CH7/8, CH9/10, and CH11/12) AES/EBU digital audio Complies with SMPTE 299M, SMPTE 276 (AES-3id-1995)
⑤ HD SDI INPUT A HD SDI INPUT B (OPTION) (Option HKSR-5803SQ/HQ)	BNC × 2 (outputs the input monitor × 2) Serial digital interface (1.485 Gbit/s), complies with SMPTE 292M, SMPTE 372M

Remote connectors

④ REMOTE 2 PARALLEL I/O (50P)*	D-SUB 50P connector
④ REMOTE1-IN (9P)	D-SUB 9P connector (RS-422A interface), Remote control
④ REMOTE1-I/O (9P)	D-SUB 9P connector (RS-422A interface), Remote control
④ VIDEO CONTROL (9P)	D-SUB 9P connector for a HD digital video controller (HKDV-900) connection
④ NETWORK 1	RJ-45 modular jack Complied with 10BASE-T/100BASE-TX

* : Refer to Optional "Interface manual" for details.

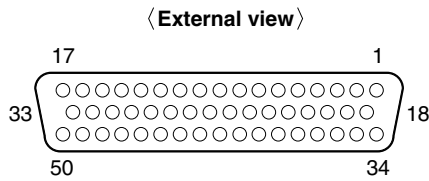
Output connectors

① CUE OUT	XLR 3-pin × 1 Analog audio +4 dBm (Standard) (600 Ω load), low impedance, balanced
① TIME CODE OUT	XLR 3-pin × 1 Time code 2.2 V p-p, low impedance, balanced
① MONITOR OUTPUT	XLR 3-pin × 2 (1 set : L and R) Analog audio +4 dBm (Standard) (600 Ω load), low impedance, balanced
② HD REF. OUTPUT	BNC × 2 0.6 V p-p, 75 Ω, sync negative (HD analog tri-level sync)
② SD OUTPUT COMPOSITE (MONITOR)	BNC × 1 (for character superimpose) Analog composite video VBS : 1.0 V p-p, 75 Ω, sync negative
② SD OUTPUT SYNC	BNC × 1 SYNC (NTSC/PAL) : 0.286/0.3 V p-p, 75 Ω, sync negative BURST (NTSC/PAL) : 0.286/0.3 V p-p, 75 Ω, sync negative
③ AUDIO OUTPUT (AES/EBU)	BNC × 6 (1 set : CH1/2, CH3/4, CH5/6, CH7/8, CH9/10, and CH11/12) AES/EBU digital audio Complies with SMPTE 299M, SMPTE 276M (AES-3id-1995)
⑤ HD SDI OUTPUT A HD SDI OUTPUT B (OPTION) (Option HKSR-5803SQ/HQ)	BNC × 6 (including 1 for character superimpose) Serial digital interface (1.485 Gbit/s), complies with SMPTE 292M, SMPTE 372M
⑤ SD SDI OUTPUT	BNC × 3 (including 1 for character superimpose) Serial digital interface (270 Mbit/s), complies with SMPTE 259M, ITU-R BT.656
⑤ FORMAT CONV. OUTPUT (OPTION) A FORMAT CONV. OUTPUT (OPTION) B (Option HKSR-5001)	BNC × 4 (for character superimpose) Serial digital interface (1.485 Gbit/s), complies with SMPTE 292M, SMPTE 372M
PHONES (Upper control panel)	JM-60 stereo phone jack Analog audio up to -12 dBu (8 Ω load), unbalanced

Other

Memory stick (Lower control panel)	Memory stick × 1 Applicable memory stick : 8 MB to 2 GB Note Insert the memory stick adaptor into the PCMCIA card slot under the lower control panel. For details, refer to the maintenance manual volume 1.
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REMOTE 2 PARALLEL I/O: 50-pin (female)



Pin No.	I/O *1	Setting change *2	Signal	Description
1	IN	○	FF	CLOSURE SW (FF)
2	OUT	×	REC SW	PANEL REC SW OUT
3	OUT	×	PLAY SW	PANEL PLAY SW OUT
4	OUT	×	STOP SW	PANEL STOP SW OUT
5	OUT	×	ENTRY SW	PANEL ENTRY SW OUT
6	OUT	×	REF SYSTEM ALARM	Non-REFERENCE
7	OUT	×	CF LOCK	COLOR FRAME LOCK STATUS
8	OUT	×	DRUM LOCK	LOCK STATUS OF DRUM SERVO
9	OUT	×	CAP LOCK	LOCK STATUS OF CAPSTAN SERVO
10	OUT	○	CUE PRESET	EDIT PRESET STATUS of the CUE Channel
11	OUT	○	TC PRESET	EDIT PRESET STATUS of the TC Channel
12	OUT	○	CASSETTE OUT/IN	CASSETTE OUT/IN STATUS
13	OUT	○	TAPE HDCAM SR	TAPE STATUS
14	OUT	×	SPARE	SPARE
15	OUT	×	SPARE	SPARE
16	—	—	+12V	(Maximum output current 50 mA)
17	—	—	GND	SIGNAL GND
18	IN	○	PREROLL	CLOSURE SW (PREROLL)
19	IN	○	STBY ON	CLOSURE SW (STANDBY ON)
20	IN	○	REW	CLOSURE SW (REW)
21	IN	○	ENTRY IN	CLOSURE SW (ENTRY IN)
22	IN	○	STBY OFF	CLOSURE SW (STANDBY OFF)
23	IN	○	EJECT	CLOSURE SW (EJECT)
24	OUT	×	REC	REC STATUS
25	OUT	×	CH CONDITION RED	CHANNEL CONDITION RED STATUS
26	OUT	○	ASSEMBLE PRESET	ASSEMBLE PRESET STATUS
27	OUT	○	EDIT OUT	EDIT STATUS
28	OUT	○	EJECT OUT	EJECT STATUS
29	OUT	○	ETHERNET	ETHERNET STATUS
30	OUT	○	REEL HUB	REEL HUB STATUS
31	OUT	×	CURRENT SETUP DATA CHANGE	CURRENT SETUP DATA CHANGE STATUS
32	OUT	×	ALL REC INHIBIT	ALL REC INHIBIT STATUS
33	—	—	GND	
34	IN	○	PLAY	CLOSURE SW (PLAY)
35	IN	○	STOP	CLOSURE SW (STOP)

(Continue)

(Continued)

Pin No.	I/O*1	Setting change*2	Signal	Description
36	IN	○	REC	CLOSURE SW (REC)
37	OUT	×	REV LAMP	REV LAMP STATUS
38	OUT	○	DA2 PRESET	DA2 EDIT PRESET STATUS
39	OUT	○	DA1 PRESET	DA1 EDIT PRESET STATUS
40	OUT	×	FWD LAMP	FWD LAMP STATUS
41	OUT	○	DA4 PRESET	DA4 EDIT PRESET STATUS
42	OUT	○	DA3 PRESET	DA3 EDIT PRESET STATUS
43	OUT	×	STOP	STOP STATUS
44	OUT	○	VIDEO PRESET	VIDEO EDIT PRESET STATUS
45	OUT	○	INSERT PRESET	INSERT EDIT PRESET STATUS
46	OUT	×	STBY ON	STANDBY ON STATUS
47	OUT	×	PLAY	PLAY STATUS
48	OUT	×	REMOTE	REMOTE STATUS
49	OUT	×	ALARM	SYSTEM ALARM STATUS
50	OUT	○	PREROLL	PREROLL STATUS

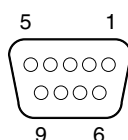
*1: Input ; 47 kΩ pull up to +5 V (close/open)
Output ; 10 kΩ pull up to +5 V (0 V or open)

*2: The pins described as ○ mark are possible to change the setting.
Refer to the optional interface manual for changing the setting.

REMOTE 1-IN: 9-pin (female)

REMOTE 1-I/O: 9-pin (female)

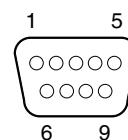
〈External view〉



Pin No.	Signal
1	GND
2	RM TX(-)
3	RM RX(+)
4	GND
5	PRIORITY
6	GND
7	RM TX(+)
8	RM RX(-)
9	GND

RS232C: 9-pin (male)

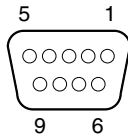
〈External view〉



Pin No.	Signal
1	DCD ; Data Carrier Detect (Input)
2	RXD ; Received Data (Input)
3	TXD ; Transmitted Data (Output)
4	DTR ; Data Terminal Ready (Output)
5	SG ; Signal Ground
6	DSR ; Data Set Ready (Input)
7	RTS ; Request to Send (Output)
8	CTS ; Clear to Send (Input)
9	NC

VIDEO CONTROL: 9-pin (female)

〈 External view 〉

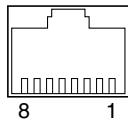


Pin No.	Signal
1	GND
2	RM TX (-)
3	RM RX (+)
4	GND
5	—
6	GND
7	RM TX (+)
8	RM RX (-)
9	GND

NETWORK 1: RJ-45 modular jack

Standard : Complied with IEEE 802.3u (100BASE-TX)
and IEEE 802.3 (10BASE-T)

〈 External view 〉



Pin No.	I/O	Signal
1	O	TXD (+)
2	O	TXD (-)
3	I	RXD (+)
4	—	NC
5	—	NC
6	I	RXD (-)
7	—	NC
8	—	NC

1-9. Switch Settings on Connector Panel

When the unit is installed, be sure to perform the following setup.

Refer to the operation manual “Section 2 Location and Function of Parts” for setup.

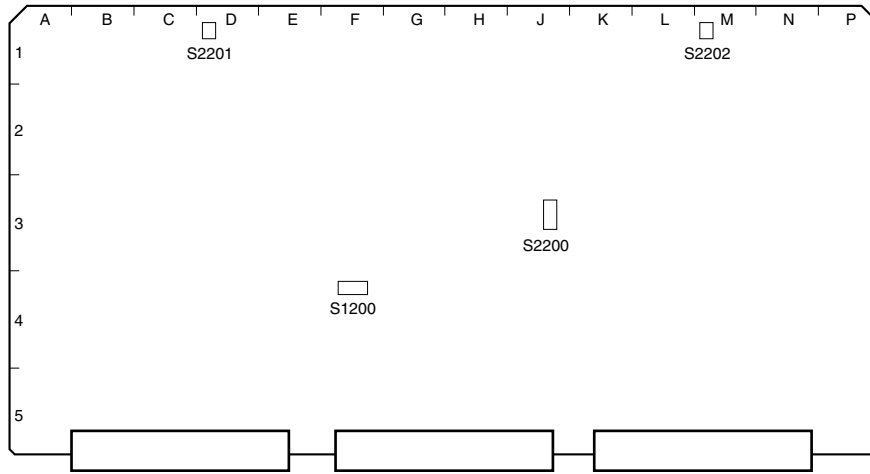
- 75 Ω termination switch of reference video input

1-10. Switch Settings on Circuit Boards

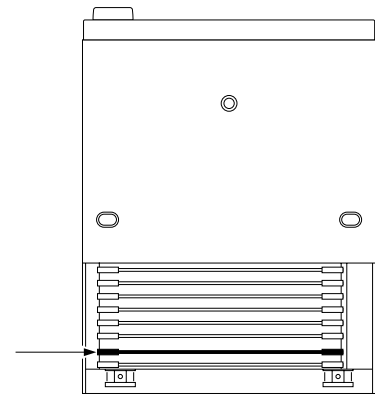
1-10-1. APR-81 Board

Notes

- Refer to Section 1-15 for removing and reattaching the plug-in boards.
- The switches S1200 and S2200 are Factory use. Never change the setting.
- The switches S2201 and S2202 are used for the audio monitor output adjustment. Never change the setting since the adjustment is completed at factory.



APR-81 Board (Side A)



< Top View >

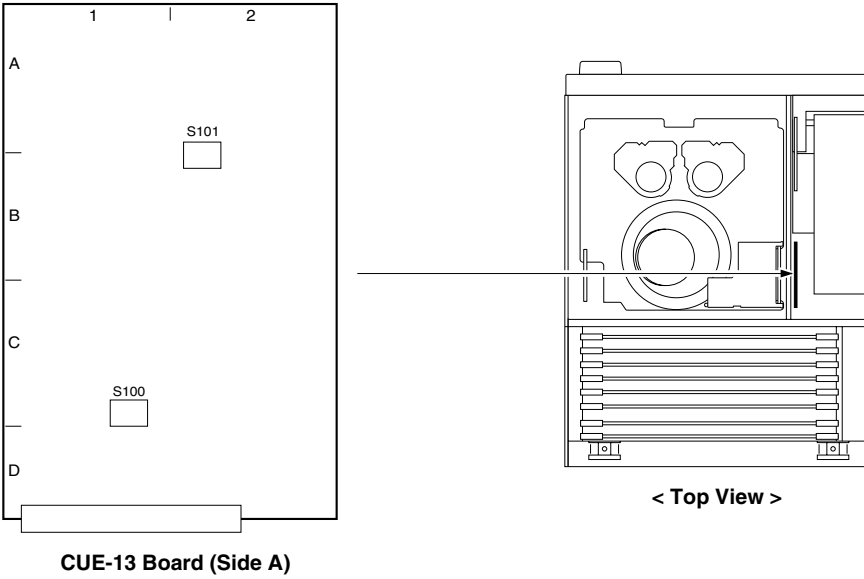
1-10-2. CUE-13 Board

If necessary, perform the following audio-related settings using the switches on the CUE-13 board.

- CUE output level

Note

The switch S100 is Factory use, Never change the setting.



CUE output level settings

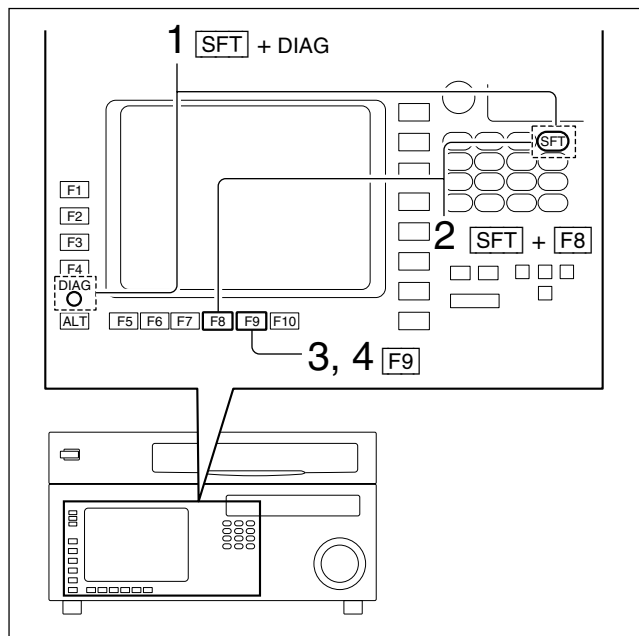
Ref. No.	Switches state (■ : Knob position)			
S101				
	+4 dBm/600 Ω (Factory setting)	0 dBm/600 Ω	-3 dBm/600 Ω	-20 dBm/600 Ω

1-11. System Setting

1-11-1. Setting the System

1. Activating the system menu

- (1) Turn on the power.
- (2) Press the DIAG button while pressing the **[SFT]** (SHIFT) key.
- (3) Press the **[F8]** (MAINTN EXEC) key while pressing the **[SFT]** (SHIFT) key.
- (4) Press the **[F9]** (OTHERS CHECK) key.
- (5) Press the **[F9]** (SYSTEM MENU) key to display the system menu.



2. Setting the system

Set the system referring to the table “1-11-2. Compatibility of REC and PB”.

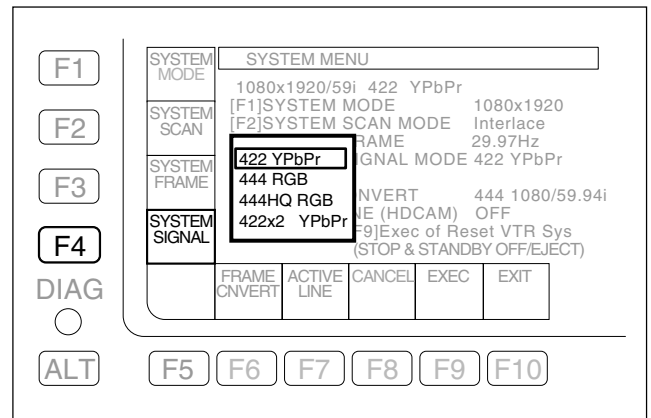
Note

The selectable systems differ according to the VTR settings (operation mode) or option boards.

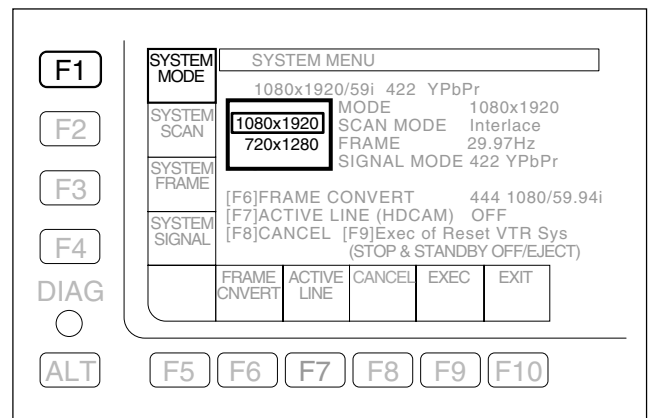
- (1) Press the **[F4]** (SYSTEM SIGNAL) key several times for setting to the 4:2:2 or 4:4:4.

Note

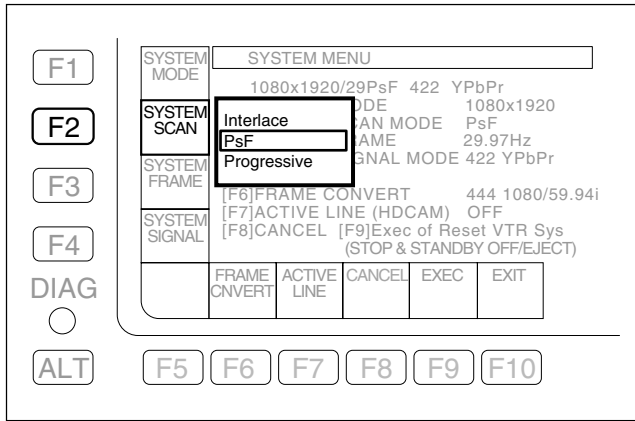
The SYSTEM SIGNAL can be selected when the option HKSR-5803SQ/HQ is installed.



- (2) Press the **[F1]** (SYSTEM MODE) key several times for setting to the 1080 × 1920 or 720 × 1280.



- (3) Press the **F2** (SYSTEM SCAN) key several times for setting to the Interlace, Progressive or PsF (Progressive Segmented Frame).



- (4) Press the **F3** (SYSTEM FRAME) key several times to set the frame rate.

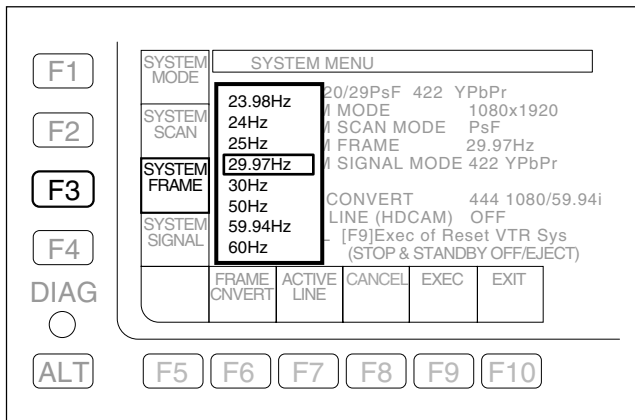
Note

Be sure to set the frame rate when Interlace is selected.

Example) 59.94i mode

SYSTEM SCAM: Interlace

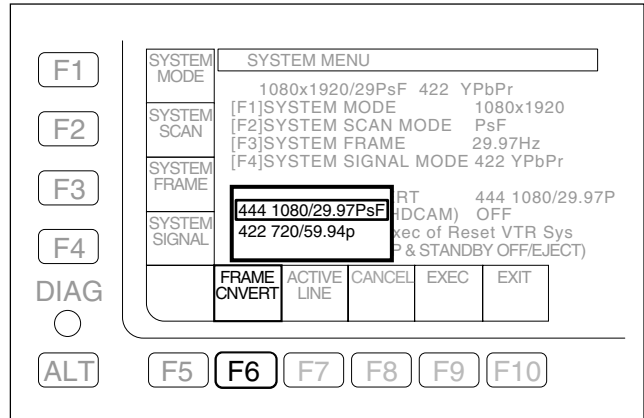
SYSTEM FRAME: 29.97 MHz



- (5) Press the **F6** (FRAME CONVERT) key several times to set the image format of the format converter output.

Note

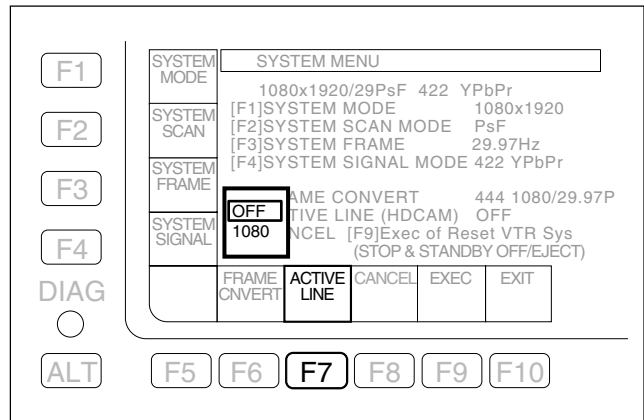
This item can be set when the option HKS-R-5001 is installed.



- (6) Press the **F7** (ACTIVE LINE) key several times for setting the active line to OFF or 1080.

Note

This becomes effective only when the VTR is set to 4:2:2 1080 × 1920 Interlace 29.97 or 30 frames.



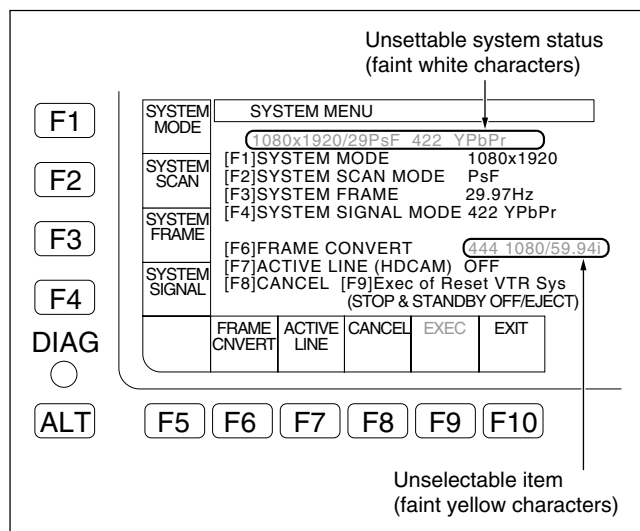
3. Check the setting

Check that the content of system setting performed after saving is displayed with white characters in the first line of the system menu. Check further that the items to be updated from the current system setting are displayed with yellow characters to the right of respective setting items.

Note

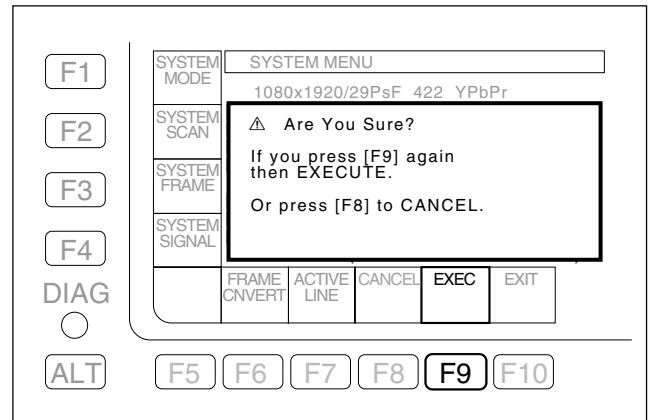
The faint white characters in the first line of the system menu mean that a combination of unsettable system items is selected.

Recheck and re-set the item shown with faint yellow characters to the right of the item, etc. referring to Section 1-11-2.

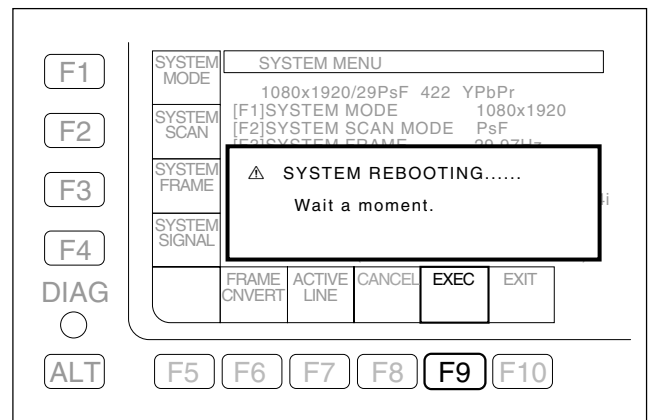


4. Storing the settings

- Press the **[F9]** (EXEC) key.
 - The message “Are You Sure?” is displayed.



- Press the **[F9]** (EXEC) key again.
 - The message “SYSTEM REBOOTING.....” is displayed.
 - On completing the store of the settings, the system is restarted automatically.



- Check that the system is restarted, and turn OFF the POWER switch and turn ON again.

1-11-2. Compatibility of REC and PB

The selectable systems differ according to the VTR settings (operation mode) or option boards.

System setting (Operation mode)				Tape format which can be played back									
SYSTEM SIGNAL	SYSTEM MODE	SYSTEM SCAN	SYSTEM (FRAME) FREQ [Hz]	Digital BETACAM (HKSR-5802)		HDCAM (HKSR-5802)							
				Interlace		1080 4:2:2				Interlace			
				NTSC	PAL	23.98	24	PsF	25	29.97	30	25	29.97
4:2:2 (YPbPr)	1080	PsF	23.98			●	○	△	□	□	△	□	□
			24			○	●	△	□	□	△	□	□
			25		●	△	△	●	□	□	●	□	□
			29.97	●		□	□	□	●	○	□	●	○
			30			□	□	□	○	●	□	○	●
			Interlace		●	△	△	●	□	□	●	□	□
	29.97	●		□	□	□	●	○	□	●	○		
720	Progressive	50*1											
		59.94*1											
4:4:4 (RGB) (HKSR-5803SQ) (HKSR-5803HQ)	1080	PsF	23.98, 24, 25, 29.97, 30										
		Interlace	25, 29.97, 30										

System setting (Operation mode)				Tape format which can be played back											
SYSTEM SIGNAL	SYSTEM MODE	SYSTEM SCAN	SYSTEM (FRAME) FREQ [Hz]	HDCAM-SR											
				1080 4:2:2						720 4:2:2			1080 4:4:4 (HKSR-5803SQ) (HKSR-5803HQ)		
				PsF			Interlace			Progressive		PsF	Interlace		
				23.98	24	25	29.97	30	25	29.97	30	50*1	59.94*1		
4:2:2 (YPbPr)	1080	PsF	23.98	●	○	△	■	■	△	■	■				
			24	○	●	△	■	■	△	■	■				
			25	△	△	●	■	■	●	■	■				
			29.97	■	■	■	●	○	■	●	○				
			30	■	■	■	○	●	■	○	●				
			Interlace	25	△	△	●	■	■	●	■	■			
	29.97	■	■	■	●	○	■	●	○						
720	Progressive	50*1										●			
		59.94*1											●		
4:4:4 (RGB) (HKSR-5803SQ) (HKSR-5803HQ)	1080	PsF	23.98, 24, 25, 29.97, 30											*2	*2
		Interlace	25, 29.97, 30												*2

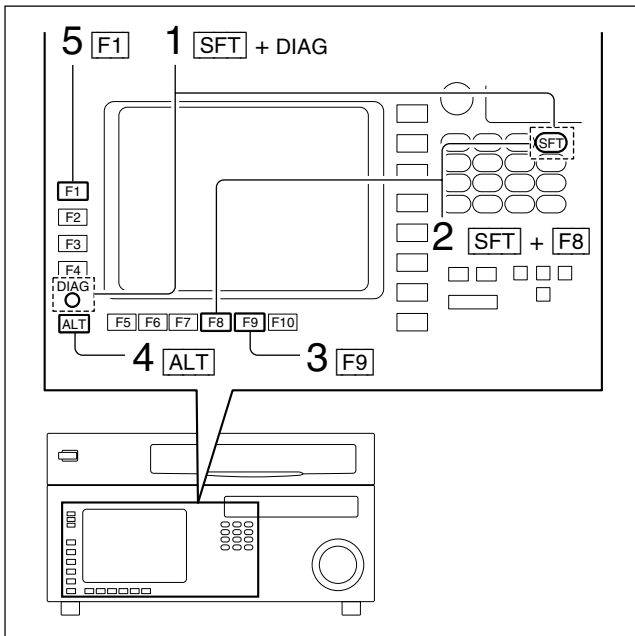
- Video, audio, time code: Normal playback
 - Video, audio, time code: 0.1 % off-speed playback
 - △ Video, audio: Off-speed playback, Time code: Convertible (depending on menu setting)
 - HDCAM:
 - Video: Off-speed playback
 - Audio: Mute
 - Time code: Convertible (depending on menu setting)
 - HDCAM-SR:
 - Video, audio: Off-speed playback, Time code: Convertible (depending on menu setting)
 - Unselectable system setting item
 - ▨ The HD SDI output signal becomes Interlace.
 - ▧ The HD SDI output signal becomes PsF.
 - *1 720/50P, 59.94P: HDCAM-SR only
 - *2 It is common the case playback a HDCAM-SR formatted tape with 4:2:2/1080 video date while system setting is 4:2:2/1080.
- RGB 4:4:4: HDCAM-SR 1080 only
Tapes with different sampling method cannot be played back (4:4:4/4:2:2).

1-11-3. Meta Data Setting

Perform the meta data setting.

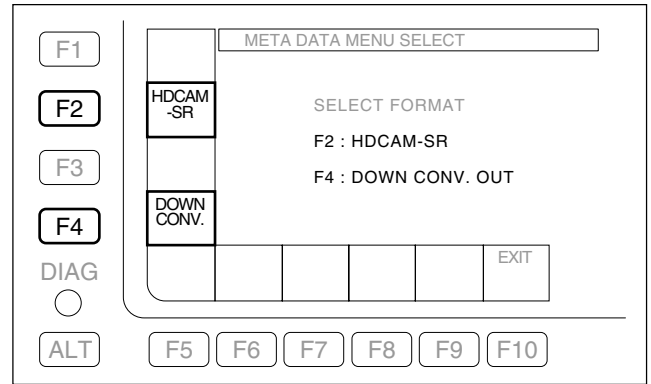
1. Activating the meta data setup menu

- (1) Turn on the power switch.
- (2) Press the DIAG button while pressing the **SFT** (SHIFT) key.
- (3) Press the **F8** (MAINT EXEC) key while pressing the **SFT** (SHIFT) key.
- (4) Press the **F9** (OTHERS CHECK) key.
- (5) Press the **ALT** key.
- (6) Press the **F1** (META DATA) key.
The format selection menu appears.



2. Format selection

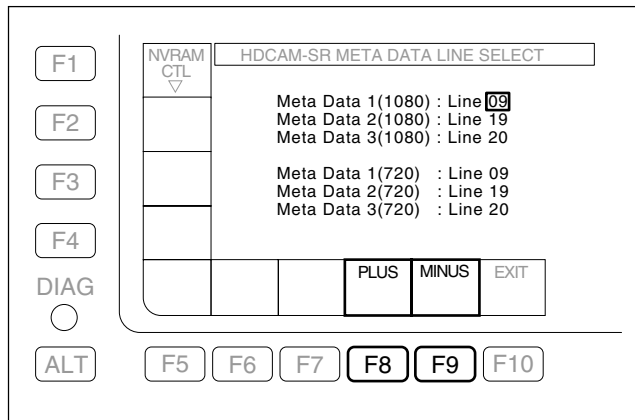
- (1) Press the **F2** (HDCAM-SR) key, or **F4** (DOWN CONV.) key according to your system.
 - F2** (HDCAM-SR): The meta data line setting menu appears. Perform “3. Setting the meta data line”.
 - F4** (DOWN CONV.): The meta data line setting menu of down convert output appears. Perform “5. Setting the meta data line of down convert output”.



In selecting **F2** (HDCAM-SR)

3. Setting the meta data line

- Move the cursor to the item to be set using the **↑**/**↓** keys.
- Perform the line setting using the **F8** (PLUS)/**F9** (MINUS) keys, MULTI CONTROL knob, or the **←**/**→** keys.



1080 system

Recording

Records the line that is set by Meta Data 1 (1080), Meta Data 2 (1080) or Meta Data 3 (1080) as a non-compressed line.

Note

This is not affected by Meta Data 1 (720), Meta Data 2 (720) or Meta Data 3 (720).

Playback

Plays back non-compressed lines recorded in a tape (1080i) and outputs them.

Note

They are not affected by Meta Data 1 (1080), Meta Data 2 (1080) or Meta Data 3 (1080) and Meta Data 1 (720), Meta Data 2 (720) or Meta Data 3 (720).

When performing 1080 to 720 conversion with HKSR-5001, the non-compressed lines are multiplexed sequentially with the HKSR-5001 720 output as non-compressed lines according to the Meta Data 1 (720)/Meta Data 2 (720)/Meta Data 3 (720) setting.

Note

They are not affected by Meta Data 1 (1080), Meta Data 2 (1080) or Meta Data 3 (1080).

720 system

Recording

Records the line that is set by Meta Data 1 (720), Meta Data 2 (720) or Meta Data 3 (720) as a non-compressed line.

Note

This is not affected by Meta Data 1 (1080), Meta Data 2 (1080) or Meta Data 3 (1080).

Playback

Plays back non-compressed lines recorded in a tape (720) and outputs them.

Note

They are not affected by Meta Data 1 (1080), Meta Data 2 (1080) or Meta Data 3 (1080) and Meta Data 1 (720), Meta Data 2 (720) or Meta Data 3 (720).

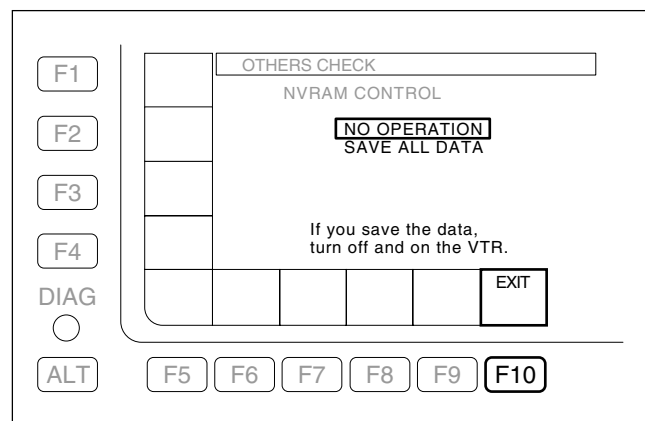
When performing 720 to 1080 conversion with HKSR-5001, the non-compressed lines are multiplexed sequentially with the HKSR-5001 1080 output as non-compressed lines according to the Meta Data 1 (1080)/Meta Data 2 (1080)/Meta Data 3 (1080) setting.

Note

They are not affected by Meta Data 1 (720), Meta Data 2 (720) or Meta Data 3 (720).

4. Storing the settings

- Press the **F1** (NVRAM CTL) key.
- Select "SAVE ALL DATA" using the **↑**/**↓** keys, and press the **F10** (EXIT) key.
 - The changed data is written in the NV-RAM, and the menu returns to the META DATA SETUP menu.
 - When the changed data is not to be saved, select "NO OPERATION", and press the **F10** (EXIT) key.

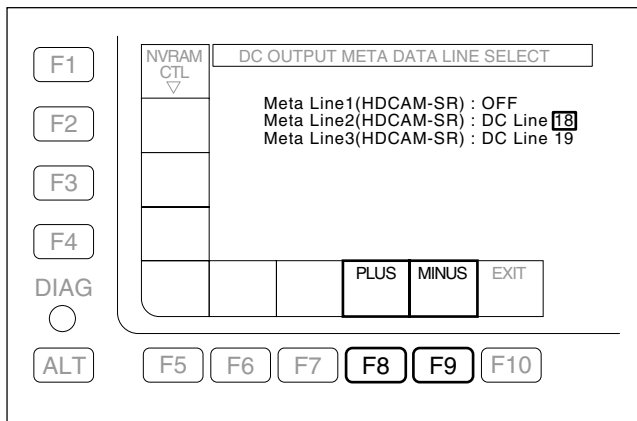


- Press the **F10** (EXIT) key several times to return to the OTHERS CHECK menu. When setting input/output phases continuously, proceed to Section 1-11-4.
- Turn OFF the POWER switch and turn ON again.

In selecting **F4** (DOWN CONV.)

5. Setting the meta data line of down convert output

- (1) Move the cursor to the item to be set using the **↑**/**↓** keys.
- (2) Perform the line setting using the **F8** (PLUS)/**F9** (MINUS) keys, MULTI CONTROL knob, or the **←**/**→** keys.



EE mode

The input data multiplexed with the three lines specified in “3. Setting the meta data line” is converted sequentially and is multiplexed with the SD SDI output, according to the settings of Meta Line 1 (HDCAM-SR), Meta Line 2 (HDCAM-SR), and Meta Line 3 (HDCAM-SR).

HDCAM-SR playback mode

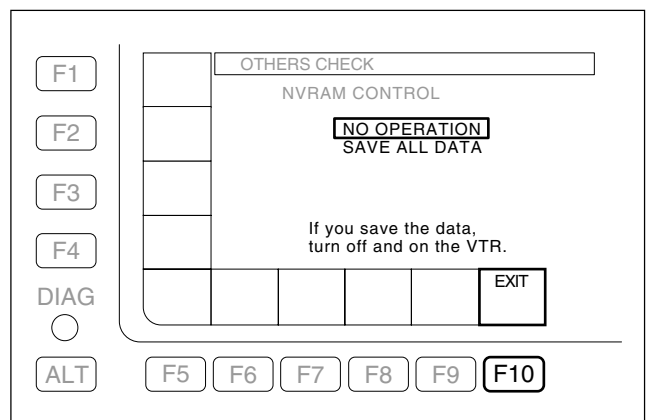
The data of the three non-compressed lines stored on the tape is converted sequentially and is multiplexed with the SD SDI output, according to the settings of Meta Line 1 (HDCAM-SR), Meta Line 2 (HDCAM-SR), and Meta Line 3 (HDCAM-SR).

Notes

- When OFF is selected, the signal of corresponding non-compressed line is not converted or multiplexed.
- The setting range is OFF and Line 9 to 22, but the multiplexable range with NTSC output is Line 12 to 19. For NTSC output, the signals of non-compressed lines corresponding to Line 9 to 11/Line 20 to 22 are not converted or multiplexed. (They are treated as OFF in the unit.)
- If the output line of SD VITC (set by the Setup Menu Items 611, 612, 617, 618) overlaps meta data line setting, the meta data is not multiplexed with the line.
- In case of the Pull Down conversion processing mode of HKSR-5001, the meta data is not multiplexed with the down-conversion output.

6. Storing the settings

- (1) Press the **F1** (NVRAM CTL) key.
- (2) Select “SAVE ALL DATA” using the **↑**/**↓** keys, and press the **F10** (EXIT) key.
 - The changed data is written in the NV-RAM, and the menu returns to the DC OUTPUT META DATA LINE SELECT menu.
 - When the changed data is not to be saved, select “NO OPERATION”, and press the **F10** (EXIT) key.



- (3) Press the **F10** (EXIT) key several times to return to the OTHERS CHECK menu. When setting input/output phases continuously, proceed to Section 1-11-4.
- (4) Turn OFF the POWER switch and turn ON again.

1-11-4. Input/Output Phase Settings

Perform phase settings for various inputs and outputs.

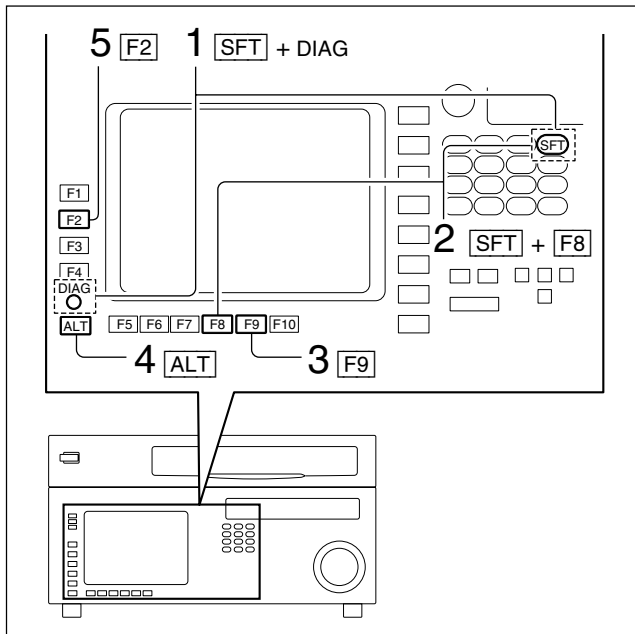
1. Activating the phase set menu

When **OTHERS CHECK** menu is displayed:

- Press the **F2** (PHASE SET) key to display the PHASE SET menu.

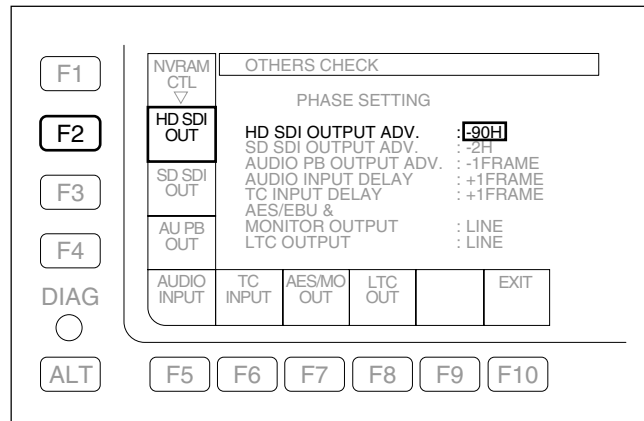
When a menu is not displayed:

- Turn on the power switch.
- Press the DIAG button while pressing the **SFT** (SHIFT) key.
- Press the **F8** (MAINT EXEC) key while pressing the **SFT** (SHIFT) key.
- Press the **F9** (OTHERS CHECK) key.
- Press the **ALT** key.
- Press the **F2** (PHASE SET) key to display the PHASE SET menu.

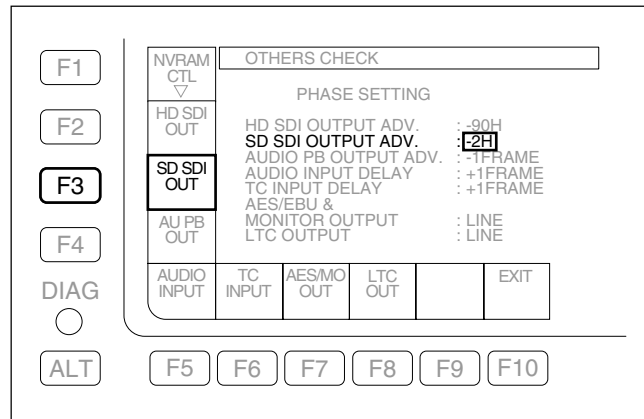


2. Setting the input/output phase

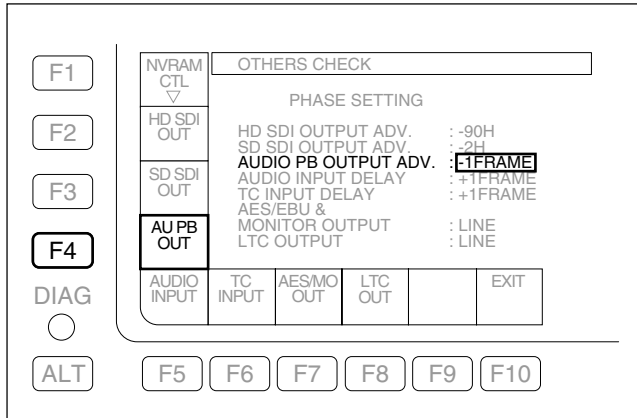
- Press the **F2** (HD SDI OUT) key several times to set the HD SDI output phase (OFF or -90H).
 OFF: Outputs in the same phase as reference signal.
 -90H: Outputs 90H (HD) ahead of reference signal.



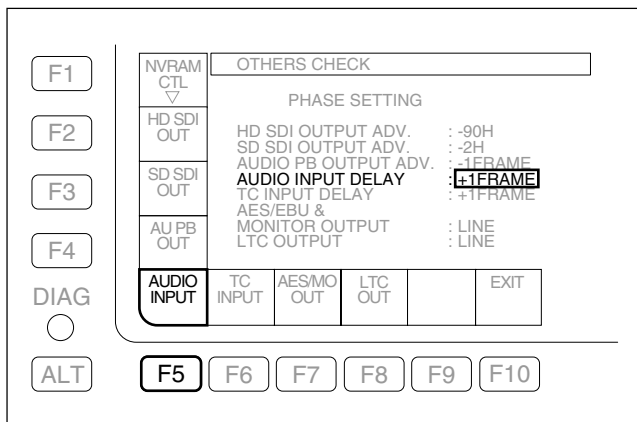
- Press the **F3** (SD SDI OUT) key several times to set the SD SDI output phase (OFF or -2H).
 OFF: Outputs in the same phase as reference signal.
 -2H: Outputs 2H (SD) ahead of reference signal.



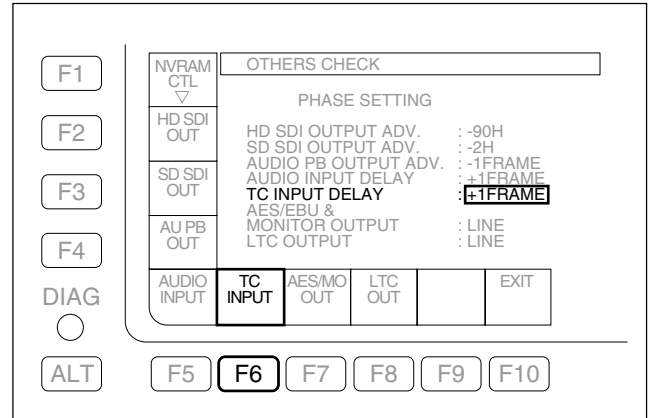
- (3) Press the **F4** (AU PB OUT) key several times to set the playback audio output phase (OFF or -1FRAME).
OFF: Outputs in the same phase as reference signal.
-1FRAME: Outputs one-frame ahead of reference signal.



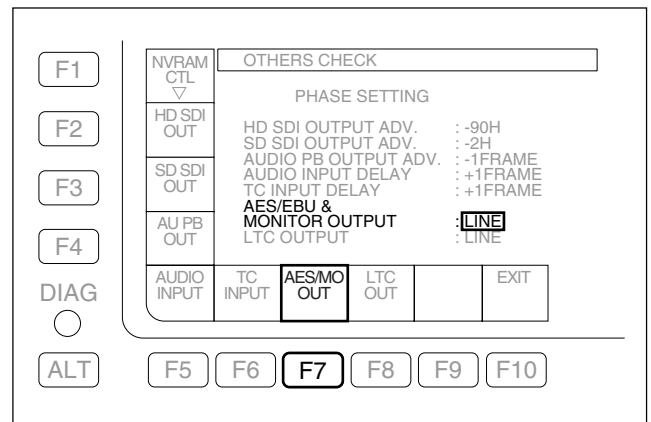
- (4) Press the **F5** (AUDIO INPUT) key several times to set the record audio input phase (OFF or +1FRAME).
OFF: Records in the same phase as reference signal.
+1FRAME: Records with one-frame delay of reference signal.



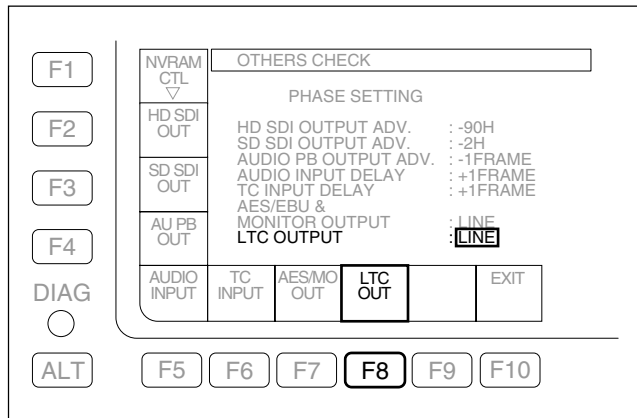
- (5) Press the **F6** (TC INPUT) key several times to set the record time code input phase (OFF or +1FRAME).
OFF: Records in the same phase as reference signal.
+1FRAME: Records with one-frame delay of reference signal.



- (6) Press the **F7** (AES/MO OUT) key several times to set the AES/EBU and AUDIO MONITOR output phase (LINE, SD or FC).
LINE: Outputs in the same phase as the main line.
SD: Outputs in the same phase as SD output.
FC: Outputs in the same phase as FC output.

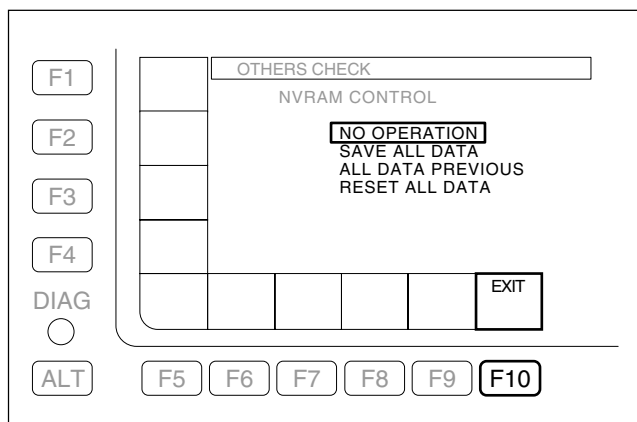


- (7) Press the **F8** (LTC OUT) key several times to set the LTC output phase (LINE or FC).
 LINE: Outputs in the same phase as the main line.
 FC: Outputs in the same phase as FC output.



3. Storing the settings

- (1) Press the **F1** (NVRAM CTL) key.
 - (2) Select “SAVE ALL DATA” using the **↑/↓** keys, and press the **F10** (EXIT) key.
 - The changed data is written in the NV-RAM, and the menu returns to the PHASE SET menu.
 - Or select either of the following items, and then press the **F10** (EXIT) key.
- NO OPERATION: Changed data is not saved.
 ALL DATA PREVIOUS: To return the data to the previous data.
 RESET ALL DATA: To reset the NV-RAM to the factory setting.



- (3) Press the **F10** (EXIT) key several times to return to the HOME menu.

1-11-5. Storing and Reading System Settings in/from System Bank

Up to eight current system settings made by the SYSTEM menu, META DATA SETUP menu, and PHASE SET menu can be saved in the system bank of the unit with respective titles. The settings can also be read from the system bank as current settings.

The SYSTEM BANK menu is available for storing and reading system settings in/from the system bank.

The settings saved in the system bank can also be stored in a Memory Stick with the SYSTEM CARD BANK menu, and read from the Memory Stick.

For titling the system bank, refer to Section 1-11-7.

For storing/reading the data saved in the system bank in/from a Memory Stick, refer to Section 1-11-8.

Note

SYSTEM BANK and SYSTEM CARD BANK menus are available to store/copy data, but are not available to update system settings.

1. System settings

Perform system settings using the SYSTEM menu, META DATA SETUP menu, and PHASE SET menu referring to the following.

- SYSTEM menu: Section 1-11-1
- META DATA SETUP menu: Section 1-11-3
- PHASE SET menu: Section 1-11-4

2. Displaying SYSTEM BANK menu

- (1) Press the DIAG button while pressing the **[SFT]** (SHIFT) key with the HOME menu.
- (2) Press the **[F8]** (MAINTENANCE EXEC) key while pressing the **[SFT]** (SHIFT) key.
- (3) Press the **[F9]** (OTHERS CHECK) key.
- (4) Press the **[ALT]** key.
- (5) Press the **[F5]** (SYSTEM BANK) key to display the SYSTEM BANK menu.

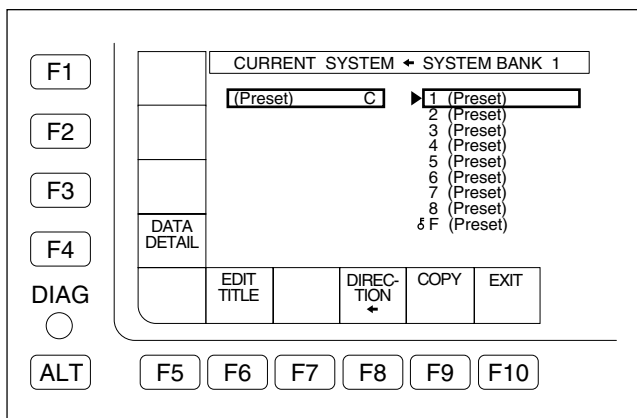
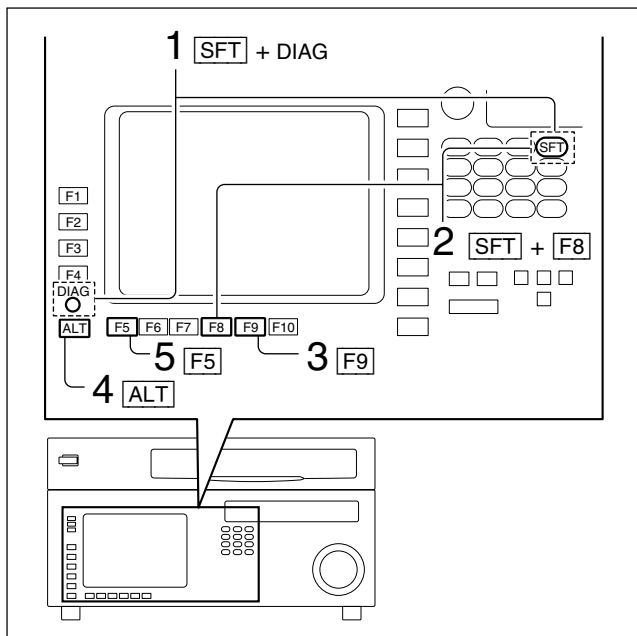
Window Description

The left item **[C]** shows the current settings, the right items 1 to 8 show system bank data, and **[F]** shows factory settings.

The item of lighting cursor bar shows the save origin, and the item of blinking cursor bar shows the save destination.

▶ shows an item for title editing, etc.

Use the **[←]**/**[→]**/**[↑]**/**[↓]** keys to choose the item pointed by ▶.



3. Storing the settings in the system bank

Note

No data can be written in the factory setting **[F]**.

- (1) Press the **[F8]** (DIRECTION) key with the SYSTEM BANK menu, and choose **→** direction. The right cursor bar blinks.
- (2) Position the blinking cursor bar at a bank number (1 to 8) to store the current settings using the **[↑]**/**[↓]** keys.
- (3) Press the **[F9]** (COPY) key. A confirmation message appears.

To cancel storing

Press the **[CLR]** (CLEAR) key while the confirmation message is displayed.

- (4) Press the **[F9]** (COPY) key while pressing the **[SFT]** (SHIFT) key. Storing the settings starts. The save origin title appears at the save destination upon completion of the saving.

To give or change a title after saving

Edit system bank titles referring to Section 1-11-7.

To protect the system bank after saving (protection against wrong deletion)

Position ▶ at a bank number to be protected, and press the **[ALT]** key.

Press the **[F2]** (PROTECT) key to light up a key mark to the left of the bank number.

- (5) Press the **[F10]** (EXIT) key several times to return to the HOME menu.

4. Reading the settings from the system bank

Note

No data can be read from the system bank in the standby mode or while a tape is loaded in the unit.

Eject the tape and confirm that the standby mode is set to off before reading data.

- (1) Press the **F8** (DIRECTION) key with the SYSTEM BANK menu, and choose ← direction.
The left cursor bar blinks.
- (2) Position the lighting cursor bar at a bank number (1 to 8) for reading with the **↑/↓** keys.
- (3) Press the **F9** (COPY) key.
A confirmation message appears.

To cancel reading

Press the **CLR** (CLEAR) key while the confirmation message is displayed.

- (4) Press the **F9** (COPY) key while pressing the **SFT** (SHIFT) key.
Upon completion of writing the setting to the current system settings, the system is reset with a beep and the unit restarts.
After the unit restarts, the title of the read bank number appears at the left item **C**.

Note

If the system settings are updated after reading, the title displayed at **C** remains unchanged.

- (5) Press the **F10** (EXIT) key several times to return to the HOME menu.

1-11-6. Storing/Reading System Settings in/ from Memory Stick

The system settings saved in the system bank of the unit can be stored in a Memory Stick with a title.

The system settings saved in a Memory Stick can also be loaded to the system bank of the unit.

Data saving in and reading from a Memory Stick are available with the SYSTEM CARD BANK menu.

For titling the system bank, refer to Section 1-11-7.

Note

The system settings saved in the system bank are stored in a Memory Stick as a file different from that in the VTR bank (menu file).

1. Inserting Memory Stick.

- (1) Open the lower control panel. (Refer to Section 1-12.)
- (2) Insert a Memory Stick to store or read the system settings into the Memory Stick slot.

Note

If another Memory Stick is already inserted, press the eject button at the right of the Memory Stick slot to eject it.

2. Displaying SYSTEM CARD BANK menu

- (1) Press the DIAG button while pressing the **[SFT]** (SHIFT) key with the HOME menu.
- (2) Press the **[F8]** (MAINTN EXEC) key while pressing the **[SFT]** (SHIFT) key.
- (3) Press the **[F9]** (OTHERS CHECK) key.
- (4) Press the **[ALT]** key.
- (5) Press the **[F6]** (SYSTEM CARD) key to display the SYSTEM CARD BANK menu.

Window Description

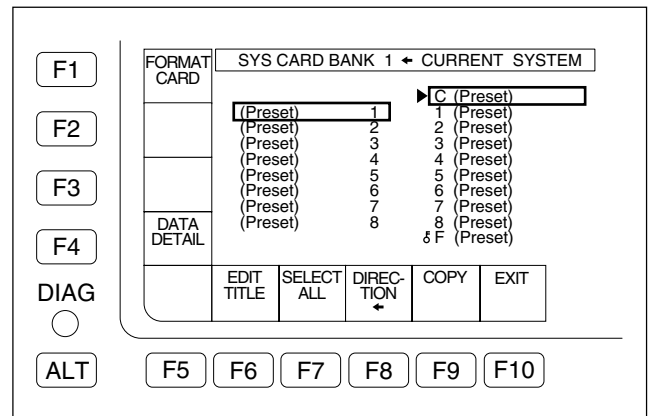
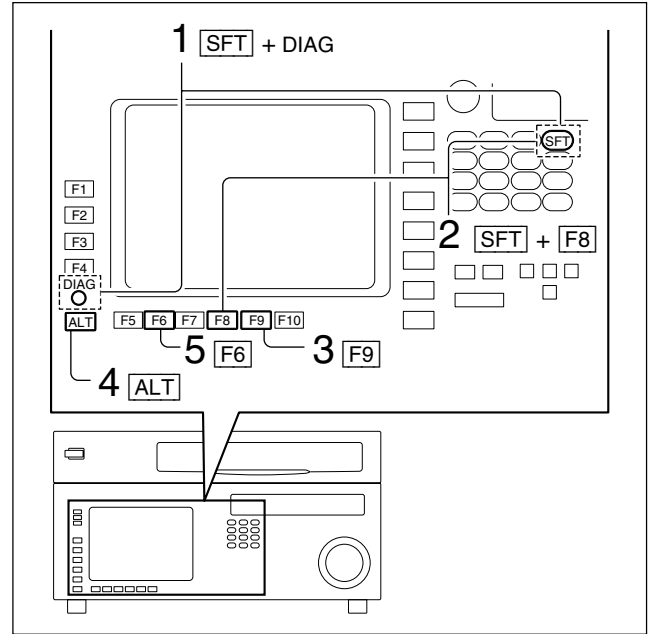
The right item shows the data of the unit, **[C]** shows current settings, 1 to 8 show system bank data, and **[F]** shows factory settings.

The left item shows Memory Stick data, and 1 to 8 show system bank data of the Memory Stick.

The item of the lighting cursor bar shows the save origin, and the item of the blinking cursor bar shows the save destination.

▶ shows an item for title editing, etc.

Use the **[←]/[→]/[↑]/[↓]** keys to choose the item pointed by ▶.



3. Memory Stick format

Notes

- No Memory Stick can be used unless it is formatted by the unit.

Format a Memory Stick to be used before storing the system settings.

- When a Memory Stick is formatted, its data is cleared completely.

- (1) Press the **F1** (FORMAT CARD) key with the SYSTEM CARD BANK menu.
A confirmation message appears.

To cancel formatting

Press the **CLR** (CLEAR) key while the confirmation message is displayed.

- (2) Press the **F1** (FORMAT CARD) key while pressing the **SFT** (SHIFT) key.
Formatting the Memory Stick starts and a directory is created.

4. Loading the settings from the system bank to a Memory Stick

- (1) Insert a Memory Stick into the slot of the unit, and display the SYSTEM CARD BANK menu.
- (2) Press the **F8** (DIRECTION) key with the SYSTEM CARD BANK menu, and choose ← direction.
The left cursor bar blinks.
- (3) Press the **→** key to move ► to the right (unit data side), and position the lighting cursor bar at the item to be stored in a Memory Stick using the **↑/↓** keys.

To store current system settings in a Memory Stick

Position the lighting cursor bar at the item **C**.

To store eight pieces of system bank data collectively in a Memory Stick

Press the **F7** (SELECT ALL) key.

Note

If any protected bank number exists in the system bank, the **F7** (SELECT ALL) key cannot be selected.

- (4) Press the **←** key to move ► to the left (Memory Stick side), and position the blinking cursor bar at the bank number of the save destination (system bank of Memory Stick) using the **↑/↓** keys.

- (5) Press the **F9** (COPY) key.
A confirmation message appears.

To cancel storing

Press the **CLR** (CLEAR) key while the confirmation message is displayed.

- (6) Press the **F9** (COPY) key while pressing the **SFT** (SHIFT) key.
Storing the settings starts. The title of the save origin appears at the save destination (Memory Stick side) upon completion of the storing.

To give or change a title after saving

Edit system bank titles referring to Section 1-11-7.

To protect the system bank after saving (protection against wrong deletion)

Position ► at a bank number to be protected, and press the **ALT** key.

Press the **F2** (PROTECT) key to light up a key mark to the left of the bank number.

- (7) Press the **F10** (EXIT) key several times to return to the HOME menu.

5. Loading the settings from Memory Stick to the system bank

Note

When updating the current system settings to those stored in a Memory Stick, eject the tape and confirm that the standby mode is set to off before reading the data.

- (1) Insert the Memory Stick storing the data to be loaded into the slot, and display the SYSTEM CARD BANK menu.
- (2) Press the **F8** (DIRECTION) key with the SYSTEM CARD BANK menu, and choose → direction.
The right cursor bar blinks.
- (3) Press the **←** key to move ► to the left (Memory Stick side), and position the lighting cursor bar at the bank number of the save origin (system bank of Memory Stick) using the **↑/↓** keys.

To collectively read eight pieces of system bank data stored in a Memory Stick

Press the **F7** (SELECT ALL) key.

Note

If any protected bank number exists in the system bank, the **F7** (SELECT ALL) key cannot be selected.

- Press the **→** key to move **▶** to the right (unit data side), and position the blinking cursor bar at the bank number of the save origin (unit system bank) using the **↑**/**↓** keys.

To update the current system settings

Position the blinking cursor bar at the item **C**.

- Press the **F9** (COPY) key.
A confirmation message appears.

To cancel reading

Press the **CLR** (CLEAR) key while the confirmation message is displayed.

- Press the **F9** (COPY) key while pressing the **SFT** (SHIFT) key.
Reading the settings starts, and the title of the save origin appears at the save destination (unit data side) upon completion of the reading.

To update the current system settings

Upon completion of writing the setting to the current system settings, the system is reset with a beep and the unit restarts.

After the unit restarts, the title of the read bank number appears at the right item **C**.

- Press the **F10** (EXIT) key several times to return to the HOME menu.

1-11-7. Editing Titles of the System Bank

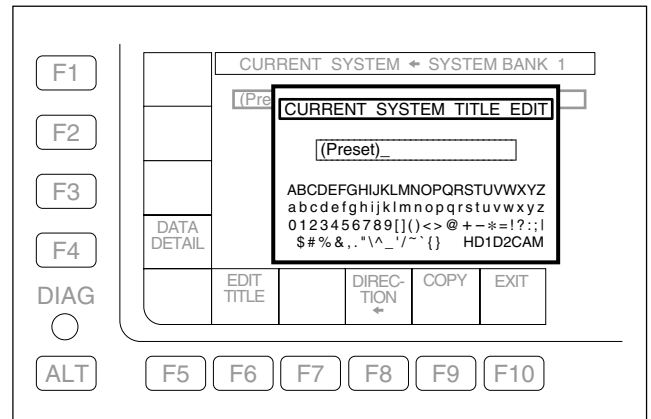
Titling the system bank of the unit with the SYSTEM BANK menu or SYSTEM CARD BANK menu enables to manage the system setting data with a title.

Note

A title that is read last is displayed at the current system settings of the unit (**C** in the SYSTEM BANK menu or SYSTEM CARD BANK menu).

If the system settings are updated after reading with the SYSTEM menu, META DATA SETUP menu or PHASE SET menu, the title shown at **C** remains unchanged. Therefore, a bank number with the same title as that shown at **C** does not ensure that the data is identical to the current system settings.

- Display the SYSTEM BANK menu or SYSTEM CARD BANK menu.
- Position **▶** at the item for editing title using the **←**/**→**/**↑**/**↓** keys.
- Press the **F6** (EDIT TITLE) key.
A window for editing text opens.



- Type characters.
For typing characters, refer to the operation manual.
- Press the **F10** (SAVE/EXIT) key.
The entered title is fixed.

1-11-8. Checking Saved System Bank Data in Detail

The data stored in the system bank is the settings of the SYSTEM menu, META DATA SETUP menu, and PHASE SET menu.

Details of the settings and the current system settings of the unit can be checked in the following procedure.

Note

Refer to the following for the setting of each menu.

- SYSTEM menu: Section 1-11-1
- META DATA SETUP menu: Section 1-11-3
- PHASE SET menu: Section 1-11-4

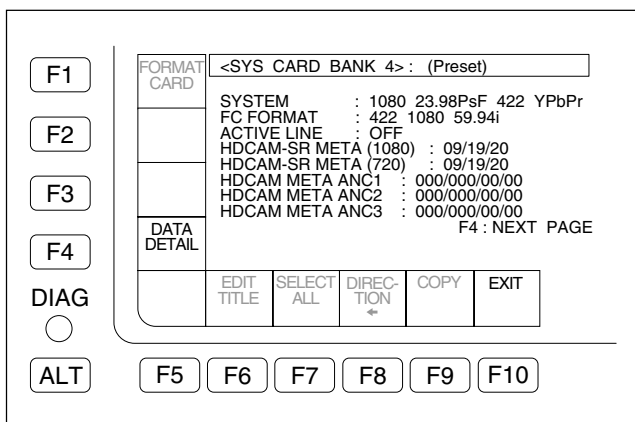
- (1) Display the SYSTEM BANK menu or SYSTEM CARD BANK menu.
- (2) Position **▶** at the item to be checked in detail using the **←/→/↑/↓** keys.
- (3) Press the **F4** (DATA DETAIL) key to display details of the selected system bank data.

Setting items different from the current system settings of the unit are displayed with yellow characters.

Further, setting items that cannot be loaded to the current system settings due to options are displayed with red characters.

Note

The system bank data including setting item with red characters cannot be loaded to the current system settings, but can be copied (between Memory Stick and system bank of the unit).



- (4) Press the **F4** (DATA DETAIL) key continuously to display further detailed data and to return to the SYSTEM BANK menu or SYSTEM CARD BANK menu.

1-11-9. Compatibility of System Bank Data

The data saved in a Memory Stick on the unit is also available for other SRW-5800.

However, the data cannot be loaded to the current settings of another unit in some cases due to options or other reasons.

If the data cannot be read, check the details of the system bank data of the unit from which the data is read.

(Refer to Section 1-11-8.)

Note

The system bank data of SRW-5000/5500 is not compatible with that of SRW-5800.

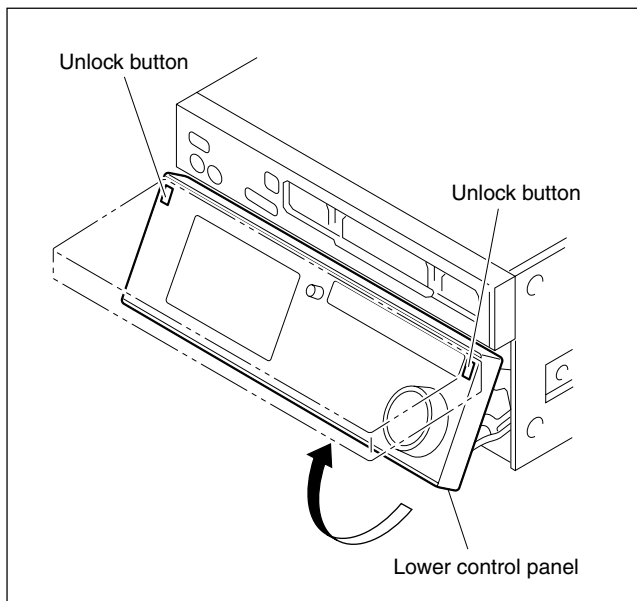
1-12. Opening/Closing the Lower Control Panel

Open the Lower Control Panel

1. After pressing the unlock buttons, open the lower control panel in the arrow direction.

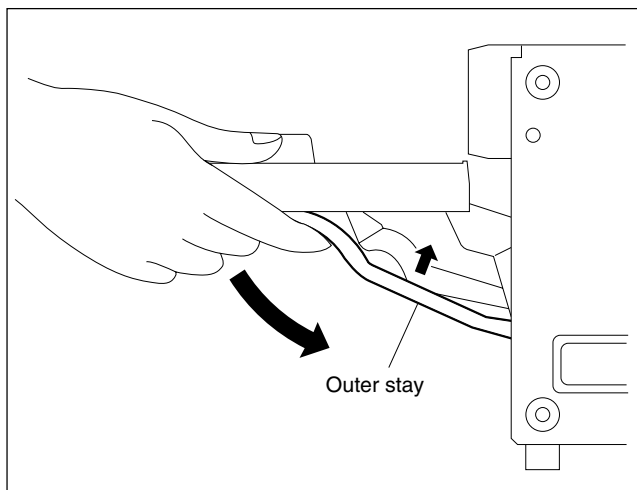
Note

The inclination of the lower control panel can be adjusted to five steps (about 18° each time) between vertical and horizontal.



Close the Lower Control Panel

1. While lifting the outer stays by the forefinger, close the lower control panel as shown in the figure.



1-13. Reference System

For each reference signal of this unit, either of an external reference video signal from the REF. INPUT 1 connector or input video signal from the HD SDI INPUT A connector is automatically selected according to the setting of setup menu ITEM-005, and the operation mode (PB/EDIT/REC) of this unit. (Refer to the table 1-13-1 below.)

Note

When the setup menu ITEM-005 is set to “external”, be sure to input the external reference video signal to the REF. INPUT 1 connector.

The record might not be correctly done.

Alarm Display for Video Input Signal and Reference Signal

Blink of the STOP button

The button blinks when the reference signal is not locked to an input video signal.

(This function can be canceled in the setup menu ITEM-102.)

- When the setup menu ITEM-005 is set to “input”:
The STOP button blinks when the signal is not input to the HD SDI INPUT A connector or when a different signal from the selected system is input.
- When the setup menu ITEM-005 is set to “external”:
The STOP button blinks when no reference signal is input to REF. INPUT 1 connector or when the different reference video signal (REF. INPUT 1) from the system is input.
- When the setup menu ITEM-005 is set to “auto”:
The STOP button blinks in either of the following cases.
In the REC/EDIT mode, when no signal is input to the HD SDI INPUT A connector or when a different signal from the selected system is input.
In the PB mode, when no reference signal is input to REF. INPUT 1 connector or when no reference video signal (REF. INPUT 1) is input.

Table 1-13-1. Reference System

ITEM-005 setting	external	auto			input
Operation mode	PB/EDIT/REC	PB	EDIT	REC	PB/EDIT/REC
Selected reference signal	REF. INPUT 1		HD SDI INPUT A		

1-14. Settings when Editor is Connected

1-14-1. Settings for Time Code

To set the TIME CODE, use the TC menu in the function menu.

Set the TIME CODE as follows when the editor or the VTR with edit function is connected.

Button	Item	Setting
F6	REGENE SOURCE	int-L
F7	TCG MODE	preset
F8	RUN MODE	free

1-14-2. Settings for Setup Menu

Set the setup menu ITEM-304: VAR SPEED RANGE FOR SYNCHRONIZATION to “wide”.

1-14-3. VTR Constant Values Settings of Editor

Set the VTR constant values according to the table 1-14-3 below when the editor which needs the setting of VTR constant values is connected.

Table 1-14-3. VTR Constant Values Settings of Editor (Standard Value/Hexadecimal)

Frame rate	VTR CONSTANT 1								VTR CONSTANT 2							
	Data No.								Data No.							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
59.94i, 60i, 60P, 29.97PsF, 30PsF	20	A2	00	96	07	07	03	8A	0D	05	00	00	80	3D	FF	5A
50i, 50P, 25PsF	21	A2	00	7D	07	07	03	8A	0D	05	00	00	80	3B	FF	4B
24PsF, 23.98PsF	22	A2	00	78	07	07	03	8A	0D	05	00	00	80	3B	FF	4B

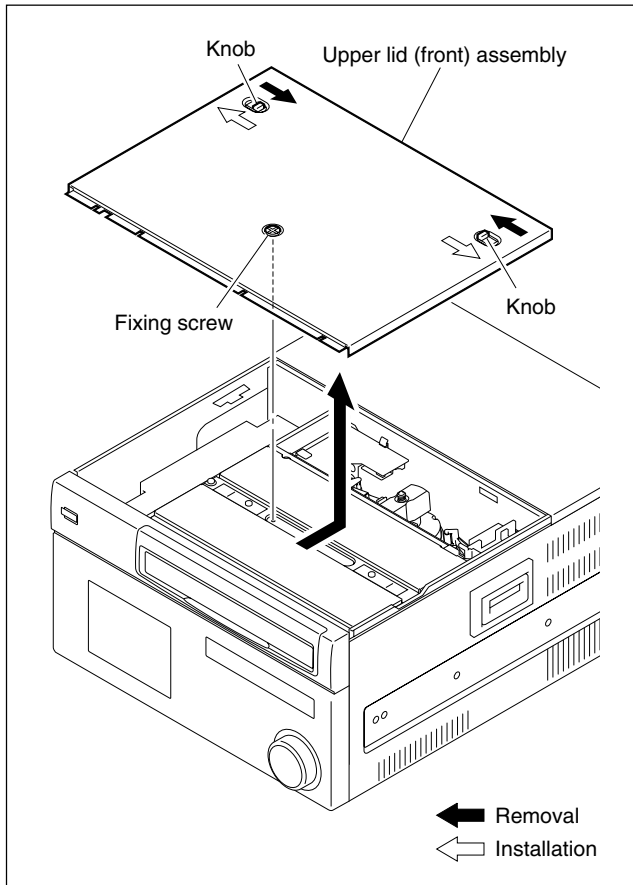
1-15. Removing/Reattaching Plug-in Board

Notes

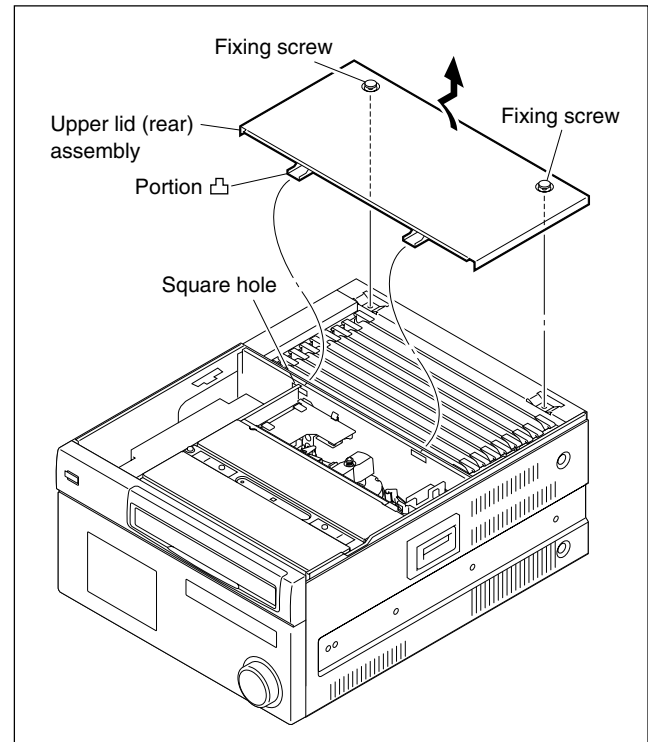
- Turn off the power and unplug the power cord before removing/reattaching the board.
- When the plug-in board is replaced, refer to the maintenance manual, volume 1.

Removing

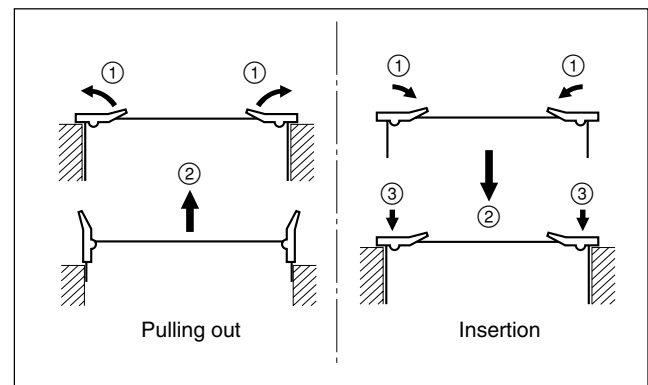
1. Fully loosen the fixing screw.
2. Slide the knobs on upper lid (front) assembly each in the inside. (Move the knobs to the outside to fix the upper lid (front) assembly.)
3. Remove the upper lid (front) assembly in the arrow direction.



4. Fully loosen the two fixing screws.
5. Remove the upper lid (rear) assembly by moving in the direction indicated by the arrow.



6. Open the eject levers on both ends of the board in the direction of the arrows.
7. Hold the eject levers and slowly pull the board out.



Reattaching

When reattaching the board, install in the reverse order of removal.

Notes

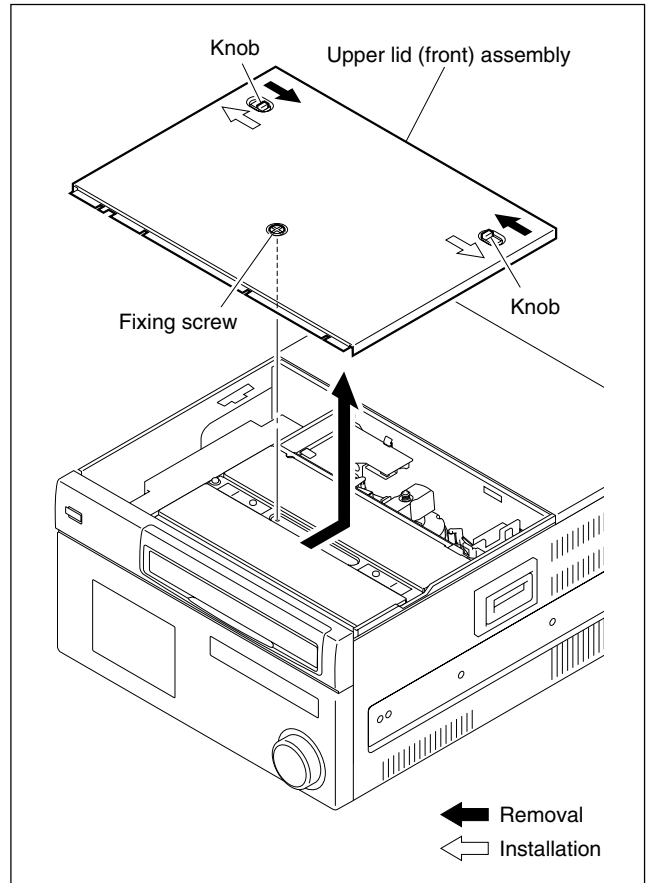
- After inserting the board, push in the two folded eject levers simultaneously to firmly connect the plug-in board to the connector on the motherboard.
- When reattaching the upper lid (rear) assembly, be sure to insert the protrusions in the square holes on the chassis, and then secure the lid.
- Tighten the fixing screws as following torque.
Tightening torque: $120 \times 10^{-2} \text{ N}\cdot\text{m}$ {12.2 kgf·cm}

1-16. Taking Out the Cassette in Tape Slacking

When slacking the tape in this unit, follow the steps below to take out the cassette tape.

Notes

- Turn off the power and unplug the power cord before taking out the cassette tape.
 - Being careful not to damage the tape, take out the cassette tape with care.
1. Fully loosen the fixing screw.
 2. Slide the knobs on upper lid (front) assembly each in the inside. (Move the knobs to the outside to fix the upper lid (front) assembly.)
 3. Remove the upper lid (front) assembly in the arrow direction.



4. Release the lock of the board holder and open the AE-31 board in the arrow direction.
5. Check by eye that the unit is in the state to be able to take up manually the tape.
6. Pull the ME wire for a few times with short steps to take up the tape inside the cassette.

Notes

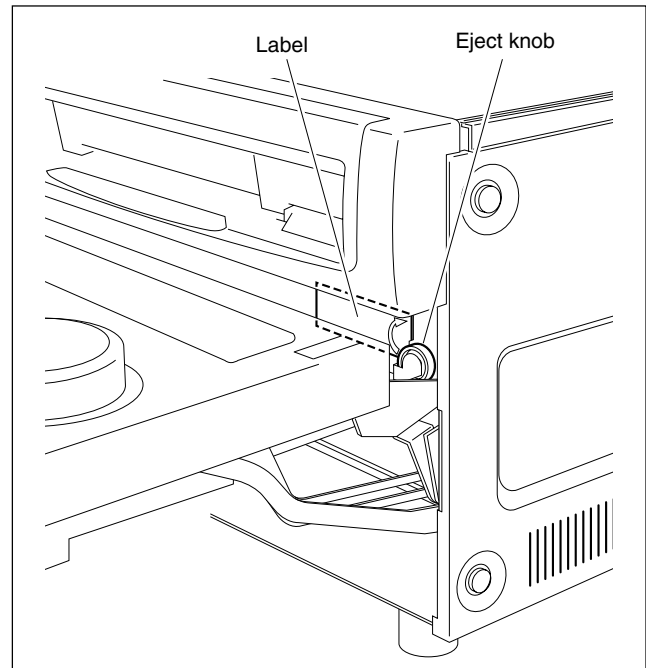
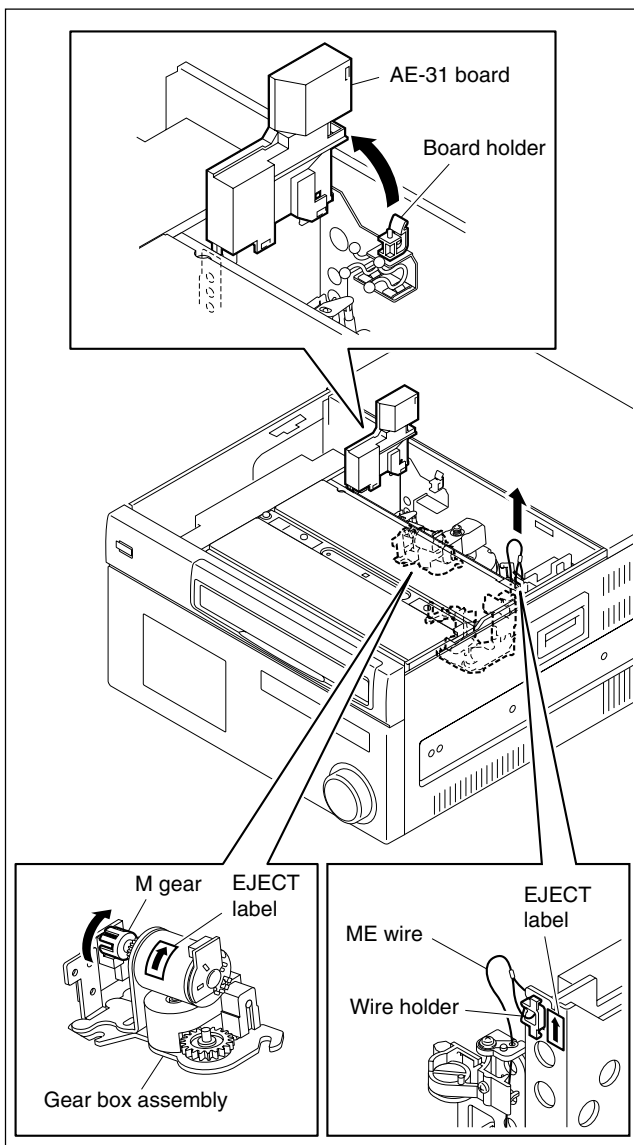
- Be careful for the tape not to catch in parts such as a flange of a tape guide.
 - Don't take the ME wire off the wire holder.
 - The ME wire links with the T real table.
The T real table rotates about 1/24 turns clockwise (take-up direction) by pulling the ME wire about 6 mm.
7. Rotate the M gear of the gear box assembly in the arrow direction on the EJECT label by about a half turn to slack off the tape.
 8. Pull the ME wire for a few times with short steps in the arrow direction on the EJECT label to take up the tape inside the cassette.

9. To complete the tape taking up into the cassette, repeat steps 7 and 8.

Note

On completely taking up the tape into the cassette, the M gear will be tighten.
(Unthreading end state)

10. Check that the ME wire is slacken.
11. Open the lower control panel.
12. Turn the eject knob in the arrow direction (clockwise) on the label until the cassette is completely ejected.



Appendix A

Setting Check Sheet

It is recommended to copy these check sheets and write down the setup conditions (switch and so on) under the application.

If the setting is changed temporarily by changing operating condition, the setting can be reset easily.

For the setup menu, store the setting values to the Memory Stick (Memory Card) before check, maintenance and repair. (Refer to the operation manual.)

It is recommended to attach the sheets to the unit when check, maintenance and repair.

If the unit is used frequently by changing the combination of each system, making the sheets are convenient.

(Make use of the check sheets in prevention of setting error.)

Model name: _____ Serial No.: _____

- Firmware

SYS1 ROM version: _____

SYS2 ROM version: _____

SY ROM version: _____

CP ROM version: _____

- RS-232C baud rate: _____ bps

- Hours meter

Write down the value of hours meter when checking, servicing, and maintaining.

ITEM	Date	Hours meter
H01: OPERATION HOURS	/	
H02: DRUM RUNNING HOURS	/	
H03: TAPE RUNNING HOURS	/	
H04: THREADING COUNTER	/	
H12: DRUM RUNNING HOURS (Resettable)	/	
H13: TAPE RUNNING HOURS (Resettable)	/	
H14: THREADING COUNTER (Resettable)	/	

Connector panel

Switch	Factory setting	Setting	
Reference video input 1 75 Ω	ON	<input type="checkbox"/> ON	<input type="checkbox"/> OFF
Reference video input 2 75 Ω	ON	<input type="checkbox"/> ON	<input type="checkbox"/> OFF

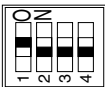
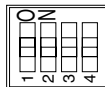
Upper control panel

Switch	Factory setting	Setting	
REMOTE 1 (9P)	LOCAL	<input type="checkbox"/> Lighting (REMOTE)	<input type="checkbox"/> OFF (LOCAL)
REMOTE 2 (50P)	LOCAL	<input type="checkbox"/> Lighting (REMOTE)	<input type="checkbox"/> OFF (LOCAL)

Switches on the board

Note

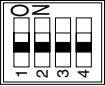

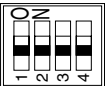



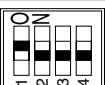





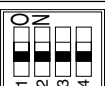
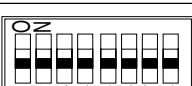
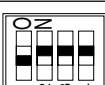



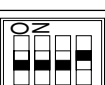


Never change the setting of Factory use switches.

Board	Name	Channel	Switch No.	Factory setting (■ : knob position)	Setting
AE-31	HEAD TUNE switch	CH1	S100	Factory use	—
		CH2	S200	Factory use	—
APR-81	Monitor output level/ output headroom	L	S2201	Factory use*1	—
		R	S2202	Factory use*1	—
CUE-13	CUE audio output level	—	S101	 +4 dBm/600 Ω	 (dBm/600 Ω)

*1: Setting at shipping vary with the circuit board.

Note

The following switches are Factory use.
Never change the setting.

Board	Switch No.	Factory setting (■ : knob position)	Board	Switch No.	Factory setting (■ : knob position)
APR-81	S1200		HIF-46	S501	
	S2200			S900	
CP-393	S1			S1400	
	S2			S1900	
	S300		S2402		
CUE-13	S100		HPR-22	S101	
DVP-43 (HKSR-5802)	S200		S102		
	S800		S104		
	S1301		SS-102	S100	
EQ-102	S400		S101		
	S403		S600		
	S601		S601		
	S2200		S1000		
	S2901				
	S3300				
	S3301				
	S4000				

(Continued)

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