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

出版日期：2011年11月

SR-R1
(SY)
4-400-203-**02** (1)

Sony Corporation

http://www.sony.net/

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SONY

PORTABLE MEMORY RECORDER

SR-R1

SRMASTER SRMemory

OPERATION MANUAL English

1st Edition (Revised 1)

4400203020

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.

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.

For the customers in the U.S.A.
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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 B 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 l'appareil.

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.

Pour les clients au Canada
Cet appareil numérique de la classe B 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 des Gerätes.

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.

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.

Table of Contents

Chapter 5 : Menu Details

Appendix

Chapter 1 Overview

Features

The SR-R1 is a portable memory recorder of the SRMASTER series that has 1.5G SDI Dual Link input/output and uses the newly developed SRMemory card for recording media.

SRMASTER and SRMemory are trademarks of Sony Corporation.

High Quality Recording

Support for SR-SQ (440 Mbps) and SR-Lite (220 Mbps) is provided as standard.
There is 16-channel (uncompressed, 24-bit, 48 kHz) support for audio.

RGB 4:4:4/60p Creation

The SR-R1 is equipped with 1.5G SDI Dual Link and includes recording capabilities such as RGB 4:4:4 and 60p to enable support for various scenes.

HD SDI Remote

Support is provided for the HD SDI Remote function that is incorporated in many Sony camcorders, so recording can be linked to Rec/Stop on the camera side.

HDW-F900R/650 dockable operation

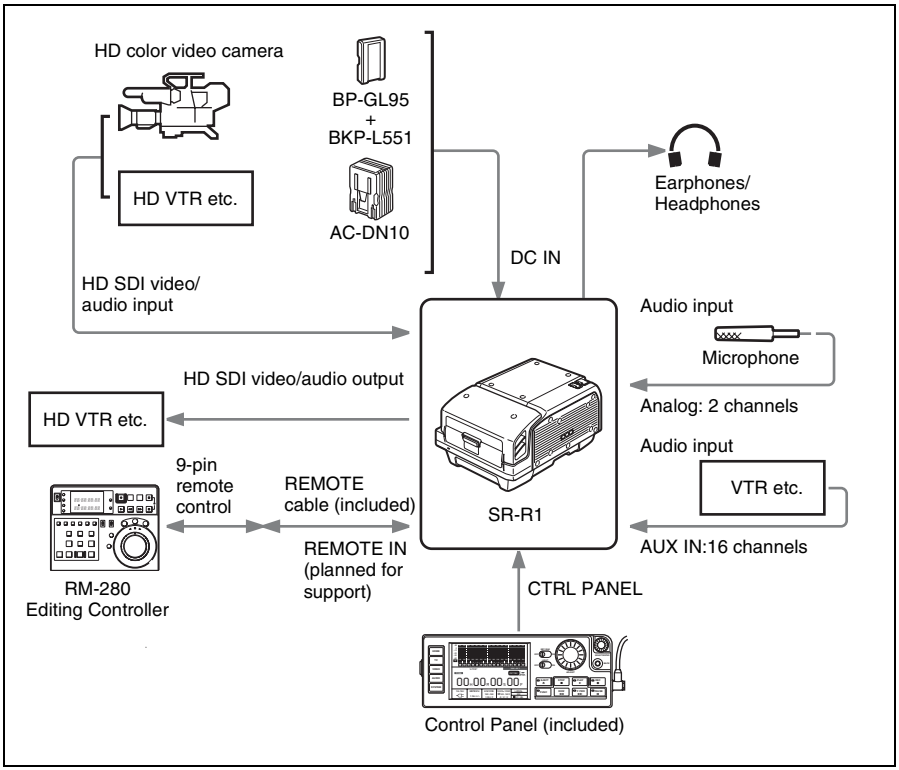
The SR-R1 supports dockable operation with the HD CAM camcorder HDW-F900R/650 equipped with HD SDI output, using the Docking Plate SRK-R302 (sold separately).

Use as PMW-F3 storage

The SR-R1 can be used as high-quality online storage for the Digital Cinema Recorder PMW-F3. Simultaneous recording on the SxS memory card in the PMW-F3 and the SRMemory card is possible.

System Configuration Example

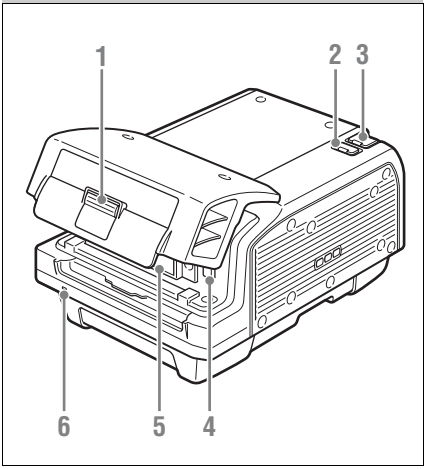
The following figure shows a system configured around the SR-R1.



Names of Parts

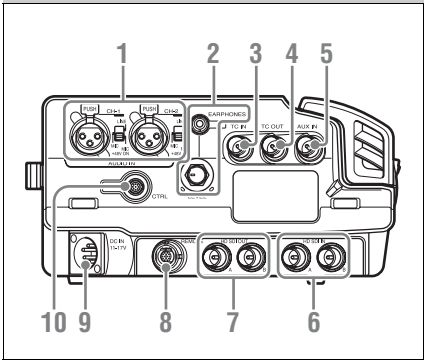
For detailed information on functions and usage, see the pages indicated in brackets.

Overall View



1. **Lid open/close button** ***(page 23)***
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 22)***
   Lights up in green when power to the unit is on.
4. **EJECT button** ***(page 24)***
5. **SRMemory card slot** ***(page 23)***
6. **LID LOCK indicator** ***(page 23)***
   Lights up in orange when an SRMemory card is mounted.

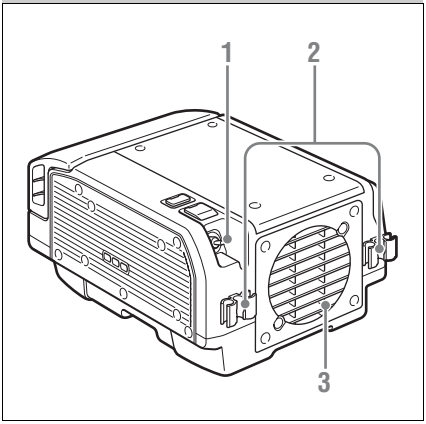
Left Side View



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 42)*
5. **AUX IN (SDI embedded audio input) connector (BNC)** ***(page 44)***
   Accepts audio input in up to 16 channels.
6. **HD SDI IN (HD SDI signal input) A/B (BNC)** ***(page 19)***
7. **HD SDI OUT (MON) (HD SDI signal output) connectors 1/2 (BNC)** ***(page 19)***

8. **REMOTE (remote control input) connector (14-pin, female) (for future expansion)**
9. **DC IN (DC power input) connector (4-pin XLR, male)** ***(page 16)***
10. **CTRL PANEL (Control Panel) connector** ***(page 16)***

Rear and Right Side View



1. **Power switch** ***(page 22)***

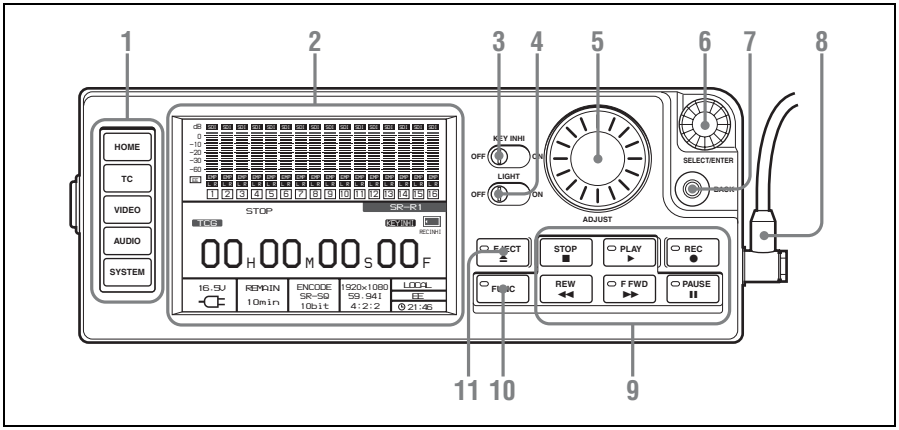
   Setting the switch to the **I** side turns power on, and setting the switch to the ⏻ side turns power off.
2. **Cable clamp** ***(page 16)***
3. **Fan**

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

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 41).

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 33, 35, 36)***

   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 36)***

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

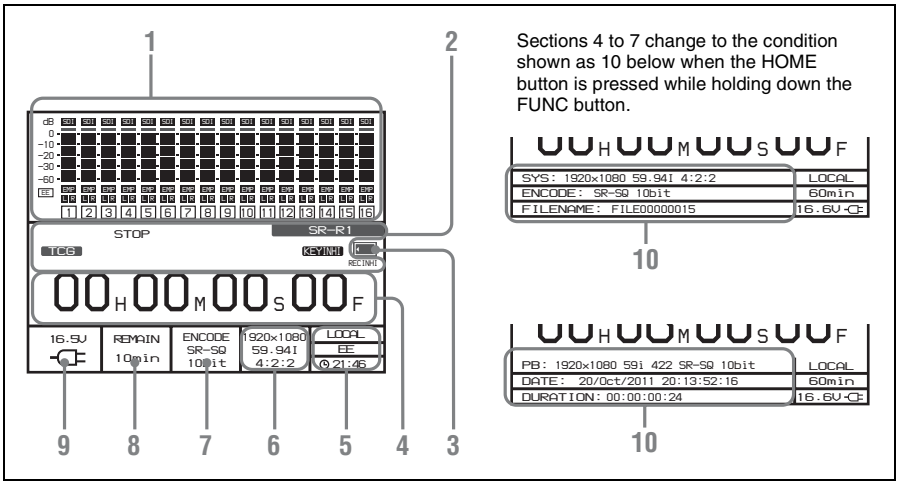
11. **EJECT button and indicator** ***(page 24)***

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.



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.

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 42)*
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 24)*

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

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 (REMOTE/LOCAL), power mode (PB/EE), and current time.

6. Signal format indication

Shows the format of the signal being recorded.

7. Encoding format indication *(page 58)*

Shows the encoding and bit rate settings used for recording.

8. **SRMemory card remaining capacity indication** ***(page 23)***

   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. **Battery/External power supply voltage indication** ***(page 22)***

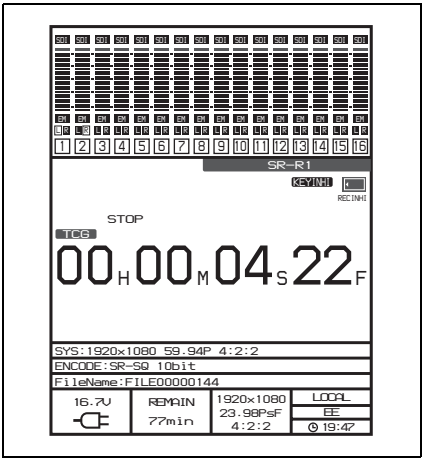
   Shows the battery or external power supply voltage.

10. **Signal format/file information 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.



Chapter 2 Preparation

Work Flow

The steps that are required before starting to use the SR-R1 are listed below.

Mount control panel *(page 15)*
↓
Connect power *(page 16)*
↓
Connect HD SDI compliant equipment *(page 19)*
↓
Turn power on *(page 22)*
↓
Insert SRMemory card *(page 23)*

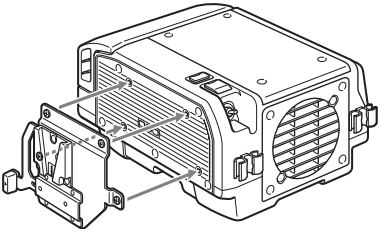
Tip

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

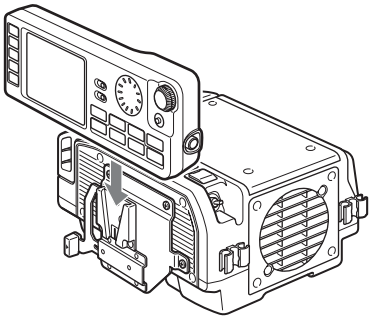
Mount Control Panel

Attach the supplied CP bracket to the unit, and connect the unit and the control panel with the control panel cable.

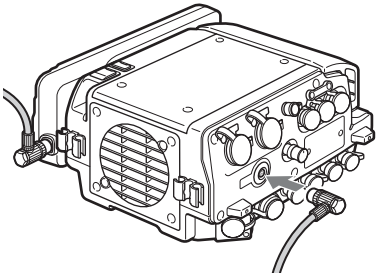
1 Attach the supplied CP bracket to the right side of the unit.



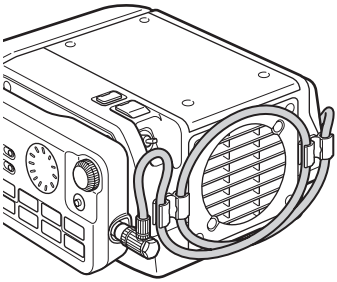
2 Slide the control panel into the CP bracket.



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.

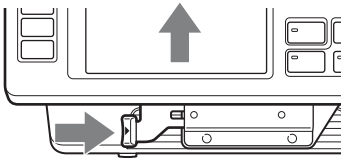


Note

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 Power

The SR-R1 can be powered either from a battery pack or AC power.
For safety, do not use any AC adapter or battery pack other than the Sony products specified below.

- AC adapter: AC-DN10
- Lithium ion battery pack: BP-GL95

Tip

To use the battery pack, the Battery Adapter BKP-L551 (sold separately) is required.

Using AC Power

Use the DC power cable (sold separately) to connect the AC adapter AC-DN10 to the DC IN connector on the SR-R1.

Note

When connecting the output of a battery to the DC IN connector, access the SYSTEM Setup menu and set the BATTERY >DC IN TYPE option to other than “AC Adapter.” *(see page 48)*

Using the Battery Pack

Before using the battery pack, charge it fully with the dedicated battery charger.

For detailed information on charging, refer to the documentation of the battery charger.

WARNING

Batteries shall not be exposed to excessive heat such as sunshine, fire or the like.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the manufacturer.
When you dispose of the battery, you must obey the law in the relative area or country.

AVERTISSEMENT

N’exposez pas les batteries à une chaleur excessive, au soleil ou près d’un feu par exemple.

ATTENTION

Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Lorsque vous mettez la batterie au rebut, vous devez respecter la législation en vigueur dans le pays ou la région où vous vous trouvez.

WARNUNG

Akkus dürfen keinesfalls übermäßiger Wärmeeinwirkung ausgesetzt werden, wie z.B. Sonneneinstrahlung, Feuer o. ä.

VORSICHT

Explosionsgefahr bei Verwendung falscher Batterien. Batterien nur durch den vom Hersteller empfohlenen oder einen gleichwertigen Typ ersetzen.

Wenn Sie die Batterie entsorgen, müssen Sie die Gesetze der jeweiligen Region und des jeweiligen Landes befolgen.

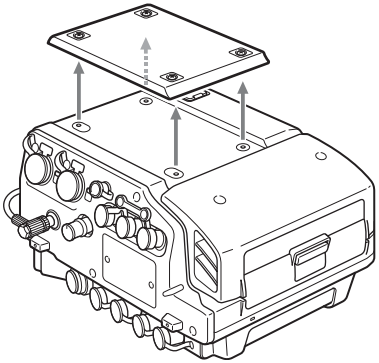
Battery pack usage precautions

- If the battery pack is charged immediately after use while still warm, a full charge may not be achieved.
- If not using the unit for an extended period, detach the battery pack.

Attaching the battery pack

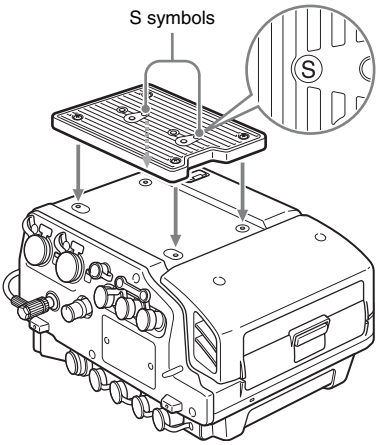
Use the BKP spacer supplied with the unit and the separately available BKP-L551 to attach the battery pack to the top of the unit.

1 Remove the top cover of the unit.

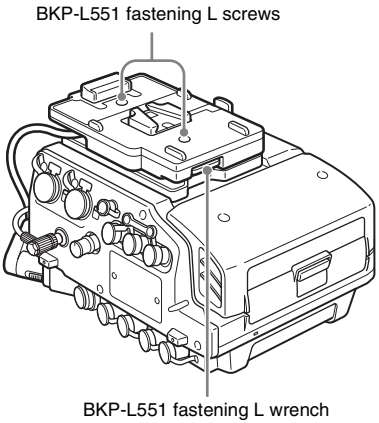


2 Attach the supplied BKP spacer.

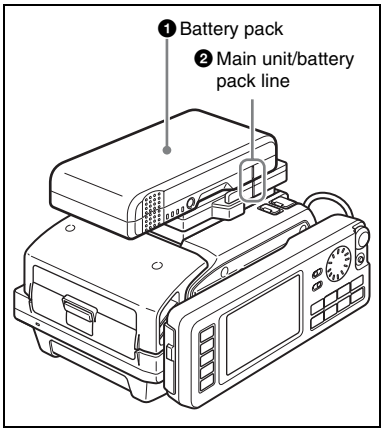
The S symbol must face up.



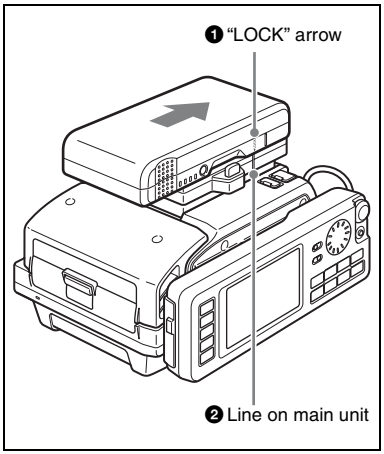
3 Attach the BKP-L551 to the screw threads marked with the S symbol and connect the power cable to the DC IN connector.



4 Align the line on the side of the battery pack with the line on the unit and place the battery pack on the rear section of the unit.



5 Push the battery pack down and slide it in the arrow direction marked "LOCK."

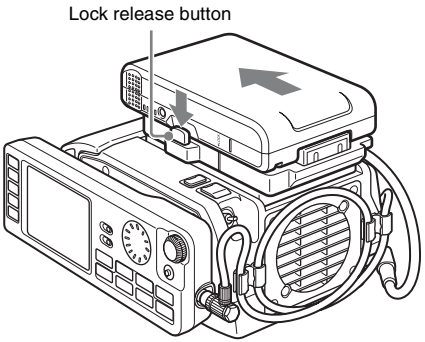


Note

If the battery pack is attached incorrectly, the connectors may be damaged.

Removing the battery pack

While power to the unit is switched off, hold down the lock release button and push the battery pack off.



Notes

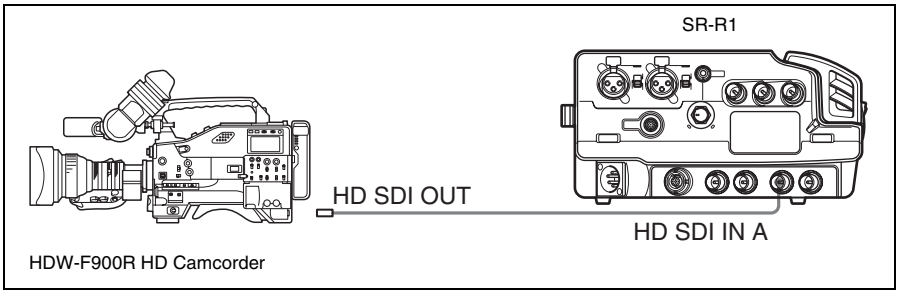
- Never remove the battery pack while a recording is in progress (tally indicator is lit in red).
- Always turn power to the unit off before removing the battery pack.

Connect HD SDI Compliant Equipment

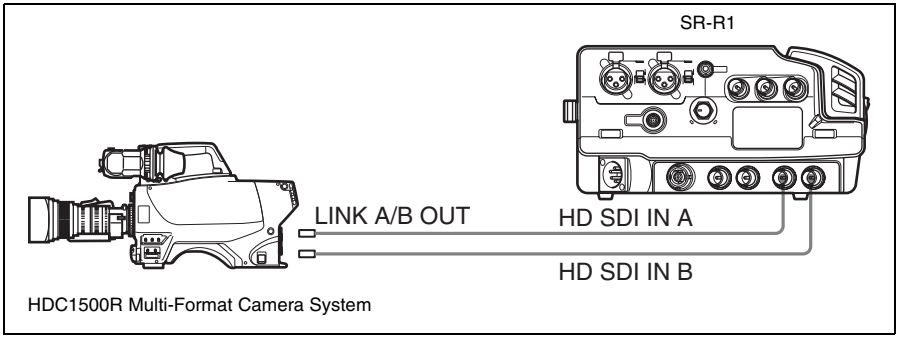
Connect equipment with an HD SDI interface to the HD SDI IN (MON) (HD SDI signal input) connector A/B and HD SDI OUT (HD SDI output) connector A/B of the SR-R1.
Representative connection examples are shown below.

Connecting a Camera/Camcorder

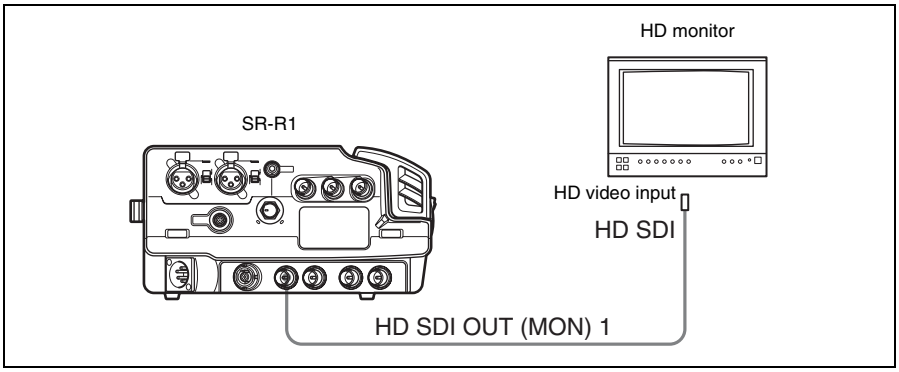
Using the HDW-F900R or similar to record a 4:2:2 signal



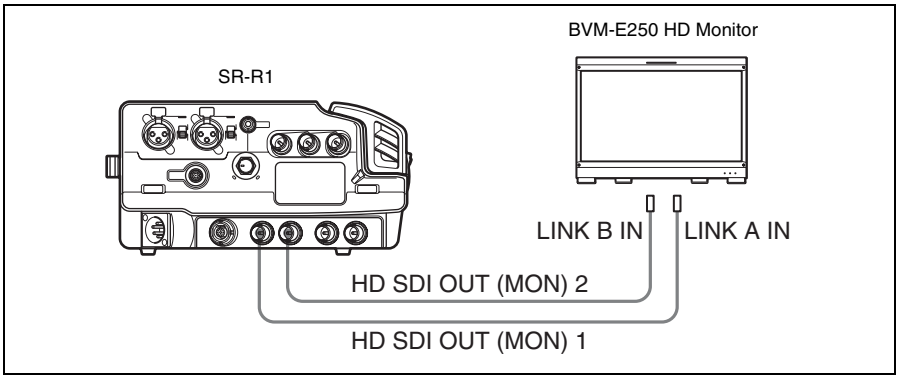
Using the HDC1500R to record an RGB 4:4:4 or 4:2:2 50p/59p signal



Connecting an HD Monitor



Connecting a RGB4:4:4 and 1080 50p/60p (Dual Link) compatible HD monitor

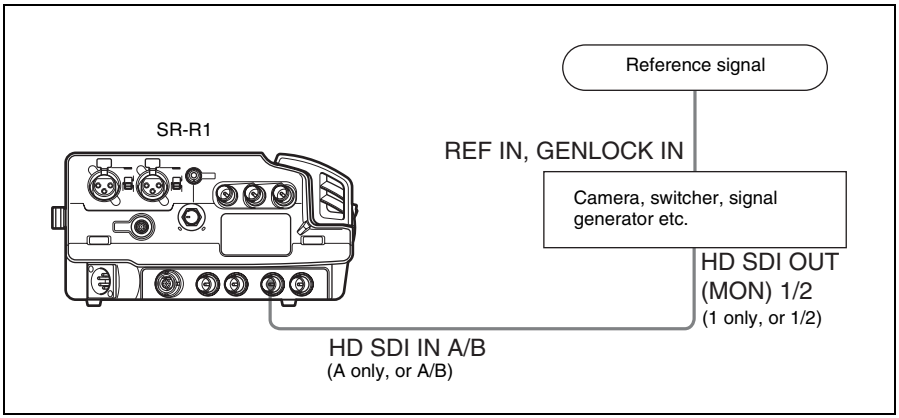


About the Reference Sync Signal

External synchronization required

If external synchronization is required, connect an HD SDI signal synchronized to the reference signal.

Recording/playback with synchronized camera, switcher, signal generator etc.



Tip

If no external synchronization source is available, internal sync will be used.

Turn Power On

To power up the unit

1 **When using the AC adapter, turn power to the AC adapter on.**

2 **Press the power switch on the SR-R1 on the I side.**
Power comes on and the POWER indicator lights up in green.

To power down the unit

1 **Press the power switch on the SR-R1 on the ⏻ side.**
Power is turned off and the POWER indicator goes out.

2 **When using the AC adapter, turn power to the AC adapter off.**

Note

To prevent the risk of data corruption, do not interrupt the DC IN power supply while the SR-R1 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 48)*
Set DCIN TYPE to match the power supply being used.

Tips

- When signal format and SR Motion are 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 DC IN connector).

When a battery pack is selected

The battery symbol is shown.

- 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 48)*

When AC power is selected

The connector symbol is shown.

Insert SRMemory Card

Supported SRMemory cards

The SR-R1 can use the following types of SRMemory cards.

For 59.94i

SRMemory card	SR-Lite	SR-SQ
SR-256S15/256S55	114	60
SR-512S25/512S55	228	120
SR-1TS25	457	241

Unit: minutes (approx.)

For 50i

SRMemory card	SR-Lite	SR-SQ
SR-256S15/256S55	137	72
SR-512S25/512S55	274	145
SR-1TS25	549	290

Unit: minutes (approx.)

For 23.98P

SRMemory card	SR-Lite	SR-SQ
SR-256S15/256S55	142	77
SR-512S25/512S55	285	155
SR-1TS25	572	311

Unit: minutes (approx.)

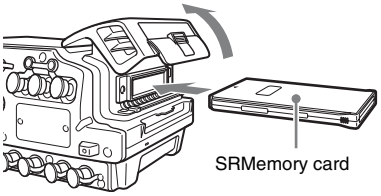
1) Recording times will differ depending on equipment and shooting conditions.

Inserting and Removing the SRMemory Card

To insert the SRMemory card

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

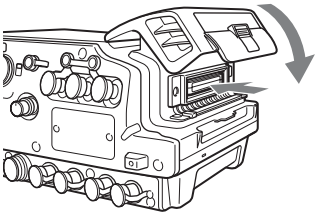
Take care to insert the SRMemory card with the correct orientation.



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.

If a message prompting you to salvage or format the SRMemory card appears on the display

This indicates that the previous recording did not complete normally.

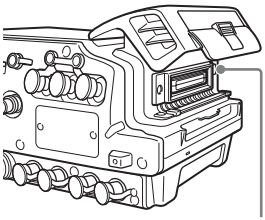
For information on what to do in this case, see "Salvaging SRMemory cards for which recording did not complete properly" (page 54) in the "Troubleshooting" section.

To remove the SRMemory card

1 **Press the EJECT button on the control panel while power to the unit is on.**
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.**

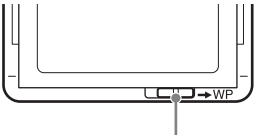
3 **Press the EJECT button on the right side of the slot to remove the SRMemory card.**



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-R1 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)***

Chapter 3 Basic Menu Operations

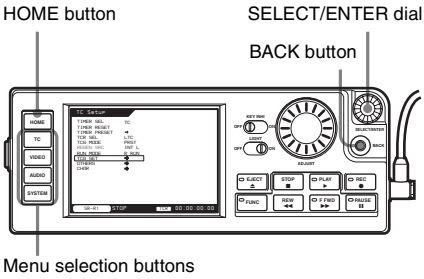
The menu system of the SR-R1 consists of the following four menus.

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 41).

The menu is operated with the control panel.

Buttons Used for Menu Operations



Serve for Selecting a Menu

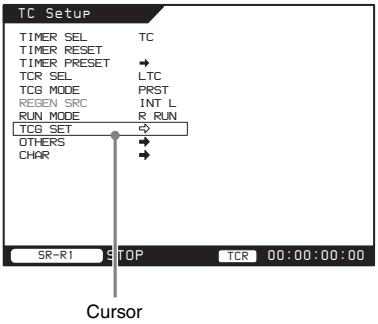
Selecting a menu

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

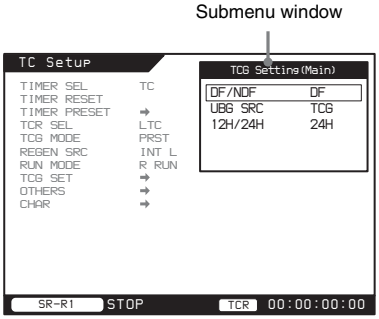
Example: TC Setup menu

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



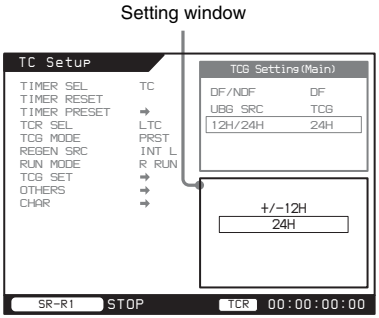
A submenu for the selected item appears, and the cursor moves to the submenu.
If the selected item is a command, the command is executed.

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.

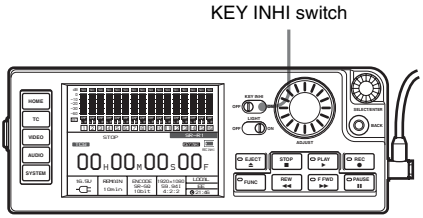
To return to the HOME screen

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 47)*, 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 47)*

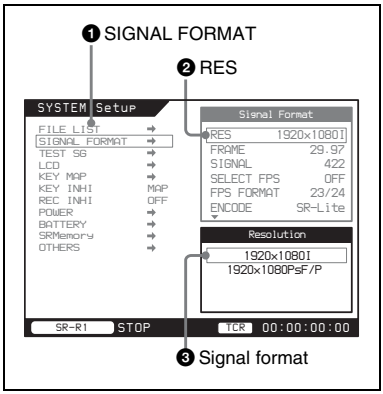
Signal Format Settings

Selecting the Signal Format

Making “SIGNAL FORMAT” settings

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

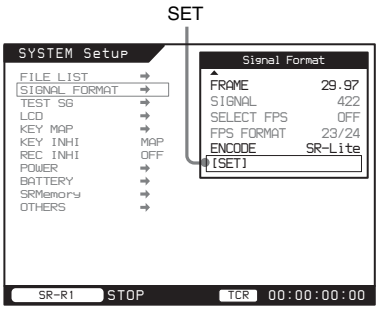
2 **❶ Select “SIGNAL FORMAT”, and confirm →❷ select “RES” (Resolution) , and confirm →❸ select the format to use, and confirm.**



Return to submenu window.

3 **Make settings for FRAME, SIGNAL, and ENCODE in the same way.**

4 **After settings are complete, select SET.**



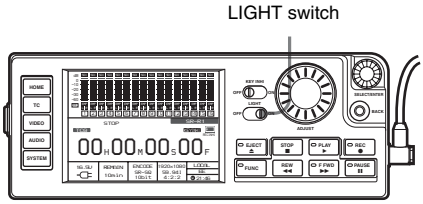
The settings complete message is shown, and the HOME screen appears again.

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.



Adjusting the backlight brightness

Access the SYSTEM Setup menu and select LCD > BRIGHT *(see page 47)*. 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 47)*. 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 47)*. 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.

Chapter 4 Recording and Playback

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 28*
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 29*
Set the audio signals to monitor.	PHONE SEL in the AUDIO Setup menu	*page 30*
Set the display range of the audio level meters.	METER TYPE in the AUDIO Setup menu	*page 30*
Set the recording levels.	REC LEVEL in the AUDIO Setup menu	*page 31*
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 33*
Select the time data to display.	TIMER SEL in the TC Setup menu	*page 31*
Set time code generator operation in accordance with the time code and user bits to record.	RUN MODE, TCG MODE, and REGENE SOURCE in the TC Setup menu	*page 32*

Configure the other related menu settings as necessary.

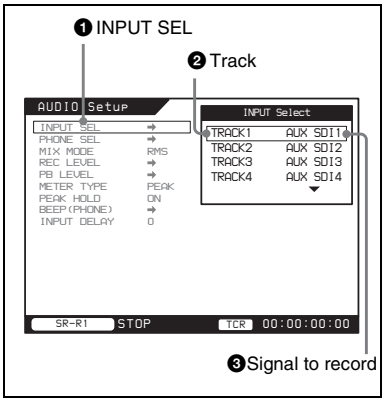
Setting the Audio Signals

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 ❶ select and confirm "INPUT SEL" →❷ select and confirm the track (TRACK1 to TRACK16) →❸ select and confirm the signal to record.



AUX SDI1 to AUX SDI16: Digital audio signals of the SDI signal input via the AUX SDI connector

SDI1 to SDI16: SDI signals input via the HD SDI IN connector A

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

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

To set the audio signals to monitor

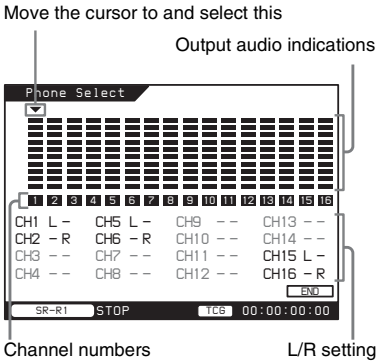
Set the audio monitor signal to output from the EARPHONES jack for each channel.

1 Display the AUDIO Setup menu and then select and confirm "PHONE SEL."

The Phone Select screen appears.

2 ❶ Select and confirm the channel number (1 to 16) →❷ 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 "→"– – ."



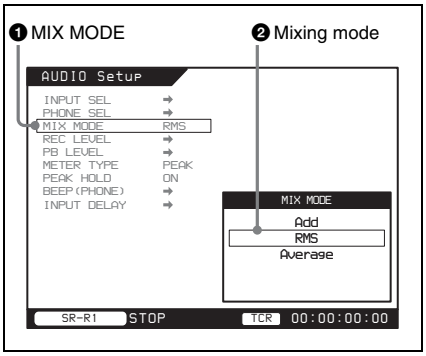
Set "– –" if you do not want to output the audio signal of the selected channel from the EARPHONES jack, and "LR" if you want to output the audio signal via both the left and right.

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 ❶ select and confirm "MIX MODE" →❷ select and confirm the mixing mode.



ADD: Simple addition
RMS: Geometric mean
Average: Simple average

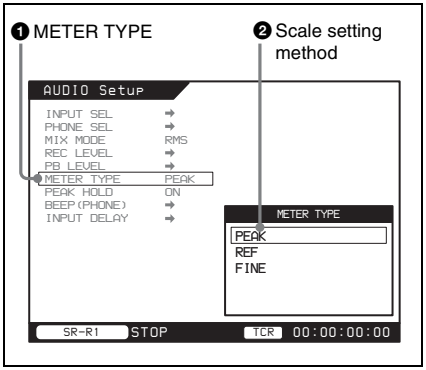
Setting the Recording Levels

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 ❶ select and confirm "METER TYPE" →❷ 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.

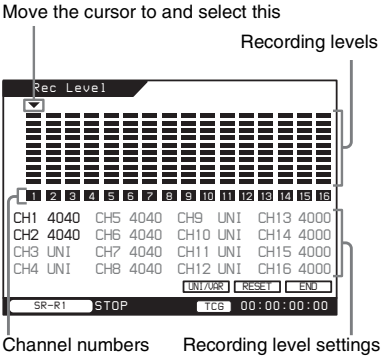
Rotate the knob clockwise to increase the level, and counterclockwise to decrease the level.

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."



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."

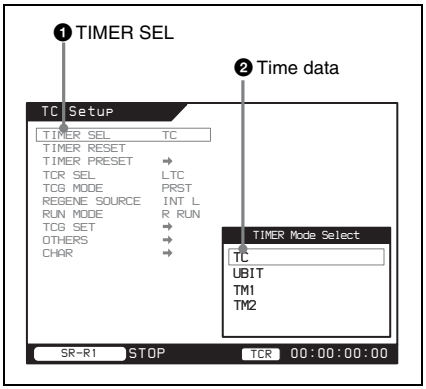
Setting the Time Code and User Bits

Use the TC Setup menu to make settings related to audio 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 ❶ select and confirm "TIMER SEL" →❷ select and confirm the time data you want to display.



TC: Displays the time code.

UBIT: Displays the user bits.

TM1/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	**REGENE SOURCE**	
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	EXT L	In accordance with the time code input via the TC IN connector.
	SDI L	In accordance with the LTC time code of the video signal input via the HD SDI IN A/B connector.
	SDI V	In accordance with the VITC time code of the video signal input via the HD SDI IN A/B connector.

To select the user bits to record

The user bits can be selected in the following menu.

Menu item		User bits
TCG SET > UBG SOURCE	**TCG MODE**	
TCG	PRST	Arbitrary user bits can be set. (TIMER PRESET > TCG UBIT)
	RGN	In accordance with the user bit value of the time code selected for REGEN SOURCE.
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.

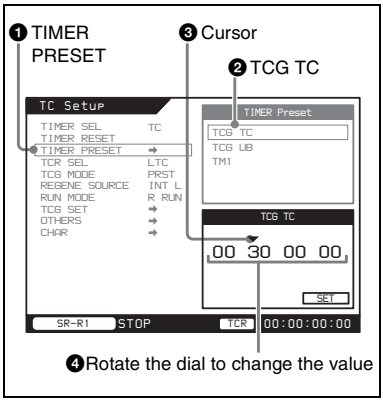
- Set the initial value and record the time code.
- Externally synchronize the internal time code generator.

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 ❶ select and confirm "TIMER PRESET" →❷ select and confirm "TCG TC" →❸ move the cursor to and confirm the digit of the value you want to change →❹ 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 VTRs.

Display the TC Setup menu and then set "TCG MODE" to "RGN" and select the signal for the time code generator to regenerate in "REGENE SOURCE."

For details, see "To select the time code to record" (page 32).

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 32).

2 Set the user bits using the same procedure as *"To set the initial value and record the time code" (page 33).*

Tip

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

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 23) and "Write-protecting the card" (page 24).br

When the REC INHI indicator is lit

Record inhibit is set.

- Set SYSTEM Setup > REC INHI to "OFF." *(see page 47)*
- Check that FS LOCK for the SRMemory card is not locked. *(see page 48)*

- 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 29) and "AUDIO Setup Menu" (page 44).

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 31).*

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 30) 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: Displays the 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.)

Playback

1 **Insert the SRMemory card to play back.**

For details, see "To insert the SRMemory card" (page 23).

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.**

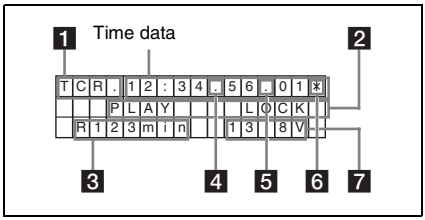
How to Use the Recording and Playback Operation Buttons

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.	—

Making Superimpose Settings

Time codes, operating modes, warning/error messages, and other text information can be superimposed on (added to) the video signals output from the HD SDI OUT (MON) connectors.

Superimposed information displayed



1 Time data types

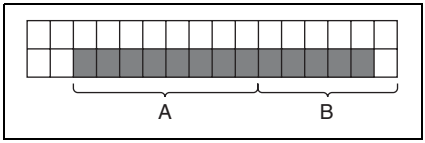
Symbol	Meaning
TM1	Data of TM1 counter
TM2	Data of TM2 counter
TCR	Time code data of LTC reader
UBR	User bit data of LTC reader
TCR.	Time code data of VITC reader
UBR.	User bit data of VITC reader
TCG	Time code data of time code generator
UBG	User bit data of time code generator

2 Operation mode

The information is divided into blocks A and B and displayed as shown below.

Block A: Operating mode

Block B: Mode lock state or playback speed



There are the following operating mode indications.

“SYSTEM READY”
“REC”
“REC LOCK”
“PLAY”
“PLAY LOCK”
“PLAY PAUSE”
“F.FWD”
“REW”
“UNMOUNT”
“STOP”

3 Remaining amount of recording time on SRMemory card

4 Drop frame mark of the time code reader

“ . ”: When drop frame mode
“ : ”: When non-drop frame mode

5 Drop frame mark of the time code generator

“ . ”: When drop frame mode
“ : ”: When non-drop frame mode

6 VITC field mark

“ ” (blank): When odd field displayed
“*”: When even field displayed

7 Battery voltage

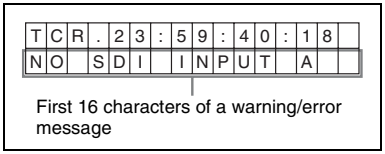
Indicates the voltage of the battery or AC power supply.

To display warning/error messages

1 Set CHAR >MODE in the TC Setup menu to other than “TIME.”

2 Set “WARN” to “W+E” to display both warning messages and error messages, and set it to “ERR” to display only error messages.

The first 16 characters of a message flash on the second line.



For details, see “Error Messages and Warning Messages” (page 52).

When there are multiple warning/error messages at the same time, a message flashes twice in succession and then is replaced by the next message.

When a warning/error message is not being displayed, the information selected in CHAR > MODE in the TC Setup menu flashes on the second line.

To change the superimpose position

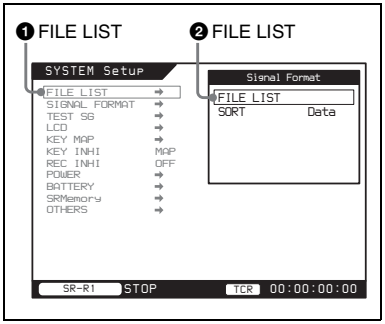
The superimpose position can be moved to 16 different positions in the horizontal direction (0 to 15) and 24 different positions in the vertical direction (0 to 23).
Set the position in CHAR > HPOS/VPOS in the TC Setup menu.

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.

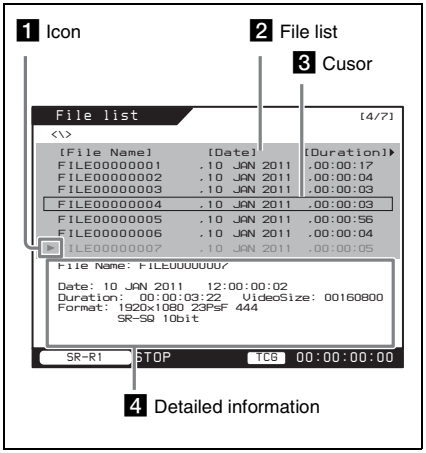
Displaying a File List

1 Display the SYSTEM Setup menu and then ❶ select and confirm "FILE LIST" →❷ 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).

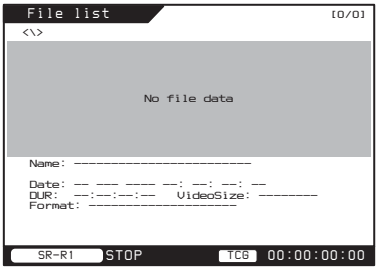
3 Cursor

Used for selecting files.

4 Detailed information

The detailed information for the file at the cursor position is displayed.
File Name: File name
Date: Recording date and time
Duration: Number of frames in file
Format: Recording data format type

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).

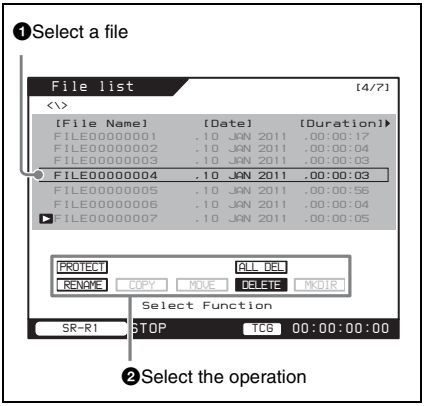
To select a file to play back

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.

❶ Select a file and then press the SELECT/ENTER dial while holding down the FUNC button to confirm the selection →❷ 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.

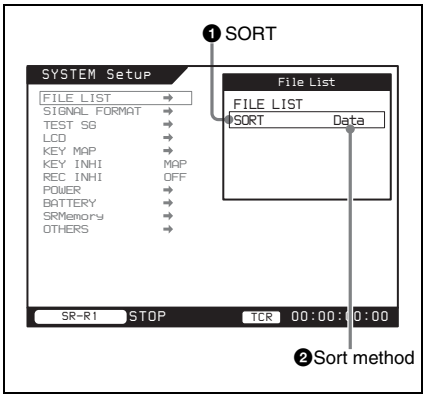
To delete a file

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.

❶ Select and confirm [SORT] →❷ select and confirm the sort method.



DATA: 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	Selects the type of time data to display on the display. **TC [Time Code]:** Displays the time code: Displays the time code. UBIT [User Bit]: Displays the user bits. TM1 [TIMER1]: Displays the file playback position in Hours:Minutes:Seconds:Frames format. TM2 [TIMER2]: Displays the playback position in Hours:Minutes:Seconds:Frames format and treats the beginning of the file as 0. • TIMER RESET/PRESET are not available.
TIMER RESET	Resets the internal time code generator, and the time data becomes “00:00:00:00” (time code) or “00 00 00 00” (user bits). **Notes** • 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	Selects the type of time data to preset to an arbitrary value. TCG TC: Time code generated by the time code generator TCG UBIT: User bits generated by the time code generator TM1: TM1 signal count value
TCR SEL	Selects the type of playback time code/user bits. **LTC [LTC]:** Reads the LTC. VITC [VITC]: Reads the VITC.
TCG MODE	Selects the time code to which the internal time code generator synchronizes. **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. RGN [Regen]: Synchronizes the time generator to the time code value selected in the following item REGENE SOURCE (regenerate).

Setting Item		Settings
REGEN SRC		Selects the time code to be synchronized (regenerated) by the internal time code generator. EXT L [External LTC]: Time code input to the TC IN connector **SDI L [SDI LTC]:** LTC time data of video signal input to the HD SDI IN connectors A SDI V [SDI VITC]: VITC of video signal input to the HD SDI IN connectors A
RUN MODE		Selects the run mode of the internal time code generator. F RUN [Free Run]: Advances the time code while the power is on. **R RUN [Rec Run]:** Advances the time code only during recording.
TCG SET Time code generator settings related to the main time code	DF/NDF (Valid only when the frame frequency of this system is 29.97 Hz.)	Sets the frame count mode. **DF [Drop Frm]:** Drop frame mode NDF [Non Drop Frm]: Non-drop frame mode **Note** This settings is valid only when TCG MODE is set to "PRST."
	UBG SOURCE	Selects the source time code of user bits. TCG [TCG Source]: Same source time code as that of the time code generator INT [Internal]: Time code generated by the time code generator. Arbitrary user bits can be set regardless of the setting of TCG *(see page 33)*.
	12H/24H	Selects the TIMER display mode. 12H [+/–12H]: 12-hour display mode **24H [24H]:** 24-hour display mode **Note** When +/–12H display is selected, the tens digit of the hours value is dropped for values less than 10.
OTHERS Other settings related to the main time code	TC OUT	Selects the time code to output from the TC OUT connector. **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. TCG [TCG]: The time code generated by the time code generator. THRU [Through]: Outputs the time code input to the TC IN connector as is.

Setting Item		Settings
CHAR Settings related to the text information superimposed on the output from the HD SDI OUT (MON) connector	ON/OFF	Sets whether or not to output text information. **ON [On]:** Outputs. OFF [Off]: Does not output.
	HPOS	Sets the display position of text information in the horizontal direction. 0 to 15 (**8**)
	VPOS	Sets the display position of text information in the vertical direction. 0 to 23 (**21**)
	TYPE	Selects the character type. W/O [Without BG]: White characters with no background. OUTL [Outline]: White characters with black outlines. TRNS [Translucent]: White characters on a gray screen background. **BG [With BG]**: White characters on a black background
	SIZE	Sets the size of text information. x1 [x1]: Normal **x2 [x2]:** Twice normal size
	MODE	Sets the content of text information. **+STAT [Time + Status]:** Time counter display information and status (operation status) information +UB [Time + User Bit]: Time counter display information and user bit data +VITC [Time + VITC]: Time counter display information and VITC TIME [Time Only]: Time counter display information only +TM1 [Time + TM1]: Time counter display information and TM1 counter value +TM2 [Time + TM2]: Time counter display information and TM2 counter value

AUDIO Setup Menu

Setting Item		Settings
INPUT SEL Selection of input signals	TRACK1	Selects the signal to assign to track 1. **SDI1 [SDI CH1]** to SDI16 [SDI CH16], ANA1 [Analog CH1] to ANA2 [Analog CH2], AUX1 [AUX SDI CH1] to AUX16 [AUX SDI CH16]
	TRACK2	Selects the signal to assign to track 2. Same settings as TRACK1 (**SDI2**)
	TRACK3	Selects the signal to assign to track 3. Same settings as TRACK1 (**SDI3**)
	TRACK4	Selects the signal to assign to track 4. Same settings as TRACK1 (**SDI4**)
	TRACK5	Selects the signal to assign to track 5. Same settings as TRACK1 (**SDI5**)
	TRACK6	Selects the signal to assign to track 6. Same settings as TRACK1 (**SDI6**)
	TRACK7	Selects the signal to assign to track 7. Same settings as TRACK1 (**SDI7**)
	TRACK8	Selects the signal to assign to track 8. Same settings as TRACK1 (**SDI8**)
	TRACK9	Selects the signal to assign to track 9. Same settings as TRACK1 (**SDI9**)
	TRACK10	Selects the signal to assign to track 10. Same settings as TRACK1 (**SDI10**)
	TRACK11	Selects the signal to assign to track 11. Same settings as TRACK1 (**SDI11**)
	TRACK12	Selects the signal to assign to track 12. Same settings as TRACK1 (**SDI12**)
	TRACK13	Selects the signal to assign to track 13. Same settings as TRACK1 (**SDI13**)
	TRACK14	Selects the signal to assign to track 14. Same settings as TRACK1 (**SDI14**)
	TRACK15	Selects the signal to assign to track 15. Same settings as TRACK1 (**SDI15**)
	TRACK16	Selects the signal to assign to track 16. Same settings as TRACK1 (**SDI16**)
	RESET	Restores all TRACK1 to TRACK16 items to their default settings.
PHONE SEL		Selects the audio to output to the EARPHONES jack and MONITOR OUT L and R connectors.
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

Setting Item		Settings
REC LEVEL		Adjusts the recording level *(see page 31)*. (This adjustment is not possible during playback.)
PB LEVEL		Adjusts the playback level *(see page 34)*. (This adjustment is not possible during recording.)
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	HDSDI	Sets whether or not to add a delay to the HDSDI input audio. **[OFF]**: Does not add delay. ON [ON]: Adds delay.
	ANALOG	Sets whether or not to add a delay to the ANALOG input audio. **[OFF]**: Does not add delay. ON [ON]: Adds delay.
	AUX IN	Sets whether or not to add a delay to the AUX IN input audio. **[OFF]**: Does not add delay. ON [ON]: Adds delay.
	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. *For details, see "FILE LIST Operations" (page 38).*
	SORT	Sorts the files in the FILE LIST screen. **DATE:** Date order NAME: Name order DURATION: Order of file recording length
SIGNAL FORMAT Settings of signal formats	RESOLUTION	Sets the effective pixel count and scanning method. 1920 × 1080I [1920 × 1080I] **1920 × 1080P [1920 × 1080PsF/P]**
	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 (field frequency of 50 Hz) 29.97 [29.97]: Frame frequency of 29.97 Hz (field frequency of 59.94 Hz) 50 [50]: Frame frequency of 50 Hz 59.94 [59.94]: Frame frequency of 59.94 Hz
	SIGNAL	Sets the sampling format. 422 [4:2:2]: 4:2:2 (Y/Cb/Cr) **444 [4:4:4]:** 4:4:4 (R/G/B)
	ENCODE	Sets the video recording format and recording rate. **SR-SQ**, SR-Lite *For details, see "About Recording/Playback Formats" (page 58).*
TEST SG Settings of test signal output **Note** The VIDEO and AUDIO settings are both reset to "OFF" (factory default setting) when the power is turned off.	VIDEO	Selects the test signal to generate with the internal video signal generator. **OFF [Off]:** Does not generate a test signal. CB [Color Bar]: Color bar signal SMPTE [SMPTE Color Bar]: SMPTE color bar signal RP219 [RP-219 Color Bar]: RP-219 color bar signal BLK [Black]: Black signal
	AUDIO	Selects the test signal to generate with the internal audio signal generator. **OFF [Off]:** Does not generate a test signal. 1KHz [1KHz Sine]: 1 kHz sine wave NONE [Silence]: No sound

Setting Item		Settings
LCD Settings of display backlight	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.
KEYMAP Settings of keymap	EJECT EJECT button function	**DIS [Disable]:** Disables the 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 by limiting output signals or restricting use of output connectors	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

Setting Item			Settings
BATTERY Settings related to the remaining battery power indication	DCIN TYPE		Selects the type of battery to be connected to the DC IN connector. **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**)
SRMemory SRMemory related settings	INFO DISP		Displays SRMemory card information.
	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
	FORMAT LIST		Displays a list of the available formats.
	OPTION LIST		Displays a list of installed options.
	SET DATE		Sets the date and time of the unit. *For details, see “Date Settings” (page 28).*
	META DATA		Sets 3-line metadata input.
	REC TRIGGER		Sets the recording start input trigger signal. OFF [Off]: Recording is not triggered by an input signal. SDI RMT [SDI REMOTE]: Recording is triggered by the HDCAM’s SDI REMOTE signal. SYNC [SYNC REC]: Recording is triggered by the PMW-F3.

Appendix

Maintenance and Inspections

Note About the Power Supply Terminal

The power supply terminal of this unit (the connector for the AC adapter) is a consumable part.
Power may not be supplied to the unit properly if the pins of the battery terminal are bent or deformed by shock or vibrations, or if they become corroded due to prolonged outdoor use. Periodic inspections are recommended to keep the unit working properly and to prolong its usable lifetime. Contact a Sony service or sales representative for more information about inspections.

Specifications

General

Recording format
MPEG4 SStP format

Power supply
11 to 17 V DC

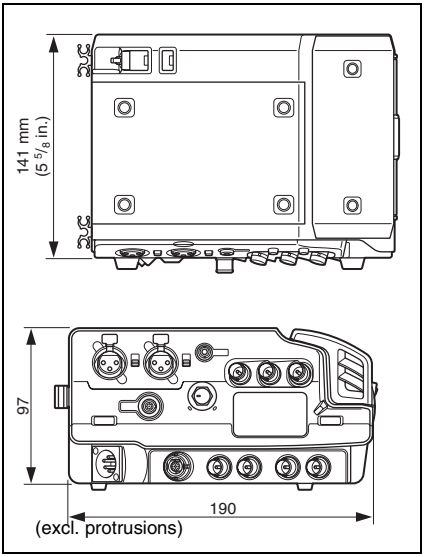
Power consumption
30 W (422 23.98PsF SR-Lite recording)

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
1.9 kg (4 lb. 2.9 oz.) (excl. SRMemory card and control panel)



Video

4:2:2 format

Sampling frequency
- Y: 74.25 MHz
- Cb/Cr: 37.125 MHz

Quantization
- 10 bits

Compression
- MPEG4 SStP

4:4:4 format

Sampling frequency
- RGB: 74.25 MHz

Quantization
- 10 bit

Compression
- MPEG4 SStP

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 Vp-p to 18 Vp-p, 10 kΩ
- SMPTE linear time code compliant

AUX IN
- BNC (1)
- HD SDI embedded audio (1.485 Gbps) (SMPTE-292M compliant)

HD SDI IN A, B
- BNC (2)
- HD SDI (1.485 Gbps) (SMPTE-292M/372M/BTA-S004B compliant)

Output connectors

TC OUT
- BNC (1)
- 1.0 Vp-p (1 kΩ)
- SMPTE linear time code compliant

HD SDI OUT (MON) 1, 2
- BNC (2)
- HD SDI (1.485 Gbps) (SMPTE-292M/372M/BTA-S004B compliant)

EARPHONES
- stereo mini jack (1)

Input/Output Connectors

REMOTE

LEMO 14-pin, female (1)

(for future expansion)

CTRL PANEL

Control panel connector (1)

Supplied Accessories

Control panel (1)

BKP spacer (1)

CP bracket (1)

Control panel cable (0.6 m) (1)

REMOTE cable (1) (for future expansion)

Operation Manual (this document) (1)

Optional Accessories

HQ Record Option (planned for release)

SRK-R311

AC adapter

AC-DN10

Battery Pack

BP-GL95A

Battery Recharger

BC-L160/L70

Battery Adapter

BKP-L551

Docking plate

SRK-R302

SRMemory card

SR-256S15/256S55 (256 GB)

SR-512S25/512S55 (512 GB)

SR-1TS25 (1 TB)

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

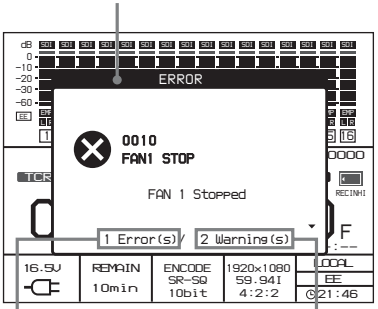
When the system stops operating incorrectly because of an internal error, a warning tone sounds and a popup window appears in the display of the control panel with an error message.

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

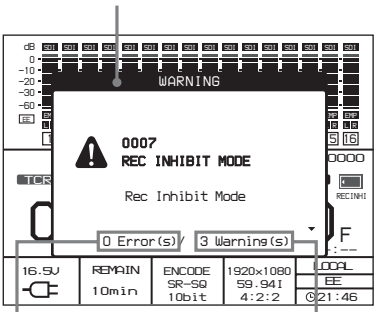
Press the SELECT/ENTER dial on the control panel. A popup window appears to display messages for the current warnings.

Tip

Only one message is displayed at one time, even if multiple errors and 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.

Warning System

When an error is detected immediately after the system is powered on, or during operation, the display and the tally indicator *(see page 10)* provide a warning indication.
In addition, warning and alarm tones are output from the EARPHONES jack.

Note

Warning tones are only output if the BEEP (PHONE) > WARN *(see page 45)* setting in the AUDIO Setup menu is HIGH or LOW.

Warning tones ●)))))))))))))) **: 1 beeps/second** ●))) ●))) ●))) ●))) **: 4 beeps/second** ●))))))))))))))))))))))))))) **: Continuous tone**	**Alarm tones** ●)))))))))))))) **: 1 beeps/second** ●))) ●))) ●))) ●))) **: 4 beeps/second** ●))))))))))))))))))))))))))) **: Continuous tone**	**Tally indicator** ☀ **: 1 flashes/second** ☀ **: 4 flashes/second**	**Description**	**SR-R1 operation**	**Countermeasures**
—	—	—	An error as indicated by warning message has occurred. (Excluding "Servo lock lost during recording" below)	Operation continues.	Check the warning message, and resolve the condition.
●))) ●))) ●))) ●))) [a]	—	☀ [b]	Servo lock lost during recording	Recording continues, but results may invalid.	Check the input signal.
●))))))))))))))))))))))))))))	—	☀	An error occurred.	Operation continues or stops, depending on the type of error.	Check the error message, and resolve the condition. Alternatively, contact a Sony service representative.
—	●))))))))))))))) [a]	☀	SRMemory card is almost full.	Operation continues.	Prepare to replace SRMemory card.
—	●))))))))))))))))))))))))))))	☀	SRMemory card is full.	Recording, playback, or search forward stops.	Replace SRMemory Card or delete unneeded files.
—	●))))))))))))))) [a]	☀	Battery is almost empty. [c]	Operation continues.	Replace battery.
—	●))))))))))))))))))))))))))))	☀	Battery is empty. [c]	Operation stops.	Replace battery.

a) Output only during recording.

b) Flashes during recording.

c) You can use the battery level/external power indication on the display to check the state of the battery. (*see page 14*, *22*)

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 lost will be as follows.
- **SR-Lite mode:** Approx. 8 seconds of data
- **SR-SQ mode:** Approx. 4 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 massage 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 massage 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.	No input signal is being supplied to HD SDI IN connector A.	Supply the input signal for the selected system format to HD SDI IN connector A.
	No input signal is being supplied to HD SDI IN connector B(when using 4:4:4 format).	To enable use of the 4:4:4 format, input a signal with the correct format to HD SDI IN connectors A and B.
	The phase difference between HD SDI IN A and HD SDI IN B is too large.	If the length of the cable connected to HD SDI IN A and HD SDI IN B differs significantly, the signal phase shift may be too large, preventing normal signal reception. Ensure that the two cables are of similar length.
	The format of the input signal to the HD SDI IN connector A or B is different from the system format.	The picture is gray when an input signal format is different from the system signal format. Input a signal in the correct format.
	The input signal is unstable.	The picture changes to gray when the input signal is unstable or interrupted.
Picture color is wrong.	In 4:4:4 mode, the HD SDI A and HD SDI B connections are reversed.	Connect the proper signals to the HD SDI IN A and HD SDI IN B connectors.
	In 4:4:4 mode, two 4:2:2 pictures are being input to the HD SDI IN A and HD SDI IN B connectors.	Set the input device to the 4:4:4 format.
	In 4:2:2 mode, a 4:4:4 picture is input.	Input a 4:2:2 format signal.
• 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.
	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.
• Unnatural movement (ghosting). • "PB FREQ MISMATCH" is displayed.	Wrong interlace and PsF selection.	Set the input signal format so as to match the system setting.
Movement stops, or is jerky.	Monitor is not operating properly.	Check the monitor settings. Try turning it off and on again.
The video appears jagged, or 1 line is missing at the top and bottom of the screen.	In the SMPTE 372M 4:2:2 60p standard, the active lines of digital field 2 are different between Link A and Link B (Link A: line 584 to 1123, Link B: line 583 to 1122).	Ensure that the source signal conforms to the SMPTE 372M 4:2:2 60p standard.
Want to output a test signal.	This can be done with a menu setting.	Under SYSTEM > TEST SG > VIDEO, select CB or BLK.
Test signal is not output.	Test signals are turned off when the unit is powered off and on.	Select the test signal again.

Audio

Problem	Cause	Countermeasures
• No sound. • "AUDIO PLL UNLOCK" is displayed.	Level meter indication is flashing, and input is disabled.	Set up input device correctly to supply an SDI or AUX audio signal.
	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. • "PB FREQ MISMATCH" is displayed.	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 AUX SDI INPUT" is displayed.	No HD SDI signal is being supplied on the AUX IN connector.	Input the correct HD SDI signal.
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 does not come on.	Insufficient power supply capacity.	Use AC-DN10, or connect to a power source rated for at least 150 W, using a short, heavy-gauge cable.
Power goes off.	The current limiter of the power source was activated.	Adjust the limiter, taking into take account the inrush current when powering on and when switching modes.
Battery is drained quickly.	Battery condition has deteriorated.	Replace the battery with a fresh one.
	The battery type and voltage settings do not match.	Under SYSTEM > BATTERY, select the correct settings for battery type, NEAR END, and END voltage.
	Earphone volume setting and/or display brightness setting are higher than necessary.	Reduce the settings.
	Unneeded equipment is connected.	Disconnect the unneeded equipment. It is also possible to disable the output of signals that are not required. *For details, see POWER (page 47) in the SYSTEM Setup menu explanation.*
Cannot record.	SRMemory card is write-protected.	Return the write protect switch to the original position.

Problem	Cause	Countermeasures
Power to other equipment does not come on.	Power switch of other equipment is not on.	Turn power switch of other equipment on.
Low voltage.	The power cable is too long, causing a voltage drop.	If the power cable is too long or does not have a sufficient current capacity rating, cable impedance can cause a voltage drop. Replace the cable with a shorter one.
Battery alarms appear frequently.	If battery alarms appear even when the input voltage is sufficient, the END and NEAR END settings for the DC power supply are wrong.	Change the END and NEAR END settings to suitable voltage settings for the DC power supply.

About Recording/Playback Formats

Number of lines	Signal	Scanning system	System frame frequency	Encoding SR-SQ 10bit	SR-Lite 10bit
1280 × 720	422	Progressive	50	—	—
			59	—	—
1920 × 1080	422	Interlaced	25	○	○
			29.97	○	○
		PsF	23.98	○	○
			24	○	○
			25	○	○
			29.97	○	○
		Progressive	50	○	○
			59.94	○	○
1920 × 1080	444	Interlaced	25	○	—
			29.97	○	—
		PsF	23.98	○	—
			24	○	—
			25	○	—
			29.97	○	—
		Progressive	50	—	—
			59.94	—	—

○ : Recording and playback are possible

— : Not supported

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