

For Customer in China

根据中华人民共和国信息产业部第39号令《电子信息产品污染控制管理办法》及标准中要求的“有毒有害物质或元素名称及含量”等信息，本产品相关信息请参考以下链接：

<http://pro.sony.com.cn>



SONY[®]

PORTABLE MEMORY RECORDER

SR-R4

CONTROL PANEL

SRK-CP1

出版日期：2011年11月

SR-R4
(SY)
4-412-781-01 (1)

Sony Corporation

<http://www.sony.net/>
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SRMASTER SRMemory

OPERATION MANUAL English
1st Edition



4412781010

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

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

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

Do not install the appliance in a confined space, such as book case or built-in cabinet.

IMPORTANT

The nameplate is located on the bottom of the left side.

WARNING

Excessive sound pressure from earphones and headphones can cause hearing loss. In order to use this product safely, avoid prolonged listening at excessive sound pressure levels.



Caution

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CLASS 1 LASER PRODUCT
LASERKLASSE 1 PRODUKT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This HD Portable Memory Recorder is classified as a CLASS 1 LASER PRODUCT.

Laser Diode Properties

Wavelength: 850 nm
Emission duration: Pulse modulation
Laser output power: 4 mW/channel (max)
Standard: IEC60825-1 (2007)

Egenskaber for laserdioder

Bølgelængde: 850 nm
Strålingsvarighed: Pulsmodulering
Afgivet lasereffekt: 4 mW/kanal (maks.)
Standard: IEC60825-1 (2007)

Laserdiod - Egenskaper

Våglängd: 850 nm
Strålningens varaktighet: Pulsmodulation
Lasereffekt: 4 mW/kanal (max)
Standard: IEC60825-1 (2007)

Egenskaper for laserdioder

Bølgelengde: 850 nm
Strålingsvarighet: Pulsmodulasjon
Utgangseffekt for laser: 4 mW / kanal (maks.)
Standard: IEC60825-1 (2007)

VAROITUS!

LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTAA ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITTÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

WARNING

OM APPARATEN ANVÄNDS PÅ ANNAT SÄTT ÄN I DENNA BRUKSANVISNING SPECIFICERATS, KAN ANVÄNDAREN UTSÄTTAS FÖR OSYNLIG LASERSTRÅLNING, SOM ÖVERSKRIDER GRÄNSEN FÖR LASERKLASS 1.

Caution

The use of optical instruments with this product will increase eye hazard.

For the customers in the U.S.A.

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.

All interface cables used to connect peripherals must be shielded in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For the customers in Canada

This Class A digital apparatus complies with Canadian ICES-003.

For the customers in Europe

This product with the CE marking complies with the EMC Directive issued by the Commission of the European Community. Compliance with this directive implies conformity to the following European standards:

- EN55103-1 : Electromagnetic Interference (Emission)
- EN55103-2 : Electromagnetic Susceptibility (Immunity)

This product is intended for use in the following Electromagnetic Environments: E1 (residential), E2 (commercial and light

industrial), E3 (urban outdoors), E4 (controlled EMC environment, ex. TV studio).

For the customers in Europe

The manufacturer of this product is Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japan.

The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters please refer to the addresses given in separate service or guarantee documents.

注意

用户不得自行更换电池，应交由合格维修人员进行。如果电池更换不当会有爆炸危险。只能用同样类型或等效类型的电池来更换。

【电池使用安全须知】

- 不得将电池充电。
- 不得将电池投入火中，加热、分解或改造。
- 应使用指定种类的电池。
- 应使用推荐期限内的电池。
- 应按极性正确安装电池。
- 应及时取出耗尽电池。
- 不得将电池新旧混用。
- 不得将电池弃于水、海水，或弄湿。
- 不得将电池放在小孩容易触及的地方。
- 严禁直接焊接电池。
- 应正确安装电池以防止电池短路。

For the State of California, USA only

Perchlorate Material - special handling may apply, See

www.dtsc.ca.gov/hazardouswaste/perchlorate

Perchlorate Material : Lithium battery contains perchlorate.

For the customers in Taiwan only



廢電池請回收

Avant d'utiliser l'appareil, veuillez lire attentivement ce manuel et le conserver pour future référence.

AVERTISSEMENT

Afin de réduire les risques d'incendie ou d'électrocution, ne pas exposer cet appareil à la pluie ou à l'humidité.

Afin d'écarter tout risque d'électrocution, garder le coffret fermé. Ne confier l'entretien de l'appareil qu'à un personnel qualifié.

Ne pas installer l'appareil dans un endroit confiné, par exemple une bibliothèque ou un placard encastré.

IMPORTANT

La plaque signalétique se situe sous le panneau de gauche.

AVERTISSEMENT

Une pression acoustique excessive en provenance des écouteurs ou du casque peut provoquer une baisse de l'acuité auditive.

Pour utiliser ce produit en toute sécurité, évitez l'écoute prolongée à des pressions sonores excessives.

CAUTION	CLASS 3B VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO THE BEAM.
ATTENTION	CLASS 3B RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FASCEAU.
VORSICHT	KLASSE 3B SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.
ADVARSEL	KLASSE 3B SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNDSÅ UDSÆTTELSE FOR STRÅLING.
ADVARSEL	KLASSE 3B SYNLIG OG USYNLIG LASERSTRÅLING NÄR DENNA ÅPNES. UNNSÅ EXPOSERING FÖR STRÅLEN.
VARNING	KLASS 3B SYNLIIG OCH OSYNLIIG LASERSTRÅLING NÄR DENNA DEL ÄR ÖPPNAD. STRÅLEN ÄR FÄRLIG.
VARO!	KURSSI 3B NÄKYVÄ JA NÄKYVÄTÖN AVAATTAESSA OLET ALLITNA LASERSÄTELYLLÄ. ÄLÄ KATSO SÄTEESIEN.
注意	打开时有3B类可见及不可见激光辐射 避免光束照射

4-408-128-01

CLASS 1 LASER PRODUCT
LASER KLASSE 1 PRODUKT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

Enregistreur mémoire portable HD est classée comme PRODUIT LASER DE CLASSE 1.

Pour les clients au Canada

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Pour les clients en Europe

Ce produit portant la marque CE est conforme à la Directive sur la compatibilité électromagnétique (EMC) émise par la Commission de la Communauté européenne.

La conformité à cette directive implique la conformité aux normes européennes suivantes :

- EN55103-1 : Interférences électromagnétiques (émission)
- EN55103-2 : Sensibilité électromagnétique (immunité)

Ce produit est prévu pour être utilisé dans les environnements électromagnétiques suivants : E1 (résidentiel), E2 (commercial et industrie légère), E3 (urbain extérieur) et E4 (environnement EMC contrôlé, ex. studio de télévision).

Pour les clients en Europe

Le fabricant de ce produit est Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japon.

Le représentant autorisé pour EMC et la sécurité des produits est Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Allemagne. Pour toute question concernant le service ou la garantie, veuillez consulter les adresses indiquées dans les documents de service ou de garantie séparés.

Bitte lesen Sie dieses Handbuch vor der Benutzung des Geräts sorgfältig durch und bewahren Sie es zum späteren Nachschlagen auf.

WARNUNG

Um die Gefahr von Bränden oder elektrischen Schlägen zu verringern, darf dieses Gerät nicht Regen oder Feuchtigkeit ausgesetzt werden.

Um einen elektrischen Schlag zu vermeiden, darf das Gehäuse nicht geöffnet werden. Überlassen Sie Wartungsarbeiten stets nur qualifiziertem Fachpersonal.

Das Gerät nicht an Orten aufstellen, z.B. in Bücherregalen oder Einbauschränken, wo keine ausreichende Belüftung gewährleistet ist.

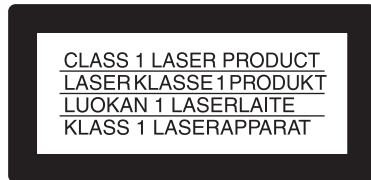
WICHTIG

Das Namensschild befindet sich auf der Unterseite der linken Wand.

WARNUNG

Zu hoher Schalldruck von Ohrhörern und Kopfhörern kann Gehörschäden verursachen.

Um dieses Produkt sicher zu verwenden, vermeiden Sie längeres Hören bei sehr hohen Schalldruckpegeln.



Dieser Tragbarer HD-Speicherrecorder ist als LASERPRODUKT DER KLASSE 1 eingestuft.

Daten der Laserdiode

Wellenlänge: 850 nm

Emissionsdauer: Pulsmodulation

Laser-Ausgangsleistung: 4 mW/Kanal (max.)

Standard: IEC60825-1 (2007)

Für Kunden in Europa

Dieses Produkt besitzt die CE-Kennzeichnung und erfüllt die EMV-Richtlinie der EG-Kommission.

Angewandte Normen:

- EN55103-1: Elektromagnetische Verträglichkeit (Störaussendung)
- EN55103-2: Elektromagnetische Verträglichkeit (Störfestigkeit)

Für die folgenden elektromagnetischen Umgebungen: E1 (Wohnbereich), E2 (kommerzieller und in beschränktem Maße industrieller Bereich), E3 (Stadtbereich im Freien) und E4 (kontrollierter EMV-Bereich, z.B. Fernsehstudio).

Für Kunden in Europa

Der Hersteller dieses Produkts ist Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japan.

Der autorisierte Repräsentant für EMV und Produktsicherheit ist Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Deutschland. Bei jeglichen Angelegenheiten in Bezug auf Kundendienst oder Garantie wenden Sie sich bitte an die in den separaten Kundendienst- oder Garantiedokumenten aufgeführten Anschriften.

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Chapter 1 Overview

Features

The SR-R4 is a portable memory recorder of the SRMASTER series, featuring an F65 dockable CAMERA port and using the newly developed SRMemory card for the recording media.

SRMASTER and SRMemory are trademarks of Sony Corporation.

F65RAW Recording

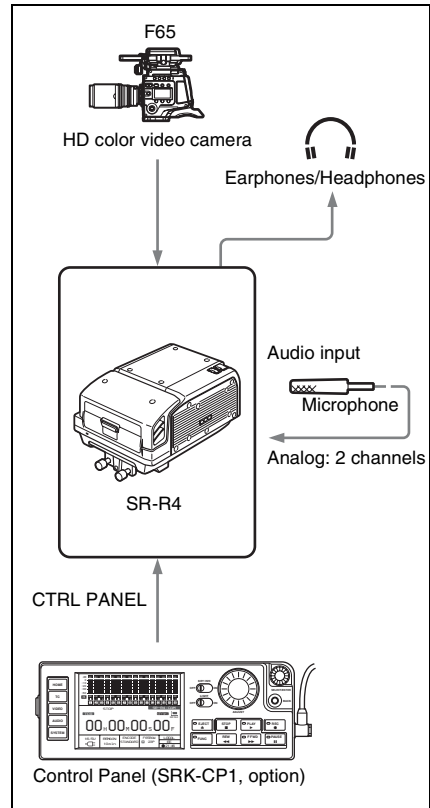
Supports F65RAW recording.
There is 16-channel (uncompressed, 24-bit, 48 kHz) support for audio.

F65 dockable operation

Supports dockable operation in combination with the F65.

System Configuration Example

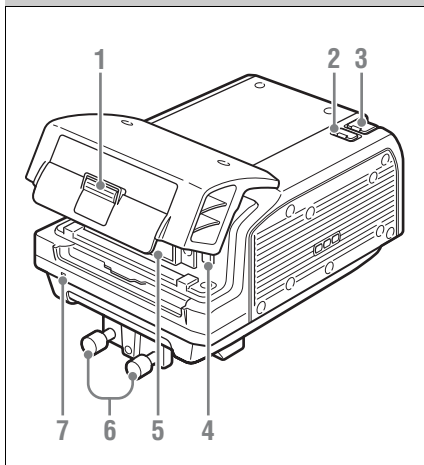
The following figure shows a system configured around the SR-R4.



Names of Parts

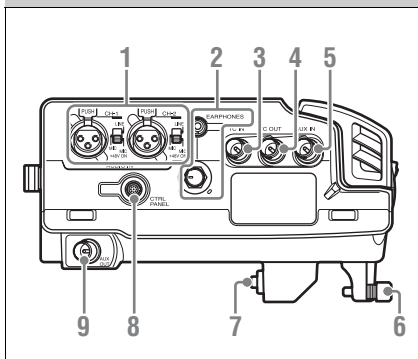
For detailed information on functions and usage, see the pages indicated in brackets.

Overall View



1. Lid open/close button (page 22)
2. Tally indicator (page 22)
Lights up during recording.
Flashes as a warning indication when an error or problem has occurred.
3. POWER (power supply) indicator (page 21)
Lights up in green when power to the unit is on.
4. EJECT button (page 23)
5. SRMemory card slot (page 22)
6. Docking screws (page 18)
7. LID LOCK indicator (page 22)
Lights up in orange when an SRMemory card is mounted.

Left Side View



1. AUDIO INPUT CH-1, CH-2 (analog audio input channel 1, 2) connectors (3-pin XLR, female) and input selection switches

Set the input selection switches as follows, depending on the type and level of the input audio.

LINE: For line input

MIC: For microphone input

MIC +48V ON: For input from microphones with external power supply

2. EARPHONES jack (stereo mini jack) and LEVEL knob

Adjusts the audio level.

A warning/alarm tone is also output via this jack when an error is detected.

3. TC IN (time code input) connector (BNC)

Connect to the time code output connector of an external device such as a time code generator or VTR. Use this connector when locking the internal time code generator to external time code.

4. TC OUT (time code output) connector (BNC)

Connect to the time code input connector of an external device such as a time code reader or VTR. Signal is supplied according to setting made from TC Setup menu, OTHERS >TC OUT. (see page 41)

5. AUX IN (for future use)

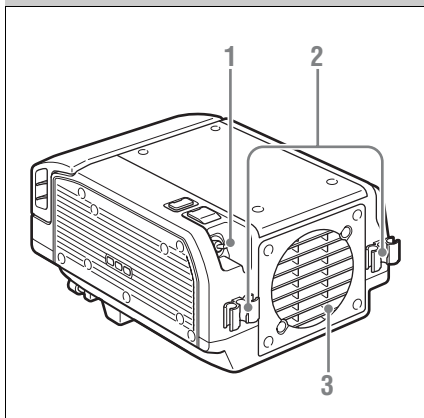
6. Docking screws (page 18)

7. CAMERA connector (page 17)


8. CTRL PANEL (Control Panel) connector (page 16)

9. AUX OUT connector (for future use)

Rear and Right Side View



1. Power switch (*page 21*)

Setting the switch to the I side turns power on, and setting the switch to the  side turns power off.

2. Cable clamp (*page 16*)

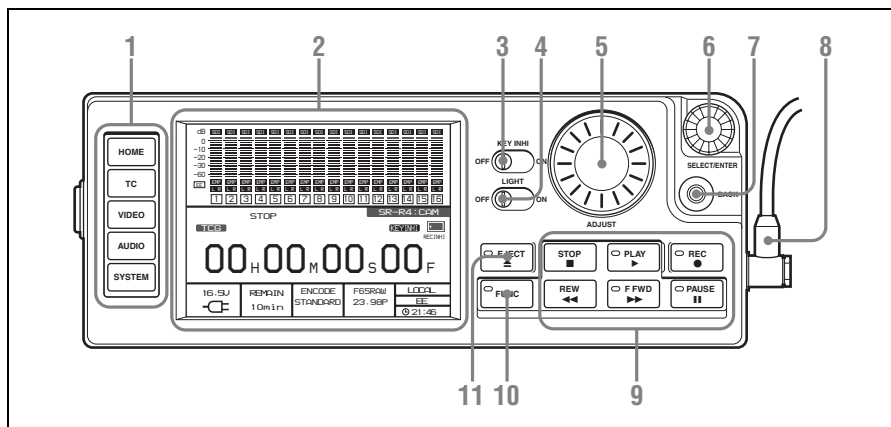
3. Fan

Note

Do not block the ventilation openings.
Otherwise internal heat buildup can lead to a risk of fire and damage to the unit.

Control Panel (SRK-CP1, Option)

For information on how to use the control panel, see “Basic Menu Operations” (page 25).



1. Menu selection buttons (page 25)

For information on menu items, see “Menu Details” (page 40).

2. Display (page 13)

3. KEY INHI (key inhibit) switch (page 26)

4. LIGHT switch (page 28)

Setting this switch to ON turns the backlight on.

5. ADJUST knob

Serves to adjust audio levels etc.

6. SELECT/ENTER dial (page 25)

Serves to make menu selections etc. Rotate the dial to move the cursor and press the dial to change and confirm settings.

7. BACK button (page 25)

When a menu is displayed, you can press this button to back up one level in the menu structure.

8. Control panel connection cable (page 16)

9. Record/Play buttons (page 34, 36, 37)

Use these buttons to play recordings and files.

The functions of the buttons change when they are pressed together with the FUNC button.

10. FUNC (Function) button (page 37)

Holding down this button changes the operation of the Record/Play buttons.

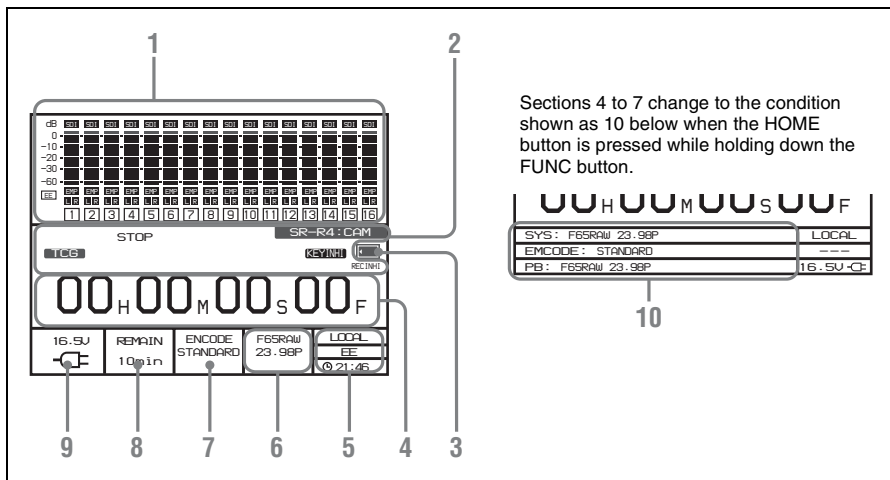
11. EJECT button and indicator (page 23)

Note on faulty pixels on the LCD panel

The LCD panel fitted to this unit is manufactured with high precision technology, giving a functioning pixel ratio of at least 99.99%. Thus a very small proportion of pixels maybe “stuck”, either always off (black), always on (red, green, or blue), or flashing. In addition, over a long period of use, because of the physical characteristics of the liquid crystal display, such “stuck” pixels may appear spontaneously. These problems are not a malfunction. Note that any such problems have no effect on recorded data.

Display

The condition shown below is called the HOME screen in this manual.



Sections 4 to 7 change to the condition shown as 10 below when the HOME button is pressed while holding down the FUNC button.

1. Audio level meters

Show the recording level in recording and E-E mode. During playback, the meters show the playback level.

The top row indicates the audio input signal that is being recorded.

The numbers 1 to 16 in the bottom row indicate the track number of the file.

2. Operation status and warning indicator

Shows the operation status of the unit as well as various warning indications.

SR-R4: CAM	The background color is red when the unit is operating in recording mode, and blue when operating in playback mode. The mode is changed using RECORDER/PLAYER in the VIDEO Setup menu.
TCR/TCG/ UBR/UBG/ TM1/TM2	Time data type.
LTC/VITC	Time code is being shown.
DF/NDF	System is in DF (drop-frame) or NDF (non-drop frame) mode. (see page 41)
EXT-LK	Time code is locked to external time code.
KEY INHI	KEY INHI switch is ON. (see page 26)

REC INHI SRMemory card is write-protected. (see page 23)

3. SRMemory card icon indications



Mounting/mounted
An SRMemory card is inserted and the lid is locked.

Unmounting (cursor section in the bottom right flashes)



The EJECT button has been pressed and the unit is transitioning to the state in which you can remove the SRMemory card.

UNMOUNT state



The lid lock has been released and the SRMemory card can be removed.



There is no SRMemory card in the unit. (off)

4. Time data indication

Shows the time data for the current position in the file.

5. Status indication

Shows the control mode of the unit (LOCAL), power mode (EE), and current time.

Top row	Shows LOCAL always.
---------	---------------------

Bottom row	Shows the current time.
------------	-------------------------

6. Signal format indication

Shows the format of the signal being recorded.

7. Encoding format indication (page 57)

Shows the encoding and bit rate settings used for recording.

8. SRMemory card remaining capacity indication

Shows the remaining space on the SRMemory card calculated as remaining time, using the current recording settings. When the remaining time is less than 3 minutes, the indication flashes.

9. Power supply voltage indication (page 21)

Shows the power supply voltage.

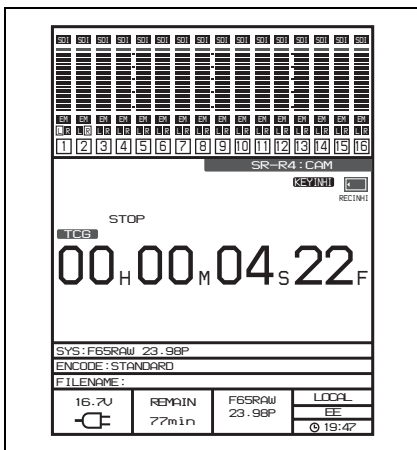
10. Signal format indication (page 27)

When the FUNC and HOME buttons are pressed simultaneously, the signal formats are displayed from top to bottom in system, encoding, playback file name sequence, or in playback file output, recording date, duration sequence.

To switch display to portrait mode

Press the HOME button while holding down the FUNC and BACK buttons to switch the display to portrait mode (rotate display 90° to the left).

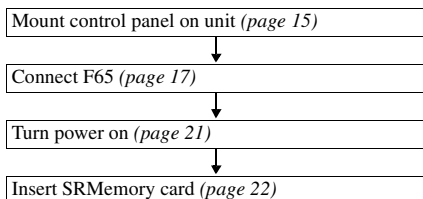
To return to landscape mode, press the HOME button again while holding down the FUNC and BACK buttons.



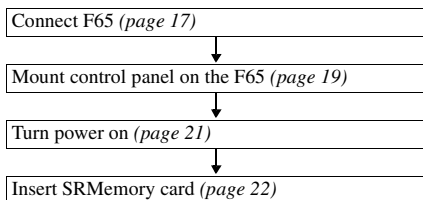
Work Flow

The steps that are required before starting to use the SR-R4 are listed below.

When mounting Control Panel (SRK-CP1, Option) on the unit



When mounting Control Panel (SRK-CP1, Option) on the F65



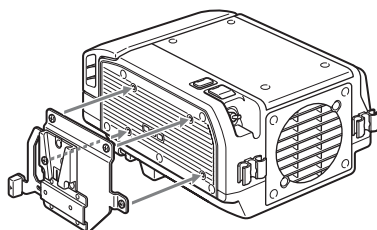
Tip

A Phillips (cross head) screwdriver is required for mounting the control panel.

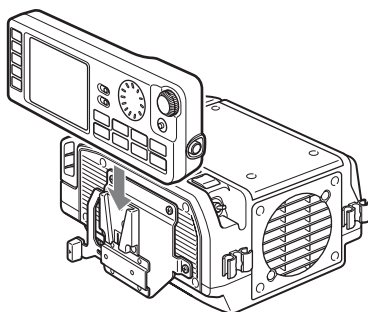
Mount Control Panel on Unit

Attach the CP bracket supplied with the Control Panel (SRK-CP1, Option) to the unit, and connect the unit and the control panel with the control panel cable.

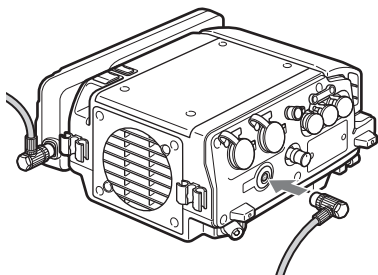
- 1 Attach the CP bracket supplied with the control panel to the right side of the unit.



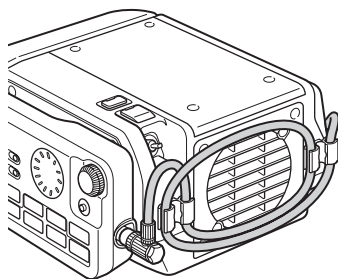
- 2 Slide the control panel into the CP bracket.



- 3 Use the supplied control panel cable to connect the unit and the control panel.**



- 4 Use the cable clamp as shown, to fix the cable.**



Notes

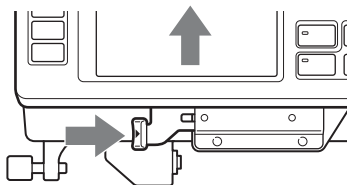
- Do not cross the cord below the clamps.
- Make sure that the bottom of the cord does not extend beyond the bottom of the SR-R4.
- If the SR-R4 cannot be docked on the F65, refer to the above and check the cord bundle again.

Note

Always turn off the power supply for the unit before disconnecting the control panel cable and removing the control panel.

To remove the control panel

Grasp the underside of the CP bracket and push it in the ► direction to release the lock. Then slide the control panel out.



Connect F65

The unit mounts onto the rear of the F65.

Tips

- When mounting the unit, first mount the F65 on a tripod and secure it such that it does not move.

For details of mounting on a tripod, refer to the Operation Manual for the F65.

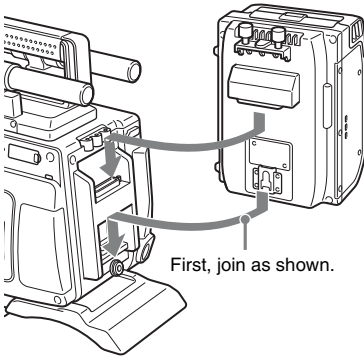
- When mounting the unit, do so in an environment relatively free from dust, etc.

1 Remove the connector cap from the CAMERA connector of the unit.

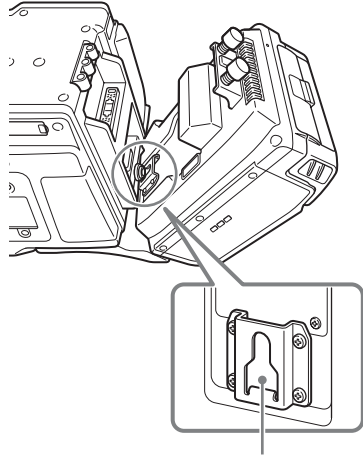
Tip

Store the connector cap in a safe location so that you do not lose it.

2 Align and connect the CAMERA connector of the unit with the F65 connector.

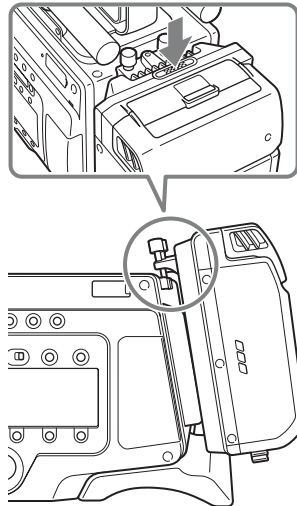


- ① Align the base of the unit with the base of the F65 as shown in the diagram.



Couple the unit in the orientation shown.

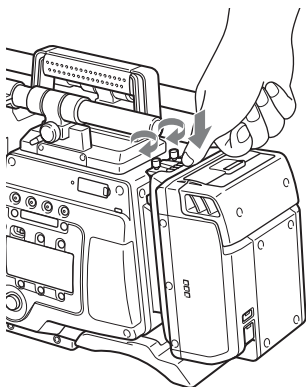
- ② Align the CAMERA connector of the unit with the F65 dock connector, and push the unit down.



- 3** Press down firmly on the point shown in the diagram, and fasten the docking screws.

Note

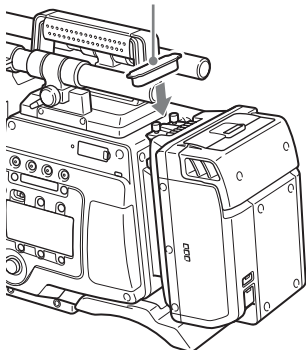
Do not push down on the lid.



Tip

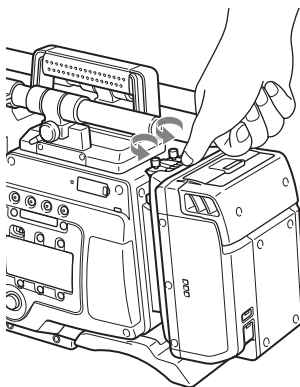
You can leave the connector cap, which was removed from the CAMERA connector, attached to the docking screws.

Connector cap

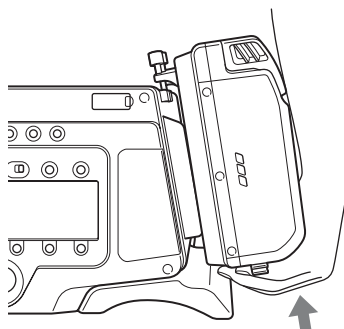


Removing the Unit from the F65

- 1** Press down firmly on the point shown in the diagram, and loosen the docking screws.



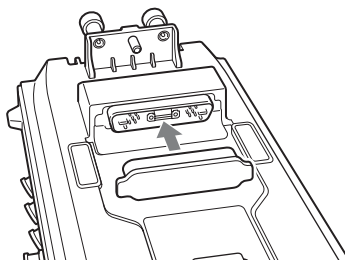
- 2** Remove the unit by lifting it. When lifting, hold the unit as close as possible to the F65 and pull it up.



Note

Do not push on the ventilation openings.

- 3** Attach the connector cap to the CAMERA connector of the unit.

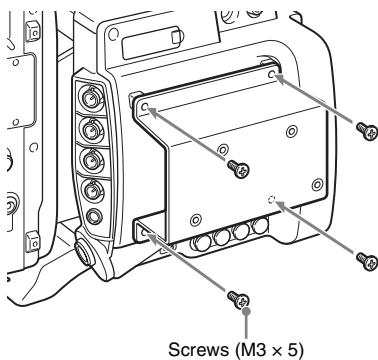


Mount Control Panel on the F65

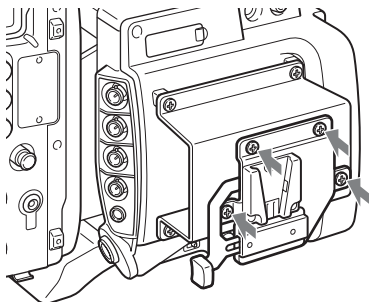
Attach the Control Panel (SRK-CP1, Option) to the F65, and connect the unit and the control panel with the control panel cable.

- 1 Attach the outside bracket supplied with the control panel to the side of the F65, and fasten using the 4 supplied screws (M3 × 5).**

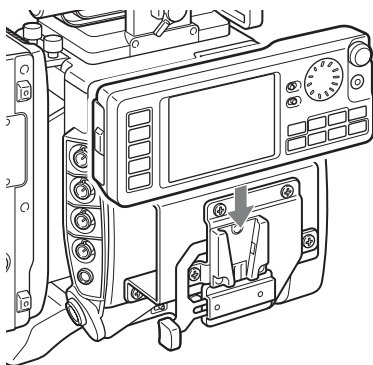
There are 2 types of outside bracket. Attach the larger outside bracket to an F65 with a mechanical shutter or the smaller outside bracket to an F65 without a mechanical shutter.



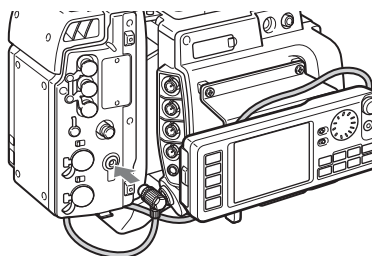
- 2 Attach the CP Bracket to the outside bracket.**



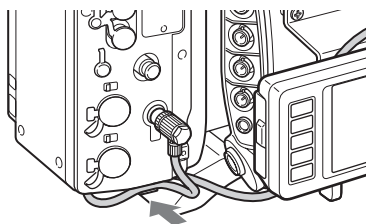
- 3 Slide the control panel into the CP bracket.**



- 4 Use the supplied control panel cable to connect the unit and the control panel.**



- 5 Use the cable clamp as shown to fix the cable.**

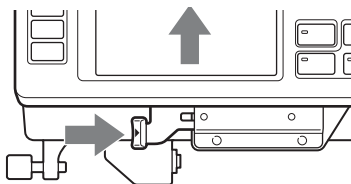


Note

Always turn off the power supply for the unit before disconnecting the control panel cable and removing the control panel.

To remove the control panel

Grasp the underside of the CP bracket and push it in the ► direction to release the lock. Then slide the control panel out.



Attach the Battery Pack

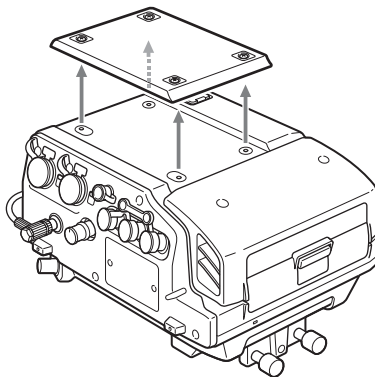
To attach the battery pack, the following options must be installed using the BKP spacer supplied with the unit.

- BKP-L551 battery pack adapter (power supply for accessories)
- Battery adapter for the F65 (power supply for the F65, scheduled for release)

Note

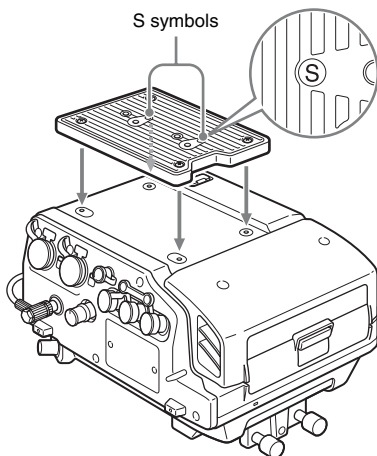
Power cannot be supplied directly to the unit from the battery pack.

1 Remove the top cover of the unit.



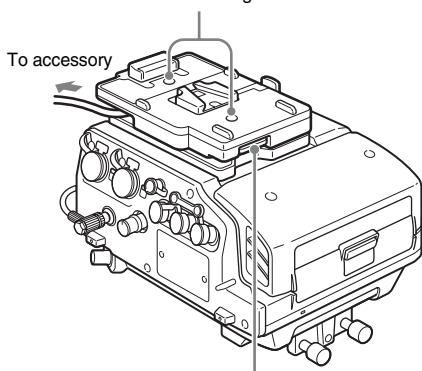
2 Attach the supplied BKP spacer.

The S symbol must face up.



3 Attach the BKP-L551 using the screw holes labeled with an S symbol, and fasten.

BKP-L551 fastening L screws



BKP-L551 fastening L wrench

Turn Power On

To power up the unit

1 Press the power switch on the SR-R4 on the I side.

2 Set the F65 POWER OFF/ON switch to ON.

The power comes on together with the F65 and the POWER indicator lights up in green.

To power down the unit

1 Set the F65 POWER OFF/ON switch to OFF.

The power is turned off together with the F65 and the POWER indicator goes out.

Note

To prevent the risk of data corruption, do not interrupt the F65 DC IN power supply while the SR-R4 is turned on.

Tip

If power is turned off while an SRMemory card is mounted, the unit will not power down immediately, to protect the data on the card. The SRMemory card will be unmounted first, and then the unit powers down.

Checking the power/voltage

The indication at the bottom left of the control panel display serves to verify the battery status or the voltage of the external power supply.

However, this indication is not based on the actual connection condition but on the setting made under SYSTEM Setup > BATTERY > DCIN TYPE. (see page 46)

Set DCIN TYPE to match the power supply used by the F65.

Tips

- When signal format is shown, the indication appears at bottom right.

- The voltage shown is the actual voltage used by the unit (this may be lower than the input voltage and the F65 DC IN connector).

When a battery pack is selected

The battery symbol is shown.

16.5V



- When fully charged, all seven segments are lit. As the battery pack discharges, the segments go out from left to right.
- When the battery pack is almost exhausted (NEAR END), the voltage indication and the tally indicator start to flash, and an intermittent warning tone sounds in the earphones.
- When the battery pack is completely exhausted (END), the corresponding warning indication lights, the tally indicator starts to flash at a higher rate, and the earphones warning tone sounds continuously.

Tip

The DCIN TYPE option in the SYSTEM Setup menu allows you to set the battery voltages which trigger the NEAR END and END warnings. (see page 46)

When AC power is selected

The connector symbol is shown.

16.5V



Insert SRMemory Card

Supported SRMemory cards

The unit supports the following SRMemory cards.

59.94p

SRMemory card	Recording time ¹⁾ (F65RAW mode)
SR-256S55	6
SR-512S55	12

Unit: Minutes (approx.)

23.97p

SRMemory card	Recording time ¹⁾ (F65RAW mode)
SR-256S55	15
SR-512S55	30

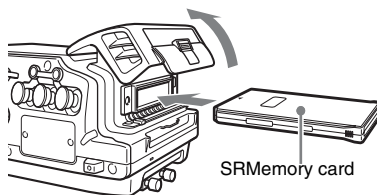
Unit: Minutes (approx.)

1) The recording time varies depending on the model and recording conditions.

To insert the SRMemory card

- Press the lid open/close button to open the lid of the SRMemory card slot and insert the SRMemory card.

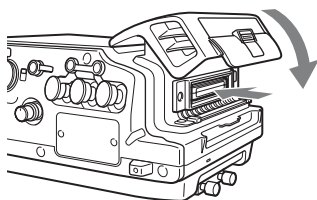
Take care to insert the SRMemory card with the correct orientation.



Tip

If the LID LOCK indicator is lit in orange, showing that the lid is locked, press the EJECT button on the control panel to unmount the card first, and then open the lid.

- 2 Push the SRMemory card all the way in and close the lid.



The SRMemory card is mounted, and the LID LOCK indicator lights up in orange. Verify that no error message is shown on the control panel display.

Tip

When closing the lid, make sure to close it all the way until it will go no further.

- If “XXX: SALVAGE DETECT” is shown on the display

This indicates that the previous recording did not complete normally.

For information on what to do in this case, see “Salvaging SRMemory cards for which recording did not complete properly” (page 54) in the “Troubleshooting” section.

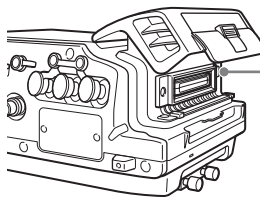
To remove the SRMemory card

- 1 Press the EJECT button on the control panel while power to the unit is on or turn the power to the unit off.

The files in the SRMemory card are closed automatically, the SRMemory card is unmounted, and the lock of the lid is released.

During the unmount procedure, the indicator of the EJECT button on the control panel is lit.

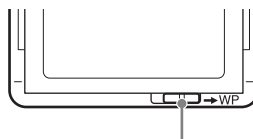
- 2 Press the lid open/close button to open the lid.
- 3 Press the EJECT button on the right side of the slot to remove the SRMemory card.



Pressing this button causes the SRMemory card to pop out.

Write-protecting the card

In order to prevent inadvertent erasure of recorded content, you can slide the write protect switch to “WP.”



Write protect switch Slide fully to the right.

When the card is inserted in the SR-R4 in this condition, the indication “REC INHI” appears, and recording is not possible.

To re-enable recording on this card, return the write protect switch to the original condition.

Formatting an SRMemory Card (File System Format)

SRMemory cards are sold already formatted, so you can use a newly purchased SRMemory card right away.

To format an SRMemory card on which data were recorded, proceed as follows.

Note

Formatting will erase all files and data on the SRMemory card.

For details on menu operation, see “Basic Menu Operations” (page 25).

- 1 Press the SYSTEM button.
The SYSTEM Setup menu appears.

- 2 Select and confirm “SRMemory” → select and confirm “FORMAT” → move the cursor to [OK] and confirm while pressing the FUNC button.**

The file system formatting process starts.

When the process is finished, the indication “Completed” is shown.

- 3 Return to the HOME screen. (*see page 26*)**

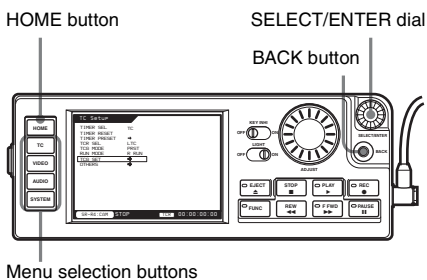
The menu system of the SR-R4 consists of the following four menus.

Menu	Overview
TC Setup	Serves for making time code settings.
AUDIO Setup	Serves for making audio signal related settings.
SYSTEM Setup	Serves for making system settings.

For details on menu items, see “Menu Details” (page 40).

The menu is operated with the control panel.

Buttons Used for Menu Operations



Serve for Selecting a Menu

Selecting a menu

Press the respective menu selection button.

TC: Brings up the TC Setup menu.

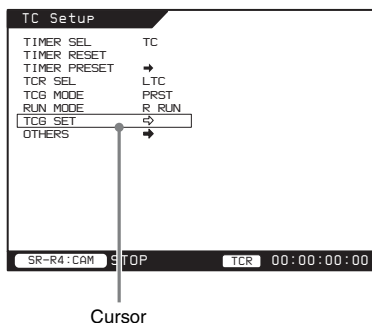
AUDIO: Brings up the AUDIO Setup menu.

SYSTEM: Brings up the SYSTEM Setup menu.

Selecting and making settings within a menu

Example: TC Setup menu

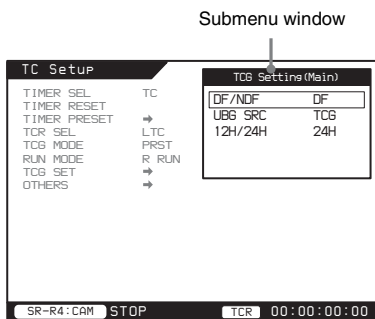
- 1 Rotate the **SELECT/ENTER** dial to move the cursor to the target item, and press the **SELECT/ENTER** dial.



A submenu for the selected item appears, and the cursor moves to the submenu.

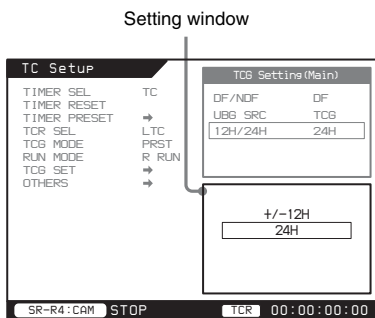
If the selected item is a command, the command is executed.

- 2 Rotate the SELECT/ENTER dial to move the cursor to the target item, and press the SELECT/ENTER dial.



A setting window appears, and the cursor moves to the setting window.

- 3 Rotate the SELECT/ENTER dial to select the desired setting, and press the SELECT/ENTER dial to accept the setting.



To return to an upper level

Press the BACK button.

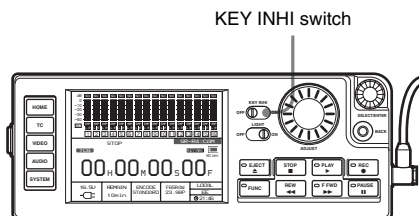
To return to the HOME screen

Press the HOME button or press the BACK button repeatedly.

Locking the Controls

To prevent operation errors or an inadvertent change in settings, the controls of the unit can be locked.

Access the SYSTEM Setup menu and set KEY INHI to "ALL" (see page 46), and then slide the KEY INHI switch to ON.



ON: All controls of the unit are inactive.

OFF: During recording, the STOP and PAUSE keys are active, and all other controls are inactive. (When not recording, all controls of the unit are inactive.)

Tip

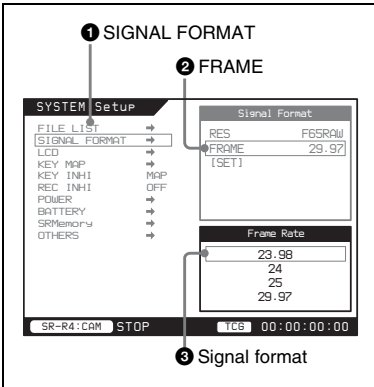
When KEY INHI in the SYSTEM Setup menu is set to "Map", the "KEYMAP" settings apply. (see page 46)

Signal Format Settings

Selecting the Signal Format

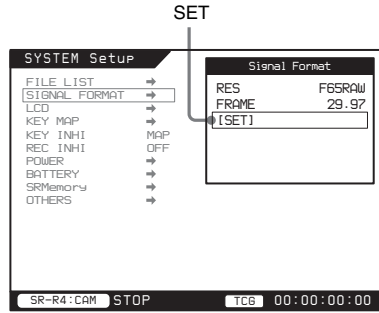
Making “SIGNAL FORMAT” settings

- 1 Press the SYSTEM button.**
The SYSTEM Setup menu appears.
- 2** **1** Select “SIGNAL FORMAT”, and confirm → **2** select “FRAME”, and confirm → **3** select the format to use, and confirm.



Return to submenu window.

- 3 Make settings for FRAME in the same way.**
- 4 After settings are complete, select SET.**



The settings complete message is shown, and the HOME screen appears again.

Operation Mode Settings

The operation mode must be switched to RECORDER for recording, and to PLAYER for playback.

You change mode using RECORDER/PLAYER (see page 42) in the VIDEO Setup menu.

Note

The unit restarts after changing the mode.

The current operation mode is indicated by the background color of the SR-R4:CAM indicator on the HOME screen.

Red: RECORDER mode

Blue: PLAYER mode

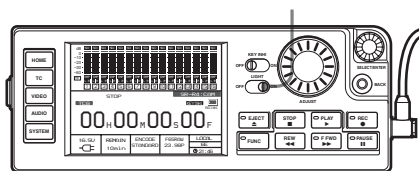
Display Settings

You can make settings for backlight use in dark locations, screen saver, etc.

Using the Backlight

Setting the LIGHT switch to ON turns the backlight on.

LIGHT switch



Adjusting the backlight brightness

Access the SYSTEM Setup menu and select LCD > BRIGHT (see page 45). The Backlight Brightness window appears, letting you adjust the setting.

Turning the backlight off after a period of inactivity

Access the SYSTEM Setup and select LCD > LIGHT OFF (see page 45). The Backlight Off Timer window appears, letting you adjust the backlight activation duration. The setting range is 5 seconds to 5 minutes. To disable automatic backlight deactivation, select “Disable.”

Default setting: Disable

Using the Screen Saver

Access the SYSTEM Setup menu and select LCD > SAVER (see page 45). The Screen Saver window appears, letting you adjust the wait interval until the screen saver is activated. The setting range is 1 minute to 1 hour. To disable the screen saver, select “Disable.”

Default setting: Disable

Date Settings

Display the System menu and select OTHERS >SET DATE menu to set the date and time of the unit.

To set the date and time (OTHERS >SET DATE menu)

- 1 Display the System menu, and then select and confirm “OTHERS” → select and confirm “SET DATE.”**
- 2 Set the year, month, day, local time, and UTC (Coordinated Universal Time) offset (e.g., +9:00 for Japan), and then select and confirm [SET].**

Note

Time information is recorded to SRMemory cards in UTC format and is displayed using the offset value as its base.

Recording Preparations and Operations

Before recording, make the following preparations.

Recording preparations

Preparation	Operation	Reference
Set the date and time for the unit.	OTHERS >SET DATE in the SYSTEM Setup menu	page 29
Select the format signals to record.	SIGNAL FORMAT in the SYSTEM Setup menu	page 27
Select the audio signals to record.	INPUT SEL in the AUDIO Setup menu	page 30
Set the audio signals to monitor.	PHONE SEL in the AUDIO Setup menu	page 31
Set the display range of the audio level meters.	METER TYPE in the AUDIO Setup menu	page 31
Set the recording levels.	REC LEVEL in the AUDIO Setup menu	page 32
Adjust the levels of audio signals output via the EARPHONES jack.	Rotate the LEVEL knob of the EARPHONES jack.	page 10
Cancel record inhibit if the system is set to record inhibit mode.	REC INHI in the SYSTEM Setup menu	page 34
Select the time data to display.	TIMER SEL in the TC Setup menu	page 32

Preparation	Operation	Reference
Set time code generator operation in accordance with the time code and user bits to record.	RUN MODE, and TCG MODE in the TC Setup menu	page 33

Configure the other related menu settings as necessary.

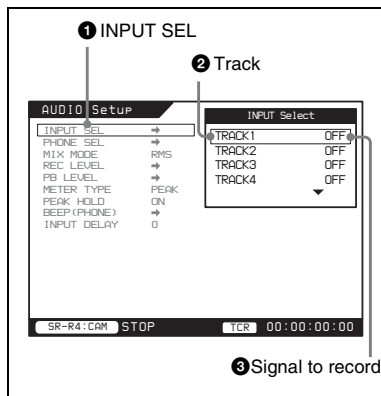
Setting the Audio Signals

Use the AUDIO Setup menu to make settings related to audio signals. Press the AUDIO button to display the AUDIO Setup menu.

To select the audio signals to record

Select the audio signal to record for each track.

- 1 Display the AUDIO Setup menu and then ① select and confirm “INPUT SEL” → ② select and confirm the track (TRACK1 to TRACK16) → ③ select and confirm the signal to record.



ANA1 to ANA2: Analog signals input via the AUDIO INPUT CH-1 and CH-2 connectors.

OFF: Does not record a signal (silence).

- 2 Set the signal to record for each of the other tracks in the same way.

To set the audio signals to monitor

Set the audio monitor signal to output from the EARPHONES jack for each channel.

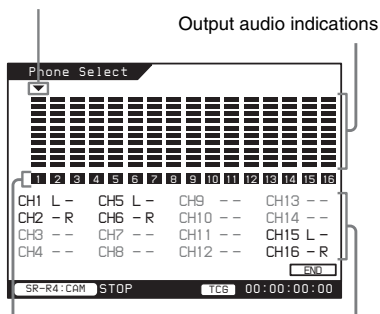
- 1 Display the AUDIO Setup menu and then select and confirm “PHONE SEL.”

The Phone Select screen appears.

- 2 **1** Select and confirm the channel number (1 to 16) → **2** press the SELECT/ENTER dial to select the channel L/R setting.

Each press of the SELECT/ENTER button changes the channel L/R setting in the order of “L” → “R” → “LR” → “--.”

Move the cursor to and select this



Channel numbers

L/R setting

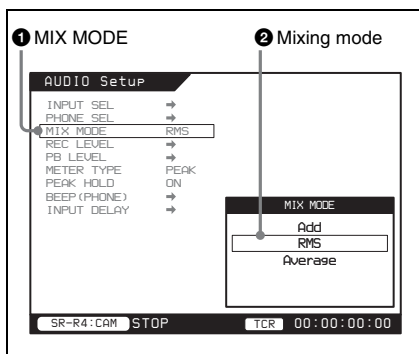
Set “--” if you do not want to output the audio signal of the selected channel from the EARPHONES jack, and “LR” if you want to output the audio signal via both the left and right.

- 3 Set each of the other channels in the same way.
- 4 When you have finished making the settings, move the cursor to and confirm “END.”

To set the mixing mode for audio signals

Display the AUDIO Setup menu and then

- 1 select and confirm “MIX MODE”
- 2 select and confirm the mixing mode.



ADD: Simple addition

RMS: Geometric mean

Average: Simple average

Setting the Recording Levels

Use the AUDIO Setup menu to make settings related to the recording levels.

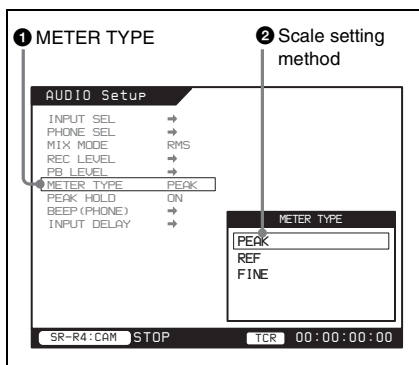
Press the AUDIO button to display the AUDIO Setup menu.

The recording levels can be checked with the audio level meters displayed in the display on the control panel. The audio level meter indications automatically switch between the recording levels for during recording and the playback levels for during playback.

To set the display range of the audio level meters

Display the AUDIO Setup menu and then

- 1 select and confirm “METER TYPE”
- 2 select and confirm the scale setting method.



Full Peak: Displays 0 dBFS as the peak value.

Full Ref: Displays the reference level (+4 dBu) as 0 dB.

Fine: Displays a scale with 0.25 dB steps and the reference level at the center.

To set the recording levels

The recording level can be set for each channel.

Note

The recording levels cannot be set during playback.

1 Display the AUDIO Setup menu and then select and confirm “REC LEVEL.”

The Rec Level screen appears.

2 Select and confirm the channel number (1 to 16).

When a channel is selected, the current recording level is indicated by a hexadecimal number. “UNI” is indicated for a channel whose recording level has not been changed.

3 Move the cursor to and confirm “VAR” → use the ADJUST knob to set and confirm the recording level.

Rotate the knob clockwise to increase the level, and counterclockwise to decrease the level.

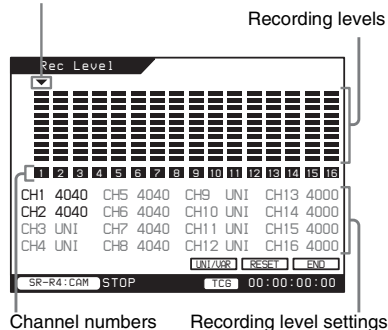
To reset the setting

Rotate the SELECT/ENTER dial to move the cursor to RESET, and then press the dial.

When you want to change the setting

Move the cursor to and confirm “UNI.”

Move the cursor to and select this



Channel numbers

Recording level settings

4 Set the recording level of each of the other channels in the same way.

5 When you have finished making the settings, move the cursor to and confirm “END.”

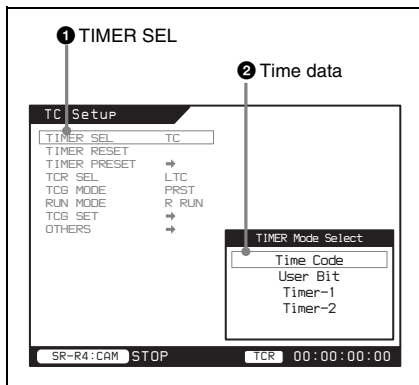
Setting the Time Code and User Bits

Use the TC Setup menu to make settings related to the time code signals.

Press the TC button to display the TC Setup menu.

To select the time data to display

Display the TC Setup menu and then ① select and confirm “TIMER SEL” → ② select and confirm the time data you want to display.



TC: Displays the time code.

UBIT: Displays the user bits.

TMI/TM2: Displays the timer value of Timer 1 or Timer 2.

To select the time code to record

The time code can be selected in the following menu.

Menu item	Time code
TCG MODE	
PRST	An arbitrary time code can be set. (R RUN/F RUN and DF/NDF can be set to an arbitrary value in the menu.)
RGN	In accordance with the time code input via the TC IN connector.

To select the user bits to record

The user bits can be selected in the following menu.

Menu item	User bits	
TCG SET	TCG MODE	
> UBG SOURCE		
TCG	PRST	Arbitrary user bits can be set. (TIMER PRESET > TCG UBIT)
	RGN	In accordance with the user bit value of the time code input via the TC IN connector.
INT	—	Arbitrary user bits can be set regardless of the setting of TCG MODE. (TIMER PRESET > TCG UBIT)

To record the time code

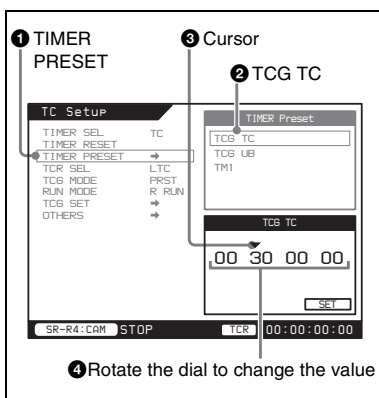
The following methods are available for recording the time code.

- Set the initial value and record the time code.
- Externally synchronize the internal time code generator.

To set the initial value and record the time code

Set an arbitrary initial value and then record the output of the internal time code generator.

- 1 **Display the TC Setup menu and then**
 - 1 **select and confirm “TIMER PRESET”** →
 - 2 **select and confirm “TCG TC”** →
 - 3 **move the cursor to and confirm the digit of the value you want to change** →
 - 4 **rotate the SELECT/ENTER dial to change the value and then confirm the value.**
- Set the other digits as necessary.



- 2 **When you have finished making the settings, move the cursor to and confirm “SET.”**

If “RUN MODE” is set to “F RUN,” the time code starts advancing immediately.

To set all digits to 0

Select and confirm TC Setup > TIMER RESET to return all values to 0.

To externally synchronize the internal time code generator

Record the output of the internal time code generator synchronized to the time code of an external input.

Use the following method to synchronize the time code generators of multiple recorders.

Display the TC Setup menu and then set “TCG MODE” to “RGN.”

For details, see “To select the time code to record” (page 33).

To record the user bits

By setting user bits, you can record up to eight hexadecimal digits of information (date, time, etc.).

To set an arbitrary value and then record user bits

- 1 **Set the TC Setup menu.**

To set arbitrary user bits regardless of the setting of “TCG MODE,” set TCG SET > UBG SOURCE to “INT.” If “TCG MODE” is set to “PRST,” TCG SET(MAIN) > UBG SOURCE can be set to any value.

For details, see “To select the time code to record” (page 33).

- 2 **Set the user bits using the same procedure as “To set the initial value and record the time code” (page 34).**

Tip

As with the time code, all digits can be returned to 0 with “TIMER RESET.”

To set the operation mode

The operation mode must be switched to RECORDER for recording.

For details, see “Operation Mode Settings” (page 28).

Recording

- 1 **Check that the REC INHI indicator is off and then insert an SRMemory card.** Before you insert the SRMemory card, check that its write-protect switch is not set to “WP.”

For details, see “To insert the SRMemory card” (page 22) and “Write-protecting the card” (page 23).br

When the REC INHI indicator is lit

Record inhibit is set.

- Set SYSTEM Setup > REC INHI to “OFF.” (see page 46)
- Check that FS LOCK for the SRMemory card is not locked. (see page 47)
- Check that the write-protect switch for the SRMemory card is not in the WP position.

- 2 Press the PLAY button while holding down the REC button.**
Recording starts, and “REC LOCK” appears.
- 3 Press the STOP button to stop recording.**

Playback Preparations and Operations

Making Settings Related to Audio Monitor Signals

The AUDIO Setup menu allows you to make various settings related to audio monitor signals for playback. The setting procedures are the same as for recording.

For details, see “Setting the Audio Signals” (page 30) and “AUDIO Setup Menu” (page 43).

To adjust the level of audio output via the EARPHONES jack

Rotate the LEVEL knob.

Adjusting Playback Audio Levels

The playback audio level can be set for each channel in “PB LEVEL” of the AUDIO Setup menu.

The setting procedure is the same as in steps 2 and 3 of “To set the recording levels” (page 32).

Note

The playback audio level cannot be adjusted during recording.

To set the display range of the audio level meters

See “To set the display range of the audio level meters” (page 31) for during recording.

Selecting the Time Data to Display During Playback

Display the TC Setup menu and then select the time data you want to display in “TIMER SEL.”
TC: LTC or VITC

Select which one is displayed in “TCR SEL” in the TC Setup menu.

UBIT: Displays the user bits for the time code selected in “TCR SEL” in the TC Setup menu.

TM1/TM2: The values counted in accordance with the playback frames.

(With TM2, the beginning of the file is 0 and the value cannot be reset.)

To set the operation mode

The operation mode must be switched to **PLAYER** for playback.

For details, see “Operation Mode Settings” (page 28).

Playback

1 Insert the SRMemory card to play back.

For details, see “To insert the SRMemory card” (page 22).

2 Press the **PLAY button.**

Playback starts and the **PLAY LOCK** indication lights up.

3 Press the **STOP button when you want to stop playback.**

How to Use the Recording and Playback Operation Buttons

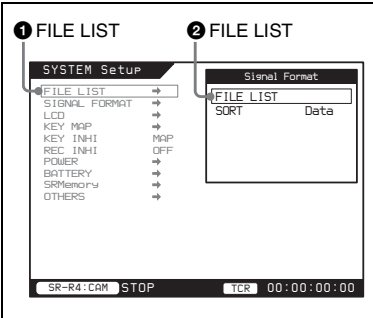
Button	Function when pressed alone	Function when pressed with FUNC button
STOP button	Stops the recording and playback operation.	—
PLAY button and indicator	Starts playback. (The indicator is lit during playback.) To start recording, press this button while holding down the REC button. To move to the last frame of the currently playing file, press this button while holding down the F FWD button.	—
REC button and indicator	To start recording, press the PLAY button while holding down this button. (The indicator is lit during recording.)	—
REW button and indicator	Moves to the beginning of the current file. If this button is pressed when at the beginning of the file, moves to the beginning of the previous file.	Executes a reverse direction search. With each press, the search speed changes in the order of x2 → x5 → x8 → x16 → x32 → x2 ... If a search is interrupted by another operation, the next search is performed at the speed in effect at the time of the interruption.
F FWD button and indicator	Moves to the beginning of the next file.	Executes a forward direction search. With each press, the search speed changes in the order of x2 → x5 → x8 → x16 → x32 → x2 ... If a search is interrupted by another operation, the next search is performed at the speed in effect at the time of the interruption.
PAUSE button and indicator	Pauses playback. (The indicator flashes during pause.) Pressing this button again resumes playback.	—

FILE LIST Operations

“FILE LIST” in the SYSTEM Setup menu allows you to perform operations such as displaying a list of the files recorded to the SRMemory card, displaying detailed information, performing file operations (deleting and renaming), and playing back files.

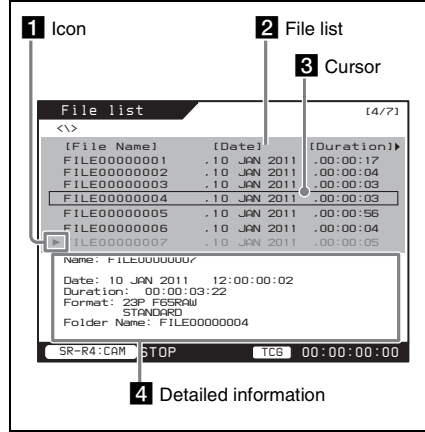
Displaying a File List

- 1 Display the SYSTEM Setup menu and then ① select and confirm “FILE LIST” → ② select and confirm “FILE LIST.”



The File list window appears.

Displayed information



1 Icons

An icon indicates the current file state.

White: Stopped

Green: Playing

Red: Recording

2 File list

A list of files recorded to the SRMemory card is displayed.

The files that cannot currently be played by the system are displayed in gray.

The icon of a file that is recording is displayed in red, and the icon of a file that is playing is displayed in green (current file).

3 Cursor

Used for selecting files.

4 Detailed information

The detailed information for the file at the cursor position is displayed.

Name: File name

Date: Recording date and time

Duration: Number of frames in file

Format: Recording data format type

Folder Name: Folder name

Display when the SRMemory card contains no files



Display during recording

When recording starts, a new file with a red icon to indicate recording is in progress is added to the list. When recording stops, the icon turns white (current file).

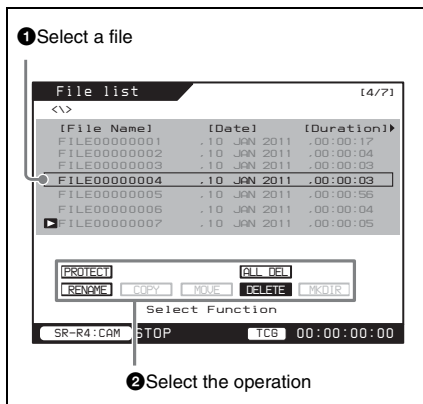
To select a file to play back

If you use the SELECT/ENTER dial to select and confirm the file you want to play back, the icon moves, the file opens.

Performing File Operations

Files can be renamed and deleted.

- 1 Select a file and then press the SELECT/ENTER dial while holding down the FUNC button to confirm the selection → 2 select and confirm the desired operation.



RENAME: Renames the file.

DELETE: Deletes the file.

PROTECT: Changes the file protection setting.

ALL DEL: Deletes all files.

To rename a file

Select and confirm RENAME to display the file rename screen.

Rename the file and then move the cursor to and confirm [END] to apply the file name.

To cancel the change

Press the BACK button to return to the File list screen.

To delete a file

Select and confirm DELETE to display the confirmation screen.

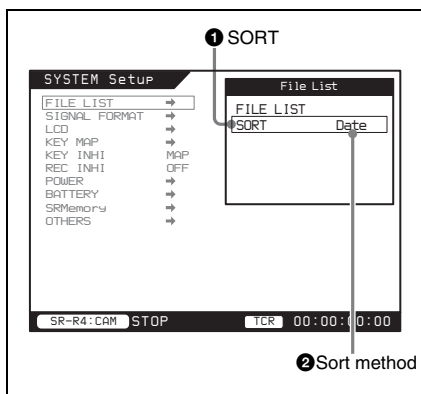
Select [OK] and then press the SELECT/ENTER dial while holding down the FUNC button to confirm the selection and delete the file.

To cancel the deletion, select and confirm [CANCEL] or press the BACK button to return to the file list.

Changing the File Display Order

The display order of files in the file list can be changed.

- 1 Select and confirm [SORT] → 2 select and confirm the sort method.



DATE: Displays the files in date order.

NAME: Displays the files in file name order.

DURATION: Displays the files in recording time order.

Chapter 5 Menu Details

- The settings displayed in bold are the factory default settings.
- The settings enclosed in [] are the settings as displayed in the settings windows.

TC Setup Menu

Setting Item	Settings
TIMER SEL	<p>Selects the type of time data to display on the display.</p> <p>TC [Time Code]: Displays the time code: Displays the time code.</p> <p>UBIT [User Bit]: Displays the user bits.</p> <p>TM1 [TIMER1]: Displays the file playback position in Hours:Minutes:Seconds:Frames format.</p> <p>TM2 [TIMER2]: Displays the playback position in Hours:Minutes:Seconds:Frames format and treats the beginning of the file as 0.</p> <ul style="list-style-type: none"> • TIMER RESET/PRESET are not available.
TIMER RESET	<p>Resets the internal time code generator, and the time data becomes “00:00:00:00” (time code) or “00 00 00 00” (user bits).</p> <p>Notes</p> <ul style="list-style-type: none"> • The values read by the time code reader cannot be reset. • Time data cannot be reset when the time code generator is locked to external time codes or to values read by the time code reader.
TIMER PRESET	<p>Selects the type of time data to preset to an arbitrary value.</p> <p>TCG TC: Time code generated by the time code generator</p> <p>TCG UBIT: User bits generated by the time code generator</p> <p>TM1: TM1 signal count value</p>
TCR SEL	<p>Selects the type of playback time code/user bits.</p> <p>LTC [LTC]: Reads the LTC.</p> <p>VITC [VITC]: Reads the VITC.</p>
TCG MODE	<p>Selects the time code to which the internal time code generator synchronizes.</p> <p>PRST [Preset]: Allows you to use the “TIMER PRESET” setting item to preset the initial value of the time code generated by the internal time code generator.</p> <p>RGN [Regen]: Synchronizes the time code generator to the time code value input via the TC IN connector (regenerate).</p>

Setting Item		Settings
RUN MODE		<p>Selects the run mode of the internal time code generator.</p> <p>F RUN [Free Run]: Advances the time code while the power is on.</p> <p>R RUN [Rec Run]: Advances the time code only during recording.</p>
TCG SET	DF/NDF	Sets the frame count mode.
Time code generator settings related to the main time code	(Valid only when the frame frequency of this system is 29.97 Hz.)	<p>DF [Drop Frm]: Drop frame mode</p> <p>NDF [Non Drop Frm]: Non-drop frame mode</p> <p>Note</p> <p>This settings is valid only when TCG MODE is set to “PRST.”</p>
	UBG SOURCE	<p>Selects the source time code of user bits.</p> <p>TCG [TCG Source]: Same source time code as that of the time code generator</p> <p>INT [Internal]: Time code generated by the time code generator. Arbitrary user bits can be set regardless of the setting of TCG (<i>see page 34</i>).</p>
	12H/24H	<p>Selects the TIMER display mode.</p> <p>12H [+/-12H]: 12-hour display mode</p> <p>24H [24H]: 24-hour display mode</p> <p>Note</p> <p>When +/-12H display is selected, the tens digit of the hours value is dropped for values less than 10.</p>
OTHERS	TC OUT	<p>Selects the time code to output from the TC OUT connector.</p> <p>AUTO [Auto]: During playback, the time code read by the internal time code reader. During recording or when in E-E mode, the time code generated by the time code generator.</p> <p>TCG [TCG]: The time code generated by the time code generator.</p> <p>THRU [Through]: Outputs the time code input to the TC IN connector as is.</p>
Other settings related to the main time code	TC Delay	<p>Sets the phase difference between the LTC input from the TC IN connector and the time code generator.</p> <p>0 [NO Delay]: Same timing</p> <p>+1F [+1F Delay]: The generator is delayed by one frame.</p> <p>+2F [+2F Delay]: The generator is delayed by two frames.</p> <p>+3F [+3F Delay]: The generator is delayed by three frames.</p> <p>+4F [+4F Delay]: The generator is delayed by four frames.</p> <p>+5F [+5F Delay]: The generator is delayed by five frames.</p>

VIDEO Setup Menu

Setting Item	Settings
RECORDER/PLAYER	Selects RECORDER or PLAYER operation mode. Note After pressing the ENTER button, the unit restarts in the selected operation mode (<i>see page 28</i>).

AUDIO Setup Menu

Setting Item	Settings
INPUT SEL Selection of input signals	TRACK1 Selects the signal to assign to track 1. ANA1 [Analog CH1] to ANA2 [Analog CH2], OFF
	TRACK2 Selects the signal to assign to track 2. Same settings as TRACK1 (ANA2)
	TRACK3 Selects the signal to assign to track 3. Same settings as TRACK1 (OFF)
	TRACK4 Selects the signal to assign to track 4. Same settings as TRACK1 (OFF)
	TRACK5 Selects the signal to assign to track 5. Same settings as TRACK1 (OFF)
	TRACK6 Selects the signal to assign to track 6. Same settings as TRACK1 (OFF)
	TRACK7 Selects the signal to assign to track 7. Same settings as TRACK1 (OFF)
	TRACK8 Selects the signal to assign to track 8. Same settings as TRACK1 (OFF)
	TRACK9 Selects the signal to assign to track 9. Same settings as TRACK1 (OFF)
	TRACK10 Selects the signal to assign to track 10. Same settings as TRACK1 (OFF)
	TRACK11 Selects the signal to assign to track 11. Same settings as TRACK1 (OFF)
	TRACK12 Selects the signal to assign to track 12. Same settings as TRACK1 (OFF)
	TRACK13 Selects the signal to assign to track 13. Same settings as TRACK1 (OFF)
	TRACK14 Selects the signal to assign to track 14. Same settings as TRACK1 (OFF)
	TRACK15 Selects the signal to assign to track 15. Same settings as TRACK1 (OFF)
	TRACK16 Selects the signal to assign to track 16. Same settings as TRACK1 (OFF)
PHONE SEL	Selects the audio to output to the EARPHONES jack.
MIX MODE	Selects the method of mixing the digital audio signals output to the EARPHONES jack. ADD [Add]: Simple addition RMS [RMS]: Geometric mean AVG [Average]: Simple average
REC LEVEL	Adjusts the recording level (<i>see page 32</i>). (This adjustment is not possible during playback.)
PB LEVEL	Adjusts the playback level (<i>see page 35</i>). (This adjustment is not possible during recording.)

Setting Item		Settings
METER TYPE		Sets the display range of the audio level meters. PEAK [Full Peak]: Displays 0 dBFS as the peak value. REF [Full Ref]: Displays the reference level (+4 dBu) as 0 dB. FINE [Fine]: Displays a scale with 0.25 dB steps and -20 dB at the center.
PEAK HOLD		Sets whether or not to use the peak hold function. ON [On]: Uses the function. OFF [Off]: Does not use the function.
BEEP (PHONE) Sets the volume of the beep tone.	ALARM	Sets whether or not to output alarm tones. OFF [Off]: Does not output alarm tones. HIGH [High]: Outputs high-level alarm tones. LOW [Low]: Outputs low-level alarm tones.
	WARN	Sets whether or not to output warning tones. OFF [Off]: Does not output warning tones. HIGH [High]: Outputs high-level warning tones. LOW [Low]: Outputs low-level warning tones.
INPUT DELAY Recording audio signal phase setting	ANALOG	Sets whether or not to add a delay to the ANALOG audio input. OFF [OFF]: Does not add delay. ON [ON]: Adds delay.
	INPUT DELAY	Sets the delay length for items set to be delayed. 0 [NO DELAY]: Does not add delay. +1 [+1F Delay]: Records the audio signal with a delay of 1 frame (use this when the input video signal has a delay of one frame with respect to the audio signal). +2 [+2F Delay]: Records the audio signal with a delay of 2 frames (use this when the input video signal has a delay of two frames with respect to the audio signal). +3 [+3F Delay]: Records the audio signal with a delay of 3 frames (use this when the input video signal has a delay of three frames with respect to the audio signal). +4 [+4F Delay]: Records the audio signal with a delay of 4 frames (use this when the input video signal has a delay of four frames with respect to the audio signal). +5 [+5F Delay]: Records the audio signal with a delay of 5 frames (use this when the input video signal has a delay of five frames with respect to the audio signal).

SYSTEM Setup Menu

Setting Item		Settings	
FILE LIST	FILE LIST	Displays a list of recording files and allows recording files to be selected and file operations to be performed. <i>For details, see "FILE LIST Operations" (page 38).</i>	
	SORT	Sorts the files in the FILE LIST screen. DATE: Date order NAME: Name order DURATION: Order of file recording length	
SIGNAL FORMAT	FRAME	Sets the operation frame frequency. 23.98 [23.98]: Frame frequency of 23.976 Hz 24 [24]: Frame frequency of 24 Hz 25 [25]: Frame frequency of 25 Hz 29.97 [29.97]: Frame frequency of 29.97 Hz 59.94 [59.94]: Frame frequency of 59.94 Hz	
LCD	LIGHT OFF	Sets whether or not to turn the backlight off after a set time. DIS [Disable]: Does not turn the backlight off. 5sec [5sec]: Turns the backlight off after 5 seconds. 10sec [10sec]: Turns the backlight off after 10 seconds. 30sec [30sec]: Turns the backlight off after 30 seconds. 1min [1min]: Turns the backlight off after 1 minute. 3min [3min]: Turns the backlight off after 3 minutes. 5min [5min]: Turns the backlight off after 5 minutes.	
		BRIGHT	Sets the backlight brightness. 0 to 31 (20)
		SAVER	Sets whether or not to use the screensaver after a set time. DIS [Disable]: Does not use the screensaver. 1min [1min]: Starts the screensaver after 1 minute. 3min [3min]: Starts the screensaver after 3 minutes. 5min [5min]: Starts the screensaver after 5 minutes. 10min [10min]: Starts the screensaver after 10 minutes. 20min [20min]: Starts the screensaver after 20 minutes. 30min [30min]: Starts the screensaver after 30 minutes. 1hour [1hour]: Starts the screensaver after 1 hour.
		SAVER MSG	Sets the text information for the screensaver.

Setting Item		Settings
KEYMAP Settings of keymap	EJECT	DIS [Disable] : Disables the button function.
	EJECT button function	ENA [Enable]: Enables the button function.
	STOP	
	STOP button function	
	PLAY	
	PLAY button function	
	REC	
	REC button function	
	REW	
	REW button function	
FFWD		
FFWD button function		
PAUSE		
PAUSE button function		
KEY INHI Settings to inhibit button operation		ALL [ALL]: Locks all. MAP [MAP] : Locks only the buttons that are set to “Disable” in the KEYMAP settings.
REC INHI Settings of recording inhibit mode		OFF [Off] : Does not prohibit recording. ON [On]: Prohibits recording.
POWER Settings to reduce power consumption	LED	Controls the POWER indicator. ON [On] : Lit normally LOW [Low]: Dimly lit OFF [Off]: Not lit
	TALLY	Controls the tally lamp. ON [On] : Lit normally LOW [Low]: Dimly lit OFF [Off]: Not lit
BATTERY Settings related to the remaining battery power indication	DCIN TYPE	Selects the type of battery to be connected to the F65. AC [AC Adapter] : AC adapter Li-ion [Li-ion Battery]: Lithium ion battery BP-GL [BP-GL Battery]: BP-GL95 OTH1 [Other 1] OTH2 [Other 2]
	Near END (DCIN)	Sets the threshold voltage at which to show a near-end (almost exhausted)/warning indication for the battery selected for the previous item “DCIN TYPE.” 11.0 to 15.0 (11.9 V)
	END (DCIN)	Sets the threshold voltage at which to show an end (exhausted)/warning indication for the battery selected for the item “DCIN TYPE.” 11.0 to 12.0 (11.0 V)

Setting Item	Settings
SRMemory	INFO DISP Displays SRMemory card information.
SRMemory related settings	FILENAME Determines the file name generated when recording. DEFAULT [Default]: Uses SR-R1000 format file names. FILExxxxxxx format, x: numerals CAMERA [Camera(F65)]: Uses CAMERA (F65) format file names. AxxxCyyy_zzzzzz A: CAMERA ID xxx: REEL Number yyy: SHOT Number zzzzz: Recording year, month, and day The CAMERA ID, and REEL Number are set in subsequent menus.
	CAMERA ID Sets the camera ID for when saving using CAMERA (F65) format file names. A to Z
	REEL NO. Sets the REEL Number for when saving using CAMERA (F65) format file names. [001]-999
	FS LOCK Lock setting for the SRMemory card to disable file recording and playback. LOCK: Locked. UNLOCK: Unlocked.
	FORMAT Formats the SRMemory card. Note Formatting will erase all data recorded on the SRMemory card.
OTHERS	SOFT VERSION Displays the version of each software installed on the unit.
	HOURS METER Display various count values using the digital hours meter (total since the start of use of the unit, or total during a certain period). SYSTEM: System operation time LID LOCK: Number of lock plunger operations
	OPTION LIST Displays a list of installed options.
	SET DATE Sets the date and time of the unit. <i>For details, see "Date Settings" (page 29).</i>

Maintenance and Inspections

Note About the CAMERA Connector

Transmission errors may occur if there is any dust or other matter adhering to the face of the optical cable connector.

Always put on the connector cap when not using the CAMERA connector.

Cleaning the CAMERA Connector

If the CAMERA connector is dirty, there is increased risk of transmission error between the unit and the F65. If the F65 DOCK indicator turns on yellow or red, clean the connector using the following procedure.

For details about the DOCK indicator, refer to the Operation Manual for the F65.

The following items are required to clean the CAMERA connector.

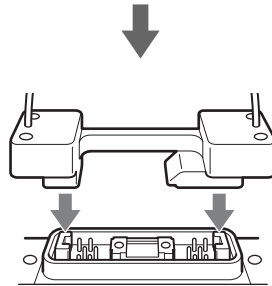
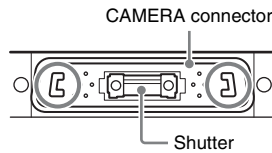
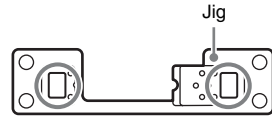
- Shutter opening jig
JT-FODSP-4 for the D-Sub connector plug (scheduled for release)
- Cotton swabs
Recommended: HUBY-340, BB-012 (scheduled for release) or commercially available cotton swabs for cleaning optical fibers.
- 99.5% (or higher) pure alcohol

1 Remove the unit from the F65.

If the unit is not mounted on the F65, remove the CAMERA connector cap.

2 Attach the shutter opening jig to the CAMERA connector.

Align the shutter opening jig with the shape and orientation of the D-Sub connector of the CAMERA connector, and set in position.

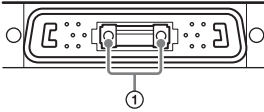


Notes

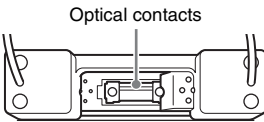
- The jig cannot be attached if the shape and orientation is backwards.
- The socket-side shutter opening jig (JT-FODSS-4) cannot be used.
- If the jig is forced into position, there is a risk of damaging the CAMERA connector and the shutter opening jig.
- The spring within the shutter may push the jig out a little; this is normal.

If no shutter opening jig is available

Press point ① on the CAMERA connector using your finger or other object to open the protective shutter and expose the optical contacts. Then proceed to step 4.



- 3** Once the shutter opening jig is attached, open the shutter and check that you can see the optical contacts.

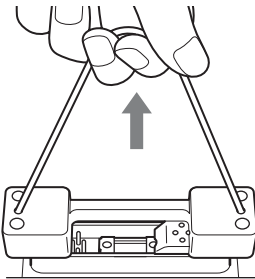


- 4** Dip an optical fiber cleaning swab in alcohol and gently wipe the whole optical contacts area about five times.

Notes

- Always use alcohol only in well-ventilated areas away from heat or flame.
- Wiping firmly may damage the optical fiber contacts.

- 5** After cleaning the connector, pull the pull-cord directly up and remove the shutter opening jig.



Note

After cleaning the connector, do not leave the shutter opening jig attached to the connector. Doing so leaves the optical connector shutter open, allowing dust or dirt to adhere to the optical contacts.

- 6** Release the connector's protective shutter, and connect the unit to the F65. If not connecting the F65, reattach the connector cap.

Specifications

General

Recording format

F65RAW

Power supply

11 to 17 V DC

Power consumption

37 W (F65RAW 23P recording)

Operating temperature

0 °C to 40 °C (32 °F to 104 °F)

Storage temperature

-20 °C to +60 °C (-4 °F to +140 °F)

Operating relative humidity

10% to 95% (no condensation)

Mass

1.8 kg (3 lb. 15 oz.) (excl. SRMemory card and control panel)

Video

F65RAW format

Audio

Digital audio signal format (channels 1 to 16)

Sampling frequency

48 kHz (synchronized with video)

Quantization

24 bits

Headroom

20 dB

Analog audio input

A/D quantization

24 bits

Reference input level

LINE: +4 dBu

MIC: -34 dBV

Frequency response

20 Hz to 20 kHz +0.5 dB/-1.0 dB
(at reference level)

Dynamic range

More than 100 dB (1 kHz)

Distortion

Less than 0.05% (1 kHz, at reference level)

Crosstalk

Less than -80 dB (1 kHz, between any two channels)

Input/Output Connectors

Input connectors

AUDIO INPUT CH-1, CH-2

3-pin XLR, female (2), LINE/MIC/

MIC +48 V

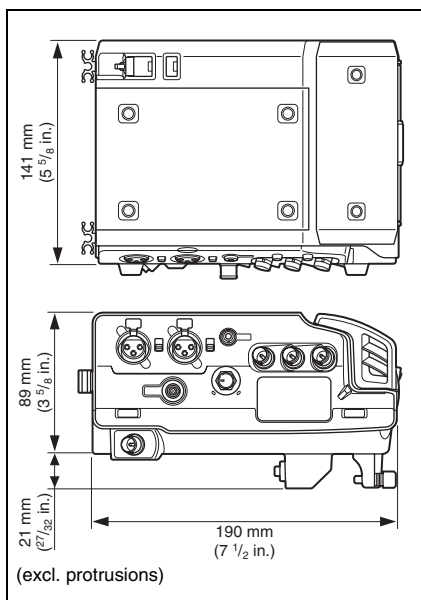
TC IN

BNC (1)

0.5 V_{p-p} to 18 V_{p-p}, 10 kΩ

SMPTE linear time code compliant

AUX IN (for future expansion)



Output connectors

TC OUT
BNC (1)
1.0 Vp-p (1 kΩ)
SMPTE linear time code compliant
EARPHONES
stereo mini jack (1)
AUX OUT (for future expansion)

Input/Output Connectors

CAMERA connector
D-sub optical combination connector (1)
CTRL PANEL
Control panel connector (1)

Supplied Accessories

BKP spacer (1)
Operation Manual (this document) (1)

Optional Accessories

Control Panel
SRK-CP1
SRMemory card
SR-256S55 (256 GB)
SR-512S55 (512 GB)

Design and specifications are subject to change without notice.

Notes

- Always make a test recording, and verify that it was recorded successfully.
SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF FAILURE OF THIS UNIT OR ITS RECORDING MEDIA, EXTERNAL STORAGE SYSTEMS OR ANY OTHER MEDIA OR STORAGE SYSTEMS TO RECORD CONTENT OF ANY TYPE.
- Always verify that the unit is operating properly before use. SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS DUE TO FAILURE OF THIS UNIT, EITHER DURING THE WARRANTY PERIOD OR AFTER EXPIRATION OF THE WARRANTY, OR FOR ANY OTHER REASON WHATSOEVER.

Error Messages and Warning Messages

About Error Messages

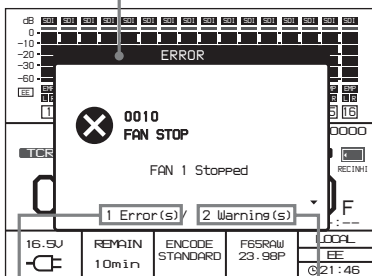
When the system stops operating incorrectly because of an internal error, a warning tone sounds and a popup window appears in the display of the control panel with an error message.

Tip

Only one message is displayed at one time, even if multiple errors occur. The number of current errors appears at the bottom of the popup window. Be sure to check the messages for all errors.

Example:

Popup window displaying error message "0010: FAN1 STOP" (fan stopped)



Indicates that there is one current error message.

Indicates that there are two current warnings (see page 52).

To view the other messages, rotate the SELECT/ENTER dial on the control panel.

When an error message appears

Eliminate the cause of the error, and power the system off and on again.

If the same error message appears again when the system is powered on, contact a Sony service representative.

To close the error message popup window

Press the HOME button or the BACK button. The error code is shown in the operation status and warnings section of the HOME screen (see page 13) until the cause of the error is removed.

About Warning Messages

If an error is detected, a warning message code appears in the operation status and warnings section of the HOME screen (see page 13).

To check the content of warning messages

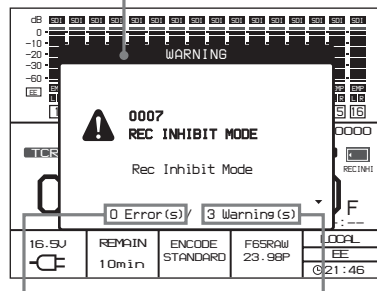
Press the SELECT/ENTER dial on the control panel. A popup window appears to display messages for the current warnings.

Tip

Only one message is displayed at one time, even if multiple warnings occur. The number of current errors and warnings appears at the bottom of the popup window. Be sure to check the messages for all errors and warnings.

Example:

Popup window displaying warning message "0007: REC INHIBIT MODE" (recording inhibit mode)



Indicates that there are no current error messages (see page 52).

Indicates that there are three current warnings.

To view the other messages, rotate the SELECT/ENTER dial on the control panel.

When a warning message appears

Take any action that may be needed to eliminate the cause of the warning.

Troubleshooting

Salvaging SRMemory cards for which recording did not complete properly

After recording to an SRMemory card is complete, press the EJECT button to safely remove the card, or turn off the unit with the power switch. Should the power cord be disconnected while recording is in progress, the recording operation will not complete properly. In such cases, the file system will not be updated and as a result, video and audio data recorded in real time will not be recognized as files and the content of recorded files will be damaged. The unit incorporates a salvage function that is designed to minimize data loss for such SRMemory cards. The salvage function restores files based on factors such as the maker information recorded on the SRMemory card. The salvaging process can take as little as a few seconds or up to 60 minutes, depending on the conditions at the time recording was interrupted.

Notes

- The salvage function is intended to salvage as much recorded material as possible in the event of an unforeseen accident, but it does not guarantee 100% restoration of data.
- This function will not restore data recorded immediately preceding the recording interruption.
- The amount of data loss is as follows:
 - F65RAW mode: About 2 seconds of data
- Whenever you insert an SRMemory card that requires salvaging or turn on the unit with such a card inserted, a popup message asking whether you want to perform salvaging will appear.
- Recording and playback are disabled for SRMemory cards that require salvaging.
- When you format an SRMemory card, the memory card will be ready for use immediately. However, any previously recorded data will be lost.

To restore files via salvaging

1. **Insert the SRMemory card for which recording did not complete properly into the SRMemory card slot.**

A warning message and a message asking whether you want to perform salvaging or formatting appears on the display.

Notes

- If REC inhibit is set to “ON” in the SYSTEM menu, set it to “OFF.”
- After you start the salvaging process, the process cannot be stopped. Be sure that you have enough time/power to wait for the process to complete before starting.

2. **Select and confirm “Salvage.”**

The salvaging process starts, and the “Please wait” message appears.

The message closes automatically when the process is complete.

If files are not restored after salvaging

If an SRMemory card cannot be restored even after salvaging, you can format the SRMemory card to make the card usable again.

1. **Insert the SRMemory card that could not be salvaged.**

A warning message and a message asking whether you want to perform salvaging or formatting appears on the display.

2. **Select and confirm “Format.”**

The formatting process starts, and the “Please wait” message appears.

The message closes automatically when the process is complete.

Video

Problem	Cause	Countermeasures
Picture is gray.	The format of the input signal is different from the system format.	The picture is gray when an input signal format is different from the system signal format. Set to the same format as the F65.
	The input signal is unstable.	The picture changes to gray when the input signal is unstable or interrupted.
Picture break-up.	The input signal is unstable.	Supply a correct input signal.
	The monitor does not support the format.	Some older monitors support only the 59.94/60 frequencies. Use a monitor with specifications supporting the format.
	The input signal is not matched to the system frequency.	Input a signal with 1.000/1.000 and 1.000/1.001 that match the system.
	The frequency exceeds the monitor scanning frequency.	If the monitor is a BVM-F24, 25PsF and 29.97PsF cannot be displayed with ×3 scanning, resulting in picture breakup. Use ×2 or ×1 scanning. For 59.94i and 50i, use ASD scanning.
Movement stops, or is jerky.	Monitor is not operating properly.	Check the monitor settings. Try turning it off and on again.

Audio

Problem	Cause	Countermeasures
No sound.	Mode was switched.	To prevent noise and damage to audio monitor equipment, audio is muted off when switching modes.
	Non Audio setting.	No audio is output when Non Audio mode is selected. A white box in the meter display indicates “Non Audio.”
	Volume is turned down.	When there is no sound from the headphones, even though the meters are moving, check whether the volume is set to an appropriate level.
Noise is present.	Playback at wrong frequency.	Noise occurs when the playback frequency is different from the recorded frequency, because of the difference in the number of audio samples. Switch the playback format to match the recorded frequency.
No analog audio input.	Electret condenser microphone is not powered.	Change the setting to +48 V ON (except for internal battery powered microphone).
Want to output a test signal.	This can be done with a menu setting.	Set SYSTEM > TEST SG > AUDIO to 1kHz.
Test signal is not output.	Test signals are turned off when the unit is powered off and on.	Select the test signal again.

Other

Problem	Cause	Countermeasures
Power goes off.	The current limiter of the power source was activated.	Adjust the limiter, taking into account the inrush current when powering on and when switching modes.
Cannot record.	SRMemory card is write-protected.	Return the write protect switch to the original position.
Power to other equipment does not come on.	Power switch of other equipment is not on.	Turn power switch of other equipment on.

About Recording/Playback Formats

Scanning system	System frame frequency	Encoding F65RAW
Progressive	23.98	○
	24	○
	25	○
	29.97	○
	59.94	○

○ : Recording and playback are possible

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