

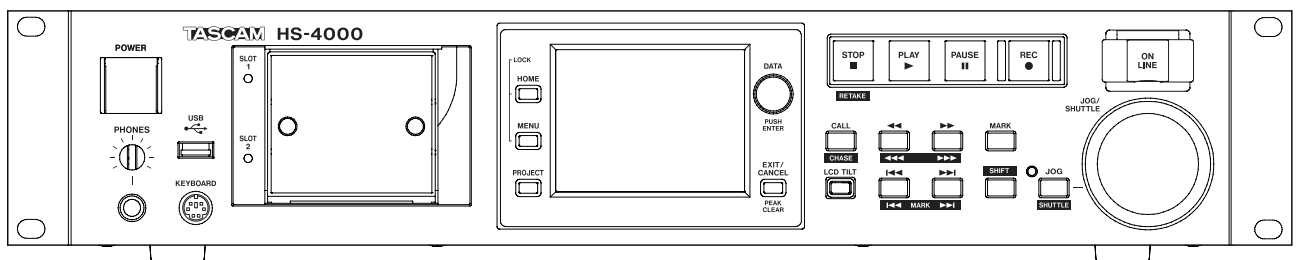
TASCAM

D01134001D

HS-4000

4 Channel Audio Recorder

OWNER'S MANUAL



IMPORTANT SAFETY PRECAUTIONS



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

For U.S.A.

TO THE USER

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.

CAUTION

Changes or modifications to this equipment not expressly approved by TEAC CORPORATION for compliance could void the user's authority to operate this equipment.

In North America use only on 120V supply.

This appliance has a serial number located on the rear panel. Please record the model number and serial number and retain them for your records.

Model number _____

Serial number _____

■ For European Customers

Disposal of electrical and electronic equipment

- (a) All electrical and electronic equipment should be disposed of separately from the municipal waste stream via collection facilities designated by the government or local authorities.
- (b) By disposing of electrical and electronic equipment correctly, you will help save valuable resources and prevent any potential negative effects on human health and the environment.
- (c) Improper disposal of waste electrical and electronic equipment can have serious effects on the environment and human health because of the presence of hazardous substances in the equipment.
- (d) The Waste Electrical and Electronic Equipment (WEEE) symbol, which shows a wheeled bin that has been crossed out, indicates that electrical and electronic equipment must be collected and disposed of separately from household waste.



- (e) Return and collection systems are available to end users. For more detailed information about the disposal of old electrical and electronic equipment, please contact your city office, waste disposal service or the shop where you purchased the equipment.

WARNING

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures

CE Marking Information

- a) Applicable electromagnetic environment: E4
- b) Peak inrush current: 14 A

IMPORTANT SAFETY INSTRUCTIONS

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with dry cloth.
- 7 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11 Only use attachments/accessories specified by the manufacturer.
- 12 Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



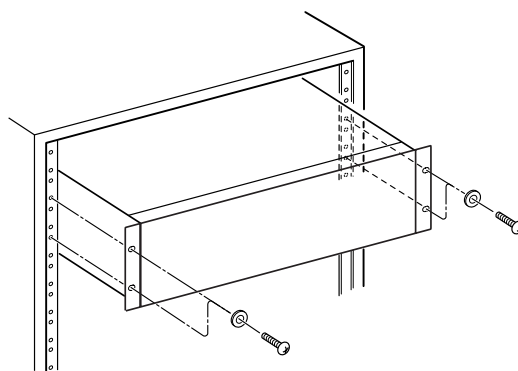
- 13 Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

- Do not expose this apparatus to drips or splashes.
- Do not place any objects filled with liquids, such as vases, on the apparatus.
- Do not install this apparatus in a confined space such as a book case or similar unit.
- The apparatus draws nominal non-operating power from the AC outlet with its POWER or STANDBY/ON switch not in the ON position.
- The apparatus should be located close enough to the AC outlet so that you can easily grasp the power cord plug at any time.
- The mains plug is used as the disconnect device, the disconnect device shall remain readily operable.
- Products with Class I construction are equipped with a power supply cord that has a grounding plug. The cord of such a product must be plugged into an AC outlet that has a protective grounding connection.
- If the product uses batteries (including a battery pack or installed batteries), they should not be exposed to sunshine, fire or excessive heat.
- CAUTION for products that use replaceable lithium batteries: there is danger of explosion if a battery is replaced with an incorrect type of battery. Replace only with the same or equivalent type.
- Caution should be taken when using earphones or headphones with the product because excessive sound pressure (volume) from earphones or headphones can cause hearing loss.

■ RACK-MOUNTING THE UNIT

Use the supplied rack-mounting kit to mount the unit in a standard 19-inch rack, as shown below.

Remove the feet of the unit before mounting.



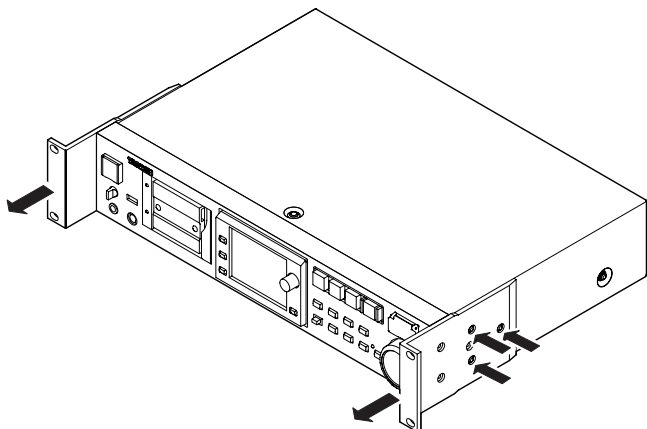
CAUTION

- Leave 1U of space above the unit for ventilation.
- Allow at least 10 cm (4 in) at the rear of the unit for ventilation.

IMPORTANT SAFETY INSTRUCTIONS

By changing the positions where the rack mount ears are attached to the unit, it is possible to install the unit into a rack so that its front panel is about 4 cm inside the front of the rack.

Remove the three screws that attach the rack mount ears from each side and then use the screws to reattach the ears as shown in the illustration below.



■ For China

产品有毒有害物质或元素的名称及含量

机种：HS-4000		有毒有害物质或元素					
	品名	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
1	CHASSIS部份	○	○	○	○	○	○
2	PCB Assy部份	×	○	○	○	○	○
3	线材部份	○	○	○	○	○	○
4	附属品部份	○	○	○	○	○	○
5	LABEL部份	○	○	○	○	○	○
6	包装部份	○	○	○	○	○	○

○：表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T11363-2006 标准规定的限量要求以下。

×：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T11363-2006 标准规定的限量要求。

（针对现在代替技术困难的电子部品及合金中的铅）

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1 – Introduction

Thank you very much for purchasing a TASCAM HS-4000 4 Channel Audio Recorder. Please read this manual thoroughly before using the unit so that you understand correct operating procedures and can use its functions fully. We hope that you enjoy using this unit for many years.

Please keep this manual so that you can read it at any time. A digital copy of this manual can also be downloaded from our website (<http://tascam.com/>)

Features

- CompactFlash cards are used as recording media (Ultra DMA compatible)
- Two CompactFlash card slots allows two cards to be loaded and recorded to simultaneously using dual player mode (planned for a future firmware version upgrade)
- 4-track simultaneous recording is possible at up to 96 kHz, 24-bit sample rates
- Confidence monitoring allows simultaneous playback of the signal as it is being recorded (when recording two tracks at up to 44.1/48 kHz,)
- Simultaneous playback of four tracks, including two stereo pairs (dual playlist mode)
- Three operation modes: timeline, take and playlist
- In timeline mode, linear recording and playback like a tape recorder are possible
- In take mode, playback and flash start of takes are possible
- In playlist mode, takes can be added to a list and played back in list order or activated using flash start
- In single playlist mode, playback of up to 4 tracks is possible
- In dual playlist mode, 2 stereo tracks can be independently played back and controlled
- Using the ONLINE key, online playback and monitoring playback are possible
- Broadcast Wave Format (BWF) file recording
- Flash start is possible using a TASCAM RC-HS32PD, RC-SS20 (both sold separately)
- In addition to using the remote controllers that are sold separately, flash start is also possible using PARALLEL control or a keyboard
- Auto cue, auto ready and incremental play functions
- Importing and exporting AES31 editing information in timeline mode are possible
- Playlist mode (compatible with JPPA flash start playlist file loading)
- JOG/SHUTTLE function
- Intuitive operation is possible using graphical interface on TFT color touchscreen
- 4 channels of XLR analog balanced inputs and outputs
- 2 stereo pairs of XLR AES/EBU digital inputs and outputs
- 2 channels of XLR analog monitoring outputs
- Headphone output
- XLR time code input and output
- BNC media reference (NTSC/PAL black burst signals, and HDTV Tri-level signals) and word clock input and output/thru
- Compatible with 48 kHz pull-up/pull-down operation
- Copying files to connected USB memory is possible (planned for a future firmware version upgrade)
- LAN (Gigabit Ethernet) functions allow file transmission, remote control and observation over a network (planned for a future firmware version upgrade)

- Parallel remote control is possible
- RS-232C serial remote control is possible (planned for a future firmware version upgrade)
- RS-422 (9-pin serial protocol) serial remote control is possible
- Rack mounting (2U) is possible

Included items

This product includes the following items.

Take care when opening the package not to damage the items. Keep the package materials for transportation in the future.

Please contact the store where you purchased this unit if any of these items are missing or have been damaged during transportation.

• Main unit (HS-4000).....	1
• Power cord set.....	1
• Rack-mounting screw kit.....	1
• Security screws.....	3
• Warranty card	1
• Owner's manual (this manual).....	1

Conventions used in this manual

In this manual, we use the following conventions:

- Keys, jacks and other parts on the main unit and external devices are indicated like this: **MENU**
- "CompactFlash card" is abbreviated as "CF card."
- Additional information is provided as necessary as tips, notes and cautions.

TIP

These are tips about how to use the unit.

NOTE

These provide additional explanations and describe special cases.

CAUTION

Failure to follow these instructions could result in injury, damage to equipment or lost recording data, for example.

Intellectual property rights

- TASCAM is a trademark of TEAC Corporation, registered in the U.S. and other countries.
- CompactFlash is a US registered trademark of SanDisk Corporation.
- Other company names, product names and logos in this document are the trademarks or registered trademarks of their respective owners.

1 – Introduction

Any data, including, but not limited to information, described herein are intended only as illustrations of such data and/or information and not as the specifications for such data and/or information. TEAC Corporation disclaims any warranty that any use of such data and/or information shall be free from infringement of any third party's intellectual property rights or other proprietary rights, and further, assumes no liability of whatsoever nature in the event of any such infringement, or arising from or connected with or related to the use of such data and/or information.

This product is designed to help you record and reproduce sound works to which you own the copyright, or where you have obtained permission from the copyright holder or the rightful licensor. Unless you own the copyright, or have obtained the appropriate permission from the copyright holder or the rightful licensor, your unauthorized recording, reproduction or distribution thereof may result in severe criminal penalties under copyright laws and international copyright treaties. If you are uncertain about your rights, contact your legal advisor. Under no circumstances will TEAC Corporation be responsible for the consequences of any illegal copying performed using the recorder.

Precautions for placement and use

- The guaranteed operating temperature range of this product is 5° - 35° C (41° - 95° F).
- Do not install in the following types of places. Doing so could degrade the sound quality and/or cause malfunctions.
 - Places with significant vibrations or that are otherwise unstable
 - Near windows or other places exposed to direct sunlight
 - Near heaters or other extremely hot places
 - Extremely cold places
 - Places with bad ventilation or high humidity
- Make sure that the unit is mounted in a level position for correct operation.
- In order to promote the emission of heat, do not place anything on top of this product.
- Do not place this product on top of a powered amplifier or other equipment that emits heat.

Beware of condensation

If the unit is moved from a cold to a warm place, or used immediately after a cold room has been heated or otherwise exposed to a sudden temperature change, condensation could occur. Should this happen, leave the unit for one or two hours before turning the unit on.

Cleaning the unit

Wipe the unit with a soft dry cloth to clean it. Do not use any benzene, paint thinner, alcohol or other chemical agents. Doing so could damage the surface of the unit or cause fading.

Cleaning the display

Slightly wipe the display with a soft dry cloth that does not shed dust (e.g. a cleaning cloth). Avoid wiping with a stiff cloth or rubbing with force. Doing so could damage the surface of the LCD. Do not use benzene, thinner, manicure remover, alcohol or similar substances.

About CF cards

Precautions for use

CompactFlash cards are precision devices. To prevent damage to the card or the slot, please observe the following cautions.

- Do not leave a CF card in an extremely hot or cold location.
- Do not leave a CF card in an extremely damp location.
- Do not allow a CF card to become wet.
- Do not place any object on top of a CF card, or twist or bend it.
- Do not subject a CF card to strong impact.
- Do not insert or remove a CF card during recording, playback, data transfer or other operations that access a card.

Media that has been confirmed for use with this unit

This unit uses CF cards for recording and playback.

We recommend using genuine TASCAM CF cards, but use of other CF cards that are available commercially is possible.

Microdrives cannot be used with this unit.

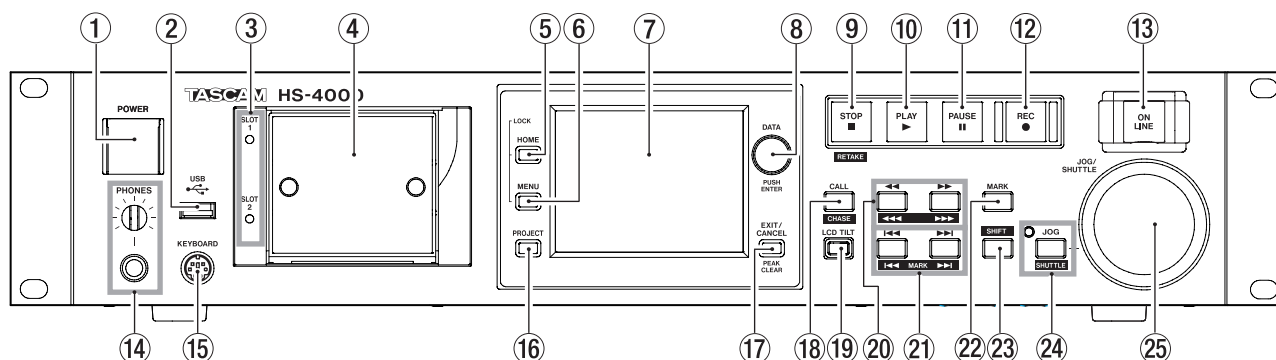
The capacities and performance of your HS-4000 will vary based on the speed and abilities of the Compact Flash (CF) media used. Older and some cheaper Compact Flash (CF) cards use slower memory components and little internal buffering which results in poor recording performance. Newer CF cards, particularly those made for high-precision DSLR cameras, not only perform reading and writing faster, but also come in larger storage size.

A list of CF cards that we have confirmed to work with this unit is provided on our website (<http://tascam.com/>).

If a CF card is used that has not been confirmed, this unit might not operate correctly.

2 – Names and functions of parts

Front panel



① POWER switch

Use to turn the power on and off.

This switch has a cover to prevent misoperation.

Open the cover from below to access and operate the switch.

② USB connector

By connecting a USB flash drive, for example, you can back up data from a CF card and save files to the card.

(Support is planned in a future firmware version upgrade.)

By connecting a USB keyboard, you can input the names of projects and sessions, for example.

By default, the unit is set to use Japanese keyboards, which have a different layout from US keyboards.

To use a US keyboard, change the setting on the PREFERENCES page of the SYSTEM SETUP screen. (See "PREFERENCES page" on page 112.)

NOTE

Do not disconnect USB flash memory when using it to copy files.

You can connect and disconnect USB flash memory at all other times.

You can connect and disconnect USB keyboards at any time.

This unit is not compatible with USB hubs and other devices with USB hub functions.

③ SLOT 1 and SLOT 2 indicators

The indicator for the currently selected CF card slot lights.

When recording or copying, it blinks rapidly.

When no CF card is inserted in the current slot, it blinks slowly.

CAUTION

Do not remove a CF card from a slot when its indicator is blinking rapidly.

④ CF card slot (SLOT 1/SLOT 2)

Insert CF cards here.(See "Inserting and removing CF cards" on page 25.)

⑤ HOME key

Press to open the Home Screen. Press the MENU key while pressing and holding the HOME key to open the LOCK SETUP screen. (See "Lock function" on page 28.)

Turn the DATA dial while pressing and holding the HOME key to adjust the brightness of the color display, the PAUSE, REC, PLAY and ONLINE keys and the JOG (SHUTTLE), SLOT 1 and SLOT 2 indicators.

Push and turn the DATA dial while pressing and holding the HOME key to adjust the brightness of only the color display.

⑥ MENU key

Press to open the MENU screen.

Press the MENU key while pressing and holding the HOME key to open the LOCK SETUP screen.(See "Lock function" on page 28.)

⑦ Color display

This 3.5-inch TFT color display has a 320 x 240 resolution.

It shows various types of information and is used for numerous operations.

⑧ DATA dial

Turn this to use as a DATA dial and press it to use it as an ENTER key. When setting parameter values, press while turning to change them in large increments. (coarse mode)

When a pop-up window is open, this works as an OK or CLOSE button.

Turn the DATA dial while pressing and holding the HOME key to adjust the brightness of the color display, the PAUSE, REC, PLAY and ONLINE keys and the JOG (SHUTTLE), SLOT 1 and SLOT 2 indicators.

Push and turn the DATA dial while pressing and holding the HOME key to adjust the brightness of only the color display.

⑨ STOP [RETAKE] key

Press to stop recording or playback.

Press this while pressing and holding the SHIFT key to retake the recording (erasing the last recorded take).

⑩ PLAY key/indicator

When stopped or in playback standby, press this key to start playback. This key lights during playback.

Press this key when in recording standby to start recording.

In timeline mode, press the PLAY key while pressing and holding the REC key to start recording from that point. Both the PLAY and REC keys light during recording.

2 – Names and functions of parts

11 PAUSE key/indicator

Press this key when stopped or during playback to put the unit in playback standby. This key lights when in standby.

Press this key while recording to put the unit in recording standby. Both the PAUSE and REC keys light when in recording standby.

12 REC key/indicator

When a recordable CF card is installed and the unit is stopped in timeline mode, press this key to put the unit into recording standby. Both the PAUSE and REC keys light during recording standby.

In timeline mode, press the PLAY key while pressing and holding the REC key to start recording from that point. Both the PLAY and REC keys light during recording.

13 ONLINE key/indicator

Press to turn online playback mode on/off.

The indicator lights when on and is unlit when off. (When in dual playlist mode, the indicator lights depending on the status of the selected player.)

This key has a cover to prevent misoperation. Open the cover from below to access and operate the key. (See "Online function" on page 35.)

14 PHONES knob/jack

Connect stereo headphones to this standard stereo phone jack.

This jack outputs the signal from the internal monitoring mixer.

Use the PHONES knob to adjust the headphones output level.

CAUTION

Before connecting headphones, turn the PHONES knob to the minimum volume. Failure to do so could cause sudden loud noises to occur, which might damage your hearing or equipment.

15 KEYBOARD connector

Connect a PS/2-interface keyboard that is IBM PC-compatible. Use it to enter, for example, project names and session names.

By default, the unit is set to use Japanese keyboards, which have a different layout from US keyboards. To use a US keyboard, change the setting on the PREFERENCES page of the SYSTEM SETUP screen. (See "PREFERENCES page" on page 112.)

16 PROJECT key

Press to open screens related to projects. The last used project screen page (project selection, session selection, AES31 file selection, take selection or playlist selection) opens. (See "PROJECT screen" on page 37.)

17 EXIT/CANCEL (PEAK CLEAR) key

Press to cancel input or item selection.

When a pull-up or pull-down menu is open, press to close it.

On the Home Screen, when no pull-up/pull-down menu is open, this key functions as a reset button for peak hold marks shown on the level meters

When the MENU screen or project screen is open, press this to return to the Home Screen.

On other screens, press this to return to the previous screen.

When a pop-up window is open, press this to cancel an operation.

18 CALL [CHASE] key

Press to locate to and pause playback at the call point, which is where playback last started from playback standby.

Press this key while pressing and holding the SHIFT key to turn synchronization with timecode ON/OFF.

19 LCD TILT button

Press this button to unlock the color display.

To adjust the angle of the color display, press this button to unlock it and pull its bottom forward.

To put the display away, press this button to unlock it and push the bottom inward.

20 ◀◀ [◀◀◀] and ▶▶ [▶▶▶] keys (search)

Press one of these keys to search.

◀◀ [◀◀◀] key: search backward

▶▶ [▶▶▶] key: search forward

Press one of these keys while pressing and holding the SHIFT key to search at high speed.

21 ◀◀/▶▶ [MARK ◀◀/▶▶] keys (skip)

Use these keys to skip between regions, takes and entries.

While pressing and holding the SHIFT key, use these keys to move between marks. After moving, the same playback state resumes (stopped/playback standby/playback).

22 MARK key

Press this key to add a mark at the currently located time.

A maximum of 99 marks, including automatic marks, can be added to each session/take. (See "Mark functions" on page 118.)

23 SHIFT key

When stopped/in playback standby/during playback:

- While pressing and holding this key, press the key to move to the previous mark and resume the previous playback state.
- Press the ▶▶ key while pressing and holding this key to move to the next mark, and resume the same playback state.
- Press the ◀◀ [◀◀◀] or ▶▶ [▶▶▶] key while pressing and holding this key to search at high speed.
- Press the JOG (SHUTTLE) key while pressing and holding this key to activate the shuttle operation mode.
- Press the STOP (RETAKE) key while pressing and holding this key to retake the recording (erasing the last recorded take).
- Press the CALL key while pressing and holding this key to turn synchronization with timecode ON/OFF.

24 JOG (SHUTTLE) key and indicator

Use to enable use of the JOG/SHUTTLE dial.

Press this key to enable the jog operation mode of the JOG/SHUTTLE dial. When this mode is enabled, this indicator lights.

Press this key while pressing the SHIFT key to enable the shuttle operation mode of the JOG/SHUTTLE dial. When this is enabled, this indicator blinks.

Press this key again to disable either mode.

25 JOG/SHUTTLE dial

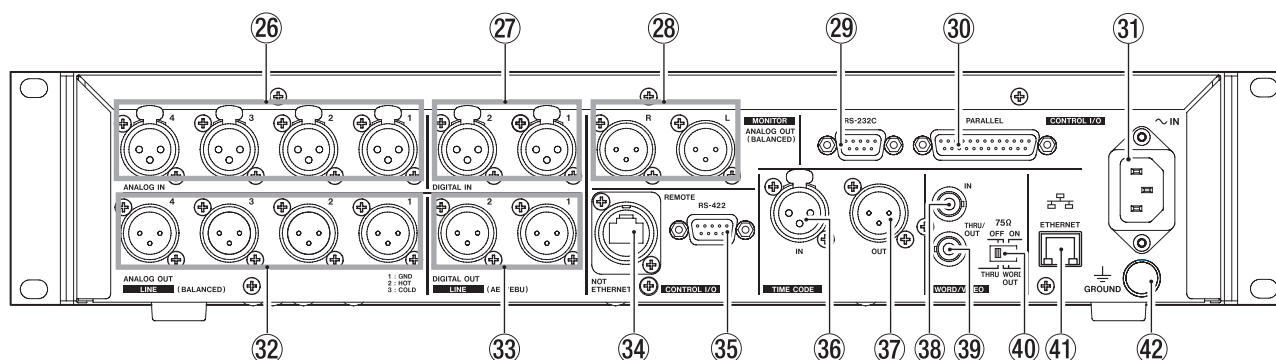
When in jog operation mode, turn this to change the playback position by a corresponding amount.

When in shuttle operation mode, turn this to adjust the playback speed according to the degree of rotation.

If you return to the original position when in shuttle operation mode, the transport status is restored to how it was before shuttle playback was begun.

2 – Names and functions of parts

Rear panel



26 ANALOG LINE IN 1-4 connectors

These XLR connectors are balanced analog line inputs. (1:GND, 2:HOT, 3:COLD)

27 DIGITAL LINE IN 1-2 connectors

Use these balanced XLR connectors (1 and 2) for digital audio input in AES3-2003/IEC60958-4 (AES/EBU) or IEC60958-3 (S/PDIF) format. Sampling frequencies of 88.2 and 96 kHz are transmitted at double speed. The built-in sampling rate converter can handle 32–192 kHz.

28 MONITOR ANALOG OUT L/R connectors

These are left and right balanced analog XLR monitoring output connectors (1: GND, 2: HOT, 3: COLD). These output monitoring signals (the audio output from the internal monitoring mixer).

29 RS-232C connector

This is a D-sub 9-pin RS-232C serial control connector. Use it to connect an external controller.

NOTE

The RS-232C connector will be made functional in a future firmware version update.
It cannot be used at the same time as the RS-422 connector. (See "RS-232C page" on page 108.)

30 PARALLEL connector

Connect an external controller, for example, to this 25-pin D-sub parallel control connector.

31 AC IN connector

Connect the included power cord here.

32 ANALOG LINE OUT 1-4 connectors

These XLR connectors are balanced analog line outputs. (1:GND, 2:HOT, 3:COLD)
In dual playlist mode, player A outputs from connectors 1 and 2, while player B outputs from connectors 3 and 4.

33 DIGITAL LINE OUT 1/2 connectors

These XLR connectors are balanced outputs for digital audio in AES3-2003/IEC 60958-4 (AES/EBU) format. Sampling frequencies of 88.2 and 96 kHz are transmitted at double speed. In dual playlist mode, player A outputs from connector 1, while player B outputs from connector 2.

34 REMOTE connectors

Connect a TASCAM RC-HS32PD remote control (sold separately) here.

CAUTION

This is not an Ethernet connector (LAN, etc.). Never connect this to a network using an Ethernet cable.

Doing so could damage this unit or equipment in the network.

35 RS-422 connector

This is a D-sub 9-pin RS-422 serial control connector. Use it to connect an external controller, for example.

NOTE

It cannot be used at the same time as the RS-232C connector. (See "RS-422 page" on page 108.)

36 TIMECODE IN connector

This XLR connector is a balanced input for SMPTE timecode input.

37 TIMECODE OUT connector

This XLR connector is a balanced output for SMPTE timecode output.

38 WORD/VIDEO IN connector

This is a BNC-type word clock and video reference signal input connector. Use it to input a word clock signal (44.1kHz, 48kHz, 48kHz pull-down, 48kHz pull-up, 88.2kHz or 96kHz) or a video reference signal (NTSC/PAL black burst signal, HDTV Tri-level signal). Use the switch to set whether or not to terminate with 75Ω.

39 WORD/VIDEO THRU/WORD OUT connector

This is a BNC-type word clock (through/output) and video reference signal through/output connector. Use it to output a word clock signal (through, 44.1kHz, 48kHz, 48kHz pull-down, 48kHz pull-up, 88.2kHz or 96kHz output) or a video reference signal (IN connector signal through). Use the THRU/WORD OUT switch to set the signal output.

40 75Ω OFF/ON and THRU/WORD OUT switch

Use this switch to make the following settings.

- Whether or not the WORD/VIDEO IN connector has termination resistance (75Ω)
- The WORD/VIDEO output THRU/OUT setting (OUT is only for WORD)

41 ETHERNET connector

Use this Ethernet connector for network connection to conduct file transfer and external control of this device.

42 GROUND terminal

When using a TASCAM RC-HS32PD remote control (sold separately), depending on the operating environment, the

2 – Names and functions of parts

color display might flicker or noise might be heard when monitoring.

If this occurs, use the GROUND terminal. (Please prepare a wire to use with the GROUND terminal.)

PARALLEL connector

The PARALLEL connector on the rear panel allows external control of this unit.

The pin assignments are as follows.

Pin No.	Timeline / Take / Playlist [Single] / On Air	Playlist [Dual, A/B MIXED]	TASCAM RC-SS20 PonMode	I/O
1	GND	GND	GND	
2	PLAY	PLAY A	FLASH 1	I
3	STOP	STOP A	FLASH 2	I
4	RECORD	(Reserved)	FLASH 3	I
5	SKIP FWD	SKIP FWD	FLASH 4	I
6	SKIP BWD	SKIP BWD	FLASH 5	I
7	(Reserved)	STOP B	STOP	I
8	FADER START	FADER_START A	FADER_START	I
9	TALLY_BC_STOP	TALLY_PAUSE B	TALLY_BC_STOP	O
10	TALLY_PAUSE / TALLY_BC_PAUSE	TALLY_PAUSE A	TALLY_PAUSE A / TALLY_BC_PAUSE	O
11	TALLY_RECORD	(Reserved)	RESERVED	O
12	TALLY_STOP	TALLY_STOP A	TALLY_STOP	O
13	TALLY_PLAY	TALLY_PLAY A	TALLY_PLAY	O
14	REMOTE_SELECT, H or Open	REMOTE_SELECT, H or Open	REMOTE_SELECT, L	I
15	PAUSE	PAUSE	FLASH 6	I
16	(Reserved)	PLAY B	FLASH 7	I
17	AUX1, FF	AUX1, FF	FLASH 8	I
18	AUX2, REW	AUX2, REW	FLASH 9	I
19	AUX3, MARK	AUX3, MARK	FLASH 10	I
20	(Reserved)	A/B SELECT	FLASH_PAGE	I
21	TALLY_BC_STANDBY	TALLY_PLAY B	TALLY_BC_STANDBY	O
22	TALLY_CF1 / TALLY_BC_CM	TALLY_STOP B	TALLY_CF1 / TALLY_BC_CM *1	O
23	TALLY_ONLIN	TALLY_ONLINE A	TALLY_ONLINE	O
24	TALLY_CF2 / TALLY_BC_END	TALLY_ONLINE B	TALLY_CF2 / TALLY_BC_END *2	O
25	+5V *3	+5V *3	+5V *3	

- I: Command input for transport control
Internal circuit, +5V pull-up
Operates with low commands of 50 msec or more
- O: Command output, for tally output
The internal circuit is open collector (10Ω output impedance)
Low command output when operating
20 V dielectric strength, 35 mA maximum current

*1: With an RC-SS20, this is assigned to the CF.

*2: With an RC-SS20, this is assigned to the CD indicator.

*3: 50 mA maximum supplied current

When REMOTE Select (pin 14) is set to high, it functions according to the operation mode and can be used as an ordinary parallel controller.

When set to low, flash start mode is enabled. In addition, depending on the high/low setting of the Flash Page (pin 20), the key assignments are as follows.

Pin 14	Pin 20	Flash start take
Low	High	1-10
Low	Low	11-20

tally_BC_xxx: Use the menu setting to turn output ON or OFF.
(When connected to a TASCAM RC-SS20, set output to OFF.)

tally_BC_STOP/CM/END: 250msec pulse output

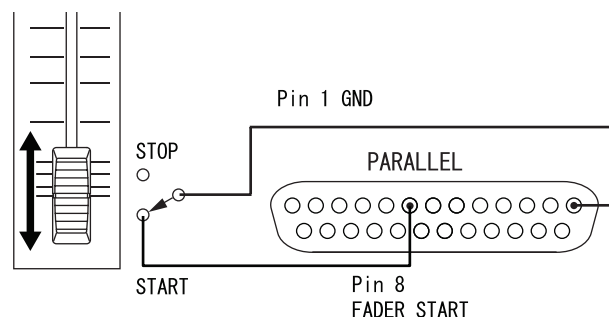
tally_BC_STANDBY/PAUSE: level output

When this unit is set to dual or A/B MIXED playlist mode and REMOTE Select (pin 14) is set to high (dual or A/B MIXED Playlist), use pin 20 (A/B SELECT) to select player A/B (Hi is player A, Lo is player B).

The following pins affect the selected player.

Pin 5	SKIP FWD
Pin 6	SKIP BWD
Pin 15	PAUSE
Pin 17	AUX1
Pin 18	AUX2
Pin 19	AUX3

The following example is of a connection that uses a fader to start and stop playback of this device.



For details about the AUX 1-3 (pins 17-19) function assignments, see "PARALLEL page" on page 107.

NOTE

When controlling this unit with an external device that is connected to the PARALLEL connector, by simultaneously inputting PLAY and RECORD signals while this unit is stopped, you can start recording immediately. In addition, by simultaneously inputting PLAY and RECORD signals during playback in timeline mode, you can start overwriting the recording.

RS-232C connector

The RS-232C connector on the rear panel can be connected to an RS-232C connector on a computer to allow control of this unit from that computer.

Make settings related to communication on the RS-232C page of the REMOTE SETUP screen. (See “RS-232C page” on page 108.)

NOTE

The RS-232C connector will be made functional in a future firmware version update.

Please contact TASCAM customer support for information about this unit's RS-232C command protocol.

RS-422 connector

You can control this unit remotely by connecting the RS-422 connector on its rear panel to a controller or editor compatible with SONY P2 protocol (RS-422).

Make settings related to operation on the REMOTE SETUP screen RS-422 page. (See “RS-422 page” on page 108.)

NOTE

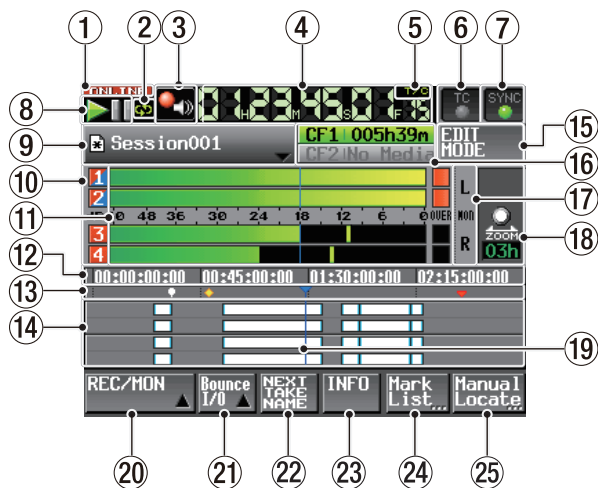
Please contact TASCAM customer support for information about this unit's protocol compatibility.

2 – Names and functions of parts

Home Screen

Press the HOME key to open the Home Screen.

In timeline mode



① ONLINE status indication

	When the online sending mode is ON, the red ONLINE icon appears.
	When the online sending mode is OFF, the ONLINE icon appears unlit.

② Repeat status indication

	When repeat playback is ON, the green icon appears.
	When repeat playback is OFF, the icon does not appear.

③ Confidence monitoring status icon (button)

This icon shows the status of confidence monitoring.

	Confidence monitoring active
	Confidence monitoring unavailable*
	Confidence monitoring OFF

*This appears when confidence monitoring is on, but cannot be used due to limits on the sampling frequency or number of recording tracks.

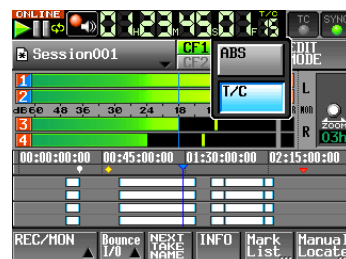
Touch this button to open the REC MODE page of the REC SETUP screen where you can set confidence monitoring. (See "REC MODE page" on page 101.)

NOTE

This button only appears in timeline and take modes.

④ Time counter display (button)

The time displayed is the elapsed time, the remaining time or the timecode time. Touch this area to open a pull-down menu where you can change the time display mode. To close the pull-down menu, touch the time counter or one of the mode buttons in the menu, or press the HOME key or EXIT/CANCEL key.



⑤ Time mode indicator (button)

This shows the current time display mode.

Touch this area to change the time display mode.

	The time elapsed from the beginning of the timeline is shown.
	The timecode for the timeline is shown.

⑥ Timecode status button/indicator

	When accurate timecode is input and recognized correctly, the TC indicator appears green.
	When timecode is not recognized correctly, the TC indicator does not appear.

Synchronized playback status is shown when playback is synchronized to timecode.

	The CHASE indicator appears green during synchronized operation with external timecode or the internal timecode generator (selectable)
	The CHASE indicator appears unlit when not being operated in synchronization with timecode or when synchronization is lost.

Touch this area to open the SYNC T/C screen. (See "Sync and timecode settings (SYNC T/C)" on page 104.)

⑦ Audio synchronization status button/indicator

	When synchronized with a master clock, the SYNC indicator appears green.
	When not synchronized with a master clock, the SYNC indicator appears unlit.

Touch this area to open the SYNC T/C screen. (See "Sync and timecode settings (SYNC T/C)" on page 104.)

⑧ Transport status indicator

This icon shows the current transport status.

	Playing back or jogging playback (forward)
	Jogging playback (reverse)
	Playback standby
	Stopped
	Searching backward
	Searching forward
	Searching backward (high-speed search)
	Searching forward (high-speed search)
	The number shown when searching backward (shuttle operation) changes with the current speed: x2, x4, x8, x16, x32.

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	The number shown when searching forward (shuttle operation) changes with the current speed: x2, x4, x8, x16, x32.
	Recording
	Recording standby

Touch this area to open the PLAY SETUP screen.

⑨ Session name (button)

This shows the currently active session name. A "*" appears when the session has not been saved after editing (including the addition and removal of session editing marks).

Touch this area to open a pull-down menu.



START TIME EDIT button

This opens the START TIME screen where you can set the timeline mode starting time. This can only be selected when stopped.

REBUILD button

Use to rebuild when, for example, a file has been erased from the unit using FTP.

This can only be selected when stopped.

SAVE button

This saves the contents of the timeline.

This can only be selected when stopped. (See "Saving timelines" on page 56.)

EXPORT AES31 button

This outputs (exports) the session as an AES31 file. This can only be selected when stopped. (See "Exporting AES31 editing information" on page 55.)

IMPORT ALL TAKES button

Touch to import all session takes.

This can only be selected when stopped. (See "Importing all takes" on page 56.)

⑩ Track numbers and record function and input monitoring indicators

The indicators at the left end of the level meters show the status of record arming and input monitoring. The background colors of the indicators mean the following.

	REC OFF	REC ON
MON OFF		
MON ON		

⑪ Level meters

The input signal level for a track is shown if input monitoring for it is set to ON or if it is armed for recording and not playing back. Each track also has an overload indicator at its right end that appears red when the input overloads.

During playback, the playback level of a track is shown if input monitoring is set to OFF.

When the input source is set to a digital input, but there is no input signal or if the input signal differs from the internal

setting, the channel meter display area appears gray and one of the following messages appears. (The "x" indicates the channel.)

Display	Meaning
D-INx NO SIGNAL	No input signal
D-INx UNLOCK	Input signal is not synchronized with the system
D-INx NOT AUDIO	Cbit information of the input signal is not audio
D-INx Cbit ERROR	Other input signal Cbit information differs from the actual operation mode



D-IN1 UNLOCK shown

The following settings can be made for the display of the level meters on the METER SETUP screen from the MENU screen.

- Metering point
- Peak hold time
- Release time
- Overload indicator peak level
- Reference level line display on/off

You can also touch these areas to output just one pair of channels (1-2 or 3-4) for monitoring (solo function).



The level meters and track numbers for the soloed channels appear highlighted in yellow.

The level meters for the channels that are not soloed appear shaded. Touch the same channel pair again to stop soloing them.

⑫ Time display area

When the time display mode has been set to show a timeline with four equal divisions, four times are shown. This area has 4 equal divisions, showing 4 time points on the timeline.

The values match the time display mode.

2 – Names and functions of parts

13 Mark display area

Timeline marks appear here.

The values match the time display mode.

	BC\$CM mark
	BC\$END mark
	BC\$FILE mark
	BC\$PAUSE mark
	BC\$STANDBY mark
	BC\$START mark
	BC\$STOP mark
	IN mark
	OUT mark
	Other types of marks

14 Track display area

This shows the regions in each track.

Tracks 1, 2, 3 and 4 are shown in order from top to bottom.

The number of tracks shown is as set using the "TIMELINE Rec Tracks" item when creating a project or session. For projects/sessions in which "TIMELINE Rec Tracks" is set to "2trx2", only the line separating channels 2 and 3 appears wider.

If the EDIT MODE button is ON and the Bounce I/O pull-up menu is open, a yellow frame appears around the selected track. Region fade-ins, fade-outs and cross-fades are shown in blue.

Regions are shown by color according to status as follows.

	EDIT MODE: OFF	EDIT MODE: ON Bounce I/O pull-up menu open
Unselected region	White	Grey
Unselected fade region	Blue	Dark grey
Selected region	Light blue	Light blue
Selected fade region	Dark blue	Dark blue
Selected silent part	Darker blue	Darker blue
Region being recorded	Red	Red
Region where level is being adjusted	-	Yellow

The values match the time display mode.

15 EDIT button

Touch this to turn ON/OFF the edit mode, which allows you to divide, erase and cut parts of regions.(See "Editing timelines" on page 57.)



16 Recording media display (button)

This shows which of the CF card slots is being used and its remaining recording time.

The background of the media that is currently being used appears green during playback and red when recording.

If there is no media in the CF card slot, No Media appears on a light gray background.

If the CF card has no projects or sessions, No Project appears.

When an unformatted CF card is inserted, UNFORMAT appears.

When a CF card is inserted in the CF card slot that is not being used during recording, UNMOUNT appears. When recording is stopped, the usual screen is shown.

If the total number of entries, including files and subfolders, inside a session folder exceeds about 5000, recording becomes impossible and Rec Limit is shown. For details, see "Recording operation limitations" on page 35.

Press this area to open the CF SELECT screen.(See "CF card selection" on page 30.)

17 Monitoring mixer overload indicators

If the left or right monitoring mixer channel overloads, the background of the corresponding L or R becomes red.

18 Zoom rate

This shows the track area zoom ratio and extent of the area displayed.

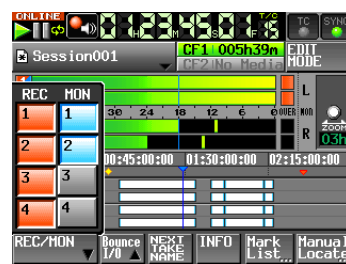
Turn the DATA dial to the right to zoom in (reduce the displayed area) and turn it to the left zoom out (increase the displayed area).

19 Timeline cursor

This cursor shows the position of recording or playback. It is always shown in the middle of the screen.

20 REC/MON button

Press this button to open a pull-up with REC and MON buttons that allow you to enable recording and input monitoring for the tracks.



Record arm buttons (REC buttons)

These buttons arm tracks for recording.

The signals of tracks that are armed are recorded during recording. In addition, audio signals from the audio input connectors are input to the tracks that are armed for recording when recording or in recording standby.

Input monitoring buttons (MON buttons)

These buttons enable/disable input monitoring.

When enabled for a channel, sound input through the assigned input connector is always input.

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21 BOUNCE I/O button

Touch this button to open a pull-up with buttons related to bouncing.



Bounce button

Touch this button to bounce. In the following circumstances, this button appears gray and cannot be used.

- When both starting (IN) and ending (OUT) points have not been set
- During playback or recording
- When "TIMELINE Rec Tracks" is set to "2trx2" and no track is selected

SET IN button

Touch to set the current position as the bounce starting (IN) point.

SET OUT button

Touch to set the current position as the bounce ending (OUT) point.

CLEAR button

Touch to discard the currently set bounce starting (IN) and ending (OUT) points.

For details about these buttons, see "Bouncing" on page 67.

22 NEXT TAKE NAME button

Touch this button to open the NEXT TAKE NAME page where you can set the name that will be given to takes or files recorded in the future.

First half of take names

The first half of the take name can be set to either the User Word or the Session Name (default).

CAUTION

The first half of the take name can only be changed when the unit is stopped.

"User Word" mode (button)

Use the user word for the first half of the take name.

Press the EDIT button to open the screen where you can change the user word. (This works the same as the screen for editing project names.)



"Session Name" mode (button)

Use the session name as the first half of the take name.



Second half of take names

The second half of the take name is comprised of one alphabetical letter and a three-digit number.

Press the EDIT button to open the screen where you can change the letter.

You can change the three-digit number with the + and – buttons. You can also touch the numerical part to highlight it in yellow and use the DATA dial to change the number.

In the following cases, "----" appears and the value cannot be changed.

- No project or session is loaded
- The selected CF card is unavailable
- When the numerical part of the file name of the current take is 999

CAUTION

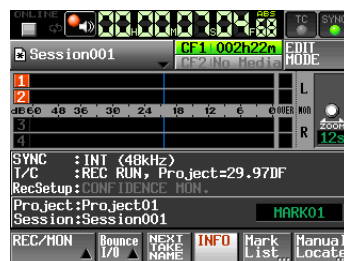
- *The Next Take Name setting is saved with each project. If you change projects, the setting of the loaded project is used.*
- *The number in the second half of the take name can also be changed during playback or recording. (The first half of the take name and the letters in the second half can only be edited when stopped.)*

NOTE

If the first half of the take name or the letter in the second half is different, a take that has the same three-digit number in the second half can be created.

23 INFO button

Touch this button to open an information display that shows the current settings of the unit and information about the loaded file.



The upper section shows the current settings of this unit. Touch this area to open the SYNC T/C screen.

The lower section shows information about the currently loaded session. Touch this area to open the project screen. The name of the previous mark most recently passed or at the current time is shown on the right. When the name of a mark other than an automatic mark is shown, touch this area to open the MARK NAME editing screen.

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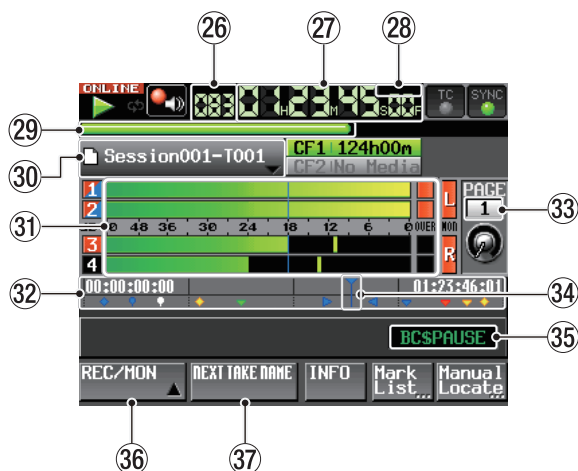
24 Mark List button

Touch this button to open the mark list. (See “MARK LIST screen” on page 119.)

25 Manual Locate button

Touch this button to open the MANUAL LOCATE screen. (See “Manual locate function” on page 121.)

In take mode or single playlist mode



In take mode

NOTE

When in playlist mode, the REC/MON and NEXT TAKE NAME buttons are not shown.

26 Take/entry number

The number of the currently selected take or entry is shown. When in recording standby, this shows the file name that will be given to the next recorded take.

When in recording standby, this shows the file name that will be given to the next recorded take. Take numbers are added in the order that the takes are recorded in the session.

27 Time counter display (button)

The time displayed is the elapsed time, the remaining time or the timecode time.

Touch this area to open a pull-down menu where you can change the time display mode.

To close the pull-down menu, touch the time counter or one of the mode buttons in the menu, or press the HOME key or EXIT/CANCEL key.



28 Time mode display

This shows the current time display mode.

ELAPSED

This shows the elapsed time from the beginning of the take or entry.

REMAIN

This shows the remaining time until the end of the take or entry.

ELAPSED/REMAIN

The elapsed time is shown in the time counter area and the remaining time is shown at the right end of the time bar as a negative number.



REMAIN/ELAPSED

The remaining time is showing the time counter area and the elapsed time is shown at the right end of the time bar.



TOTAL

This shows the elapsed time from the beginning of the first take in the session or the playlist.

T.REM (total remaining)

This shows the remaining time until the end of the last take in the session or playlist.

T/C

This shows the timecode of the playback take or entry.

29 Time bar

This shows the current playback position. What is shown depends on the time display mode.

Time display mode	Meaning	Bar display
	The current playback position relative to the length of the take or entry is shown.	Elongates from left end to right end
REMAIN		Shortens from left end to right end
TOTAL	The current playback position relative to the total length of all takes in the session or the entire playlist is shown. (Divisions between takes or entries are shown by vertical white lines.)	Elongates from left end to right end
T.REM		Shortens from left end to right end
T/C		Elongates from left end to right end

2 – Names and functions of parts

When recording in take mode, a red progress bar repeatedly extends from the left end to the right end in a cycle of about 5 seconds.



30 Take/entry name (button)

This shows the name and mode icon of the currently active take or entry.

When in recording standby, this shows the file name that will be given to the next recorded take.

The two types of file mode icons are as follows.

	Monophonic mode
	Polyphonic mode

When in playlist mode, a "*" appears in the icon if the playlist has not been saved after editing (including the addition and removal of entries).

Touch this area to open a pull-down menu.

■ In take mode



TAKE List button

This opens the take selection screen (TAKE screen). At this time, even if you press the session name display area, the SESSION selection screen will not open. (See "PROJECT screen" on page 37.)

CIRCLE @ TAKE button

Touch this to add or remove "@" at the beginning of the current take name. (See "Using @ with take names" on page 73.)

REBUILD button

Use to rebuild when, for example, a file has been erased from the unit using FTP.

■ In single playlist mode



ASSIGN FILE button

This shows the ASSIGN screen where you can assign files. (See "Assign File screen" on page 83.)

ENTRY LIST button

This shows the entry list (ENTRY) screen. (See "Entry list screen" on page 81.)

ADJUST ENTRY button

This opens the ADJUST ENTRY *** screen where you can edit an entry. (See "Editing entry titles" on page 88.), (See "Editing the playback start and stop positions" on page 89.), (See "Using the numeric entry screen to edit the playback beginning and ending positions" on page 90.)

REBUILD button

Use to rebuild when, for example, a file has been erased from the unit using FTP.

SAVE button

This saves the current playlist. This can only be selected when stopped. (See "Saving a playlist" on page 93.)

SAVE AS button

This adds a name to the current playlist and saves it. This can only be selected when stopped. (See "Saving a playlist" on page 93.)

EXPORT PPL button

This creates a JPPA PPL file from the current playlist. This can only be selected when stopped. (See "Creating a JPPA PPL file from the loaded playlist" on page 94.)

31 Level meters

These are the same as on the Home Screen in timeline mode.

As on the Home Screen in timeline mode, you can touch this area to use the solo function.

32 Time display area

What is shown depends on the time display mode.

Time display mode	Left end	Right end
	00:00:00:00	Total take or entry length
	Total take or entry length	00:00:00:00
	00:00:00:00	Total session or playlist length
	Total time of session or playlist	00:00:00:00
	Starting time of session or playlist	Ending time of session or playlist

During recording and recording standby, however, times and dividing lines are not shown.

33 Flash Page number and knob

This shows the Flash Page number. Touch this area to enable selection (yellow background), and turn the DATA dial to

2 – Names and functions of parts

change the page number (turn right to increase and turn left to decrease).

34 Current time cursor

This cursor shows the position of playback.

This scrolls horizontally relative to the time counter time.

It is not shown during recording (take mode only).

35 Mark name

This is the name of the mark at the current time or the nearest preceding mark.

When the name of a mark other than an automatic mark is shown, touch this area to open the MARK NAME editing screen.

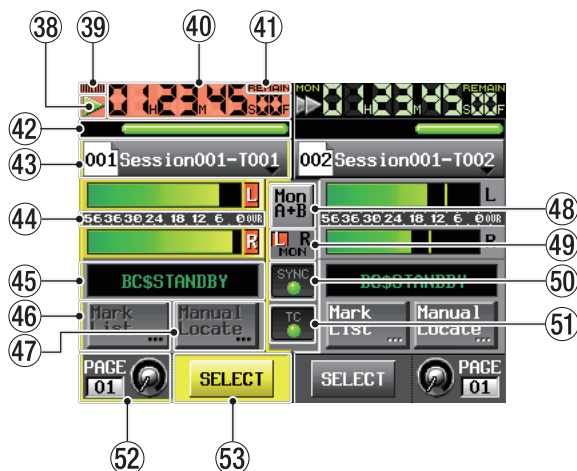
36 REC/MON button

These are the same as on the Home Screen in timeline mode.

37 NEXT TAKE NAME button

These are the same as on the Home Screen in timeline mode.

Dual playlist mode



The left side is Player A, which can be used to play playlist A, and the right side is Player B, which can be used to play playlist B. Operation of both Players A and B is the same.

Items %-* in the center are shared by both players.

38 Transport status indicator

This icon shows the current transport status.

Touch this area to open the PLAY SETUP screen.

These are the same as on the Home Screen in timeline mode.

39 ONLINE status indicator

ONLINE	When the online playback mode is ON, the ONLINE icon appears.
MON	When online playback mode is OFF, the MON icon appears with green letters.

40 Time counter (button)

The time displayed is the elapsed time or the remaining time.

When online playback mode is ON, the background appears red.

Otherwise, this is the same as on the Home Screen in timeline mode.

Touch this area to open a pull-down menu where you can change the time display mode.

To close the pull-down menu, touch the time counter or one of the mode buttons in the menu, or press the HOME key or EXIT/CANCEL key.



41 Time mode indicator (button)

This shows the current time display mode.

ELAPSED

The time elapsed from the beginning of the entry is shown.

REMAIN

The time remaining until the end of the entry is shown.

ELAPSED/REMAIN

The elapsed time is shown in the time counter area and the remaining time is shown at the right end of the time bar as a negative number.



REMAIN/ELAPSED

The remaining time is showing the time counter area and the elapsed time is shown at the right end of the time bar.



TOTAL

The time elapsed from the beginning of the playlist is shown.

T.REM (TOTAL.REMAIN)

The time remaining until the end of the playlist is shown.

T/C

The timecode time of the playing entry is shown.

42 Time bar

This shows the playback position of the currently playing entry or playlist. Otherwise, this is the same as on the Home Screen in take mode.

2 – Names and functions of parts

④③ File or title name (button)

The currently active playlist entry number is shown inside the icon.

Blank:	CF card not available or loading
000	No entry
Three-digit number:	The number of the currently selected entry

The name of the currently active entry is shown to the right of the icon.

If the title has been set for the corresponding entry in the playlist, that title is shown.

A "***" appears in the icon if the playlist has not been saved after editing (including the addition and removal of entries).

Touch this area to open a pull-down menu.

ASSIGN FILE button

This shows the ASSIGN screen where you can assign files. (See "Assign File screen" on page 83.)

ENTRY LIST button

This shows the entry list (ENTRY) screen. (See "Entry list screen" on page 81.)

ADJUST ENTRY button

This opens the ADJUST ENTRY *** screen where you can edit an entry. (See "Editing entry titles" on page 88.), (See "Editing the playback start and stop positions" on page 89.), (See "Using the numeric entry screen to edit the playback beginning and ending positions" on page 90.)

SAVE A+B button

This saves the current playlist. This can only be selected when stopped. (See "Saving a playlist" on page 93.)

SAVE AS (A) or SAVE AS (B) button

Use this to name and save the currently selected player's playlist. This can only be selected when stopped. (See "Saving a playlist" on page 93.)

EXPORT PPL button

This creates a JPPA PPL file from the current playlist.

This can only be selected when stopped. (See "Creating a JPPA PPL file from the loaded playlist" on page 94.)

④④ Level meters (button)

The playback level is shown.

Touch this area to enable monitoring of a playlist. When selected for monitoring, the area around the meters appears yellow.

When an input overloads, the corresponding L or R appears red.

④⑤ Mark name

This is the name of the mark at the current time or the nearest preceding mark.

Otherwise, this is the same as on the Home Screen in take mode.

④⑥ Mark List button

Touch this button to open the mark list for that player.

These are the same as on the Home Screen in timeline mode.

④⑦ Manual Locate button

Touch this button to open the MANUAL LOCATE screen for that player.

These are the same as on the Home Screen in timeline mode.

④⑧ MON A+B button

This turns the function that allows the simultaneous monitoring output of both players A and B on and off.

When ON, the button is highlighted in blue and meters for both players are highlighted.

When first turned OFF, monitoring is disabled for both players.

④⑨ Monitoring mixer overload indicators

If the left or right monitoring mixer channel overloads, the background of the corresponding L or R becomes red.

⑤① Audio synchronization status button/indicator

These are the same as on the Home Screen in timeline mode.

⑤① Timecode status button/indicator

These are the same as on the Home Screen in timeline mode.

⑤② Flash Page number and knob

This is the same as on the Home Screen in take mode.

However, touching this in the unselected player will, in addition to enabling flash page selection, also assign the transport keys, ONLINE key and JOG/SHUTTLE dial on the front panel to the corresponding player.

⑤③ SELECT button

Touch this button on a player to assign the transport keys, ONLINE key and JOG/SHUTTLE dial on the front panel to the corresponding player.

A/B MIXED playlist mode



This is mostly the same as in dual playlist mode, but the following points are different.

① File or title name (button)

The entry number icons use different colors as shown below.

Entry icon	Meaning
	Player A Valid entry assigned
	Player B Valid entry assigned
	No entry

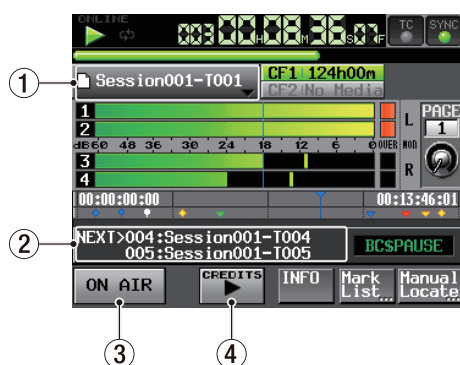
② Flash Page number and knob

Players A and B share the same flash page settings.

When operated the pages and buttons of both players A and B are linked and change together.

2 – Names and functions of parts

On-air mode



On-air mode

① Take name (button)

This shows the icon and name of the currently loaded take.
Touch this area to open a pull-down menu.



ON AIR List button

This shows the ON AIR List screen. (See “Selecting files for on-air playback” on page 98.)

REBUILD button

Use to rebuild when, for example, a file has been erased from the unit using FTP.

② Information field

On the on-air mode Home Screen, the names of the next two takes are shown in the information field.

Touch this information field to switch to the ON AIR List screen.

③ ON AIR button

Touch to switch between actual playback and rehearsal/confirmation playback modes. (See “Using the ON AIR button to switch between rehearsal/confirmation playback and actual playback modes” on page 99.)

④ CREDITS ► button

Touch to conduct credits playback. This starts playback from the beginning of the selected file and stops at the applicable mark. (See “Conducting credits playback” on page 99.)

NOTE

- The ON AIR button only functions when stopped.
- The CREDITS ► button functions when the ON AIR button is off and playback is stopped or when the ON AIR button is off during CREDITS playback. It does not function when the ON AIR button is on or during ordinary playback.
- During credits playback, press the CREDITS ► button to stop playback. (Use it to toggle between credits playback and a stopped state.)

3 – Preparation

Inserting and removing CF cards

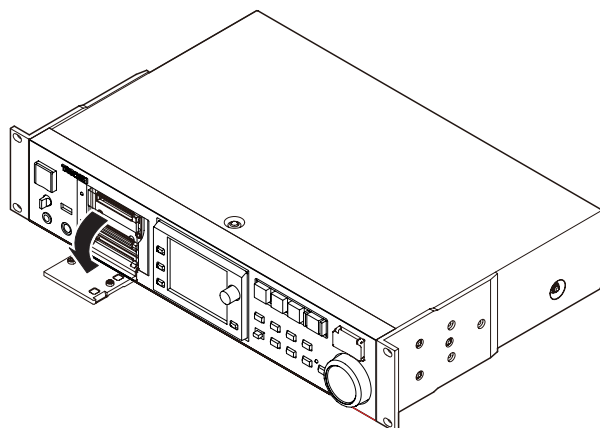
Inserting CF cards

Insert a CF card into CF card SLOT 1 or SLOT 2 on the front panel of the unit in order to use it for recording and playback.

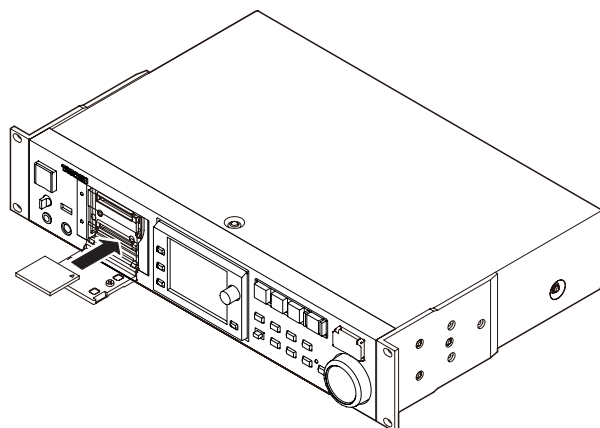
NOTE

CF cards can be inserted whether the power is ON or OFF.

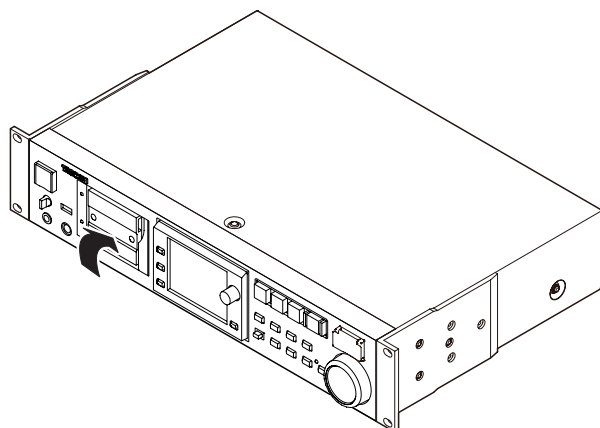
1. Pull the CF card slot cover forward to open it.



2. Insert the CF card with the correct orientation.
With the labeled side up, insert the end with the connector completely.



3. Close the cover.



NOTE

If you cannot close the slot cover, remove the CF card once, press the square button to the right of the slot and then reinsert the card.

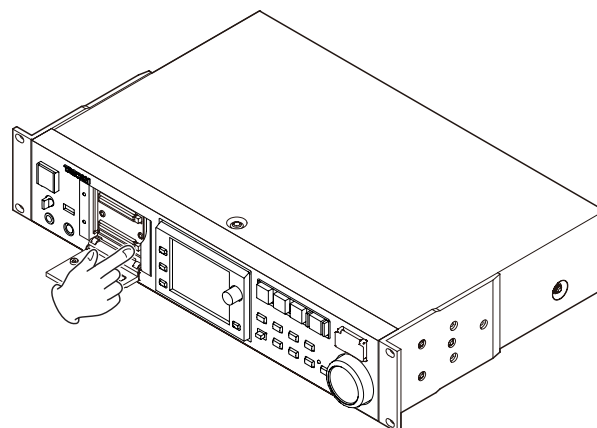
Removing CF cards

Turn the unit power OFF or stop operations before removing a CF card.

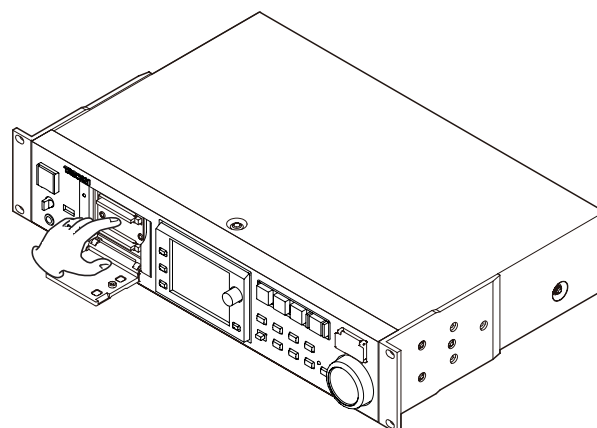
CAUTION

Never remove a CF card during recording, playback or any other operation that accesses the CF card. Doing so could, for example, cause recording errors, loss of recorded data, and sudden loud noises to be output through monitoring equipment, which could result in damaged equipment and hearing loss.

1. Pull the CF card slot cover forward to open it.
2. Press the square button to the right of the CF card slot to bring the button out.



3. Press the square button in again to partially eject the CF card.
4. Pull the CF card out by hand.

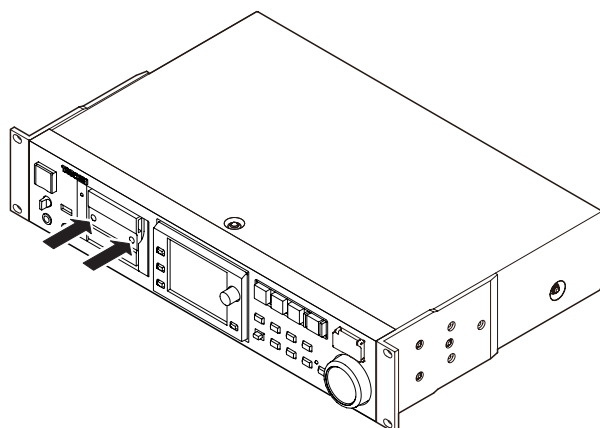


3 – Preparation

Security screws

The included security screws can be used to lock the CF card slot covers.

Use a Phillips head screwdriver to install or remove the screws.



About the display

Adjusting the display angle

Push the LCD TILT button to unlock the display, and then pull the bottom of the display forward to adjust the angle.

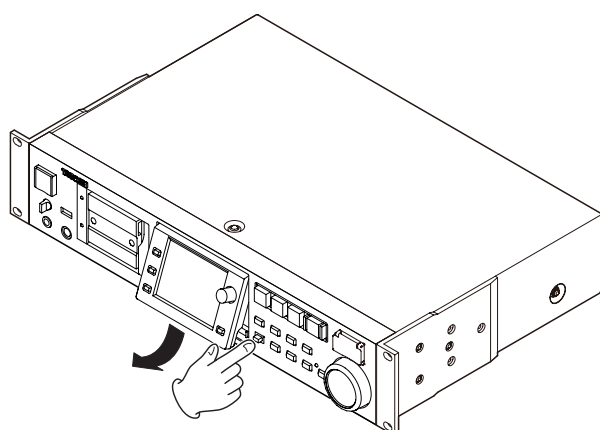
Pull the bottom of the display until you hear a clicking sound.

To restore it to its flat position, push the LCD TILT button again to unlock the display, and push the bottom of the display.

Push the bottom of the display until you hear a clicking sound.

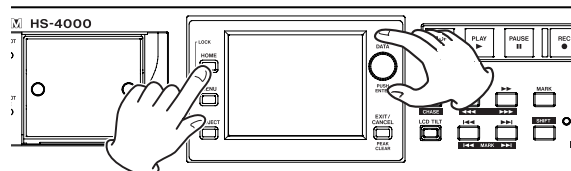
CAUTION

Do not push the display screen itself.



Adjusting display and indicator brightness

Turn the DATA dial while pressing and holding the HOME key to adjust the brightness of the color display, the PAUSE, REC, PLAY and ONLINE keys, and the JOG (SHUTTLE), SLOT 1 and SLOT 2 indicators. Push and turn the DATA dial while pressing and holding the HOME key to adjust only the brightness of the color display.



Cautions related to display use

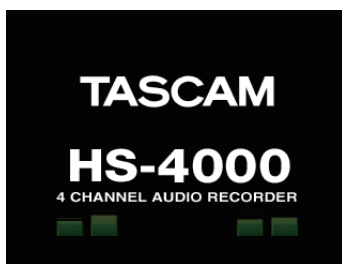
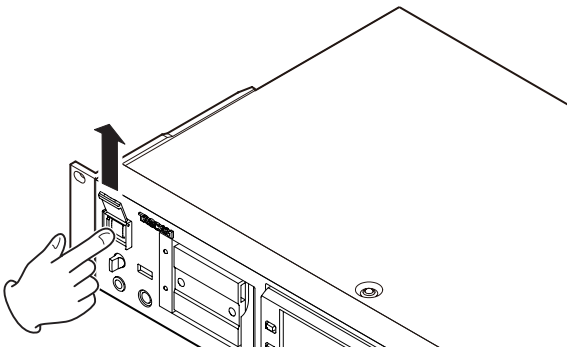
- The display can easily be scratched, so do not use pointed objects, including fingernail tips, to touch it. Always touch it with your fingers.
- Do not press the display forcefully with a finger or poke it with a pen, toothpick or other pointed object. Doing so could damage the display or cause malfunction.
- The display touch screen is constructed of a film and glass. Do not apply strong force to its surface. Doing so could break the glass.
- When using the display, do not put a hand on the panel or push around the display forcefully. Doing so could prevent accurate position detection.
- Do not place anything on top of the display or otherwise put weight on the same place for a long time. Doing so could cause the panel to warp or result in inaccurate position detection.
- Do not apply a commercially-available screen protection film to the display. Doing so could prevent normal operation.
- Gently wipe the display with a soft dry cloth that does not shed dust (e.g. a cleaning cloth). Avoid wiping with a stiff cloth or rubbing with force. Doing so could damage the surface of the LCD. Do not use thinner, manicure remover, alcohol or similar substances.

NOTE

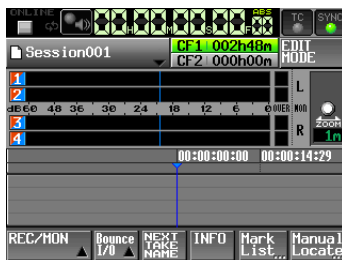
The display is produced with extremely high-precision manufacturing technologies, and 99.99% or more of the pixels are effective, but sometimes pixels might not appear or might appear as red or black dots. This is not a malfunction.

Turning the power ON and OFF

Open the front panel POWER switch cover and press the POWER switch.



Startup screen



Home Screen

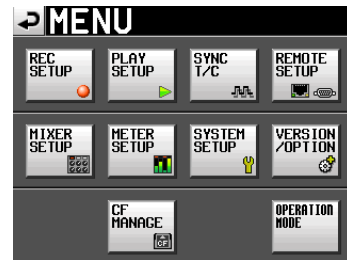
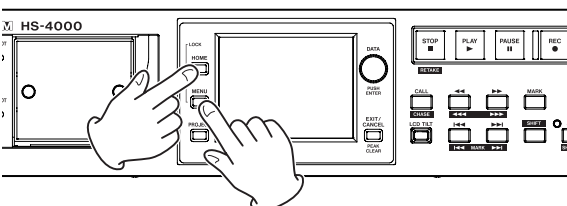
To turn the power OFF, push the POWER switch on the front panel again.

CAUTION

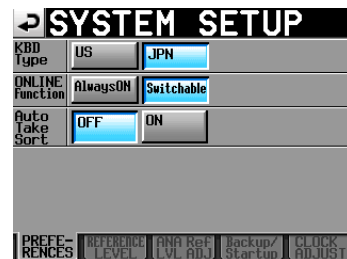
Never turn the power OFF during recording, playback, or any other operation that accesses the CF card. Doing so could, for example, cause recording errors, loss of recorded data, and sudden loud noises to be output through monitoring equipment, which could result in damaged equipment and hearing loss.

Setting the time of the built-in clock

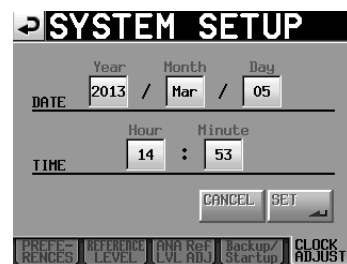
1. Press the MENU key on the front panel to open the MENU screen.



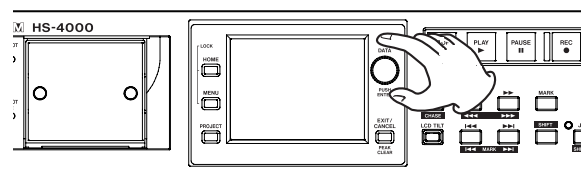
2. Touch the SYSTEM SETUP button to open the SYSTEM SETUP screen.



3. Touch the CLOCK ADJUST tab to open the page where you can set the built-in clock.



4. Touch the item that you want to change, and use the DATA dial on the front panel to change the value.



5. Touch the SET button or push the DATA dial to confirm the setting.

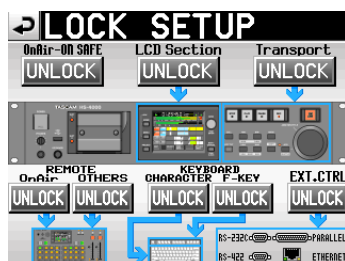
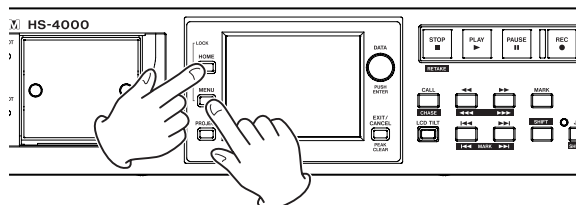
NOTE

After purchasing this unit, set the clock before making your first recording. If you do not set the clock, the time stamps on recorded files will not be correct.

3 – Preparation

Lock function

Press the MENU key while pressing and holding the HOME key on the front panel to open the LOCK SETUP screen. On this screen, you can turn the lock function on or off. The lock function prevents operation from the front panel and external devices.



The front panel is divided into two sections, which can be locked and unlocked separately. In addition, operations from external devices are divided into four categories that can each be locked separately.

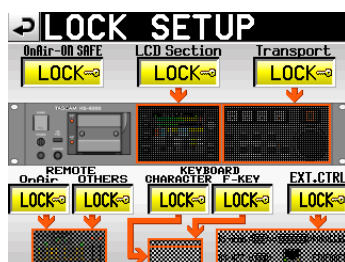
The REMOTE section lock settings are divided into settings for use with on-air mode and for use with all other modes.

In addition, when in on-air mode and the ON AIR button is on, you can use the OnAir-ON SAFE section button to set whether or not to lock all transport functions except those in the following table. This applies regardless of the type of device used for operation, including front panel and remote control keys and the function keys of an external keyboard.

Transport operations not locked by OnAir-ON SAFE

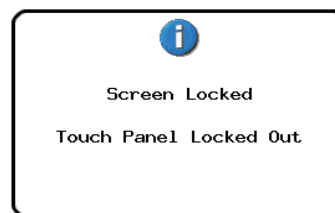
STOP
PLAY
PAUSE
ONLINE
FLASH START

If you press the button for a section, it changes from UNLOCK to LOCK (with a yellow background) and the locked area appears dimmed.



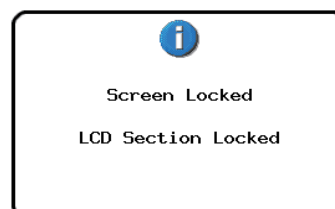
Everything locked

- When the LCD Section is set to LOCK, the following pop-up message will appear if you touch the display.



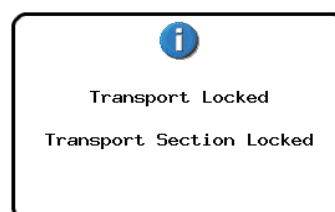
Display (panel) locked

- The following pop-up message will appear if you use any of the controls around the display.



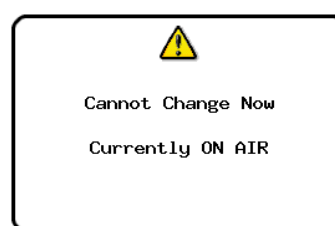
Display (controls) locked

- When the Transport section is set to LOCK, the following pop-up message will appear if you use any of the transport keys.

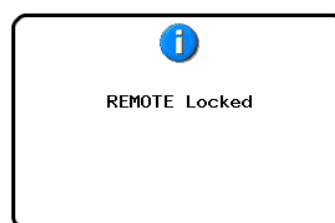


Transport locked

- When in on-air mode, the ON AIR button is ON and the OnAir-ON SAFE section is set to LOCK, the following pop-up message will appear if you try to use any transport controls (including keys on the front panel and remote control and the function keys of an external keyboard) other than those in the "Transport operations not locked by OnAir-ON SAFE" table to the left.

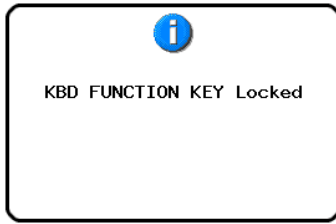


- If the REMOTE section current operation mode is set to LOCK, the following pop-up message will appear if you try to use the control connected to the remote connector.



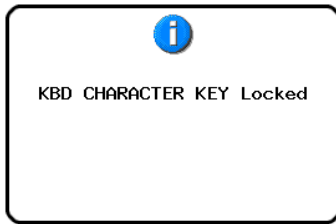
Remote locked

- If the KEYBOARD F-KEY section is set to LOCK, the following pop-up message will appear if you try to use the function keys on an external keyboard.



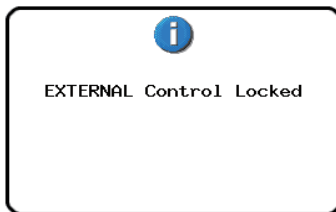
Keyboard function keys locked

- When the KEYBOARD CHARACTER section is set to LOCK, the following pop-up message will appear if you try to use any keys other than the function keys on an external keyboard.



Keyboard non-function keys locked

- When the EXT.CTRL section is set to LOCK, the following pop-up message will appear if you try to operate the unit with a controller connected to the RS-232C, RS-422, PARALLEL or ETHERNET connector.



External control input locked

Recording times

The table below shows the total amount of recording time (in hours and minutes) possible on CF cards of various capacities for each available recording format.

File recording format and number of tracks recorded	CF card capacity		
	8GB	16GB	32GB
16-bit, 44.1kHz, 4 tracks	6:18	12:36	25:12
16-bit, 48kHz, 4 tracks	5:48	11:34	23:08
24-bit, 44.1kHz, 4 tracks	4:12	8:24	16:48
24-bit, 48kHz, 4 tracks	3:52	7:42	15:26
24-bit, 88.2kHz, 4 tracks	2:06	4:10	8:24
24-bit, 96 kHz, 4 tracks	1:56	3:50	7:42

The recording times shown above are estimates. They might differ depending on the CF card in use.


The recording times shown above are not continuous recording times, but rather they are the total possible recording times for the CF card.

4 – Basic operation

In this chapter, we explain the basic operation procedures that are the same in each operation mode.

The display on this unit functions as a touchscreen.

Operate the unit using its keys, switches and touchscreen display buttons.

On every screen except the Home Screen, a  button appears at the top left. Touch this button to return to the previous screen.



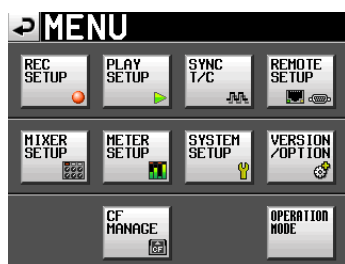
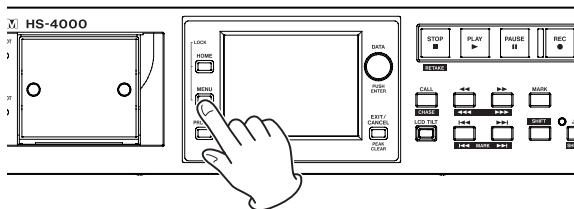
NOTE

You can also return to the previous screen by pressing the EXIT/CANCEL (PEAK CLEAR) key.

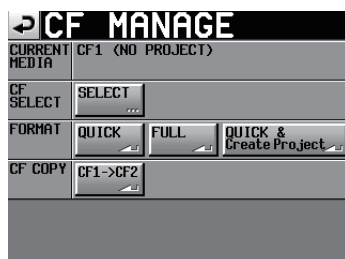
CF card preparation

CF card selection

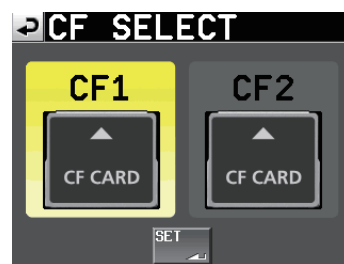
1. Press the MENU key on the front panel to open the MENU screen.



2. Touch the CF MANAGE button to open the CF MANAGE screen.



3. Touch the SELECT button next to the CF SELECT item to open the CF SELECT screen.



NOTE

You can also open the CF SELECT screen by touching the recording media display button on the Home Screen.

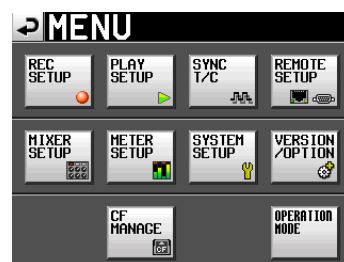
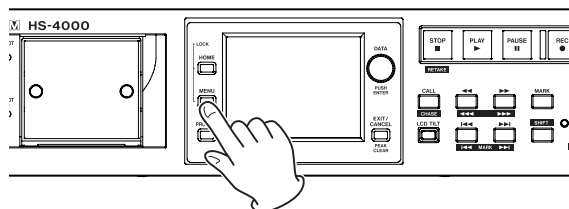
4. Touch the button for the CF card that you want to use to select it.
The background of the selected CF card appears yellow.
5. Touch the SET button to return to the CF MANAGE screen.
6. If you also want to format the CF card now, follow the procedures starting with step 3 in "Formatting a CF card" below.

Formatting a CF card

CAUTION

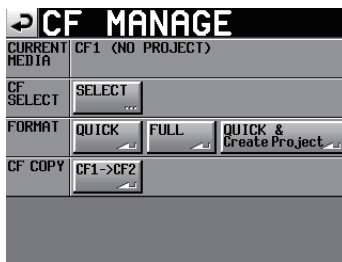
- Formatting a CF card erases all the data on it.
- Always format cards using this unit or another TASCAM HS Series device. If a CF card that has been formatted by another device or PC is used, operation might be affected.

1. Press the MENU key on the front panel to open the MENU screen.

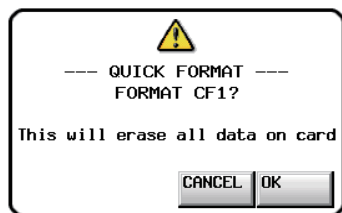


4 – Basic operation

- Touch the CF MANAGE button to open the CF MANAGE screen.



- Touch the QUICK button next to the FORMAT item. The following pop-up message appears.

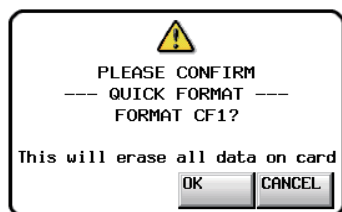


NOTE

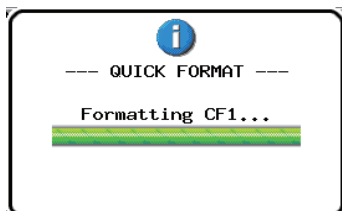
If no CF card is inserted in that slot, the following pop-up message appears.



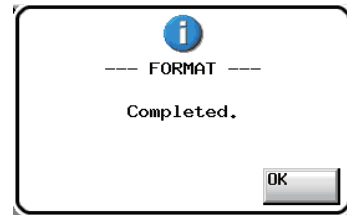
- Click the OK button in the pop-up window. A reconfirmation pop-up window appears.



- Click the OK button in the pop-up window. During formatting, the following pop-up message appears.



When formatting completes, the following pop-up message appears.



- Click the OK button in the pop-up window. The CREATE PROJECT screen automatically opens.



- Follow the procedures in "Creating a new project" on page 68.

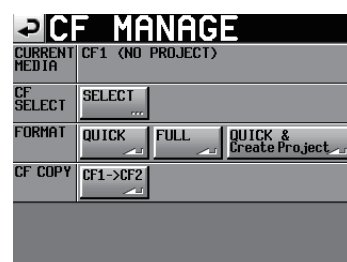
■ Creating a project automatically after quick formatting

If you press the QUICK & Create Project button instead of the QUICK button next to the FORMAT item, a new project will be created after the CF card is quick-formatted. When doing this, however, you cannot change the project settings.

Project name: Project01
Session name: Session001
Frame Type :29.97DF
TIMELINE Rec Tracks :2tr

The new project will be created with the same settings as the current project.

- Press the MENU key on the front panel to open the MENU screen. Then, touch the CF MANAGE button on the MENU screen to open the CF MANAGE screen.



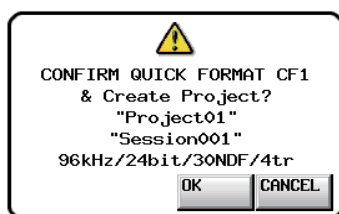
4 – Basic operation

2. Touch the Quick & Create Project button next to the FORMAT item. The following pop-up window message appears.



This window shows the project name, session name, sampling frequency, bit rate, frame type and number of tracks in the project to be created.

3. Click the OK button in the pop-up window.
Another pop-up window appears to reconfirm.



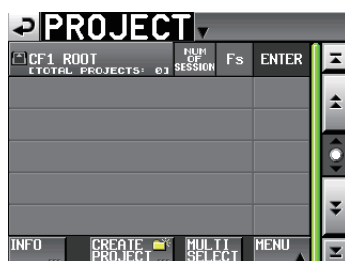
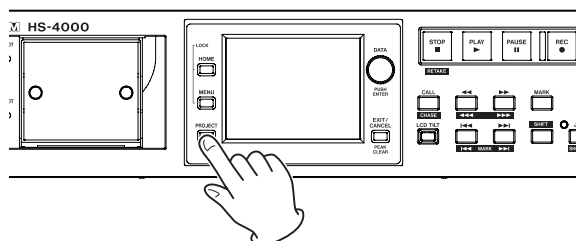
4. Click the OK button in the pop-up window.
After quick formatting completes, a new project is created automatically.
After the project is created, the Home Screen reopens.

NOTE

Touch the CANCEL button in the pop-up window to cancel formatting and return to the CF MANAGE screen.

Creating a new project

1. Press the PROJECT key on the front panel to open the PROJECT screen.



2. Touch the CREATE PROJECT button to open the CREATE PROJECT screen.



The CREATE PROJECT screen has 3 pages.

On the first page, you can set the project name, the name of the first created session, the sampling frequency, and the sampling frequency written to BWF chunks.

For details about all of the settings, see "Creating new projects" on page 39.

3. Touch the NEXT button to open the next page.
On this page, you can set the frame type and bit length.

NOTE

Touch the NEXT button again to open the third page where you can set the starting time and number of tracks in timeline mode, for example.

For details about each item, see "Creating new projects" on page 39.

Press the CREATE PROJECT button to restart from step 6.

4. Touch the NEXT button again to open CREATE PROJECT screen 3/3.

Set the start time and number of tracks for timeline mode and whether or not to use other settings from the previous project.

For details about the various settings on CREATE PROJECT screens 1–3, see "Creating new projects" on page 39.

5. After you complete making settings touch the CREATE PROJECT button.

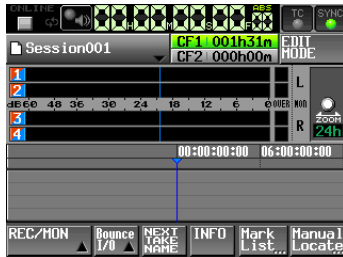
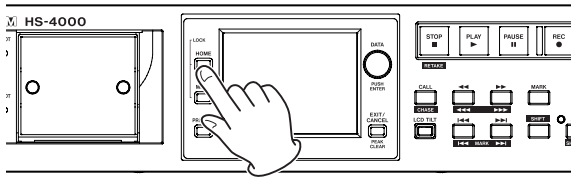
NOTE

If a project with the same project name already exists, the CREATE PROJECT button appears gray and you will not be able to create a new project. If this happens, change the project name.

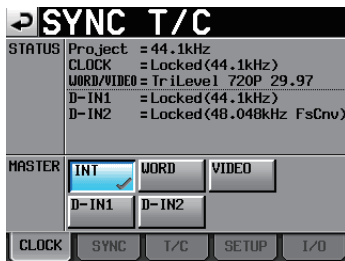
6. Check the settings on the confirmation pop-up message that appears.
Press the OK button to confirm them and return to the Home Screen.
When creation of the project completes, the Home Screen reopens.

Setting the master clock

1. Press the HOME key on the front panel to open the Home Screen.



2. Touch the SYNC button to open the SYNC T/C screen.



NOTE

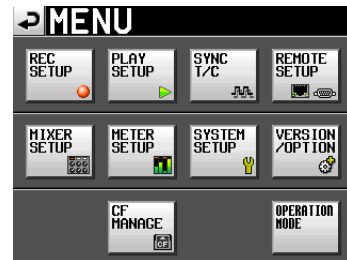
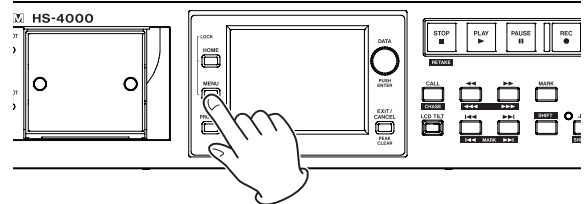
You can also open the SYNC T/C screen by touching the SYNC T/C button on the MENU screen.

3. Select the master clock that you want to use from the MASTER item. (See "Sync and timecode settings (SYNC T/C)" on page 104.)

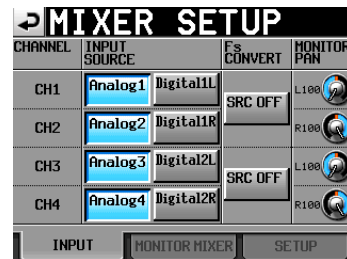
Setting inputs and outputs

Setting the inputs

1. Press the MENU key on the front panel to open the MENU screen.



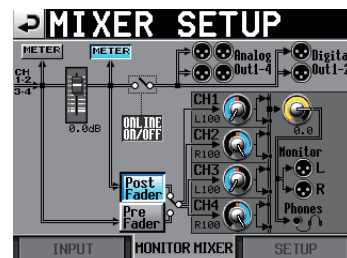
2. Touch the MIXER SETUP button to open the MIXER SETUP screen.



On the INPUT page, make settings for each channel's input source. For details, see "INPUT page" on page 109.

3. If necessary, touch the MONITOR MIXER or SETUP tab to open the corresponding page where various settings can be made.

On the MONITOR MIXER page, make settings related to the internal monitoring mixer. For details, see "MONITOR MIXER page" on page 110.



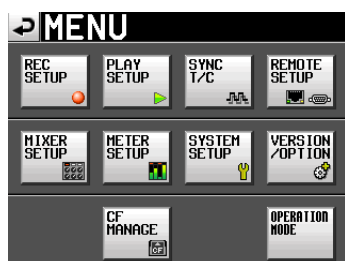
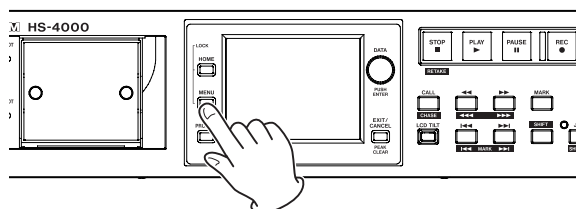
4 – Basic operation

On the SETUP page, turn monitor muting during online play on/off, select the OUTPUT 1-4 output signals, and make mono mix settings. (See “SETUP page (MIXER SETUP screen)” on page 110.)

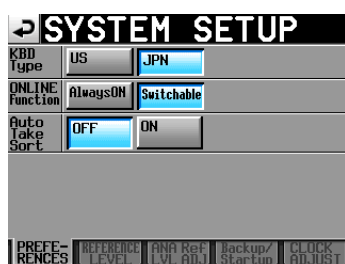


Setting reference levels

1. Press the MENU key on the front panel to open the MENU screen.



2. Touch the SYSTEM SETUP button to open the SYSTEM SETUP screen.



On the REFERENCE LEVEL page, set the reference levels for digital input and output (Digital Ref. Level), analog inputs (Analog Input Ref. Lvl) and analog outputs (Analog Output Ref. Lvl). (See “REFERENCE LEVEL page” on page 113.)

3. If necessary, touch the ANALOG Ref. LEVEL ADJUST tab to adjust each channel.



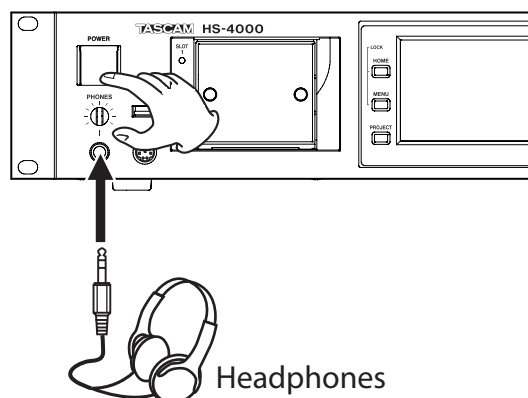
On the ANALOG Ref. LEVEL ADJUST page, you can make precise adjustments to the reference levels of the analog inputs and outputs for each channel independently. (See “ANA Ref LVL ADJ page” on page 113.)

NOTE

On the CLOCK ADJUST page, you can change the system time.

Connecting headphones

Connect headphones to the PHONES jack on the front panel.

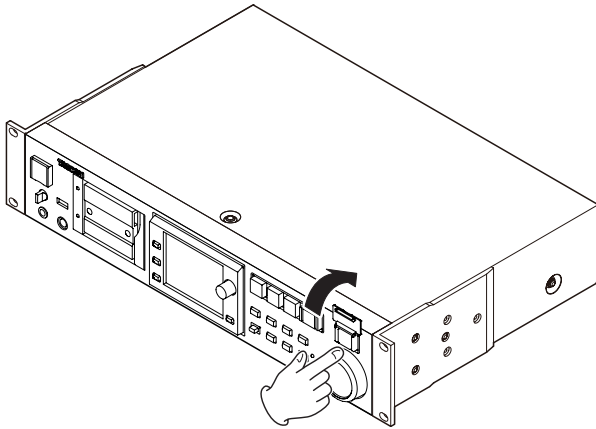


CAUTION

Before connecting headphones and before turning the POWER switch on/off when headphones are connected, use the PHONES knob to minimize the volume (turn it all the way left). Failure to do so could cause sudden loud noises to occur, which might damage your hearing or equipment.

Online function

To output audio from the line output connectors, open the ON LINE key cover on the front panel and press the ON LINE key.



The ONLINE key lights when ON. You can also connect a TASCAM RC-HS32PD remote controller (sold separately), for example, and use its master fader to adjust the level suitably.

When the master fader is at its lowest position, audio will not be output from the line output connectors.

Press the ONLINE key again to turn it OFF. That key becomes unlit, and sound ceases to be output from the output connectors.

For details about the online function, see “Online functions” on page 122.

Recording operation limitations

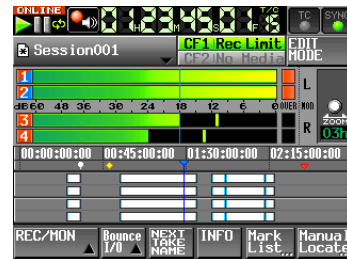
With this unit, if the total number of files, folders and other items in one folder becomes too great, recording to that session will be restricted in the following ways.

■ When the total number of items in one folder exceeds about 20000

Recording of a new take might not be possible even when starting recording from a stopped state. When a project or session is loaded, recording to that session might not be possible. In these cases, the following pop-up message appears.



In this case, the remaining recording time indicator for the currently selected CF card on the Home Screen shows Rec Limit.



CAUTION

The total number of items inside one folder includes files and folders not created by this unit. Management files, system files and other files and folders that are not ordinarily visible are also included in the total.

5 – Projects

Project organization

This unit manages audio files in projects.

A CF card contains project folders, and each project folder contains session folders that hold audio files, which are called takes.

Project

Contains all the materials for one program or work

Session

A collection of materials within a project

Take

Materials recorded in a session

In timeline mode, however, there are no takes. Recordings are managed in units called regions.

CAUTION

The sampling frequency in a project is fixed.

File formats

This unit can record and play files with the following types of formats.

File formats

BWF, WAV*

*This unit cannot record in WAV format, but it can play back WAV files.

Sampling frequencies

44.1/48/47.952/48.048/88.2/96kHz
(47.952/48.048:48kHz±0.1% pull-down/pull-up)

Number of tracks

1-4 tracks (Take Mode)

2-4 tracks (Timeline Mode)

File modes

Monophonic, polyphonic (monophonic mode is planned for a future firmware version upgrade)

Monophonic and polyphonic modes

In monophonic mode, each track is recorded as an independent monaural BWF file.

In polyphonic mode, multiple tracks are recorded together as a single BWF file.

When transferring a file to an audio application that is compatible with polyphonic files, multiple tracks can be imported at once.

CAUTION

*In current version, monophonic mode cannot be selected. It will be set automatically to polyphonic mode.
Monophonic mode is planned for a future firmware version upgrade.*

Folders where files are saved in mono mode

In monophonic mode, files can be saved in one of two places (folders).

SubFolder mode

Subfolders are created for each take inside session folders, and recorded audio files are saved in them.

Session Root mode

Recorded audio files are saved directly inside the session folder.

CAUTION

- *When Session Root mode is selected, the number of files created is large. For this reason, the maximum number of takes that can be recorded in one session is greatly reduced. (See "Recording operation limitations" on page 35.)*
- *During recording, you can press the REC key to start recording a new take. This function can be used 4 seconds after beginning recording in polyphonic and subfolder modes, but in Session Root mode, you might have to wait more than 4 seconds.*

NOTE

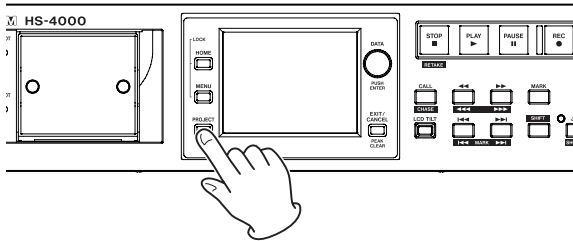
The default setting is SubFolder.

Monophonic mode is planned for a future firmware version upgrade.

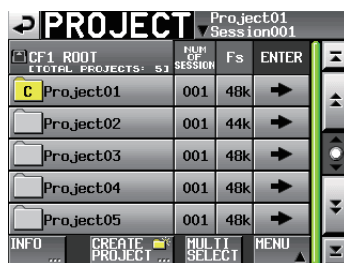
PROJECT screen

Press the PROJECT key on the front panel to open the project screen.

The last used project screen page (project selection, session selection, AES31 file selection, take selection or playlist selection) opens. The following explanations assume that the PROJECT selection screen is open.



Project selection screen



● Folder information

The current folder level and number of projects is shown. (In the example above, the root folder of CF card 1 contains 5 projects.)

● NUM OF SESSION

This shows the number of sessions in each project.

● Fs

This shows the sampling frequency of the project.
The sampling frequency values are abbreviated as follows.

Sampling frequencies	Fs abbreviation
44.1kHz	44k
47.952 kHz (48 kHz -0.1% pull-down)	48k-
48.048 kHz (48 kHz +0.1% pull-up)	48k+
88.2kHz	88k

● ENTER button

Press the ➡ button for the current project (the one with the **C** icon of a yellow folder with the letter "C" for "current") to show the contents of that project.

If you touch the ➡ button for any project other than the current project a pop-up window will appear confirming that you want to load that project.

Touch the OK button to show the contents of that project after it completes loading.

● Project name button

Touch to select that project.

The currently loaded project is shown with the icon of a yellow folder with the letter "C" for "current" (**C**).

● INFO button

Touch this button to open a pop-up window that shows information about the project that is currently selected.

If no project is selected, press this button to show information about the entire CF card.

● CREATE PROJECT button

Touch to open the CREATE PROJECT screen.

● MULTI SELECT button

Touch to enable the selection of multiple projects.

● MENU button

Touch to open a pull-up menu where you can select LOAD, REBUILD, EDIT NAME and DELETE.

● Scroll buttons

Use these buttons to scroll to the beginning or end of the project list or scroll one page (five lines) forward or backward. You can also scroll through the project list one line at a time using the DATA dial.

● Project name/session name at the top right of the screen

Touch to open the following screen according to mode.

Timeline mode:	AES31 file selection screen for the current session.
Take mode:	Take selection screen for the current session
Playlist mode:	Playlist selection screen for the current session

Session selection screen



● Project name display

This shows the current project name.

Touch this area to open the project selection screen.

● NUM OF TAKE (timeline and take modes)

This shows the number of takes in the session.

● TOTAL TIME (timeline and take modes)

This shows the total time of the takes in the session.

● NUM OF PLAYLISTS (playlist mode)

This shows the number of playlists in the session.

● ENTER button

Press the ➡ button for the current session (the one with the **C** icon of a yellow folder with the letter "C" for "current") to show the contents of that session.

If you touch the ➡ button for any session other than the current session a pop-up window will appear confirming that you want to load that session.

Touch the OK button to show the contents of that session.

5 – Projects

● Session name buttons

Touch to select that session.

The currently loaded session is shown with the icon of a yellow folder with the letter "C" for "current" (C).

● INFO button

Touch this button to open a pop-up window that shows information about the session that is currently selected.

If no session is selected, press this button to show information about the current project.

● MAKE SESSION button

Touch to open the screen where you can create a new session.

● MULTI SELECT button

Touch to enable the selection of multiple sessions.

● MENU button

Touch to open a pull-up menu where you can select LOAD, REBUILD, COPY and DELETE.

● Scroll buttons

Use these buttons to scroll to the beginning or end of the session list or scroll one page (five lines) forward or backward. You can also scroll through the session list one line at a time using the DATA dial.

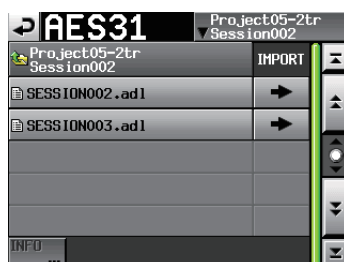
● Project name/session name at the top right of the screen

Touch to open the following screen according to mode.

Timeline mode:	AES31 file selection screen for the current session.
Take mode:	Take selection screen for the current session
Playlist mode:	Playlist selection screen for the current session

AES31 file selection screen

The AES31 file selection screen is only shown when the operation mode is timeline mode.



● Session name display

This shows the current session name.

Touch this area to open the session selection screen.

● IMPORT buttons

Touch the ➡ button for the corresponding AES31 file to import its editing information.

● AES31 file name buttons

Touch to select the corresponding AES31 file.

● INFO button

Touch this button when an AES31 file is selected to open a pop-up window with information about the selected file.

If no take is selected, press this button to show information about the current session.

Take selection screen

The take selection screen is only shown when the operation mode is take mode.



● Session name display

This shows the current session name.

Touch this area to open the session selection screen. Note, however, the session selection screen cannot be opened from a take selection screen that was opened by touching the TAKE LIST button in the pull-down menu that appears when you touch a take name button on the Home Screen.

● LENGTH display

This shows the take length (time).

● LOAD buttons

Press a take's ➡ button to load that take.

● Take name buttons

Touch to select a take.

The currently loaded take is shown with a yellow icon with the letter "C" for "current" (C).

● INFO button

When a take is selected, press this button to open an information pop-up for that take.

If no take is selected, press this button to show information about the current session.

● CIRCLE @ TAKE button

Touch this button when a take is selected to add an "@" to the beginning of that take's name. If that take already has "@" at its beginning, touch this to remove it.

● MULTI SELECT button

Touch to enable the selection of multiple takes.

● MENU button

Touch to open a pull-up menu where you can select SORT, MOVE, EDIT NAME, UNLOCK (ALL), LOCK (ALL), LOAD, REBUILD, EDIT.TC, COPY and DELETE items.

● Scroll buttons

Use these buttons to scroll to the beginning or end of the take list or scroll one page (five lines) forward or backward. You can also scroll through the take list one line at a time using the DATA dial.

Playlist selection screen

The playlist selection screen is only shown when the operation mode is playlist mode.



● Session name display

This shows the current session name.

Touch this area to open the session selection screen.

● LOAD buttons

Touch the ➡ button to open a pop-up to confirm that you want to load that playlist.

● Playlist name buttons

Touch to select a playlist.

When in single mode, the currently loaded playlist is shown with a yellow icon with the letter "C" for "current" (🟡).

When in dual or A/B MIXED mode, the playlist loaded in player A is shown with a yellow icon with the letter "A" (🟡) and the playlist loaded in player B is shown with a yellow icon with the letter "B" (🟡).

● INFO button

Touch this button to open a pop-up window that shows information about the playlist that is currently selected.

If no playlist is selected, press this button to show information about the current session.

● NEW/IMPORT button

Touch this to open a pull-up menu where you can select NEW and IMPORT.

● MENU button

Touch to open a pull-up menu where you can select LOAD (LOAD to A and LOAD to B in dual mode), EDIT NAME and DELETE.

● Scroll buttons

Use these buttons to scroll to the beginning or end of the playlist or scroll one page (five lines) forward or backward. You can also use the DATA dial to scroll through a list one line at a time.

Project operations

Creating new projects

1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Touch the CREATE PROJECT button on the PROJECT screen to open the CREATE PROJECT screen.

This screen has three pages.



CREATE PROJECT screen 1/3

You can make the following settings on this screen.

Project Name

Touch the Project Name button to open the screen where you can edit the project name.

The maximum number of characters for project and session names is 31. Extra characters are discarded.

Session Name

Touch the Session Name button to open the 1st SESSION screen where you can change the name of the first session.

On the 1st SESSION screen, the maximum number of characters allowed is indicated by a yellow background.

Fs

Set that sampling frequency of the project.

48k–0.1% sampling frequency is pull-down compatible, and 48k+0.1% is pull-up compatible.

BWF Chunk Fs

Set the sampling frequency written to the BWF chunk of each recorded audio file. To use the actual sampling frequency of the recordings, select Actual Rate.

For pull-up/pull-down, select Fake Rate to write 48k instead of 48k±0.1%.

NEXT button

Touch to open the next page.

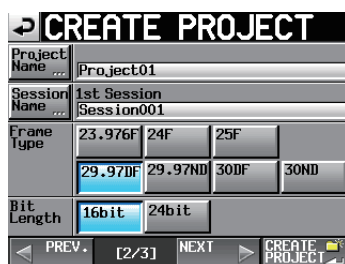
CREATE PROJECT button

Touch this to create a project with the current settings.

If a project with the same name already exists, this button appears gray and you will not be able to create a new project.

5 – Projects

- After you complete making settings, press the NEXT button.



CREATE PROJECT screen 2

You can make the following settings on this screen.

Frame Type

Set the timecode frame type.

Bit Length

Set the bit length used during recording.

PREV button

Open the previous screen.

- After you complete making settings, press the NEXT button.



CREATE PROJECT screen 3

You can make the following settings on this screen.

TIMELINE START TIME

Set the starting time used in timeline mode.

Press the EDIT button to open a screen where you can change the starting time.

TIMELINE Rec Tracks

Set the number of recording tracks used in timeline mode.

2tr, 3tr, 4tr: Polyphonic files with this number of channels are used.

2trx2: 4 tracks of audio are available, arranged as 2 individual stereo (2tr) Polyphonic files.

OTHERS

Touch the Current Setting button to use the current settings of other parameters when creating the project or touch Factory Preset to use the default settings.

- After you complete making settings touch the CREATE PROJECT button.

NOTE

- If a project with the same project name already exists, the CREATE PROJECT button appears gray and you will not be able to create a new project. If this happens, change the project name.
- On screens 2 and 3, press the PREV button to return to the previous screen.

- When the confirmation message appears in a pop-up, press the OK button.



When project creation completes, the Home Screen reopens.

NOTE

- Immediately after creation, the new project becomes the current (loaded) project. The current project is shown on the PROJECT screen with the icon of a yellow folder with the letter "C" (C) to the left of the project name.
- When creating a new project/session, the Home Screen NEXT TAKE NAME page setting is set to "Session Name", so the initial Take Name pattern will be "session name" + "-T001" will be used.

Editing the project name

- Touch the Project Name button on the CREATE PROJECT screen to open the PROJECT NAME screen.



NOTE

- On the PROJECT NAME screen and other name input screens, characters other than letters and numbers used in English and standard symbols will not be shown.

If characters other than letters and numbers used in English and standard symbols are used in a name, these characters will be removed when shown on the PROJECT NAME screen or other name input screens and will be discarded when the edited project name is confirmed.

Date button

Touch this button to change the project name to the date currently set for the unit in a "yyyy-mm-dd" format.

If the same project name or session name already exists, an underscore () followed by a number that has not been used is added.

After pressing the Date button to change the name to the date, you can further edit the name on this screen.

Project name display area

The input project name is shown.

The maximum number of characters allowed is indicated by a yellow background.

Character buttons

Use these to input the project name.

BS button

Use this to erase the character to the left of the cursor.

DEL button

Use this to erase the character to the right of the cursor.

Shift button

Touch this to switch between numerals and symbols and uppercase and lowercase Roman letters.

Caps button

Use to input uppercase letters.

Space button

Use to input a space.

<- /-> buttons

Use these to move the cursor.

Enter button

Touch this to confirm the input name.

- When the PROJECT NAME screen is open, you can also use an external keyboard to input names.
2. Touch the Enter button on the PROJECT NAME screen or press the DATA dial to confirm the project name.

Character input limitation

The maximum number of characters allowed is indicated by the yellow background in the project name display area. Excess characters have a gray background and are discarded when the Enter button is pressed.

Changing a project name later

1. Select the project that you want to change on the PROJECT screen. The background of the selected project name appears yellow.
2. Touch the MENU button on the PROJECT screen to open a pull-up menu.



3. Touch the EDIT NAME button in the pull-up menu to open the PROJECT NAME screen.

NOTE

When multiple projects are selected, the EDIT NAME button in the pull-up menu is not available.

4. Use these to input the project name. The input method is the same as explained above.
5. Touch the Enter button on the PROJECT NAME screen or press the DATA dial to confirm the project name and return to the PROJECT screen.

Editing the name of the first session

Touch the Session Name button on the CREATE PROJECT screen to open the 1st SESSION screen, as shown below.



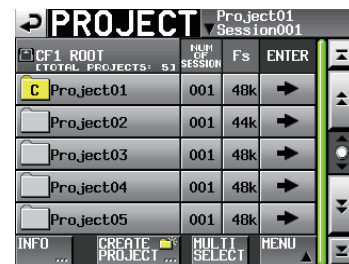
Use the same input method as in “Editing the project name” on page 40.

NOTE

Session names cannot be changed later.

Loading projects

1. Press the PROJECT key on the front panel to open the PROJECT screen.



2. Select the project that you want to load.
3. Touch the MENU button on the PROJECT screen to open a pull-up menu.
4. Touch the LOAD button in the pull-up menu.

NOTE

When multiple projects are selected, the LOAD item is not available.

5. Touch the OK button or press the DATA dial when a confirmation pop-up message appears.

After loading completes the Home Screen opens.



5 – Projects

Rebuilding projects

Use to rebuild when, for example, a file has been erased from the unit using FTP or an incompatibility develops between management and audio files.

1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Select the project that you want to rebuild.
You can touch the MULTI SELECT button on the PROJECT screen to allow the selection of multiple projects.
3. Touch the MENU button on the PROJECT screen to open a pull-up menu.

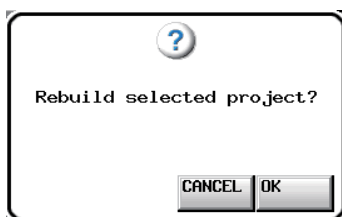


One project selected



Multiple projects selected

4. Touch the REBUILD button in the pull-up menu.
5. Touch the OK button or press the DATA dial when a confirmation pop-up message appears.



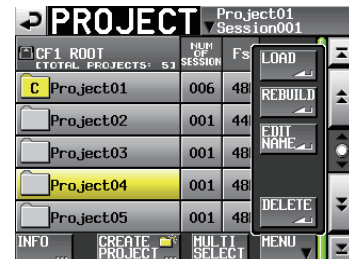
During rebuilding, the status of progress is shown in a pop-up window. When rebuilding completes, the pop-up window disappears.

NOTE

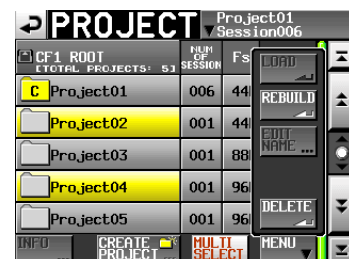
If you rebuild when no project has been selected in the PROJECT screen, the selected CF card is rebuilt entirely.

Erasing a project

1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Select the project that you want to erase.
You can touch the MULTI SELECT button on the PROJECT screen to allow the selection of multiple projects.
3. Touch the MENU button on the PROJECT screen to open a pull-up menu.



One project selected



Multiple projects selected

4. Touch the DELETE button in the pull-up menu.
5. Touch the OK button or press the DATA dial when a confirmation pop-up message appears.



During erasure, a progress status pop-up appears.
When erasure completes, the pop-up disappears.

CAUTION

When you erase a project, all session folders, session data, takes and playlists in the project are also erased.

Session operations

Creating new sessions

1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Touch the ➡ button of the project to which you want to add a session to open the session selection screen.
If it is not the current project, a pop-up window appears confirming that you want to load it. Touch the OK button.



3. Touch the OK button. Touch the MAKE SESSION button to open the MAKE SESSION screen.



You can make the following settings on this screen.

Session Name

Touch the Session Name button to open a screen where you can change the name of the session.

The maximum number of characters for session names is 31.

Extra characters are discarded. The maximum number of characters allowed is indicated by a yellow background.

TIMELINE START TIME

Press the EDIT button to open a screen where you can change the starting time in timeline mode.

TIMELINE Rec Tracks

Set the number of recording tracks used in timeline mode.

Setting buttons: 2tr, 3tr, 4tr, 2trx2

2trx2 mode uses 2 stereo (2ch) polyphonic files to record a total of 4 channels.

CAUTION

Session names cannot be changed later.

You cannot use the "@" symbol at the beginning of a session name.

4. Touch the MAKE SESSION button.

5. Touch the OK button or press the DATA dial when a confirmation pop-up message appears.



During the creation of a session, a progress status pop-up appears.

When session creation completes, the pop-up disappears.

NOTE

- Immediately after creation, the new session becomes the current (loaded) session.

The current session is shown on the session selection screen with the icon of a yellow folder with the letter "C" (C) to the left of the session name.

- When creating a new project/session, the Home Screen NEXT TAKE NAME page setting is set to "Session Name", so the initial Take Name pattern of "session name" + "-T001" will be used.

Loading sessions

1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Touch the ➡ button for the project that contains the session that you want to load to open the session list.
If it is not the current project, a pop-up window appears confirming that you want to load it. Touch the OK button.
3. Select the session that you want to load.
4. Touch the MENU button on the SESSION screen to open a pull-up menu.



5. Touch the LOAD button in the pull-up menu.
6. Touch the OK button or press the DATA dial when a confirmation pop-up message appears.



After loading completes the Home Screen opens.

NOTE

The current session (currently loaded session) is shown on the session selection screen with the icon of a yellow folder (C) to the left of the session name.

5 – Projects

Rebuilding sessions

Use to rebuild when, for example, a file has been erased from the unit using FTP or an incompatibility develops between management and audio files.

1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Touch the ➡ button for the project that contains the session that you want to rebuild to open the session selection screen.
If it is not the current project, a pop-up window appears confirming that you want to load it.
3. Select the session that you want to rebuild.
Touch the MULTI SELECT button to enable the selection of multiple sessions.
4. Touch the MENU button on the session selection screen to open a pull-up menu.

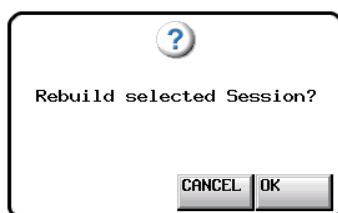


One session selected



Multiple sessions selected

5. Touch the REBUILD button in the pull-up menu.
6. Touch the OK button or press the DATA dial when a confirmation pop-up message appears.



During rebuilding, the status of progress is shown in a pop-up window.

When rebuilding completes, the pop-up window disappears.

NOTE

- You can also rebuild a session from that session's take selection screen.
- If you rebuild without selecting a session on the session selection screen, the entire current project will be rebuilt.

Copying sessions

You can copy session folders between CF 1 and CF 2 (two CF cards are necessary). When you copy a session, the same folder structure is created at the copy destination.

CAUTION

If you copy a session with a different sampling frequency into a project, the session cannot be rebuilt.

1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Touch the ➡ button for the project that contains the session that you want to copy to open the session selection screen.
If it is not the current project, a pop-up window appears confirming that you want to load it. Touch the OK button.
3. Select the session that you want to copy.
Touch the MULTI SELECT button to enable the selection of multiple sessions.
4. Touch the MENU button on the session selection screen to open a pull-up menu.

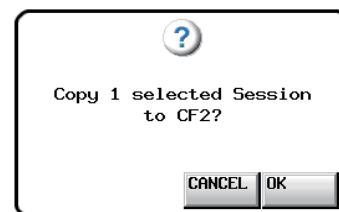


One session selected



Multiple sessions selected

5. Touch the COPY button in the pull-up menu.
6. Touch the OK button or press the DATA dial when a confirmation pop-up message appears.



During copying, a progress status pop-up appears.

When copying completes, the pop-up disappears.

NOTE

If a session with the same name already exists on the destination CF card, a message confirming that you want to overwrite the existing one appears.

Touch the OK button or press the DATA dial to delete the copy destination folder and copy the session.

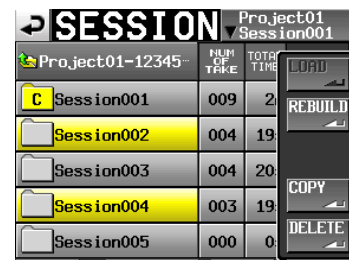


Erasing sessions

1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Touch the ➡ button for the project that contains the session that you want to erase to open the session selection screen. If it is not the current project, a pop-up window appears confirming that you want to load it.
3. Select the session that you want to erase. Touch the MULTI SELECT button to enable the selection of multiple sessions.
4. Touch the MENU button on the session selection screen to open a pull-up menu.



One session selected



Multiple sessions selected

5. Touch the DELETE button in the pull-up menu.
6. Touch the OK button or press the DATA dial when a confirmation pop-up message appears.



During erasure, a progress status pop-up appears. When erasure completes, the pop-up disappears.

CAUTION

When you erase a session, all session data, takes and playlists in that folder are also erased.

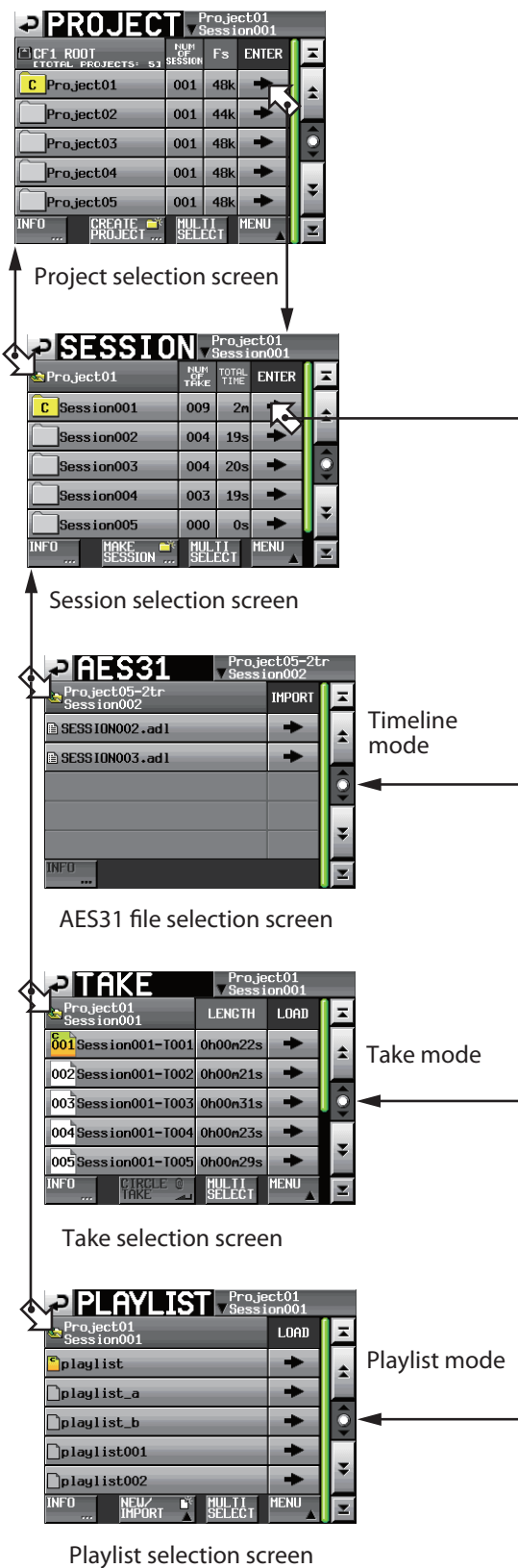
5 – Projects

Switching project screens

When you press the ENTER button or a folder name (project name or session name) button on a project screen (project selection screen, session selection screen, AES31 file selection screen, take selection screen, playlist selection screen), a different screen will open as shown below.

NOTE

In on-air mode, only the ON AIR LIST screen will be shown.



6 – Overview of operation modes

This unit has 4 operation modes as described below.

Timeline mode:

This amount offers a linear timeline working style that is like working with tape.

In timeline mode, up to 4 tracks can be recorded and played back. Marks, including BWF-J CUE points, can also be edited.

Take mode:

Uses takes (files) as recording and playback units.

Up to 4 tracks can be played back. Marks, including BWF-J CUE points, can also be edited.

Playlist mode:

Provides a playlist playback function.

Furthermore, playlist mode has both a single mode, which allows one playlist to be played back, and a dual mode, which allows two playlists to be played back independently.

In single mode, up to four tracks can be played during playlist playback. In dual mode, two two-track playlists can be played back and controlled independently.

On-air mode

Use this mode to play selected audio files (only files that match the sampling frequency set for the unit) in the root folder of the current media.

Supports playback of up to 4 tracks.

Take mode functions

The following functions can be used in take mode.

- Up to four channels of simultaneous recording and playback is possible at all compatible sampling frequencies (Fs).
- Confidence monitoring allows the simultaneous playback and output of audio while it is being recorded. (This is available when recording in 2-track polyphonic mode with a sampling frequency of 44.1kHz/48kHz/48kHz±0.1% and the mirror recording function is not being used.)
- Auto cue, auto ready and incremental play functions are available.
- Using a TASCAM RC-HS32PD or other remote controller, flash start playback is possible (three pages of 32 keys each).
- Different types of marks, including BWF-J CUE points, can be set, managed, edited and used for playback.

Timeline mode functions

The following functions can be used in timeline mode.

- Up to four channels of simultaneous recording and playback is possible at all compatible sampling frequencies (Fs).
- Confidence monitoring allows the simultaneous playback and output of audio while it is being recorded. (This is available when recording in 2-track polyphonic mode with a sampling frequency of 44.1kHz/48kHz/48kHz±0.1% and the mirror recording function is not being used.)
- The mirror recording function uses dual media slots. (This cannot currently be used with confidence monitoring; support is planned for a future version upgrade.)
- Recording and playback with timecode synchronization is possible.
- The bounce function can be used to write the content of a designated timeline interval to a single file.
- Different types of marks, including BWF-J CUE points, can be set, managed, edited and used for playback.
- Compatibility with AES31 format allows importing, exporting and the exchange of data with other devices

In timeline mode, playback units are called “regions,” and their extent is shown in the track area of the Home Screen.

6 – Overview of operation modes

Playlist mode functions

The following functions can be used in playlist mode.

- Playlists can be edited and managed.
- Compatibility with JPPA flash start standards enable importing and exporting, and the exchange of playlists with other devices.

In addition, the single, dual and A/B MIXED playlists modes have the following functions.

Single mode

- Unit functions as a single playback system.
- Auto cue, auto ready and incremental play functions are available.
- Playback of polyphonic files with up to four channels is possible at all compatible sampling frequencies (Fs).
- Using a TASCAM RC-HS32PD or other remote controller, flash start playback is possible (three pages of 32 keys each).

Dual mode

- Unit functions as two independent playback systems (using separate playlists for each).
- Auto cue, auto ready and incremental play functions are available.
- Simultaneous playback of two polyphonic files with up to two channels each is possible at all compatible sampling frequencies (Fs).
- Using a TASCAM RC-HS32PD or other remote controller, flash start playback is possible (each player can have 6 pages of 16 keys each or 8 pages of 12 keys each and independent page switching).

NOTE

- *Only playlists in the current session can be loaded. Playlists from sessions other than the current session cannot be loaded.*
- *The same playlist cannot be loaded in both player A and player B at the same time.*

A/B MIXED mode

In dual mode, the key assignments are fixed. Those on the left are assigned to A and those on the right are assigned to B. In A/B MIXED mode, though, key assignments can be switched between A and B as desired.

- Unit functions as two independent playback systems.
- Simultaneous playback of 2 polyphonic files with up to 2 channels each is possible at all compatible sampling frequencies (Fs).
- Using a TASCAM RC-HS32PD remote control, dual flash start playback is possible (32 keys × 3 pages).
- Two output destinations can be set independently for each entry.
- The function when a flash key is pressed during playback can be set independently for each entry.
- Five colors are used for the indications on the displays of this unit and the RC-HS32PD and the flash keys, allowing for quick visual recognition of output destinations and statuses.

A/B MIXED mode restrictions

- The settings of the Auto cue, Auto Ready and Inc. Play items on the CONTROL page of the PLAY SETUP screen are all fixed to OFF.
- The setting of the Play Mode item on the GENERAL page of the PLAY SETUP screen is fixed to One Take.
- The Flash Start Key Method item on the General page of the REMOTE SETUP screen is fixed to Individual. In modes other than A/B MIXED playlist mode, "Individual" is disabled and cannot be selected.
- Only five of the time display modes can be used: ELAPSED, REMAIN, ELAPSED/REMAIN, REMAIN/ELAPSED and T/C. The TOTAL and T.REM modes cannot be used.
- When an existing playlist is loaded, if the same entry is assigned to both outputs A and B, the setting of the playlist loaded more recently is used.
- When a PPL file is imported, if the same entry is assigned to both outputs A and B, the output destination of this entry will be set to A.

6 – Overview of operation modes

Comparison of dual and A/B MIXED playlist mode functions

	Dual playlist mode	A/B MIXED playlist mode
Number of players	2	2
Number of subject audio channels	2	2
Number of flash start playback entries	100 x 2	100
Number of flash start entries when using an RC-HS32PD	16 keys x 6 pages x 2	32 keys x 3 pages
Keys assignable to player A when using an RC-HS32PD	16 keys on left side of RC-HS32PD	32 keys on both sides of RC-HS32PD
Keys assignable to player B when using an RC-HS32PD	16 keys on right side of RC-HS32PD	32 keys on both sides of RC-HS32PD
Entry output destination setting	Setting fixed by flash key location	Can be set as desired
Functions of flash keys when pushed	Set all keys to one of two options (Flash Start/Standby)	Set one of three options for each flash key separately (▶/▶/▶)

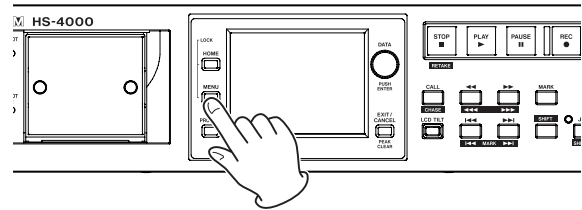
On-air mode functions

The functions that can be used in on-air mode are as follows.

- Four- channel playback at all available sampling frequencies
- BWF-J cue point playback
- CREDITS playback

Selecting the operation mode

1. Press the MENU key on the front panel to open the MENU screen.



2. Press the OPERATION MODE button to open the OPERATION MODE screen.



3. Press the button for the mode that you want to use to select it.

The button for the selected mode appears yellow.

TIMELINE MODE

Timeline mode

TAKE MODE

Take mode

PLAYLIST MODE (SINGLE)

Single playlist mode

PLAYLIST MODE (DUAL)

Dual playlist mode

PLAYLIST MODE (A/B MIXED)

A/B MIXED playlist mode

ON AIR MODE

On-air mode

4. Press the SET button to enable the selected mode and return to the Home Screen.

7 – Timeline mode

In this chapter, we explain how to use the timeline mode.

To use this unit in timeline mode, set the unit's operation mode to TIMELINE MODE. (See "Selecting the operation mode" on page 49.)

Please refer to "4 – Basic operation" when reading this chapter.

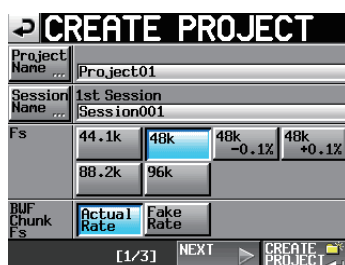
Preparing to record

Basic preparations

Refer to "4 – Basic operation" on page 30 as you conduct basic preparations.

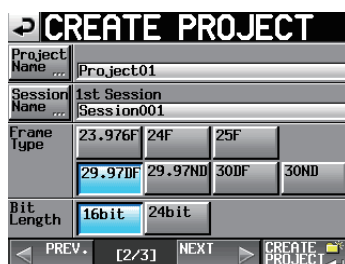
Creating a new project

1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Touch the CREATE PROJECT button on the PROJECT screen to open the CREATE PROJECT screen.



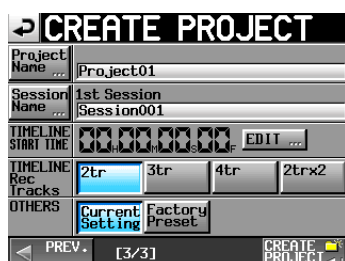
On the first page, you can set the project name, the name of the first created session, the sampling frequency, and the sampling frequency written to BWF chunks.

Press the NEXT button to open CREATE PROJECT screen [2/3].



Set the frame type then bit length.

Press the NEXT button to open CREATE PROJECT screen [3/3].



Finally, set the starting time and number of tracks to be recorded in timeline mode, and then set whether other settings should be retained from the currently open project or whether the factory defaults should be used instead.

For details, see "Creating new projects" on page 39.

3. After you complete making settings touch the CREATE PROJECT button.

NOTE

- If a project with the same project name already exists, the CREATE PROJECT button appears gray and you will not be able to create a new project. If this happens, change the project name.
 - You can also touch the CREATE PROJECT button on CREATE PROJECT screens 1/3 and 2/3 to create a project.
4. When the confirmation message appears in a pop-up, press the OK button.

Creating new sessions

Create new sessions as necessary.

1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Touch the ➡ button of the project to which you want to add a session to open the session selection screen.

If it is not the current project, a pop-up window appears confirming that you want to load it.



3. Touch the OK button. Touch the MAKE SESSION button to open the MAKE SESSION screen.



7 – Timeline mode

- Touch the Session Name button to open the SESSION NAME screen where you can change the session name.



Use the same input method as in “Editing the project name” on page 40.

NOTE

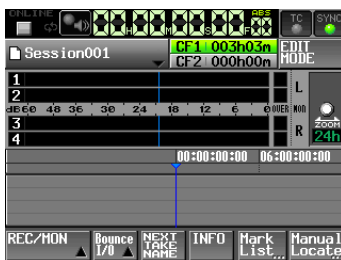
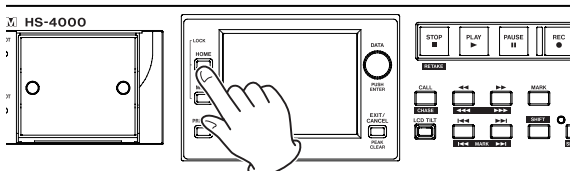
You cannot use the “@” symbol at the beginning of a session name.

- Touch the Enter button or press the DATA dial to return to the MAKE SESSION screen.
- If necessary, set the timeline starting time and number of recording tracks.
- When you have finished making settings, press the MAKE SESSION button.
- When a confirmation pop-up message appears, touch the OK button or press the DATA dial to create a new session and return to the Home Screen.

For details about session operations, see “Session operations” on page 43.

Arming tracks for recording

- Press the HOME key on the front panel to open the Home Screen.



- Touch the REC/MON button to open a pull-up with REC and MON buttons.



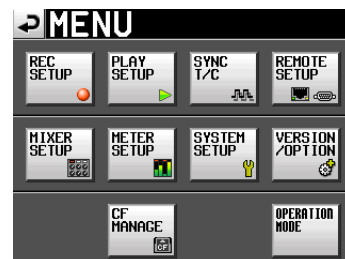
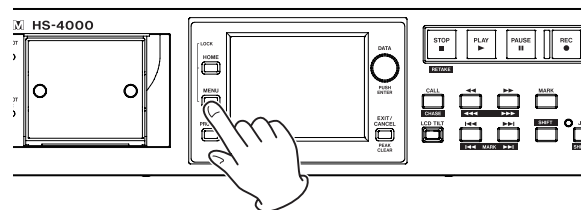
To arm tracks for recording, touch their record arm buttons. When a track is armed to record, its button appears red.

NOTE

The record function for the number of tracks set with the “TIMELINE Rec Tracks” item when a project/session was created is linked.

Recording mode settings

- Press the MENU key on the front panel to open the MENU screen.



- Touch the REC SETUP button to open the REC SETUP screen.

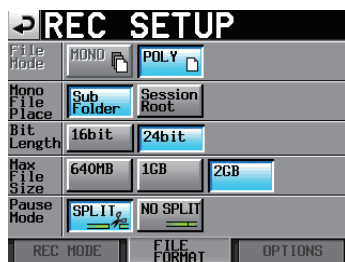


On the REC MODE page, you can turn confidence monitoring on or off. For details, see “Confidence monitoring” on page 122.

7 – Timeline mode

Setting the file format

Touch the FILE FORMAT tab on the REC SETUP screen to open the following screen.



On the FILE FORMAT page, set the bit length, maximum file size and how files are handled when entering recording standby (pause mode).

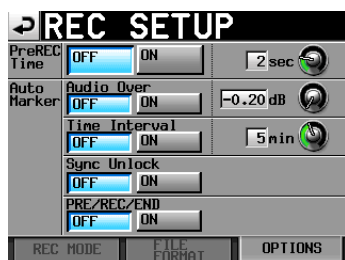
The selected items appear light blue. For details, see “FILE FORMAT page” on page 101.

NOTE

In timeline mode, you cannot select the file mode. The mono file recording folder setting cannot be changed.

Other recording settings

Touch the OPTIONS tab of the REC SETUP screen to open the following screen.



On the OPTIONS page, you can set the pre-recording time and the use of auto markers. For details, see “OPTIONS page” on page 102.


Making a recording

Locate to the recording start position

Use the ◀◀[◀◀] and ▶▶[▶▶] keys, jump to a mark or use the manual locate function to locate to the time where you want to start recording.

When timecode synchronization is ON, recording will occur at the input timecode, so locating as described above is not necessary.

Recording

When unit is stopped, press the REC key to put the unit into recording standby. At this time, the  icon indicates this transport status. In recording standby, press the PLAY key to start recording at the located point (current point).

NOTE

When stopped, pressing the PLAY key while pressing and holding the REC key will also start recording.

When timecode synchronization is ON, recording will start at the timecode from when this unit was synchronized with the master timecode.

When recording starts, the transport status indicator at the top left of the Home Screen changes to the recording indicator and some of the background turns red to show that it is recording. The time counter starts at the same time.



When the elapsed time (ABS time) from the beginning of the timeline reaches 23:59:59:MM (MM is the maximum number of frames), “RECORD stopped. ABS time is over 24h” appears in a pop-up message and recording stops.

Overwriting a recording

During playback, press the REC and PLAY keys simultaneously to start recording instantaneously from that point.

NOTE

Recording can also be controlled using parallel control (except retaking).

CAUTION

When in recording standby, the parallel control signals output are high for TALLY_RECORD and low for TALLY_PAUSE.

When in recording standby, the REC and PAUSE keys on the front panel will be lit.

Stopping recording

To stop recording, press the STOP (RETAKE) key.

Retaking a recording

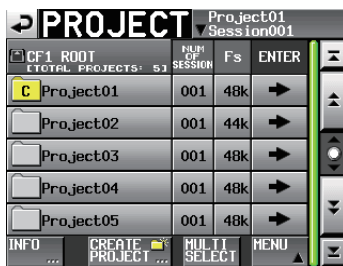
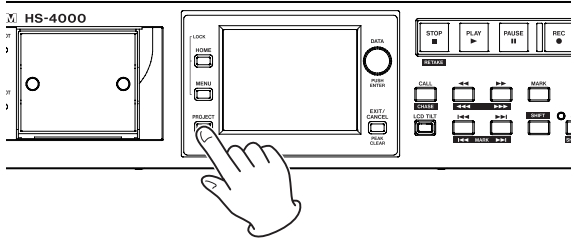
Press the STOP (RETAKE) key while pressing and holding the SHIFT key to erase the last recorded region.

The recorded sound file itself will remain as a take.

Playback

Project/session selection

1. Press the PROJECT key on the front panel to open the PROJECT screen.



2. Touch the ➡ button next to the project that you want to play to open the session selection screen.
If it is not the current project, a pop-up window appears confirming that you want to load it.
3. Touch a session name button to select that session.
4. Touch the MENU button to open a pull-up menu and touch the LOAD button.

The "Load selected Session?" pop-up appears.



5. Touch the OK button.
When loading completes, the Home Screen opens.

Setting input monitoring

Turn input monitoring OFF for the channels (tracks) that you are playing back. For channels that have input monitoring ON, audio input through the input connectors is output.

1. Touch the REC/MON button on the Home Screen to open a pull-up with REC and MON buttons.



2. If input monitoring is on for any playback channels (MON buttons appear blue), touch those MON buttons to turn them off (turning them gray).

Setting the online function

Refer to "Online functions" on page 122 as you make online output settings.

Locating to playback starting points

You can locate to the time where you want to start playback using the ◀◀ [◀◀] and ▶▶ [▶▶] keys and the mark jumping and manual locate functions. When timecode synchronization is ON, playback will occur at the input timecode, so locating as described above is not necessary.

Playback

Press the PLAY key to start playback.

Press the PAUSE key to start playback standby.

To end playback standby, press the PLAY key.

Press the STOP (RETAKE) key to stop playback.

Press the ◀◀ [MARK ◀◀] key or ▶▶ [MARK ▶▶] key to skip to the start of another region.

Press and hold the ◀◀ [◀◀] key or ▶▶ [▶▶] key to search backward or forward.

While pressing and holding the SHIFT key, press the XXX [MARK X] key or [MARK X] key to jump to a mark.

Press and hold the ◀◀ [◀◀] or ▶▶ [▶▶] key while pressing and holding the SHIFT key to search at high-speed.

While pressing the STOP key, press the ◀◀ [MARK ◀◀] or ▶▶ [MARK ▶▶] key to skip to the beginning of the first region recorded or the end of the last region. (This only works with the front panel keys.)

NOTE

Playback functions can also be used via parallel control.

Call function

Press the CALL (CHASE) key to locate to the point where playback was last started from playback standby (call point) and put the unit in playback standby mode.

7 – Timeline mode

BWF-J cue points (timeline mode)

When the Follow BWF-J item on the GENERAL page of the PLAY SETUP screen is ON, if a BWF-J cue point is detected during playback, the following operations will occur. In addition, when the BWF-J tally item on the PARALLEL page of the REMOTE SETUP screen is ON, cue signals and tally signals will be output from the parallel remote connector in response to each BWF-J cue point. However, when playback is synchronized with timecode, only the CUE signal and tally signal will be output.

BC\$STANDBY	When a session is loaded, the transport moves to the first BC\$STANDBY point, and playback standby starts. During playback, when this point is reached, playback standby starts. In either case, a BC\$STANDBY tally is output.
BC\$CM	During playback, when this point is reached, a BC\$CM cue signal is output.
BC\$END	During playback, when this point is reached, a BC\$END CUE signal is output.
BC\$STOP	During playback, when this point is reached, a BC\$STOP CUE signal is output, and playback stops.
BC\$FILE	During playback, when this point is reached, a BC\$END CUE signal is output.
BC\$PAUSE	During playback, when this point is reached, a BC\$PAUSE tally is output, and playback standby starts.

Importing and exporting AES31 editing information

Importing AES31 editing information

You can import AES31 editing information located in the current session to the currently loaded session.

When viewed on a computer, the folder of the CF card should be as follows.

{CF drive name}:\{project name}\{session name}\{AES31 editing information}

NOTE

You cannot import an AES31 editing information file from a folder other than that of the current session.

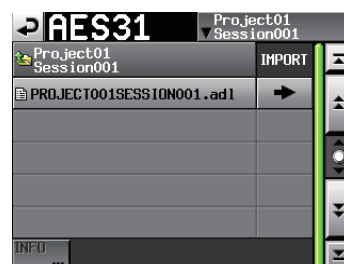
1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Touch the ➡ button next to the project that contains the session with the AES31 editing information that you want to import to open the session selection screen.

If it is not the current project, a pop-up window appears confirming that you want to load it. Touch the OK button.

3. Touch the ➡ button for the session with the AES31 editing information that you want to import to open the AES31 selection screen.

If it is not the current project, a pop-up window appears confirming that you want to load it. Touch the OK button.

If AES31 editing files are found in the session, they appear in the list.



TIP

If you press the INFO button after selecting a file by touching the filename area, the date and time last changed and the file size of that file are shown.

4. Press the ➡ button for the AES31 editing information file that you want to import.

After the project loads, the Home Screen reopens.

5. Touch the OK button or press the DATA dial when a confirmation pop-up message appears.



While importing AES31 editing information, a progress status pop-up appears.

When importing completes, the pop-up message disappears and the Home Screen appears.

The timeline of the current session is replaced with the imported contents.

TIP

After importing, touch the session name button to open a pull-down menu and touch the SAVE button to save the timeline of the imported contents to the selected CF card.

Exporting AES31 editing information

You can export the timeline of the currently loaded session as an AES31 file.

The exported file is created in the current session.

1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the session name button on the Home Screen to open a pull-down menu.



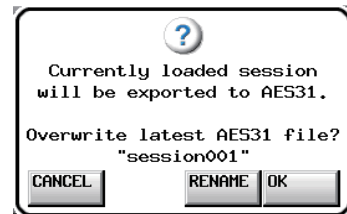
3. Press the EXPORT AES31 button on the pull-up menu to open the AES31 NAME screen where you can input the AES31 data file name.



Input the file name. Use the same input method as in "Editing the project name" on page 40.

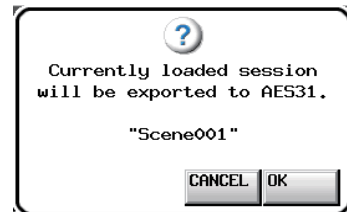
NOTE

If the current session has already had an AES31 file imported or exported, a pop-up window appears confirming that you want to overwrite that file.



Touch the OK button to overwrite that file or press the RENAME button to open the AES31 NAME screen.

4. Touch the Enter button on the AES31 NAME screen or press the DATA dial.
5. Touch the OK button or press the DATA dial when a confirmation pop-up message appears.



NOTE

If a file with the same name already exists, a pop-up window opens to confirm whether you want to overwrite that file or not.

Touch the OK button to overwrite that file, or touch the CANCEL button to return to the AES31 NAME screen.

7 – Timeline mode

Saving timelines

Save a timeline after editing regions, adding and editing marks or changing the timecode for the beginning of the timeline. If you do not save the timeline, the changes will be lost when you load another session, remove a CF card or turn the power off.

NOTE

After regions have been edited or marks have been added or edited in a session, an "" appears in the session name icon. In addition, when a "*" is shown, if you import AES31 editing information, load another project/session or change the operation mode, for example, a pop-up message will appear confirming whether or not you want to save the current timeline data.*

1. Press the HOME key to open the Home Screen.
2. Touch the session name button on the Home Screen to open a pull-down menu. Then, press the SAVE button in the menu to save the timeline to the selected CF card.

While saving, a progress status pop-up appears.

When saving completes, the pop-up disappears.



NOTE

When you save a timeline, the contents of the timeline are overwritten in the AES31 file that was last imported/exported and that file is exported (output).

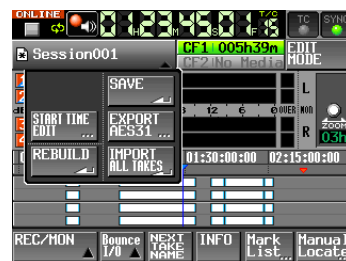
Importing all takes

NOTE

Each take is imported to the timeline at the timecode set in the take. Takes that do not have set timecodes are imported at 00h 00m 00s 00f.

The current timeline will be cleared and all tracks that match the TIMELINE Rec Tracks setting in the folder for the current session will be imported to the timeline.

1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the session name button on the Home Screen to open a pull-down menu.



3. Touch the IMPORT ALL TAKES button in the pull-down menu.
4. Check the settings on the confirmation pop-up message that appears.



Touch the OK button or press the DATA dial to clear the current timeline, and import all the takes in the current session folder.

Touch the CANCEL button to return to the Home Screen.

NOTE

Takes that do not correspond to the current TIMELINE Rec Tracks setting will not be imported.

If the TIMELINE Rec Tracks setting is "2tr", two-channel polyphonic files will be imported.

Changing the timeline starting timecode

You can change the timecode of the beginning of the current timeline.

1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the session name button on the Home Screen to open a pull-down menu.



3. Touch the START TIME EDIT button in the pull-down menu to open the START TIME screen.



Touch the FRAME EDIT button to set whether or not the frame value can be edited.

Use the number buttons to input the take start time.

- If you begin input without selecting a digit, input will start from the smallest one.
 - To input a specific digit, touch it to make its background yellow, and then use the number buttons or the DATA dial to enter two digits at a time.
 - Touch the CLEAR button to erase all entered values.
4. Touch the ENTER button to change the timecode of the beginning of the current timeline and return to the Home Screen.

NOTE

The change will not be saved to the CF card until you save the timeline.

TIP

TIP This can also be edited using an externally connected keyboard.

Press the keyboard's Enter key to confirm a setting and its ESC key to clear all the values.

Editing timelines

You can cut, erase and divide regions.

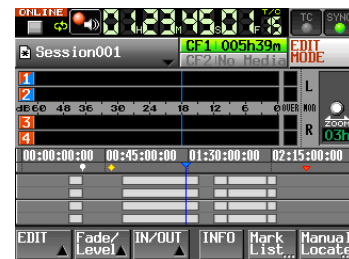
The basic procedures for editing are as follows.

Refer to the explanations of each of the editing functions for details about them.

1. Press the HOME key on the front panel to open the Home Screen.



2. Touch the EDIT MODE button to enter edit mode.



The EDIT MODE button will be highlighted by becoming white with red letters, and the REC/MON, Bounce I/O and NEXT TAKE NAME buttons will disappear. In their place, the EDIT, Fade/Level and IN/OUT buttons will appear.

3. Touch the EDIT button to open a pull-up menu.



The pull-up menu has 8 editing function buttons: Copy, Cut, Erase, Divide, Insert, Paste, Ins/Paste File and Insert Mute. In addition, it has UNDO and REDO buttons. Touch these buttons to use their functions.

CAUTION

After editing, if you do not save the timeline (SAVE), the changes will be lost when you load another session, import AES31 editing data, remove a card or turn the power off, for example.

NOTE

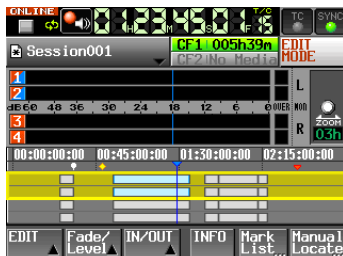
Due to the management of regions and the editing history from repeated recording and editing, the amount of open working memory could become insufficient, preventing further editing.

In this case, "Cannot Edit. System limit reached." appears as a pop-up message.

7 – Timeline mode

Selecting a region to copy, cut or delete

- If editing start and end points have been set, the region between these points is selected.
- If editing start and end points have not been set, the entire region where the time cursor is located in the current track is selected.



Editing start and end points not set

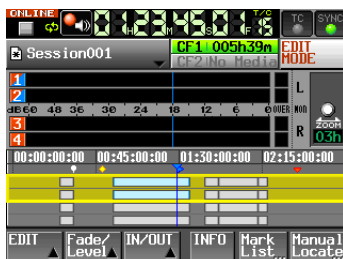
- If the timeline cursor is located at the border between regions, the region to its right will be subject to the editing. If that region is silent, however, it will remain unselected.

Setting editing start points

1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the EDIT MODE button to enter editing mode.
3. Use the ◀▶/▶▶ keys, for example, to locate the timeline cursor to the position (time) where you want to start editing.
4. Touch the IN/OUT button to open a pull-up menu.



5. Touch the SET IN button in the pull-up menu to set the editing start point (IN point).
The IN mark (■) appears at the current position in the mark display area.



Setting editing end points

1. Use the ◀◀/▶▶ keys, for example, to locate the timeline cursor to the position (time) where you want to end editing.
2. Touch the IN/OUT button to open a pull-up menu.
3. Touch the SET OUT button in the pull-up menu item to set the editing end point (OUT point).

The OUT mark (■) appears at the current position in the mark display area.



The interval between the IN (■) and OUT (■) marks, which is shown in blue, will be subject to editing.

Clearing editing start and end points

1. Touch the IN/OUT button to open a pull-up menu.



2. Touch the CLEAR button on the pull-up menu to discard the currently set IN and OUT points.

When a confirmation message pop-up appears, touch the OK button or press the DATA dial. The IN (■) and OUT (■) marks in the mark display area will disappear.

Selecting tracks for editing

If "TIMELINE Rec Tracks" is set to "2trx2", you must select the tracks to be edited.

NOTE

If "TIMELINE Rec Tracks" is set to "2tr, 3tr" or "4tr", all the tracks will always be selected.

1. Press the HOME key on the front panel to open the Home Screen.



2. Touch the track display area for tracks 1-2 or 3-4 to select those tracks. The selected tracks will be shown with a yellow frame. Touch the selected tracks to unselect them.



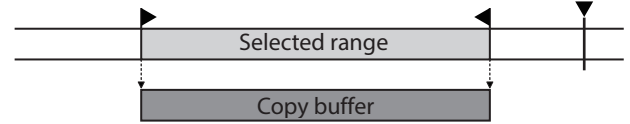
3. Any editing operations will affect only the selected tracks.

Copying the data of a selected region (Copy)

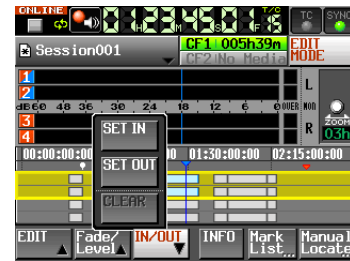
You can copy a selected region.

NOTE

- The copied data is stored in the copy buffer.
- If an entire fade (in/out) is included in the selected region, the settings of that fade will also be copied.



1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the EDIT MODE button to enter edit mode. If "TIMELINE Rec Tracks" is set to "2trx2", select the tracks to be copied.
3. Move the timeline cursor to the region that you want to copy.
4. If you want to set editing start and end points, touch the IN/OUT button to open a pull-up menu and use its SET IN and SET OUT buttons to select the regions you want to copy.



5. Touch the EDIT button to open a pull-up menu.



6. Touch the Copy button in the pull-up menu to copy the selected region. When the operation completes, the Home Screen will be shown again after a pop-up message appears.



At this time, the EDIT pull-up menu will still be open.

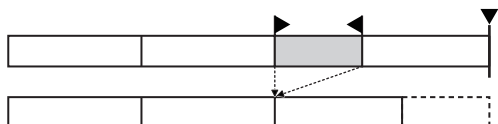
7 – Timeline mode

Cutting the data of a selected region (Cut)

When you cut a selected region, the data that follows it shifts forward.

NOTE

- The cut data is stored in the copy buffer.
- If an entire fade (in/out) is included in the selected region, the settings of that fade will also be copied.
- If the IN point or OUT point is in a region, any parts outside the designated cut region become new regions.
- If the IN point or OUT point is in a fade in or fade out, that fade in/fade out is cleared.



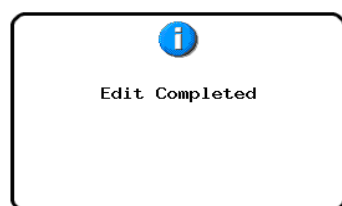
1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the EDIT MODE button to enter edit mode.
If "TIMELINE Rec Tracks" is set to "2trx2", select the tracks to be cut.
3. Move the timeline cursor to the region that you want to cut.
4. If you want to set editing start and end points, touch the IN/OUT button to open a pull-up menu and use its SET IN and SET OUT buttons to select the regions you want to cut.



5. Touch the EDIT button to open a pull-up menu.



6. Touch the Cut button in the pull-up menu to cut the selected region. When the operation completes, the Home Screen will be shown again after a pop-up message appears.



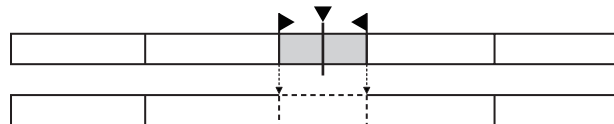
At this time, the EDIT pull-up menu will still be open.

Erasing the data of a selected region (Erase)

When you erase a selected region, that region becomes silent. The data that follows it does not shift.

NOTE

- The erased data is stored in the copy buffer.
- If an entire fade (in/out) is included in the selected region, the settings of that fade will also be copied.
- If the IN point or OUT point is in a region, any parts outside the designated region become new regions.
- If the IN point or OUT point is in a fade in or fade out, that fade in/fade out is cleared.



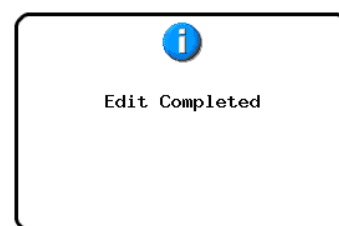
1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the EDIT MODE button to enter edit mode.
If "TIMELINE Rec Tracks" is set to "2trx2", select the tracks to be erased.
3. Move the timeline cursor to the region that you want to erase.
4. If you want to set editing start and end points, touch the IN/OUT button to open a pull-up menu and use its SET IN and SET OUT buttons to select the regions you want to erase.



5. Touch the EDIT button to open a pull-up menu.



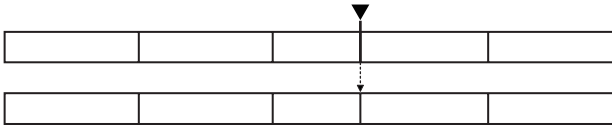
6. Touch the Erase button in the pull-up menu to erase the selected region. When the operation completes, the Home Screen will be shown again after a pop-up message appears.



At this time, the EDIT pull-up menu will still be open.

Dividing data at a selected point (Divide)

Use this function to divide regions at the timeline cursor.



1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the EDIT MODE button to enter edit mode.
If "TIMELINE Rec Tracks" is set to "2trx2", select the tracks to be divided.
3. Move the timeline cursor to the position where you want to divide the region.
4. Touch the EDIT button to open a pull-up menu.



5. Touch the Divide button in the pull-up menu to divide the selected region. When the operation completes, the Home Screen will be shown again after a pop-up message appears.

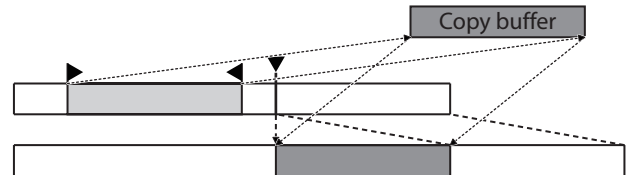


At this time, the EDIT pull-up menu will still be open.

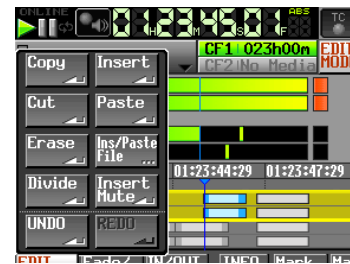
Inserting data from the copy buffer (Insert)

NOTE

- All regions that follow the insertion point will be shifted backward by the amount of time of the inserted region.
- If the copy buffer is inserted into a region, three regions will be created: one before the timeline cursor, one with the copy buffer contents and one after the timeline cursor.
- If the set point is in a fade in or fade out, that fade in/fade out is cleared.



1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the EDIT MODE button to enter edit mode.
If "TIMELINE Rec Tracks" is set to "2trx2", select the tracks where the data will be inserted.
3. Move the timeline cursor to the position where you want to insert the data.
4. Touch the EDIT button to open a pull-up menu.



Touch the Insert button in the pull-up menu.

If the track numbers or number of tracks in the copy buffer differ from the tracks where the data will be inserted, a pop-up message will appear to confirm the tracks where the data will be inserted. If there is no problem, touch the OK button or press the DATA dial.

NOTE

The Insert button is only usable when the copy buffer has data.

5. When the insertion completes, the Home Screen will be shown again after a pop-up message appears.



At this time, the EDIT pull-up menu will still be open.

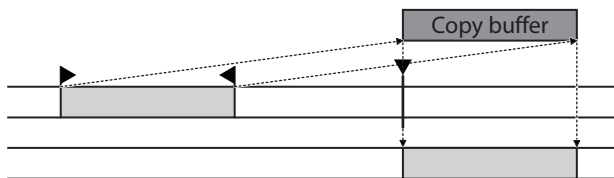
7 – Timeline mode

Pasting the copy buffer data at a set point (Paste)

You can paste the copied content at a set point.

NOTE

If the pasted region is in a fade in or fade out, that fade in/fade out is cleared.



1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the EDIT MODE button to enter edit mode.
If "TIMELINE Rec Tracks" is set to "2trx2", select the tracks where the data will be pasted.
3. Move the timeline cursor to the position where you want to paste the data.
4. Touch the EDIT button to open a pull-up menu.



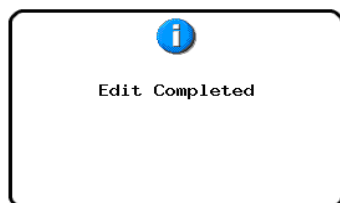
Touch the Paste button in the pull-up menu.

If the track numbers or number of tracks in the copy buffer differ from the tracks where the data will be pasted, a pop-up message will appear to confirm the tracks where the data will be pasted. If there is no problem, touch the OK button or press the DATA dial.

NOTE

The Paste button appears white and is only usable when the copy buffer has data.

5. When pasting completes, the Home Screen will be shown again after a pop-up message appears.



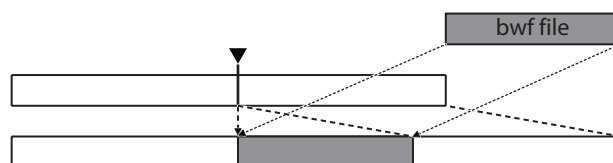
At this time, the EDIT pull-up menu will still be open.

Inserting/pasting data from a select file at a set point (Ins/Paste File)

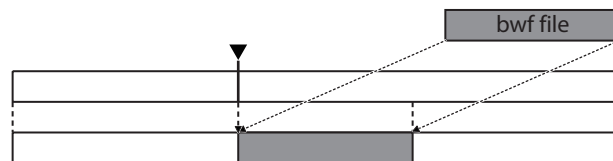
You can insert or paste an entire BWF/WAV file at a set point.

NOTE

- You can only insert and paste files that have the same number of tracks as the "TIMELINE Rec Tracks" setting. If you try to insert or paste a file that has a different number of tracks, it will not be possible and a message will appear.
- All regions that follow the insertion point will be shifted backward by the amount of time of the inserted file.
- If the file is inserted into a region, three regions will be created: one before the timeline cursor, one with the inserted file and one after the timeline cursor.
- If the set point is in a fade in or fade out, that fade in/fade out is cleared.
- If the pasted file is in a fade in or fade out, that fade in/fade out is cleared.



File insertion



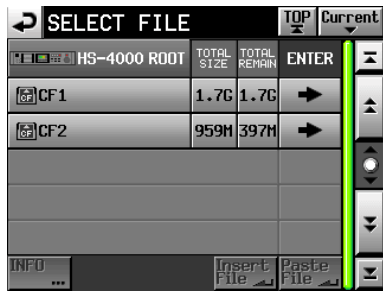
File pasting

1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the EDIT MODE button to enter edit mode.
If "TIMELINE Rec Tracks" is set to "2trx2", select the tracks where the data will be inserted.
3. Move the timeline cursor to the position where you want to insert the file.
4. Touch the EDIT button to open a pull-up menu.



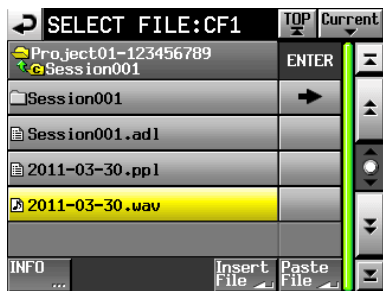
Touch the Ins/Paste File button in the pull-up menu to open the SELECT FILE screen.

- On the SELECT FILE screen, press the ➡ button for the media that contains the file that you want to insert/paste.



NOTE

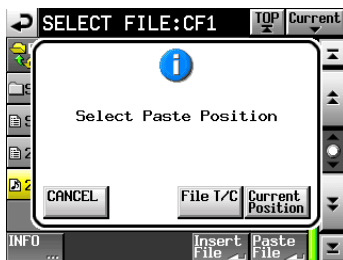
- If the top SELECT FILE screen shown above does not appear, touch the TOP button at the top right of the screen to open the media selection screen.
 - Touch the Current button at the top right of the screen to open the current session folder on the current media.
- On the SELECT FILE screen shown, select the file that you want to insert/paste. Press the Insert File button to insert it. Press the Paste File button to paste it.



- A pop-up message that allow you to select where to insert/paste appears. Touch the Current Position button or File T/C button to start inserting/pasting.



When inserting



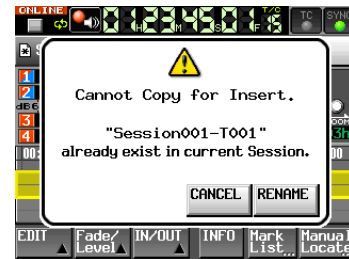
When pasting

At this time, if you touch the CANCEL button, the SELECT FILE screen will be shown again.

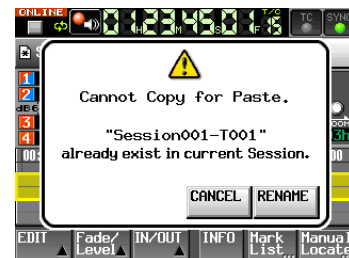
NOTE

- If timecode data is not set in the selected file and you touch the File T/C button, the file will be inserted/pasted at 00h 00m 00s 00f.
- If you selected a file from a folder other than the current session folder, it will be copied to the current folder and then inserted/pasted.
- If a file with the same name already exists in the current session folder, "Cannot Copy" appears in a pop-up message.

To change the file with the same name, touch the RENAME button. To cancel the operation press the CANCEL button.



When inserting



When pasting

- When the insertion/pasting completes, a pop-up message appears. Then, the EDIT pull-up menu closes and the Home Screen opens.

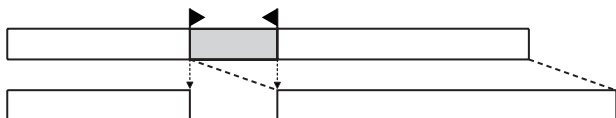
7 – Timeline mode

Inserting silence in a set region (Insert Mute)

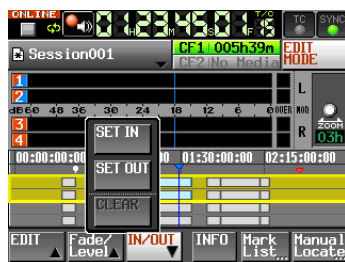
Use this function to insert silence in a set region.

NOTE

- All regions that follow the IN point will be shifted backward.
- If you insert silence in a region, it will be divided into two regions at the timeline cursor.
- If the set point is in a fade in or fade out, that fade in/fade out is cleared.



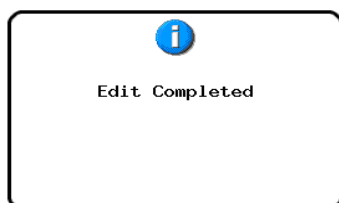
1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the EDIT MODE button to enter edit mode. If "TIMELINE Rec Tracks" is set to "2trx2", select the tracks where the silence will be inserted.
3. Touch the IN/OUT button, and use the SET IN and SET OUT buttons in the pull-up menu to set the region where silence will be inserted.



4. Touch the EDIT button to open the pull-up menu.



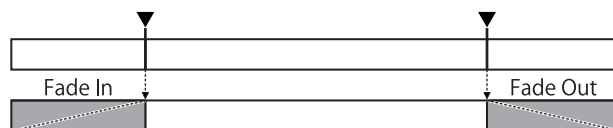
5. Touch the Insert Mute button in the pull-up menu to insert the silence. When the operation completes, the Home Screen will be shown again after a pop-up message appears.



At this time, the EDIT pull-up menu will still be open.

Setting fade ins and outs for designated regions (Fade IN/FadeOut)

Use this function to set fade ins and outs for designated regions.



NOTE

- Fade in/out intervals appear blue on the display.
- Fade in intervals are from the beginning of the region to the set point.
- Fade out intervals are from the set point to the end of the region.

1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the EDIT MODE button to enter edit mode. If "TIMELINE Rec Tracks" is set to "2trx2", select the tracks where the fade in/out will be set.
3. In the region where you want the fade in/out, move the timeline cursor to the point where you want the fade in to end or the fade out to start.
4. Touch the Fade/Level button to open a pull-up menu.



- Touch the Fade IN button to set a fade in.
 - Touch the FadeOut button to set a fade out.
5. When setting the fade in/fade out completes, the Home Screen will be shown again after a pop-up message appears.



At this time, the Fade/Level pull-up menu will still be open.

Removing fade ins and outs (Remove Fade IN/Remove Fade Out)

1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the EDIT MODE button to enter edit mode. If "TIMELINE Rec Tracks" is set to "2trx2", select the tracks with the fade in/out that you want to remove.
3. Move the timeline cursor to the region with the fade in/out you want to remove.
4. Touch the Fade/Level button to open a pull-up menu.



- Touch the Remove Fade IN button to remove the fade in from that region.
 - Touch the Remove Fade Out button to remove the fade out from that region.
5. When removing the fade in/out completes, the Home Screen will be shown again after a pop-up message appears.



At this time, the Fade/Level pull-up menu will still be open.

Setting the playback level of a designated region (Level)

You can set the playback level of an entire designated region (from the end of the fade to the beginning of the fade out).

1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the EDIT MODE button to enter edit mode. If "TIMELINE Rec Tracks" is set to "2trx2", select the tracks for which you want to set the playback level.

NOTE

You cannot set the playback level when multiple files (1-2tr and 3-4tr) are selected. In this case, touching the Level button in the Fader/Level menu causes a message to appear.

3. Move the timeline cursor to the region for which you want to change the playback level.
4. Touch the Fade/Level button to open a pull-up menu.



5. Touch the Level button in the pull-up menu.

Doing this, the region beneath the timeline cursor of the selected track appears yellow and will be subject to level adjustment.



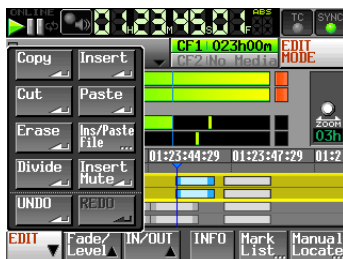
6. A level knob will appear above the Level button. Use the DATA dial to turn it and set the playback level.
Setting range: $-\infty$, -120 dB – $+10.0$ dB
7. Press the Level button again to close the level knob pop-up. (The set playback level value will be retained for the selected region.)

7 – Timeline mode

Undoing the previous edit (UNDO)

You can undo the immediately previous timeline editing operation.

1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the EDIT MODE button to enter edit mode.
3. Touch the EDIT button to open a pull-up menu.



4. Touch the UNDO button in the pull-up menu to undo the previous operation. When the undo completes, the Home Screen will be shown again after a pop-up message appears.



At this time, the EDIT pull-up menu will still be open.

NOTE

- You can also undo using the UNDO button in the Fade/Level pull-up menu.
- If no editing has been conducted, the UNDO button is disabled. The UNDO button appears with white letters when it is possible to undo an edit.
- In timeline mode, a maximum of 10 recording/editing operations are remembered in the editing history. You can use the UNDO and REDO functions on operations retained in this history. However, as the number of edits and regions increases, the number of operations that can be remembered could become less than 10.
- The editing history in timeline mode will be cleared when any of the following occur.
 - The main unit power is turned off.
 - A project/session is loaded.
 - AES31 editing information is imported
 - The operation mode is changed.

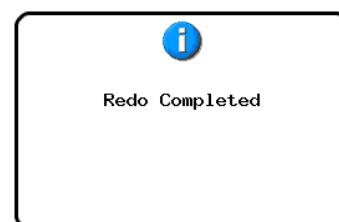
Redoing an edit (REDO)

After undoing an edit, you can redo it.

1. Press the HOME key on the front panel to open the Home Screen.
2. Touch the EDIT MODE button to enter edit mode.
3. Touch the EDIT button to open a pull-up menu.



4. Touch the REDO button in the pull-up menu to redo the previous undo. When the operation completes, the Home Screen will be shown again after a pop-up message appears.



At this time, the EDIT pull-up menu will still be open.

NOTE

- You can also redo using the REDO button in the Fade/Level pull-up menu
- If no edit has been undone, the REDO button is disabled. The REDO button appears with white letters when it is possible to redo an edit.
- In timeline mode, a maximum of 10 recording/editing operations are remembered in the editing history. You can use the UNDO and REDO functions on operations retained in this history. However, as the number of edits and regions increases, the number of operations that can be remembered could become less than 10.
- The editing history in timeline mode will be cleared when any of the following occur.
 - The main unit power is turned off.
 - A project/session is loaded.
 - AES31 editing information is imported
 - The operation mode is changed.

Bouncing

You can output part of a region or an interval that crosses multiple regions as a single take.

Designating the bounce starting point

1. Touch the HOME key to open the Home Screen.
2. Use the ◀◀ and ▶▶ keys, for example, to locate the bounce start point (time).
3. Touch the Bounce I/O button to open a pull-up menu with buttons related to bouncing.



4. Touch the SET IN button on the pull-up menu to set the bounce starting point (IN point).

The IN mark (I) appears at the current position in the mark display area.

Designating the bounce ending point

5. Use the ◀◀ and ▶▶ keys, for example, to locate the bounce ending position (time).
6. Touch the BOUNCE I/O button to open a pull-up menu.
7. Touch the SET OUT button on the pull-up menu to set the bounce ending point (OUT point).

The OUT mark (O) appears at the current position in the mark display area.

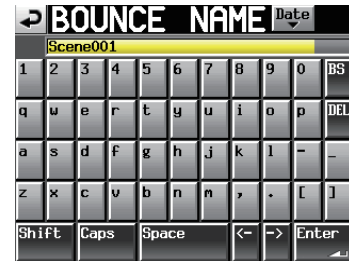
Selecting tracks

8. If "TIMELINE Rec Tracks" is set to "2trx2", touch the tracks that you want to bounce to select them.

Bouncing the interval

9. Touch the BOUNCE I/O button to open a pull-up menu.

10. Touch the BOUNCE button on the pull-up menu to open the BOUNCE NAME screen where you can input the bounce file name.



Input the file name. Use the same input method as in "Editing the project name" on page 40.

11. Press the Enter button. The following confirmation pop-up message will appear.



- Touch the Root dir button to save the bounce to the root folder of the current CF card.
- Touch the Current Session button to save the bounce to the current session.
- Touch the Cancel button to return to the BOUNCE NAME screen without bouncing.

While the file is being created, a progress status pop-up appears.

When file creation completes, the pop-up disappears.

NOTE

You can cancel a bounce by pressing the CANCEL button while the progress pop-up window is open.

Clearing the bounce starting and ending points

12. Touch the Bounce I/O button to open a pull-up menu with buttons related to bouncing.
13. Touch the CLEAR button on the pull-up menu to discard the currently set IN and OUT points.

When a confirmation message pop-up appears, touch the OK button or press the DATA dial. The IN (I) and OUT (O) marks in the mark display area will disappear.

8 – Take mode

In this chapter, we explain how to use the take mode.

To use this unit in take mode, set the unit's operation mode to TAKE MODE. (See "Selecting the operation mode" on page 49.)

Please refer to "4 – Basic operation" when reading this chapter.

Preparing to record

Basic preparations

Refer to "4 – Basic operation" on page 30 as you conduct basic preparations.

Creating a new project

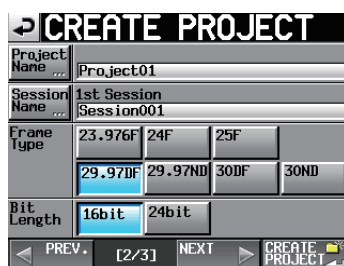
Create new projects as necessary. You do not need to create a new project if you plan to record into an existing one.

1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Touch the CREATE PROJECT button on the PROJECT screen to open the CREATE PROJECT screen.



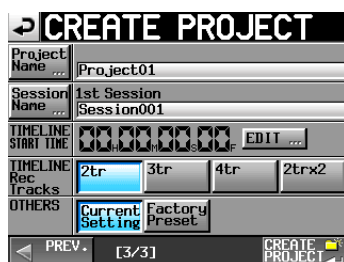
On the first page, you can set the project name, the name of the first created session, the sampling frequency, and the sampling frequency written to BWF chunks.

Touch the NEXT button to open the next page.



Next, set the frame type and bit length.

Touch the NEXT button to open the next page.



Finally, set the starting time and number of tracks to be recorded in timeline mode, and then set whether other settings should be retained from the currently open project or whether the factory defaults should be used instead.

For details, see "Creating new projects" on page 39.

3. After you complete making settings touch the CREATE PROJECT button.

NOTE

If a project with the same project name already exists, the CREATE PROJECT button appears gray and you will not be able to create a new project. If this happens, change the project name.

4. When the confirmation message appears in a pop-up, press the OK button.

When creation of the project completes, the Home Screen reopens.

Creating new sessions

Create new sessions as necessary. You do not need to create a new session if you plan to record into an existing one.

1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Touch the ➡ button of the project to which you want to add a session to open the session selection screen.

If it is not the current project, a pop-up window appears confirming that you want to load it.



3. Touch the OK button. Touch the MAKE SESSION button to open the MAKE SESSION screen.



4. Touch the Session Name button to open the SESSION NAME screen where you can change the session name.



Use the same input method as in "Editing the project name" on page 40.

NOTE

You cannot use the "@" symbol at the beginning of a session name.

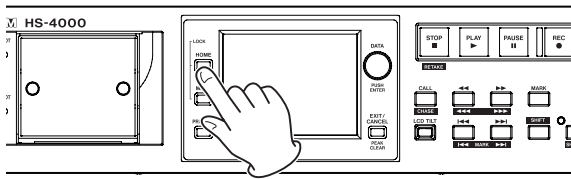
5. Touch the Enter button or press the DATA dial to return to the MAKE SESSION screen.
6. If necessary, set the timeline starting time and number of recording tracks.
7. When you have finished making settings, press the MAKE SESSION button.
8. Touch the OK button or press the DATA dial when a confirmation pop-up message appears.

When creation of the project completes, the Home Screen reopens.

For details about session, see “Session operations” on page 43.

Arming tracks for recording

1. Press the HOME key on the front panel to open the Home Screen.



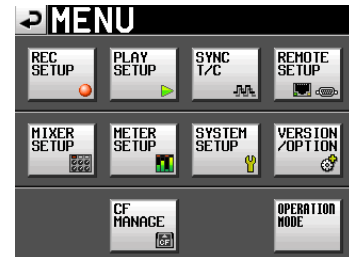
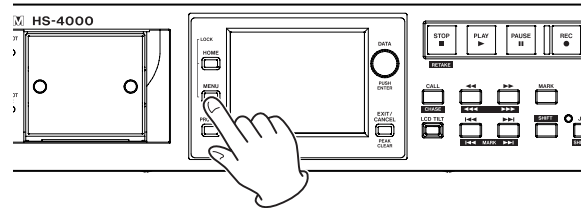
2. Touch the REC/MON button to open a pull-up with REC and MON buttons.



To arm tracks for recording, touch their record arm buttons. When a track is armed to record, its button appears red.

Recording mode settings

1. Press the MENU key on the front panel to open the MENU screen.



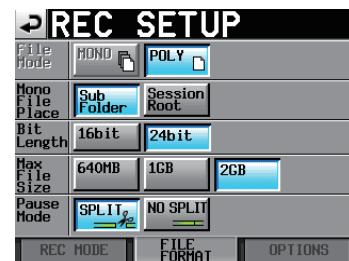
2. Touch the REC SETUP button to open the REC SETUP screen.



On the REC MODE page, you can turn confidence monitoring on or off. For details, see “Confidence monitoring” on page 122.

Setting the file format

Touch the FILE FORMAT tab on the REC SETUP screen to open the following screen.



On the FILE FORMAT page, set the bit length, maximum file size and how files are handled when entering recording standby (pause mode). The selected items appear light blue. For details, see “FILE FORMAT page” on page 101.

NOTE

File Mode cannot be set to MONO. The mono file recording folder setting cannot be changed.

(Support is planned in a future firmware version upgrade.)

8 – Take mode

Other recording settings

Touch the OPTIONS tab of the REC SETUP screen to open the following screen.



On the OPTIONS page, you can set the pre-recording time and the use of auto markers. For details, see "OPTIONS page" on page 102.

Making a recording

Recording

When unit is stopped, press the REC key to put the unit into recording standby. At this time, the icon indicates this transport status.

In recording standby, press the PLAY key to start recording.

The transport status display at the top left of the Home Screen changes into the recording status display and part of the background of the Home Screen becomes red, indicating that the unit is recording. The time counter starts at the same time.



NOTE

- When stopped, pressing the PLAY key while pressing and holding the REC key will also start recording.
- Recording can also be controlled using parallel control (except retaking). In take mode, even if you press the REC and PLAY keys at the same time during playback, you cannot overwrite a recording.

CAUTION

When in recording standby, the parallel control signals output are high for TALLY_RECORD and low for TALLY_PAUSE.
When in recording standby, the REC and PAUSE keys on the front panel will be lit.

Stopping recording

To stop recording, press the STOP (RETAKE) key.

Retaking a recording

While pressing and holding the SHIFT key, press the STOP [RETAKE] key to delete the last recorded take. (This deletes the recorded audio file itself.)

If you press the PAUSE key during recording to record multiple consecutive takes (files) and the PAUSE MODE item is set to SPLIT, this will only erase the last take.

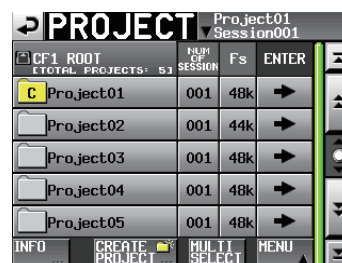
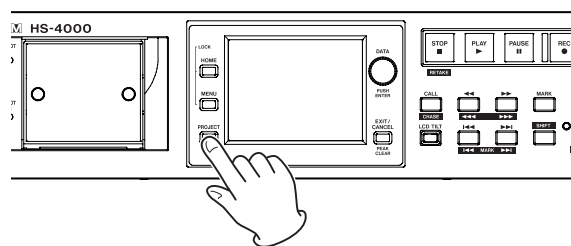
If it is set to NO SPLIT, the recording is not split into multiple takes, so this will erase the entire recording from start to finish.

For details about the PAUSE MODE item, see "FILE FORMAT page" on page 101.

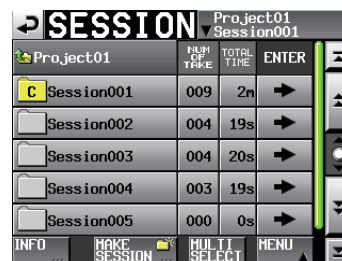
Playback

Project/session/take selection

- Press the PROJECT key on the front panel to open the PROJECT screen.



- Touch the button for the project that contains the take you want to load to open the session selection screen. If it is not the current project, a pop-up window appears confirming that you want to load it.



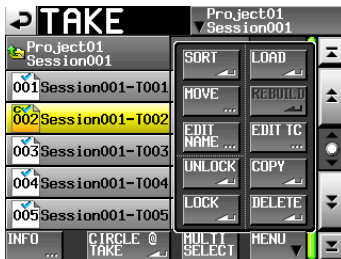
- Touch the ➡ button for the session that contains the take you want to load to open the take selection screen.
If it is not the current project, a pop-up window appears confirming that you want to load it. Touch the OK button.



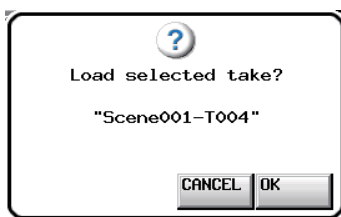
NOTE

To load a take in the current session, instead of steps 1 to 3, you can do one of the following to move to the take selection screen of the current session.

- Touch the session name button at the top right of the project screen.
 - Touch the take name button on the Home Screen to open a pull-down menu and touch the TakeList button.
 - Touch the session/take name in the lower information area of the HOME screen when the INFO button is pressed.
- Select the take that you want to load.
 - Touch the MENU button on the take selection screen to open a pull-up menu.



- Touch the LOAD button in the pull-up menu.
- Touch the OK button or press the DATA dial when a confirmation pop-up message appears.



After loading completes the Home Screen opens.

NOTE

You can also press the ➡ button for a take to load it. In this case, no pop-up window appears, and the take selection screen remains open after loading (the Home screen does not reopen.)

Setting input monitoring

Turn input monitoring OFF for the channels (tracks) that you are playing back. Audio from the audio input connectors is output for the channels that have input monitoring ON.

- Touch the REC/MON button on the Home Screen to open a pull-up with REC and MON buttons.



- If input monitoring is on for any playback channels (MON buttons appear blue), touch those MON buttons to turn them off (turning them gray).

Setting the online function

Refer to "Online functions" on page 122 for details about making settings for the online outputs.

Playback

Press the PLAY key to start playback.

Press the PAUSE key to start playback standby.

To end playback standby, press the PLAY key.

Press the STOP (RETAKE) key to stop playback.

Press the ◀◀ [MARK ◀◀] key or ▶▶ [MARK ▶▶] key to switch takes.

Press and hold the ➡ [◀◀◀] key or ➡ [▶▶▶] key to search backward or forward.

While pressing and holding the SHIFT key, press the XXX [MARK.] key or ▶▶ [MARK X] key to jump to a mark.

Press and hold the ◀◀ [◀◀◀] or ▶▶ [▶▶▶] key while pressing and holding the SHIFT key to search at high-speed.

NOTE

On the PLAY SETUP screen, you can set whether only the currently selected take is played or whether all the takes within the current session are played. You can also enable and disable repeat playback. (See "Playback settings (PLAY SETUP)" on page 103.)

Playback functions can also be used via parallel control.

Call function

Press the CALL (CHASE) key to locate to the point where playback was last started from playback standby (call point) and put the unit in playback standby mode.

8 – Take mode

BWF-J cue points (take mode)

When the Follow BWF-J item on the GENERAL page of the PLAY SETUP screen is ON, if a BWF-J cue point is detected during playback, the following operations will occur. In addition, when the BWF-J tally item on the PARALLEL page of the REMOTE SETUP screen is ON, cue signals and tally signals will be output from the parallel remote connector in response to each BWF-J cue point.

BC\$STANDBY	When a take is loaded, the transport locates to this point as the playback start point. During playback, when this point is reached, playback standby starts. In either case, a BC\$STANDBY tally is output.
BC\$CM	During playback, when this point is reached, a BC\$CM CUE signal is output.
BC\$END	During playback, when this point is reached, a BC\$END CUE signal is output.
BC\$STOP	During playback, when this point is reached, a BC\$STOP CUE signal is output, and playback stops.
BC\$FILE	During playback, when this point is reached, a BC\$END cue signal is output, and if the next take has a BC\$STANDBY cue point, the transport locates to that point, playback standby starts and a BC\$STANDBY tally is output.
BC\$PAUSE	During playback, when this point is reached, a BC\$PAUSE tally is output, and playback standby starts.

Using the flash start function in playlist mode

Using a TASCAM RC-HS32PD (sold separately) or other remote controller, flash start playback is possible.

For details, see “Flash start function” on page 123.

Take operations

You can create multiple takes in the same session folder.

For details, “5 – Projects” on page 36.

The following operations are possible with takes.

- **Changing take start times**
- **Adding @ marks to take names and removing them**
- **Copying takes**
- **Deleting takes**
- **Sorting takes**
- **Moving takes**
- **Editing take names**

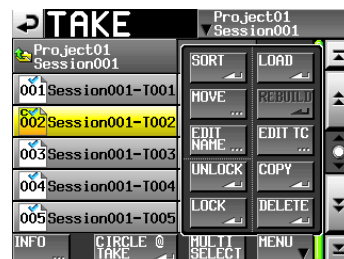
Changing the start time of a take

1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Touch the ➡ button for the project that contains the take for which you want to edit the start time to open the session selection screen.
If it is not the current project, a pop-up window appears confirming that you want to load it. Touch the OK button.
3. Touch the ➡ button for the session that contains the take for which you want to edit the start time to open the take selection screen.
If it is not the current session, a pop-up window appears confirming that you want to load it. Touch the OK button.

NOTE

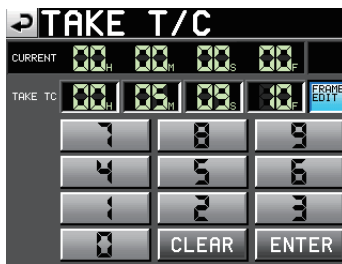
To load a take in the current session, instead of steps 1 to 3, you can do one of the following to move to the take selection screen of the current session.

- *Touch the session name button at the top right of the project screen.*
 - *Touch the take name button on the Home Screen to open a pull-down menu and touch the TAKE List button.*
 - *Touch the session/take name in the lower information area of the HOME screen when the INFO button is pressed.*
4. Select the take that you want to edit the start time.
 5. Touch the MENU button on the take selection screen to open a pull-up menu.

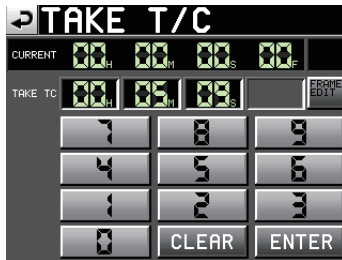


6. Press the EDIT TC button in the pull-up menu to open the TAKE TC screen.

- On the TAKE T/C screen, use the FRAME EDIT button to set whether or not to input the frame value.



FRAME EDIT on



FRAME EDIT off

- Use the number buttons to input the take start time. If you begin input without selecting a digit, input will start from the smallest one.
To input a specific digit, touch it to make its background yellow, and then use the number buttons or the DATA dial to enter two digits at a time.
Touch the CLEAR button to erase all entered values.
- Touch the ENTER button to confirm the setting.

TIP

TIP This can also be edited using an externally connected keyboard.

Press the keyboard's ESC key to clear all the values.

- When the confirmation pop-up window appears, touch the OK button or press the DATA dial.

NOTE

If you change the start time of a WAV file, it will automatically be converted to BWF format and a pop-up message stating this will appear.

Using @ with take names

Select a take and touch the CIRCLE TAKE button to add an "@" to the beginning of that take's name.

In addition, you can add an "@" to the beginning of a take name (or remove it) by touching the take name button on the Home Screen to open a pull-down menu and touching the CIRCLE TAKE button in it.

CAUTION

Be aware that you can add/remove @ marks to/from the names of takes that are used in playlist mode. If you do this to a take that is used in playlist mode, an error pop-up message will appear when you try to load a playlist that contains it.

TIP

You can use the "@" to identify good takes, for example.

NOTE

- If a WAV LOCK function Authorize Key has not been input, you cannot add/remove @ marks to/from take names that have been password locked.*
- Even if a WAV LOCK function Authorize Key has been input, you cannot add/remove @ marks to/from take names that have been password locked with a password different from the one used by this unit.*

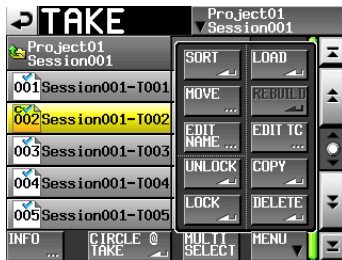
8 – Take mode

Copying takes

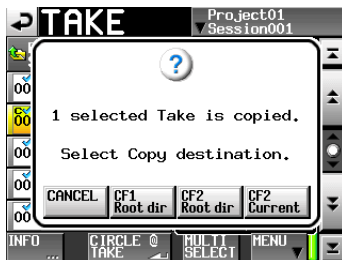
You can copy takes in the current session to the following locations.

- Root folder of same CF card
- Root folder of different CF card
- Current session of different CF card

1. On the take selection screen, select the take you want to copy.
2. Touch the MENU button on the take selection screen to open a pull-up menu.



3. Touch the COPY button in the pull-up menu to open the following pop-up message.
Touch a location button in the pop-up message to copy the selected take to it.
Touch the CANCEL button in the pop-up message to return to the take list screen.

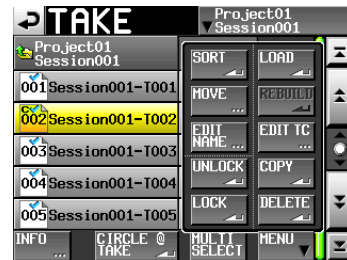


NOTE

- If the copy destination is empty (the current session does not exist on the other card when you select "CFn Current"), the same project/session as the source will be created there when copying.
- If the copy destination already has a file with the same name, when you try to copy, it will not be possible and a pop-up message will warn, "Cannot Copy. Selected Take Already exists in Copy destination."
- If the total copied file size exceeds the open capacity of the copy destination, when you try to copy, it will not be possible and a pop-up message will warn, "Cannot Copy. Not enough space on CFn".
- If the sampling frequency of the copy destination project is different, when you try to copy, it will not be possible and a pop-up message will warn, "Cannot Copy. Destination Project is different Fs."

Deleting takes

1. On the take selection screen, select the take that you want to delete.
2. Touch the MENU button on the take selection screen to open a pull-up menu.



Take selection screen with pull-up menu open

3. Touch the DELETE button in the pull-up menu.
4. Touch the OK button or press the DATA dial when a confirmation pop-up message appears.



Confirmation message window

5. When a confirmation message pop-up appears, touch the OK button or press the DATA dial.



Reconfirmation message window

During erasure, a progress status pop-up appears.

When erasure completes, the pop-up disappears.

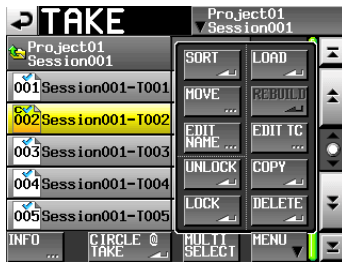
CAUTION

Be aware that you can delete takes that are used in timeline and playlist modes. If you delete a take that is used in timeline or playlist mode, an error pop-up message will appear when you try to load a timeline or playlist that contains it.

Sorting takes

You can sort the playback order of takes by their names.

1. Touch the MENU button on the take selection screen to open a pull-up menu.



Take selection screen with pull-up menu open

2. Touch the SORT button in the pull-up menu to open a confirmation pop-up message.

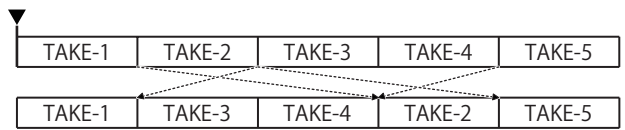


Confirmation message window

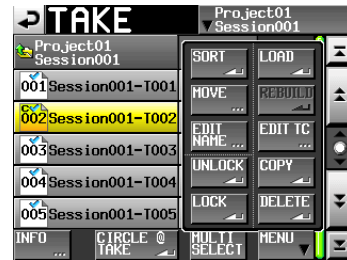
3. Touch the OK button in the pop-up message or press the ENTER key to sort the playback order of the takes by their names.
Touch the CANCEL button to return to the take selection screen.

Moving takes

You can move takes to change their playback order.

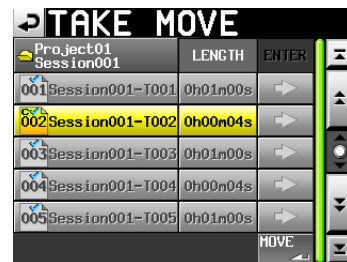


1. On the take selection screen, select the take that you want to move.
2. Touch the MENU button on the take selection screen to open a pull-up menu.



Take selection screen with pull-up menu open

3. Touch the MOVE button in the pull-up menu to open the TAKE MOVE screen.



4. Use the DATA dial and scroll buttons to move the selected take.



5. Touch the MOVE button or press the ENTER key to move the take to the location shown.

Touch the button at the top left of the screen or press the EXIT/CANCEL key to return to the take selection screen without moving the take.

8 – Take mode

Editing take names

1. On the take selection screen, select the take with the name that you want to change.
2. Touch the MENU button on the take selection screen to open a pull-up menu.



Take selection screen with pull-up menu open

3. Touch the EDIT NAME button in the pull-up menu to open the PROJECT NAME screen.



TAKE NAME screen

NOTE

If multiple takes are selected, the EDIT NAME button in the pull-up menu cannot be selected.

4. Input the take name. Use the same input method as in "Editing the project name" on page 40.
5. Touch the Enter button on the TAKE NAME screen or press the DATA dial to confirm the take name and return to the take selection screen.

CAUTION

Be aware that you can change the names of takes that are used in playlist mode. If you do this to a take that is used in playlist mode, an error pop-up message will appear when you try to load a playlist that contains it.

9 – Playlist mode

In this chapter, we explain how to use the playlist mode.

To use this unit in playlist mode, set the unit's operation mode to PLAYLIST MODE. (See "Selecting the operation mode" on page 49.)

Playlist operations

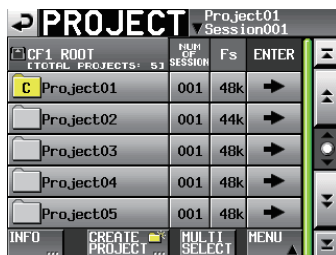
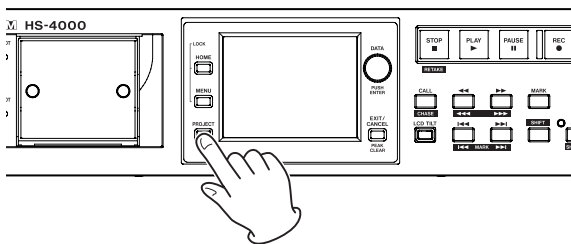
Loading project/sessions

Only takes/files included in the session used to create a playlist can be added to that playlist.

When takes/files that are in other sessions are added to a playlist they are copied to the current session.

First, load the session with the playlist that you want to use.

1. Press the PROJECT key on the front panel to open the PROJECT screen.



2. Touch the → button for the project that you want to select to open the session selection screen.

If it is not the current project, a pop-up window appears confirming that you want to load it.

3. Touch the name of the session to select it. Its background appears yellow.

4. Touch the MENU button on the session selection screen to open a pull-up menu.



5. Touch the LOAD button in the pull-up menu.

NOTE

You can also load a session by pressing its → button.

In this case, if it is not the current session, a pop-up window appears confirming that you want to load it. Touch the OK button.

6. Touch the OK button or press the DATA dial when a confirmation pop-up message appears.



When loading a session completes, the last loaded playlist is automatically loaded (or a default playlist is created for a new session) and the Home Screen reopens.

Creating a new playlist

You can create a playlist in the current session folder.

When viewed on a computer, the folder of the CF card should be as follows.

[CF card drive name]: \ [project name] \ [session name] \ [playlists] \ [playlist file]

1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Touch the → button for the project in which you want to create a new playlist to open the session selection screen. If it is not the current project, a pop-up window appears confirming that you want to load it.

3. Touch the → button for a session where you want to create a new playlist to open the playlist selection screen.

If it is not the current project, a pop-up window appears confirming that you want to load it. Touch the OK button.



NOTE

When you create a session, three playlists are created automatically—for single mode and for A and B in dual mode.

4. Touch the NEW/IMPORT button to open a pull-up menu.



9 – Playlist mode

- Touch the EDIT NAME button in the pull-up menu to open the PLAYLIST NAME screen.



- Input the playlist name.
Use the same input method as in "Editing the project name" on page 40.
- Touch the Enter button or press the DATA dial.
When the confirmation message pop-up appears, in single mode, touch the OK button or press the DATA dial to confirm the session name.
- In dual or A/B MIXED mode, after creating a playlist press the LOAD to A button to load it to player A or the LOAD to B button to load it to player B.



Single mode



Dual or A/B MIXED mode

While the playlist is being created, a progress status pop-up appears.

When playlist creation completes, the pop-up disappears.

NOTE

- Immediately after creating a new playlist that playlist becomes the current playlist (the currently loaded playlist).
- In single mode, "C" (current) appears in the icon of the currently loaded playlist.
- In dual or A/B MIXED mode, "A" appears in the icon of the playlist loaded in player A and "B" appears the icon of the playlist loaded in player B.

Importing JPPA PPL files

You can import JPPA PPL format files into the current playlist. JPPA PPL Format files must first be placed in the "_playlists" subfolder inside the session folder on the CF card.

When viewed on a computer, the folder of the CF card should be as follows.

```
{CF drive name}:\{project name}\{session name}\_playlists\
{JPPA PPL file name}
```

NOTE

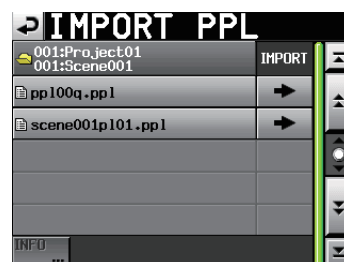
If you save a playlist after importing it, the imported contents of the playlist are saved in this folder.

If you do not save it, the imported contents of the playlist will be cleared when you load another playlist, remove the CF card or turn the unit off, for example.

- Press the PROJECT key on the front panel to open the PROJECT screen.
- Press the ➡ button for the project that contains the JPPA PPL file that you want to import to show the playlist selection screen.
If it is not the current project, a pop-up window appears confirming that you want to load it.
- Press the ➡ button for the session that contains the JPPA PPL file that you want to import to show the playlist selection screen.
If it is not the current project, a pop-up window appears confirming that you want to load it. Touch the OK button.
- Touch the NEW/IMPORT button to open a pull-up menu.



- Touch the IMPORT button in the pull-up menu to open the IMPORT PPL screen.



A list will be shown of all the JPPA PPL files found within the "_playlists" folder under the session folder.

- Touch the ➡ button for the PPL file that you want to load.

NOTE

Touch a name in the list to select a file, and then touch the INFO button to show file information.

- Touch the OK button or press the DATA dial when a confirmation pop-up message appears.



The progress of playlist importing appears in a pop-up message.

When playlist importing completes, the pop-up message disappears.

NOTE

- Immediately after importing JPPA PPL file, the imported playlist becomes the current playlist (the currently loaded playlist).
- In single mode, the contents of output port A of the JPPA PPL format file is imported.
- In dual or A/B MIXED mode, the contents of output port A of the JPPA PPL format file is imported to player A and the contents of output port B is imported to player B.

Changing a playlist name later

You can change playlist names later.

- Press the PROJECT key on the front panel to open the PROJECT screen.
- Touch the ➡ button for the project that contains the playlist for which you want to change the name to open the session selection screen.
If it is not the current project, a pop-up window appears confirming that you want to load it.
- Touch the ➡ button for the session that contains the playlist for which you want to change the name to open the playlist selection screen.
If it is not the current project, a pop-up window appears confirming that you want to load it. Touch the OK button.
- Select the playlist that you want to change. The background of the selected playlist name appears yellow.
- Touch the MENU button to open a pull-up menu.



- Touch the EDIT NAME button in the pull-up menu to open the PLAYLIST NAME screen.



NOTE

If the loaded playlist is selected, the EDIT NAME button (which opens the PLAYLIST NAME screen) in the pull-up menu item is disabled.

- Input the playlist name.
Use the same input method as in "Editing the project name" on page 40.
- Touch the Enter button on the PLAYLIST NAME screen or press the DATA dial to confirm the playlist name and return to the playlist selection screen.

9 – Playlist mode

Loading playlists

You can load a playlist that is in the current session folder. The folder hierarchy will be as follows when examined on a computer.

[CF card drive name]: \ [project name] \ [session name] \ [_playlists] \ [playlist file]

NOTE

You cannot load a playlist file from a session other than the current one.

1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Touch the ➡ button for the project that contains the playlist you want to load to open the session selection screen. If it is not the current project, a pop-up window appears confirming that you want to load it.
3. Touch the ➡ button for the session that contains the playlist you want to load to open the playlist selection screen. If it is not the current session, a pop-up window appears confirming that you want to load it. Touch the OK button.
4. Select the playlist that you want to load.
5. Touch the MENU button on the Playlist selection screen to open a pull-up menu.



Single mode



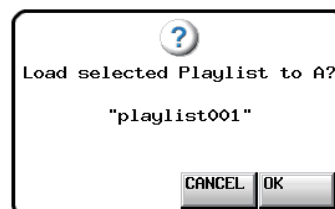
Dual or A/B MIXED mode

6. In single mode, touch the LOAD button in the pull-up menu. When in dual mode, press the LOAD to A or LOAD to B button to load it to the desired player.

7. Touch the OK button or press the DATA dial when a confirmation pop-up message appears.



Single mode



When LOAD to A button selected in dual or A/B MIXED mode
After loading completes the Home Screen opens.

NOTE

You can also touch the ➡ button for the playlist that you want to load.

When in single mode, the same pop-up message as above appears. Touch the OK button or press the DATA dial.

In dual or A/B MIXED mode, touch the LOAD to A button or LOAD to B button in the pop-up message according to the player.



Deleting a playlist

1. Press the PROJECT key on the front panel to open the PROJECT screen.
2. Touch the ➡ button for the project that contains the playlist you want to delete to open the session selection screen.
If it is not the current project, a pop-up window appears confirming that you want to load it.
3. Touch the ➡ button for the session that contains the playlist you want to delete to open the playlist selection screen.
If it is not the current project, a pop-up window appears confirming that you want to load it. Touch the OK button.
4. Select the playlist that you want to delete.
Touch the MULTI SELECT button to enable the selection of multiple playlists.
5. Touch the MENU button on the Playlist selection screen to open a pull-up menu.



6. Touch the DELETE button in the pull-up menu.

NOTE

If the loaded playlist is selected, the DELETE button in the pull-up menu item is disabled.

7. Touch the OK button or press the DATA dial when a confirmation pop-up message appears.



During erasure, a progress status pop-up appears.
When erasure completes, the pop-up disappears.

Editing a playlist (adding, clearing and editing entries)

A playback unit in a playlist is called an “entry”.

A maximum of 100 entries can be added to a playlist.

Only takes (files) in the session in which the playlist was created can be added as entries.

When a take (file) that is in another session in the same project is added to a playlist, it is copied to the session where the playlist was made.

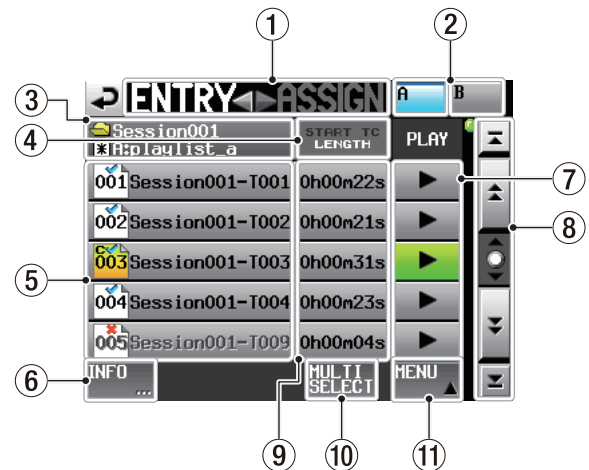
Even during playback of a playlist, entries can be added to or removed from it and their names can be changed.

The entry that is currently playing, however, cannot be changed.

Use the Entry list and Assign file screens to edit playlists.

Entry list screen

To open this screen, touch a take or entry name button on the Home Screen to open a pull-down menu and touch the ENTRY LIST button, or touch the ENTRY ◀ part of the ENTRY ◀▶ ASSIGN button on the ASSIGN screen.



- ① **ENTRY ◀▶ ASSIGN button**
Switches between the entry list and ASSIGN file screens.
Touch the \ ASSIGN part to open the ASSIGN file screen.
- ② **A/B buttons/indicators (dual mode only)**
These show which player's playlist is currently selected. The selected player's button appears light blue.
Touch the A button to open the playlist entry list for Player A or the B button to open the playlist entry list for Player B.
- ③ **Session and playlist names**
This shows the current session and playlist names.
When entries have been edited but not saved, * appears.
- ④ **START TC/LENGTH button**
Touch this area to switch between showing the starting time (START TC) and the length (LENGTH) in the START TC/LENGTH column. The one shown in white is currently displayed.

9 – Playlist mode

⑤ Entry name buttons

Touch to select the corresponding entry.

Touch this button to shown the take list to the right.

After doing this, press the button with the name of the take that you want to assign that take to this button.








NOTE

When selecting an entry button, at the top of the list of added takes, a yellow line appears in the scroll bar area.

The entry number appears inside the 001 icon.

The entry verification status also appears inside the 001 icon.

If the format of the file is found to be incorrect, its name appears in gray.

Entry name button	Meaning
	Current entry (currently loaded entry)
	Entry that is okay
	Entry with different format that cannot be played back
	Entry that does not have a file assigned (when a take has been deleted after being added to a playlist, for example)
	No entry

⑥ INFO button

When an entry is selected, press this button to open an information pop-up for that entry.

When an entry is not selected, press this button to show information about the current playlist.

⑦ PLAY button

Touch to play the corresponding entry. These turn green during playback of the corresponding entries.

Touch one during playback to stop playback of the corresponding entry.

⑧ Scroll buttons

Use these buttons to scroll to the beginning or end of the take list or session list, or to scroll one page (five lines) forward or backward. You can also scroll through the entry list one line at a time using the DATA dial.

⑨ START TC/LENGTH

The entry starting time or entry length (time) is shown.

The START TC/LENGTH button shown in white is currently displayed.

⑩ MULTI SELECT button

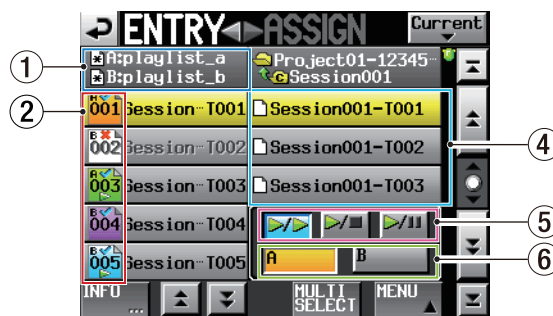
Touch to enable the selection of multiple entries.

⑪ MENU button

Touch to open a pull-up menu that contains the following items: REBUILD, CAPTURE BC\$, CLEAR, ADJUST, SAVE (SAVE A+B in dual and A/B MIXED modes), SAVE AS (SAVE AS(x) in dual mode with x being the player mode shown with the current A/B button; both SAVE AS(A) and SAVE AS(B) are always shown in A/B MIXED mode) and EXPORT PPL.

■ A/B MIXED playlist mode entry list screen

In A/B MIXED playlist mode, the entry list screen appears as follows.









Entry List Screen

① Playlist name button

The player A playlist name is shown above and the player B playlist name is shown below. (In other modes, the top line shows the session name).

② File or title names (buttons)

Icons that show entry numbers are classified using the following colors.

Entry list screen icon	Meaning
	Entry already assigned to player A (stopped)
	Entry already assigned to player A (in use)
	Entry already assigned to player B (stopped)
	Entry already assigned to player B (in use)
	Entry with different format that cannot be played back
	No entry

③ PLAY buttons [Be sure to check plural/singular.]


During playback, the player A entry appears green.




During playback, the player B entry appears blue.

④ Take name list/buttons

Three lines of take name list buttons are shown in A/B MIXED mode.

⑤ Flash start key operation setting buttons

Use these buttons to set the operation of the flash start keys of entries that are playing back. The default setting is .

Setting buttons	Meaning
	Press the flash start key of an entry playing back to start playback of an entry. (Default)
	Press the flash start key of an entry playing back to stop playback. Press that key again to restart playback from the beginning of the entry.
	Press the flash start key of an entry playing back to enter playback standby. Press that key again to restart playback from the position where playback was paused.

⑥ Output selection button

Use these buttons to select output A or B for each entry.

The default value is "A".

NOTE

When no entry has been added, the buttons shown below will be disabled.

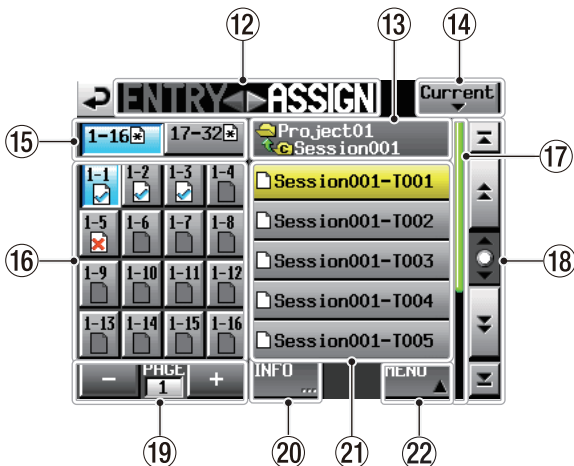


■ INFO pop-up message

If you touch the INFO button when no entry is selected a pop-up message showing information about the player A playlist will appear. You can then press the NEXT button to show information about the player B playlist.

Assign File screen

To open this screen, touch a take or entry name button on the Home Screen to open a pull-down menu and touch the ASSIGN FILE button, or touch the ► ASSIGN part of the ENTRY ◀► ASSIGN button on the ENTRY list screen.



⑫ ENTRY ◀► ASSIGN button

Switches between the entry list and ASSIGN file screens.

Touch the ENTRY ◀ part to open the ENTRY list screen.

⑬ Current folder name display/button

This shows the name of the folder, which is selected in the current list display area.

Touch this button to show the session list in the take list display area.

⑭ Current button

Touch this button to open the take name list of the current session.

⑮ Key set selection button

Use the key assign buttons to select whether the left key set or the right key set is shown.

When entries have been edited but not saved,  appears.



The layout of these buttons differs according to the player mode and RC-HS32PD Flash start key mode setting on the GENERAL page of the REMOTE SETUP screen.






Player mode	Key mode	Left button	Right button
Single mode			
A/B MIXED mode	16x2	1-16	17-32
Dual mode	16x2	A1-16	B1-16
	12 2	A1-12	B1-12

⑯ Key assign list/buttons

These buttons are entry assignments.

The show the flash page numbers and flash start key numbers.

The playlist verification status also appears inside the  icon. The icon for the currently playing entry is  and its button is highlighted in green.

	Entry currently being played back
	Entry that is okay
	Entry has a file format that cannot be played back
	Entry that does not have a file assigned (when a take has been deleted after being added to a playlist, for example)
	No entry

After touching one of these buttons, touch a take name button to assign that take to that button.

⑰ Scroll bar

This shows the overall position in the take list that is currently shown and how much of the total take list is being displayed.

NOTE

When an entry button is selected, a yellow line appears in the top of the list of added takes in the scroll bar area.

⑱ Scroll buttons

Use these buttons to scroll to the beginning or end of the take list or session list, or to scroll one page (five lines) forward or backward. You can also scroll through the take list one line at a time using the DATA dial.

⑲ Page display and selection buttons

The current key assign button page is shown.

Touch the + or – button to change the page.

The number of pages differs according to the player mode and RC-HS32PD Flash Start Key Mode setting on the GENERAL page of the REMOTE SETUP screen.

9 – Playlist mode

②⑩ INFO button

When a key assign button is selected, press this button to open an information pop-up for that key assign button.

When a take is selected, press this button to open an information pop-up for that take.

When nothing is selected, press this button to show information about the current playlist.

②⑪ Take name list/buttons

This is a list of the takes in the current session.

After touching a key assign button, touch a take name button to assign that take to that key assign button.

When only the project name is shown in the current folder name display/button, if you touch it, a list of the sessions in the current project will be shown.

Touch the button of the session that you want to load to open the list of takes in that session.

②⑫ MENU button

Touch to open a pull-up menu that contains the following items: REBUILD, CAPTURE BC\$, CLEAR, ADJUST, SAVE (SAVE A+B in dual mode), SAVE AS (SAVE AS(x) in dual mode with x being the player mode shown with the current A/B button; both SAVE AS(A) and SAVE AS(B) are always shown in A/B MIXED mode) and EXPORT PPL.

■ A/B MIXED playlist mode file assignment screen

In A/B MIXED playlist mode, this screen appears as follows.



① Key assign list/button

Buttons are classified using the following colors.

Assign File Screen	Meaning
Orange	ENTRY assigned to player A (stopped)
Green	ENTRY assigned to player A (in use)
Purple	ENTRY assigned to player B (stopped)
Blue	ENTRY assigned to player B (in use)
Grey	Entry with different format that cannot be played back
Grey	No entry

② Take name list/buttons

Three lines of the take name list and buttons are shown in A/B MIXED mode.

③ Flash start key operation setting buttons

Use these buttons to set the operation of the flash start keys of entries that are playing back. The default setting is .

Setting buttons	Meaning
	Press the flash start key of an entry playing back to start playback of an entry. (Default)
	Press the flash start key of an entry playing back to stop playback. Press that key again to restart playback from the beginning of the entry.
	Press the flash start key of an entry playing back to enter playback standby. Press that key again to restart playback from the position where playback was paused.

④ Output selection button

Use these buttons to select output A or B for each entry.

The default value is "A".

NOTE

When no entry has been added, the buttons shown below will be disabled.

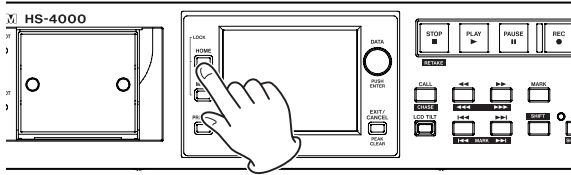


■ INFO pop-up message

If you touch the INFO button when no entry is selected a pop-up message showing information about the player A playlist will appear. You can then press the NEXT button to show information about the player B playlist.

Assigning a take to an entry

1. Press the HOME key on the front panel to open the Home Screen.



Single mode



In dual or A/B MIXED mode

2. Touch a file name or title name button to open a pull-down menu, and press the ASSIGN FILE button to open the file assignment screen where you can add entries.



Single mode



Dual mode



A/B MIXED mode

On the left side are the buttons that can receive assignments, and on the right side is the list of takes that can be assigned.

NOTE

You can also touch the ► ASSIGN button on the Entry List screen to open the Assign File screen.



3. First, select the key assign button of the take that you want to assign.

NOTE

The appearance of the key assignment button screen will be partly different when the player mode is single, dual or A/B MIXED and the RC-HS32PD Flash Start Key Mode item is set to "16x2" or "12x2". For information about the RC-HS32PD Flash Start Key Mode, "Creating a JPPA PPL file from the loaded playlist" on page 94.

4. Use the "+" and "-" buttons to open the page where you want to assign a file.

9 – Playlist mode

- When in single or A/B MIXED mode, touch the 1-16 or 17-32 button to show the flash start keys to which you want to assign entries.



Single mode 1-16



Single mode 17-32

When in dual mode, touch the A1-16 button to select player A or the B1-16 button to select player B.



Dual mode player A





Dual mode player B

- In the key assign button list on the left, select the one that you want to assign to.
The selected button appears light blue.

NOTE

If you select a button that already has an entry assigned to it, the corresponding take appears yellow in the take list.

- Touch a take name in the take list to assign that take to that button.

When a take is assigned to a button, the button's icon changes from  (no assignment) to .

NOTE

- Only takes in the project where the playlist is can be added to the playlist.
- If the take that you want to add does not appear, use the scroll buttons or DATA dial to scroll through the list until the take appears and then touch its name.

TIP

If the take that you want to add is in a different session in the same project, touch the current session name button to open the session list.

Then, touch the name of the session that contains the take that you want to add to open that session's take name list.

- When in A/B MIXED mode, use the buttons below the take list to set the functions of the flash start keys when pushed and the outputs of the entries.



- Repeat steps 3–8 as necessary.
- After you have completed making assignments, save the playlist as necessary.
To save a playlist, touch the MENU button on the file assignment or entry list screen to open a pull-up menu (or a file name or title name button on the Home Screen to open a pull-down menu), and touch the SAVE button (SAVE A+B button in dual or A/B MIXED mode).

For details about saving playlists, see "Saving a playlist" on page 93.

CAUTION

If you do not save the playlist, all changes will be lost when another playlist is loaded, the CF card is removed or the unit's power is turned off, for example.

Entry number page allocation

Playlist entry numbers are displayed according to the player mode and key mode settings.

Mode		Single, A/B MIXED		Dual mode			
RC-HS32PD		16x2		16x2		12x2	
Flash Start Key Mode							
Key set selection button		1-16	17-32	A1-16	B1-16	A1-12	B1-12
Page numbers	1	001-016	017-032	A: 001-016	B: 001-016	A: 001-012	B: 001-012
	2	033-048	049-064	A: 017-032	B: 017-032	A: 013-024	B: 013-024
	3	065-080	081-096	A: 033-048	B: 033-048	A: 025-036	B: 025-036
	4	-	-	A: 049-064	B: 049-064	A: 037-048	B: 037-048
	5	-	-	A: 065-080	B: 065-080	A: 049-060	B: 049-060
	6	-	-	A: 081-096	B: 081-096	A: 061-072	B: 061-072
	7	-	-	-	-	A: 073-084	B: 073-084
	8	-	-	-	-	A: 085-096	B: 085-096

"-" means there is no corresponding page.

"A:" indicates entry numbers for the Player A playlist, and "B:" for the Player B playlist.

9 – Playlist mode

Clearing entry assignments

1. Press the HOME key on the front panel to open the Home Screen.
2. Touch a file name or title name button to open a pull-down menu and touch the ENTRY LIST button to open the entry list screen where you can work with entries.



3. Select the entry that you want to clear. Its background appears yellow.
4. Touch the MENU button on the Entry List screen to open a pull-up menu.



5. Touch the CLEAR button in the pull-up menu to clear the entry.

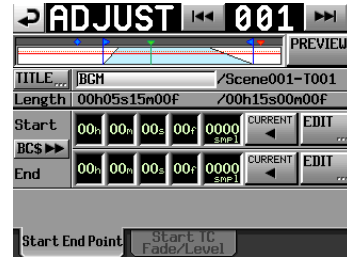
NOTE

- You can also clear an entry by touching the take name that is highlighted yellow in the take list on the right side.
- You can select multiple entries by touching the MULTI SELECT key. Then, you can touch the CLEAR button to clear all those entries at the same time.
- On the Assign File screen, when a button on the left is selected, you can clear its entry by touching the take name that appears yellow in the take list on the right side or by touching the MENU button and then touching the CLEAR button on the pull-up menu.



Editing entry titles

1. Press the HOME key on the front panel to open the Home Screen.
2. Touch a file name or title name button to open a pull-down menu and touch the ADJUST ENTRY button to open the ADJUST XXX screen ("XXX" is the entry number).



CAUTION

Playback will stop if you open the ADJUST XXX screen.

NOTE

You can also open this screen by touching the MENU button and then touching the ADJUST button in the pull-up menu when a take is selected on the ENTRY list screen or one of the key assign buttons on the left is selected on the ASSIGN file screen.



Entry List Screen



Assign File Screen

- The characters shown next to the TITLE button is the title of the selected entry.
Touch the TITLE button to open the EDIT TITLE screen where you can change the title of the entry.



Input the title name. Use the same input method as in "Editing the project name" on page 40.

- Touch the Enter button on the EDIT TITLE screen or press the DATA dial to change the entry title.

Editing the playback start and stop positions

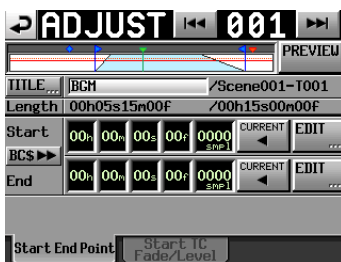
- Press the HOME key on the front panel to open the Home Screen.
- Touch a file name or title name button to open a pull-down menu and touch the ADJUST ENTRY button to open the ADJUST XXX screen ("XXX" is the entry number).

CAUTION

When you open the ADJUST XXX screen, playback stops.

NOTE

- You can also open this screen by touching the MENU button and then touching the ADJUST button in the pull-up menu when a take is selected on the ENTRY list screen or one of the key assign buttons on the left is selected on the ASSIGN file screen.
 - Use the. and ►► buttons shown at the top right to open the ADJUST XXX screen for the previous or next assigned entry.
- Open the Start End Point page.



- Touch a time display unit to highlight it yellow. The corresponding cursor bar blinks.

When a time unit is selected, use the DATA dial to change the Start/End position.

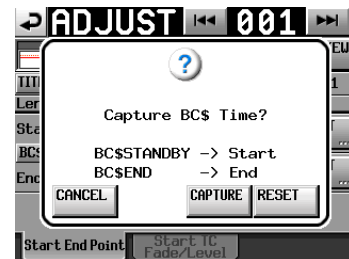
Select the time unit for the precision at which you want to make the change. For example, select the frame unit for frame precision or the sample unit for sample precision.

If the selected unit is increased/decreased beyond its maximum/minimum, the next larger unit is increased/decreased by one.

NOTE

- You can also use the CURRENT button to capture the current playback position as the Start/End position.

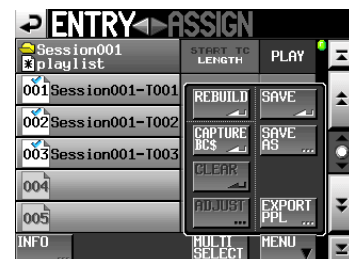
- Touch the BC\$ ►► button to open a confirmation pop-up message that allows you to set the Start and End points to the times of the BC\$STANDBY and BC\$END marks or reset them to the file start and end times. Touch the CAPTURE button in the pop-up message to load the BC\$STANDBY and BC\$END mark times as the Start and End points. Touch the RESET button in the pop-up message to reset the Start and End points to the file start and end times. [This should be one note. It might be better, however, to give it its own section.]



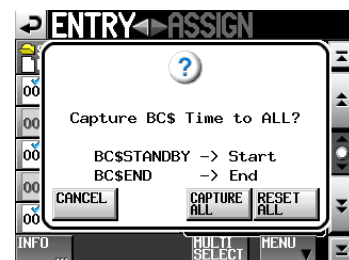
Quickly switching to the region between BC\$STANDBY and BC\$END marks

You can switch to the region between BC\$STANDBY and BC\$END marks all at once.

- Open the pull-up menu on the playlist mode ASSIGN or ENTRY screen.



- Touch the CAPTURE BC\$ button in the pull-up menu to open the following pop-up message.

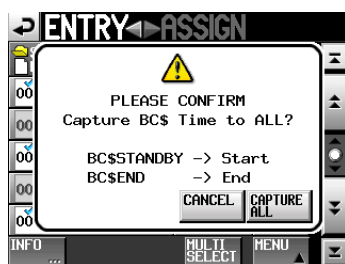


NOTE

Touch the CANCEL button in the pop-up message to return to the ASSIGN or ENTRY screen.

9 – Playlist mode

- Touch the CAPTURE ALL button in the pop-up message to open the following pop-up message.



- Touch the CAPTURE ALL button in the pop-up message to switch to the region between the BC\$STANDBY and BC\$END marks all at once.

NOTE

Touch the CANCEL button in the pop-up message to return to the ASSIGN or ENTRY screen.

- Touch the RESET ALL button in the pop-up message shown in step 1 to open the following pop-up message.



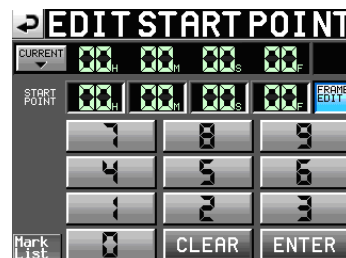
- Touch the RESET ALL button in the pop-up message to reset the starting and ending times of the entry to the beginning and ending times of the file.

NOTE

Touch the CANCEL button in the pop-up message to return to the ASSIGN or ENTRY screen.

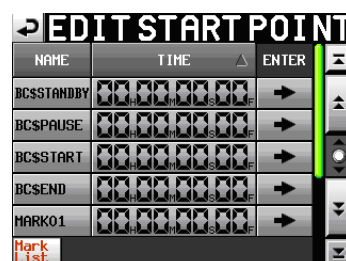
Using the numeric entry screen to edit the playback beginning and ending positions

- On the Start and End areas of the ADJUST XXX screen, touch the EDIT button at the far right to open the EDIT START POINT/EDIT END POINT screen on which you can edit the playback starting/ending position.



Use the FRAME EDIT button on the EDIT START POINT screen to set whether or not you will edit the frame value.

- Use the number buttons to input the playback starting/ending position of the entry.
 - If you begin input without selecting a digit, input will start from the smallest one.
 - To input a specific digit, touch it to make its background yellow, and then use the number buttons or the DATA dial to enter two digits at a time.
 - Touch the CURRENT ▼ button to copy the current playback position to the input value.
 - On the EDIT END POINT numeric entry screen, touch the SET MAX ▲ button to set the file end time as the input value.
 - Touch the CLEAR button to erase all entered values.
 - Touch the Mark List button to open the mark list screen where you can copy the time from a designated mark.



On this screen, touch the ➡ button for the mark with the time that you want to load to set it as the playback starting/ending point, and return to the ADJUST XXX screen.

NOTE

When changing the playback starting/ending time, these time settings will automatically be constrained so that the time between them is greater than the total time of the fade in and fade out.

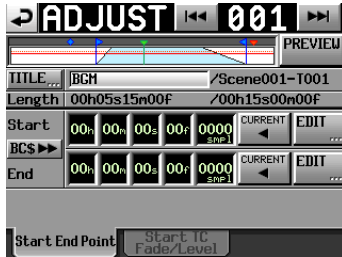
- Touch the ENTER button to confirm the setting.

TIP

- You can also use the PLAY key and other transport keys while listening to the audio to find the location, and then press the CURRENT ▼ button to input that value here.
- You can also use an external keyboard for editing items on the EDIT START POINT and EDIT END POINT screens.
- Press the keyboard's ESC key to clear all the values.

Editing entry starting timecodes

1. Press the HOME key on the front panel to open the Home Screen.
2. Touch a file name or title name button to open a pull-down menu and touch the ADJUST ENTRY button to open the ADJUST XXX screen ("XXX" is the entry number).

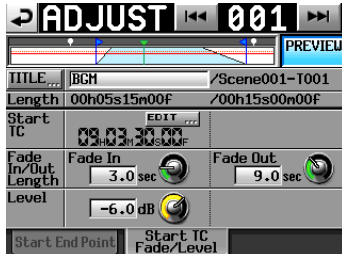


CAUTION

When you open the ADJUST XXX screen, playback stops.

NOTE

- You can also open this screen by touching the MENU button and then touching the ADJUST button in the pull-up menu when a take is selected on the ENTRY list screen or one of the key assign buttons on the left is selected on the ASSIGN file screen.
 - Use the. and ►►► buttons shown at the top right to open the ADJUST XXX screen for the previous or next assigned entry.
3. Touch the Start TC Fade/Level tab to open the following screen.



4. Touch the EDIT button to open the EDIT START T/C screen and use its number buttons to change the starting timecode (START TC).

5. The value shown next to "Start TC" is the timecode of the start of the selected entry.
Touch the EDIT button in the Start TC item to open the EDIT START T/C screen where you can edit the timecode of the beginning of the entry. [This step repeats the previous step.]



Use the FRAME EDIT button on the EDIT START T/C screen to set whether or not you will edit the frame value.

6. Use the number buttons to input the timecode for the beginning of the entry.
 - If you begin input without selecting a digit, input will start from the smallest one.
 - To input a specific digit, touch it to make its background yellow, and then use the number buttons or the DATA dial to enter two digits at a time.
 - Touch the CURRENT ▼ button to copy the current timecode time to the input value.
 - Touch the CLEAR button to erase all entered values.
7. Touch the ENTER button to confirm the setting.

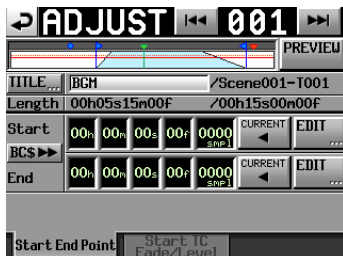
TIP

- You can also use the PLAY key and other transport keys while listening to the audio to find the location, and then press the CURRENT ▼ button to input that value here.
- This can also be edited using an externally connected keyboard. Press the keyboard's ESC key to clear all the values.

9 – Playlist mode

Editing fade in/out lengths and levels

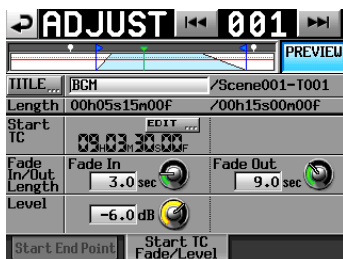
1. Press the HOME key on the front panel to open the Home Screen.
2. Touch a file name or title name button to open a pull-down menu and touch the ADJUST ENTRY button to open the ADJUST XXX screen ("XXX" is the entry number).



CAUTION

When you open the ADJUST XXX screen, playback stops.

3. Touch the Start TC Fade/Level tab to open the following screen.



4. After selecting the Fade In, Fade Out or Level knob, turn the DATA dial to set the value.

Setting ranges:

- Fade In/Out Length: 0–30 seconds (0.1 second/step or 1.0 second/step when pressing and turning)
- Level: $-\infty$ to +10 dB

NOTE

- *When changing the length of a fade in/out, the fade in/out length settings are automatically restricted so that the fade in/out length will not extend past the playback start or end times.*
- *The set level is shown by the solid red line.*
- *The reference level (0 dB) is shown by the dotted orange line.*

Using rehearsal playback functions

On the ADJUST ENTRY screen, you can use the transport functions to conduct rehearsal playback.

- Other than using the and ►►I keys to move to file beginnings, Start Points, End Points and file endings, transport operations are the same as usual.
- If you change the Start Point or Fade In Length, the playback position will move to the Start Point. If you make this change during playback, playback will resume after moving to the new playback position.
- If you change the End Point or Fade Out Length, the playback position will move as follows. If you make this change during playback, playback will resume after moving to the new playback position.

	PREVIEW OFF	PREVIEW ON
End Point changed	2 seconds before End Point	2 seconds before Fade Out start position
Fade Out Length changed	2 seconds before Fade Out start position	2 seconds before Fade Out start position

- Use the PREVIEW button to change the rehearsal playback contents.

Rehearsal playback when PREVIEW OFF

- Fade IN/OUT and Level Adjust settings do not affect the playback sound.
- You can move to points outside the region between the Start and End Points.
- When the End Point is reached during playback, playback stops and the playback position moves to the Start Point. Press the PLAY key to start playback from the Start Point. To move to a point after the End Point, use the ►► key, ►►I key, SHIFT+ ►►I key or the JOG/SHUTTLE dial.

Rehearsal playback when PREVIEW ON

- Playback is only possible in the region between the Start and End Points. The transport cannot be moved outside this region.
- Fade IN/OUT and Level Adjust settings affect the playback sound.

Saving a playlist

The current playlist is saved in the "_playlists" subfolder inside the current session (the currently loaded session) folder on the CF card.

When viewed on a computer, the folder of the CF card should be as follows.

[CF card drive name]: \ [project name] \ [session name] \
[_playlists] \ [playlist file]

CAUTION

After editing a playlist, save it as necessary.

If you do not save the playlist, all changes will be lost when another playlist is loaded, the CF card is removed or the unit's power is turned off, for example.

An "" appears in the file name or title name button when editing has occurred but it has not been saved yet. When an "*" is shown, a pop-up message asking if you want to save the playlist will appear when you try to do something that would clear the edits, including when loading another playlist, creating a new playlist and changing the operation mode.*

1. Press the HOME key on the front panel to open the Home Screen.
2. Touch a file name or title name button to open a pull-down menu, and touch the SAVE button. (In dual or A/B MIXED mode, this becomes the SAVE A+B button and saves both player A and B playlists.)



This starts saving.

While saving, a progress status pop-up appears.

When saving completes, the pop-up disappears.

NOTE

You can also save a playlist by touching the MENU button on the ASSIGN file or ENTRY list screen to open a pull-up menu and touching the SAVE button



Entry List Screen



Assign File Screen

Naming a playlist and saving it

Touch a file name or title name button on the Home Screen to open a pull-down menu, and instead of the SAVE button, touch the SAVE AS button to change the name before saving.

1. Press the HOME key on the front panel to open the Home Screen.
2. Touch a file name or title name button to open a pull-down menu and touch the SAVE AS button.

(In dual and A/B MIXED modes, this becomes SAVE AS (A) or SAVE AS (B) and saves the playlist of the currently selected player (A or B).)



The PLAYLIST NAME screen where you can input new playlist names opens.



3. Input the playlist name. Use the same input method as in "Editing the project name" on page 40.

Touch the Enter button on the PLAYLIST NAME screen or press the DATA dial to save the playlist with this name.

While the file is being created, a progress status pop-up appears.

When file creation completes, the pop-up disappears.

NOTE

If a file with the same name already exists, a pop-up message confirming that you want to overwrite that file appears.

Touch the OK button to overwrite that file or press the CANCEL button to return to the PLAYLIST NAME screen.

TIP

On the ENTRY list screen or file ASSIGN screen, you can also press the MENU button to open a pull-up menu and press

9 – Playlist mode

the **SAVE AS** button (**SAVE AS (A)** or **SAVE AS (B)** in dual or A/B MIXED mode) to name a file and save it.



Single mode



Dual mode

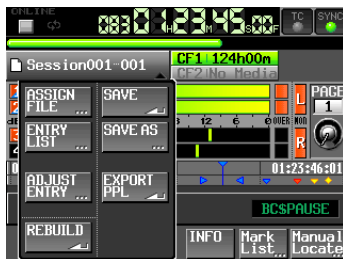
Creating a JPPA PPL file from the loaded playlist

JPPA PPL files are saved in the current playlist. The files are saved in the "_playlists" subfolder inside the current session folder.

When viewed on a computer, the folder of the CF card should be as follows.

[CF card drive name]: \ [project name] \ [session name] \ [_playlists] \ [JPPA PPL file]

1. Press the HOME key on the front panel to open the Home Screen.
2. Touch a file name or title name button to open a pull-down menu, and press the EXPORT PPL button.



Touch the **EXPORT PPL** button in the pull-down menu to open the PPL EXPORT screen where you can edit the name of the JPPA PPL file that will be created.

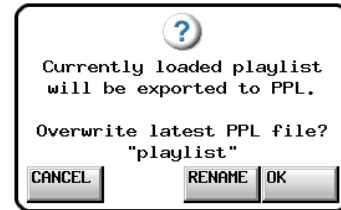


3. Input the file name.

Use the same input method as in "Editing the project name" on page 40.

NOTE

- If you have previously created the current playlist from a JPPA PPL file (imported) or created a JPPA PPL file (exported) from the current playlist, a pop-up window will appear to confirm that you want to overwrite that JPPA PPL file.



Touch the **OK** button to overwrite that file or the **RENAME** button to open the PPL EXPORT screen.

- You can also touch the **MENU** button on the **ENTRY** list or **ASSIGN** file screen to open a pull-up menu, and touch the **EXPORT PPL** button to create a JPPA PPL file.

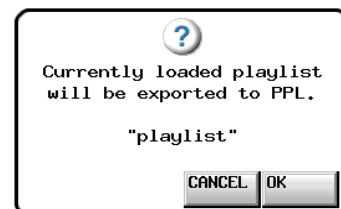


Entry List Screen



Assign File Screen

4. Touch the Enter button on the PPL EXPORT screen or press the DATA dial.
5. Touch the **OK** button or press the DATA dial when a confirmation pop-up message appears.



The selected playlist is converted into JPPA PPL file.

While the file is being created, a progress status pop-up appears.

When file creation completes, the pop-up disappears.

NOTE

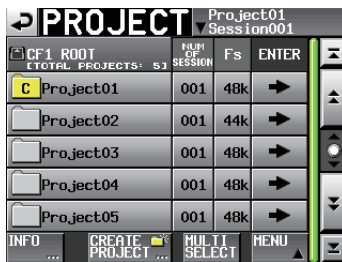
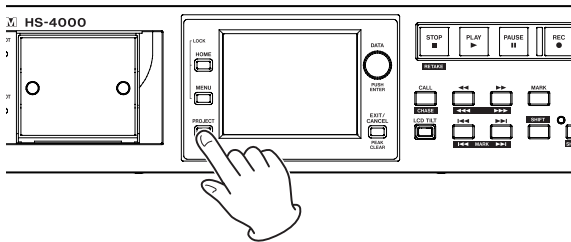
- When a JPPA PPL format file is created, playlist information for both player A and player B is output into a single file.
- If a file with the same name already exists, a pop-up window opens to confirm whether you want to overwrite that file or not.

Touch the OK button to overwrite that file, or touch the CANCEL button to return to the PP+ EXPORT screen.

Playing back playlists

Project/session/playlist selection

1. Press the PROJECT key on the front panel to open the PROJECT screen.



2. Touch the ➡ button next to the project that contains the playlist that you want to play to open the session selection screen.

If it is not the current project, a pop-up window appears confirming that you want to load it. Touch the OK button.



3. Touch the ➡ button for the session that contains the playlist that you want to play to open the playlist selection screen. If it is not the current project, a pop-up window appears confirming that you want to load it. Touch the OK button.



TIP

You can also touch the current project/session name button at the top right of the PROJECT screen to open the playlist selection screen for the current session.

4. Touch the name of the playlist that you want to play to select it. Its background becomes yellow.
5. Touch the MENU button on the Playlist selection screen to open a pull-up menu. The items in the menu differ between single and dual mode.



Playlist selection screen pull-up in single mode



Playlist selection screen pull-up menu in dual or A/B MIXED mode

9 – Playlist mode

- In single mode, touch the LOAD button in the pull-up menu to load the playlist.

In dual or A/B MIXED mode, touch the LOAD to A button or LOAD to B button in the pull-up menu to load the playlist to player A or player B.

A confirmation pop-up appears.



Single mode



LOAD to A button selected in dual or A/B MIXED mode

Touch the OK button or press the DATA dial.

When loading completes, the Home Screen opens.

NOTE

On the playlist selection screen, instead of touching the MENU button followed by the LOAD button (or LOAD to A/B button) in the pull-up menu item, you can also press the ➡ button for the playlist that you want to play to load it.

When in single mode, the same pop-up message as above appears. Touch the OK button or press the DATA dial.

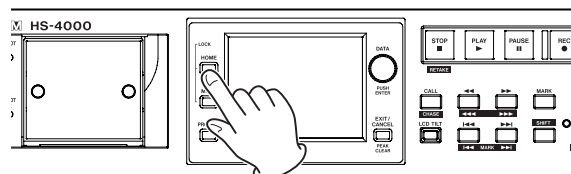
In dual or A/B MIXED mode, touch the LOAD to A button or LOAD to B button in the pop-up message according to the player.



Selecting the current player

In dual or A/B MIXED mode, select the player that is controlled using the front panel.

- Press the HOME key on the front panel to open the Home Screen.



Home Screen in dual mode

- Touch the SELECT button for the player that you want to select.

The background of the selected player becomes yellow.



Dual mode Home Screen when player B selected

Setting the online function

When a player is selected, press the ONLINE key on the front panel to set whether or not the sound from that player is output through the output connectors.

For details about online output, see "Online functions" on page 122.

NOTE

You cannot turn this function on or off for a player that is not selected. Select the player first and then press the ONLINE key to turn this function on/off for it.

Playlist playback

Press the PLAY key to start playback.

Press the PAUSE key to enter playback standby.

To end playback standby, press the PLAY key.

Press the STOP (RETAKE) key to stop playback.

Press the ◀◀ [MARK◀◀] key or ▶▶ [MARK▶▶] key to switch entries.

Press and hold the ◀◀ [◀◀◀] key or ▶▶ [▶▶▶] key to search backward or forward.

Press the ◀◀ [MARK◀◀] or ▶▶ [MARK▶▶] key while pressing and holding the SHIFT key to move between marks.

Press and hold the ◀◀ [◀◀◀] or ▶▶ [▶▶▶] key while pressing and holding the SHIFT key to search at high-speed.

NOTE

- *On the PLAY SETUP screen, you can set whether only the currently selected entry is played or whether all the entries within the current playlist are played. In addition, you can also turn repeat playback on and off (in single and dual modes). (See "Online function" on page 35.)*
- *Playback functions can also be used via parallel control.*

Using the call function

Press the CALL (CHASE) key to locate to the point where playback was last started from playback standby (call point) and put the unit in playback standby mode.

BWF-J cue points (playlist mode)

When the Follow BWF-J item is set to ON, if a BWF-J cue point is detected during playback, the following corresponding operation will occur. In addition, if the BWF-J Tally item is set to ON and the unit is in single player mode, in response to each BWF-J cue point, the CUE signal and tally signal will be output from the parallel remote connector.

BC\$STANDBY	When an entry is selected, this point is made the playback starting position. During playback, when this point is reached, playback standby starts. In either case, a BC\$STANDBY tally is output.
BC\$CM	During playback, when this point is reached, a BC\$CM CUE signal is output.
BC\$END	During playback, when this point is reached, a BC\$END CUE signal is output.
BC\$STOP	During playback, when this point is reached, a BC\$STOP CUE signal is output, and playback stops.
BC\$FILE	During playback, when this point is reached, a BC\$END cue signal is output and if the next take has a BC\$STANDBY cue point, the transport locates to that point, playback standby starts and a BC\$STANDBY tally is output.
BC\$PAUSE	During playback, when this point is reached, a BC\$PAUSE tally is output, and playback standby starts.

Using the flash start function

Using a TASCAM RC-HS32PD (sold separately) or other remote controller, flash start playback is possible. For details, see "Flash start function" on page 123.

Flash start key display colors on the TASCAM RC-HS32PD remote control in A/B MIXED mode

In the same manner that the icons in the entry name buttons on the entry list screen and the key assign list buttons on the file assign screen are classified by color, the TASCAM RC-HS32PD remote control flash start keys will have the following display colors.

Output	Stopped	Playing back	Playback standby	Invalid entry	No assigned entry
A	Orange	Green	Orange blinking	Red	Unlit
B	Purple	Darker blue	Purple blinking	Red	Unlit

10 – On-air mode

In this chapter, we explain operations when using on-air mode. To use this unit in on-air mode, you must set its operation mode to "on-air mode". (See "Selecting the operation mode" on page 49.)

Please also refer to "On-air mode functions" on page 49 and "4 – Basic operation" on page 30.

Selecting files for on-air playback

In on-air mode, selected audio files in the current media root folder (only files that use the sampling frequency set for the unit) can be played back.

1. Touch the Home Screen information field take name button to open a pull-down menu, and touch the ON AIR button to open the ON AIR LIST screen.

You can also push the PROJECT key to open the ON AIR LIST screen.

The ON AIR LIST screen shows in file name order the audio files (that match the unit's set sampling frequency) in the root directory of the current media.

2. Touch the SELECT buttons on the left side of the ON AIR LIST screen to check/uncheck files for on-air playback. Checked files will be used for on-air playback.

Remove a check mark, making the box grey, to deselect the file for on-air playback.



NOTE

- By default, all valid files start with check marks.
- Only files that match the selected sampling frequency will be shown.
- Even if the sampling frequency matches the setting, files with 5 or more channels and other files that cannot be played back by this unit will not be recognized.
- The maximum number of audio files with the selected sampling frequency that can be recognized is 100. If the number of applicable files exceeds 100, the first 100 in file name order will be recognized.
- The SELECT buttons can only be used when playback is stopped and the ON AIR button is OFF.
- The LENGTH column item for each file shows the length of its playback area in on-air mode. (See "Playback areas in on-air mode" on page 98.)-air mode" on page <?>)

At the top right of the screen beneath the "LENGTH" column name, the total playback area of all the files that could be played back is shown.

- Touch the INFO button to open the following pop-up message. If there is a file that can be played back, information about the current take is shown.



If no file is shown or there is no file that can be played back, information about the sampling frequency and CF card capacity are shown.



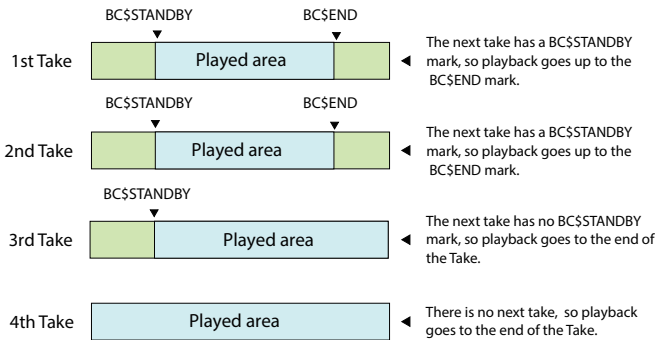
Playback areas in on-air mode

ON AIR button	BWF-J Follow	BC\$END Mode	Area that can be played back
OFF	–	–	Entire take
ON	OFF	–	Entire take
ON	ON	Normal	Entire take
ON	ON	Jump to Standby	If the next take has a BC\$STANDBY mark: BC\$STANDBY to BC\$END If the next take does not have a BC\$STANDBY mark: BC\$STANDBY to take end

NOTE

- If there is no BC\$STANDBY mark, playback is from the take beginning
- If there is no BC\$END mark, playback is until the take end
- Marks other than BC\$STANDBY and BC\$END have no effect on the playback area.
- For details about the BC\$END MODE, see "GENERAL page (REMOTE SETUP screen)" on page 106

Examples of playback areas when the ON AIR button is ON, Follow BWF-J is ON and the BC\$ END mode is Jump to Standby



Using the ON AIR button to switch between rehearsal/confirmation playback and actual playback modes

On the Home Screen or ON AIR LIST screen, press the ON AIR button to switch between rehearsal/confirmation playback and actual play modes.

ON AIR button ON (red): actual playback mode

The CREDITS ► button is disabled, and only the on-air mode playback area can be played back. (See "Playback areas in on-air mode" on page 98.)

The CREDITS ►, ON AIR LIST screen check and file name buttons are disabled.

When you switch from OFF to ON, the transport jumps to the beginning of the first take and enters playback standby.

ON AIR button OFF: rehearsal/confirmation playback mode

The CREDITS ► button is enabled, and locating to and playing back any part of a take is possible.

When you switch from ON to OFF, playback stops at the current position.

NOTE

The ON AIR button only function when playback is stopped or in standby.

On-air playback

Press the PLAY key to start playback.

Press the PAUSE key to enter playback standby.

To end playback standby, press the PLAY key.

Press the STOP (RETAKE) key to stop playback.

Use the. [MARKI◀◀] and ►► [MARK ►►I] keys to switch entries.

Press and hold the ◀◀ [◀◀◀] key or ►► [►►►] key to search backward or forward.

Press the. [MARKI◀◀] or ►► [MARK ►►I] key while pressing and holding the SHIFT key to move between marks.

Press and hold the ◀◀ [◀◀◀] or ►► [►►►] key while pressing and holding the SHIFT key to search at high-speed.

NOTE

- On the PLAY SETUP screen, you can set whether only the currently selected entry is played or whether all the entries within the current playlist are played. In addition, you can

also turn repeat playback on and off (in single and dual modes). (See "Online function" on page 35.)

- Playback can also be controlled via the PARALLEL connector.

Conducting credits playback

- On the Home Screen or ON AIR LIST screen, press the ON AIR button to turn it off.
- Use the file name selection buttons on the ON AIR LIST screen or the ◀◀/►► keys to select the current take.

NOTE

- Only files that are valid for on-air playback can be selected as the current take.
- When you turn the unit on, switch the sampling frequency or switch to on-air mode, the first file in the list of files available for on-air playback is selected as the current take.
- On the Home Screen or ON AIR LIST screen, touch the CREDITS ► button to start credits playback from the beginning of the current take and stop at the appropriate mark.

- When the Follow BWF-J setting is ON, playback is from the beginning of the file to the first BC\$STANDBY mark.
- When the Follow BWF-J setting is OFF, playback is from the beginning of the file to the first mark.
- If a selected file does not have a valid mark, playback will continue until the end of the file and then stop.

During playback, the take name button on the ON AIR LIST screen will become green.



- During credits playback, touch the CREDITS ► button to stop.

NOTE

The file name selection and CREDITS ► buttons on the ON AIR LIST screen can be used when playback is stopped and the ON AIR button is off and during credits playback when the ON AIR button is off.

They are disabled when the ON AIR button is ON and during ordinary playback.

Using the call function

Press the CALL (CHASE) key to locate to the point where playback was last started from playback standby (call point) and put the unit in playback standby mode.

10 – On-air mode

BWF-J cue point (on-air mode)

When the Follow BWF-J item is set to ON, if a BWF-J cue point is detected during playback, the following corresponding operation will occur. In addition, if the BWF-J Tally item is set to ON, in response to each BWF-J cue point, the CUE signal and tally signal will be output from the parallel remote connector.

BC\$STANDBY	When the ON AIR button is turned ON, this point in the first take is made the playback starting position. During playback, when this point is reached, playback standby starts.* In either case, a BC\$STANDBY tally is output.
BC\$CM	During playback, when this point is reached, a BC\$CM cue signal is output.
BC\$END	During playback, when this point is reached, a BC\$END cue signal is output. If the BC\$END Mode is set to "Jump to Standby" and the next take has a BC\$STANDBY cue point, the transport locates to that point and playback continues.
BC\$STOP	During playback, when this point is reached, a BC\$STOP CUE signal is output and playback stops.
BC\$FILE	During playback, when this point is reached, a BC\$END cue signal is output, and if the next take has a BC\$STANDBY cue point, the transport locates to that point, playback standby starts and a BC\$STANDBY tally is output.
BC\$PAUSE	During playback, when this point is reached, a BC\$PAUSE tally is output, and playback standby starts.

*If BC\$END Mode is set to "Jump to Standby", playback standby does not occur.

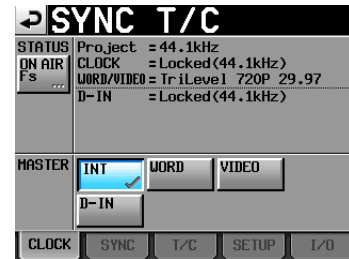
NOTE

If the OnAirOFF BWF-J tally item is off and the ON AIR button is off, cue and tally signals for corresponding BWF-J cue points are not output. (BWF-J cue points function normally otherwise.)

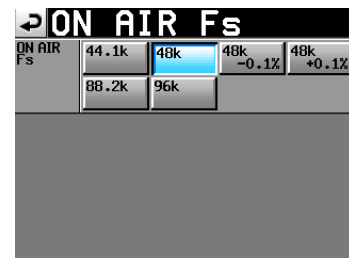
Changing the sampling frequency

When in on-air mode, change the sampling frequency on the CLOCK page of the SYNC T/C screen.

1. Touch the SYNC button on the Home Screen or the SYNC T/C button on the MENU screen to open the CLOCK page of the SYNC T/C screen.



2. Touch the ON AIR Fs button at the top left of the screen to open the ON AIR Fs screen.



3. Touch the button for the desired sampling frequency. When a confirmation message appears, touch the OK button.
4. When a second confirmation message appears, touch the OK button.

NOTE

- After changing the sampling frequency, only files that match the ON AIR Fs setting will be shown on the ON AIR LIST screen.
- Even if the sampling frequency is the same, files with 5 or more channels and other files that cannot be played back by this unit will not be recognized.

Precautions when using on-air mode

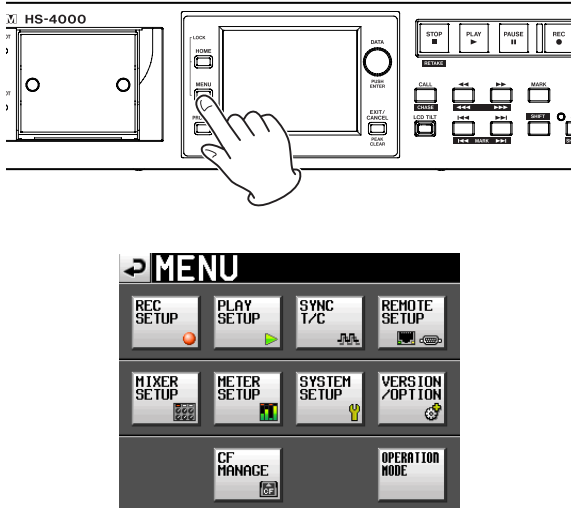
- The following settings on the PLAY SETUP screen will be turned off when the operation mode is set to on-air mode: repeat mode, auto cue, auto ready and incremental play. They can be turned ON, but these changes will not be backed up.
- In on-air mode, marks cannot be set, edited or deleted. If you press the Mark key, "Cannot set Mark point in ON AIR Mode." will appear in a pop-up message. The EDIT NAME, EDIT TIME and DELETE buttons will appear disabled on the MARK LIST screen.

11 – Internal settings

In this chapter, we explain the unit's internal settings in detail.

Menu screen

Press the MENU key on the front panel to open the following MENU screen.



REC SETUP button

Make recording settings.

PLAY SETUP button

Make playback settings.

SYNC T/C button

Make synchronization and timecode settings.

REMOTE SETUP button

Make settings for external remote control.

MIXER SETUP button

Make mixer settings.

METER SETUP button

Make level meter settings.

SYSTEM SETUP button

Make system settings.

VERSION/OPTION button

View system version information and set optional functions.

CF MANAGE button

Manage CF cards.

OPERATION MODE button

Make operation mode system settings.

Recording settings (REC SETUP)

The REC SETUP screen has three tabbed pages: REC MODE, FILE FORMAT and OPTIONS.

Touch the tabs at the bottom of the screen to open the corresponding page.

REC MODE page

Make settings related to the recording mode.



Confidence monitoring

Turn the confidence monitoring function, which allows immediate playback of the recorded signal for monitoring, ON (default) or OFF.

To use the confidence monitoring function, however, the sampling frequency and number of tracks must be set as follows.

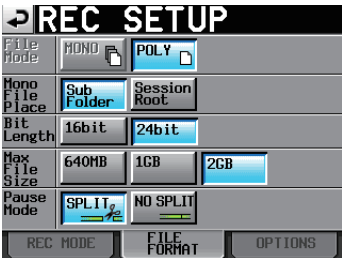
Fs (sampling frequency)	44.1k, 48k, 48k-0.1% or 48k+0.1%
TIMELINE Rec Tracks (in timeline mode)	2tr
Number of recording-enabled tracks (in take mode)	No more than 2 total

NOTE

When the confidence monitoring function is ON but cannot be used because a limit on the sampling frequency or number of recording-enabled tracks is exceeded, an "x" appears over the ON button. In addition, the confidence monitoring status icon on the Home Screen shows that it is disabled (X).

FILE FORMAT page

Make settings related to the file format.



File Mode

Use the following buttons to set the recording file mode.

MONO button: (Support is planned in a future firmware version upgrade.)	Each track is treated as a monophonic file.
POLY button (default):	Multiple tracks are combined into polyphonic files.

11 – Internal settings

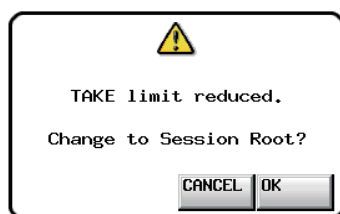
Mono File Place

When the File Mode is set to MONO, set the folder where audio files are saved with the following buttons.

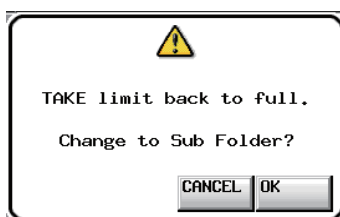
Sub Folder POLY button (default)	Audio files are saved in subfolders created for each take within the session folder.
Session Root Session Root button	Audio files are saved directly in the session folder.

CAUTION

- In both modes, a subfolder is created for each take inside the folder, and management files are generated in these subfolders.
- When Session Root mode is selected, the maximum number of takes that can be recorded in a single session is greatly reduced from normal. For this reason, when switching to Session Root mode the following pop-up window appears with a warning about the reduced maximum limit to the number of takes.



When switching to Sub Folder mode, the following pop-up window appears explaining the restored maximum limit to the number of takes.



- When Session Root mode is selected, the number of files created is large. For this reason, the maximum number of takes that can be recorded is greatly reduced. (See "Recording operation limitations" on page 35.)
- During recording, you can press the REC key to start recording a new take. This function can be used 4 seconds after beginning recording in polyphonic and subfolder modes, but in Session Root mode, you might have to wait more than 4 seconds.

Bit Length

Set the quantization bit rate for recording files using the following buttons.

Setting buttons: 16bit (default), 24bit

Max File Size

Set the maximum size for recording files using the following buttons.

Setting buttons: 640MB, 1GB, 2GB (default)

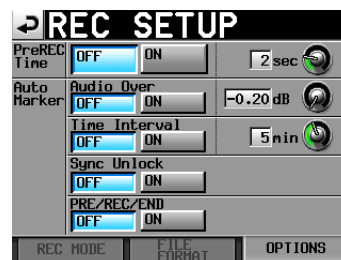
Pause Mode

Set whether or not to divide files when a recording is paused using the following buttons.

Setting buttons: SPLIT (default), NO SPLIT

OPTIONS page

Make settings related to the pre-recording and auto markers.



PreREC Time

Turn pre-recording on or off and set the amount of pre-recording time (default: OFF).

When PreREC Time is ON, the signal input during recording standby is captured by the built-in memory for the set amount of time. This allows a maximum of 5 seconds to be recorded before recording is started normally.

To set the pre-recording time, touch the knob, and use the DATA dial to adjust the value.

Setting range: 0–5 seconds (default: 2 seconds)

Auto Marker

Make settings related to auto markers.

- Audio Over:
Use this to add marks when the set audio level is detected.
A mark is added when the set audio level is exceeded. Turn this function ON or OFF and set the detection level (default: OFF).
To set the detection level, touch the knob, and adjust the value using the DATA dial.
Setting options: –0.20dB (default), –0.17dB, –0.13dB, –0.10dB, –0.06dB, –0.03dB
Settings made here are reflected in the Over Level setting on the METER SETUP screen.
- Time Interval
Use to add marks at fixed time intervals.
Turn this function ON or OFF and set the time interval (default: OFF).
To set the time, touch the knob, and adjust the value using the DATA dial.
Setting range: 1–10 minutes (default: 5 minutes)
- Sync Unlock
Use to add a mark when synchronization with the master clock is lost.
Turn this function ON or OFF (default: OFF).
- PRE/REC/END
Use to automatically add marks at the pre-recording starting position, the recording starting position and recording ending position.
Turn this function ON or OFF (default: OFF).

NOTE

- An "audio over" occurs when the level exceeds the maximum level (full scale) minus the value set by the user. (In the example above, this would be when the level exceeds the maximum level minus 0.20 dB.)
- PRE/REC/END automatic marks are only added to takes. They do not appear in the timeline mode timeline.

- After an Audio Over or Sync Unlock automatic mark is added, the same type of mark will not be added again until at least 10 seconds pass.

Playback settings (PLAY SETUP)

Make playback settings.

GENERAL page (PLAY SETUP screen)

Make various settings related to the playback mode on this page.



Play Mode

Set how the playback of takes and entries is handled using the following buttons. This setting affects all modes except timeline mode.

- One Take (default)
Only the currently selected take or playback is played back.
- All Take
All the takes in the currently loaded session or all the entries in the playlist are played back.

NOTE

- In timeline mode, the Play Mode setting is fixed to "All Take" and cannot be changed.
- In A/B MIXED mode, the Play Mode setting is fixed to "One Take" and cannot be changed.

Repeat Mode

Turn repeat playback ON and OFF (default).

Follow BWF-J

Turn the BWF-J cue point function ON or OFF (default).

This setting can be made separately for each mode.

When the BWF-J cue point function is ON, operation will follow BWF-J cue points set in sessions and takes.

For details about operation, see the following pages.

Timeline mode: "BWF-J cue points (timeline mode)" on page 54

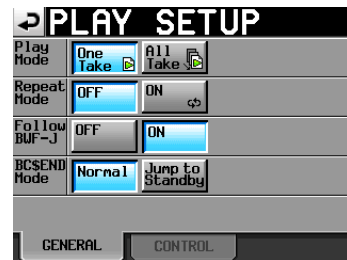
Take mode: "BWF-J cue points (take mode)" on page 72

Playlist mode: "BWF-J cue points (playlist mode)" on page 97

On-air mode: "BWF-J cue point (on-air mode)" on page 100

BCSEND Mode

You can set the following functions that are different from ordinary BCSEND operations during on air playback.



- Normal (default)
An END cue signal is output and playback continues.
- Jump to Standby
An END cue signal is output and the transport jumps to the BC\$STANDBY mark of the next take and playback continues. If the next take does not have a BC\$STANDBY mark, playback will continue without jumping.

NOTE

This setting is only effective when in on air mode. It is not shown in other operation modes.

CONTROL page

Make various settings related to the playback functions on this page.

NOTE

In A/B MIXED mode, the Auto Cue, Auto Ready and Inc. Play settings are fixed to OFF and cannot be changed.



Auto Cue

Turn the auto cue function ON or OFF (default).

If auto cue is ON, whenever a take is changed or loaded, the unit will enter playback standby at the point where sound first starts in the take.

When Play Mode is set to One Take and no sound is detected before the end of the take, the unit stops at the start of the take. When Play Mode is set to All Take and no sound is detected before the end of the take, the unit continues detection in the next take.

This setting affects all modes except timeline mode.

To set the auto cue start point detection level, touch the knob area and use the DATA dial to change the value.

–72dB, –66dB, –60dB, –54dB (default), –48dB, –42dB, –36dB, –30dB, –24dB

Auto Ready

Turn the auto ready function ON or OFF (default).

If auto ready is ON, when playback of the current take completes the unit will enter playback standby at the beginning of the next take.

11 – Internal settings

This setting affects all modes except timeline mode.

Inc. Play

Turn the incremental play function ON or OFF (default).

When incremental play is ON, press the PLAY key during playback to move to the beginning of the next take and continue playing, or press the STOP [RETAKE] key during playback to move to the beginning of the next take and enter playback standby.

This setting affects all modes except timeline mode.

PLAY Inhibit Time

This sets a time interval during which playback of the same take (entry) cannot be restarted.

The following keys and commands are disabled (excluding flash start keys/commands for other takes/entries) for the duration of this setting. The PLAY key on the front panel of the unit, the PLAY key, flash start keys and fader start function of the TASCAM RC-HS32PD remote control (sold separately), and play and flash start commands from external controllers (RS-422, RS-232C, parallel, keyboard).

0–1000 msec (100 msec intervals), Inf (during playback the affected keys are disabled for this amount of time) Default value: 0 msec

NOTE

When the PLAY Inhibit Time item is set to Inf, the incremental play function is automatically fixed to OFF and cannot be switched to ON.

Sync and timecode settings (SYNC T/C)

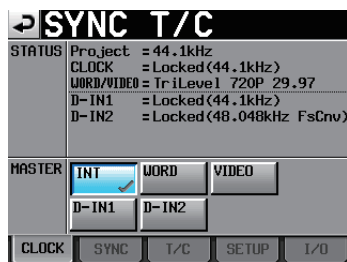
Make various settings related to audio synchronization and timecode on this page.

This screen has five pages: CLOCK, SYNC, T/C, SETUP and I/O.

Touch the tabs at the bottom of the screen to open the corresponding page.

CLOCK page

View various clock status information and select the clock used for synchronization.



STATUS

Project

This shows the sampling frequency of the project.

CLOCK

This shows the clock synchronization status.

WORD/VIDEO:

When a synchronization signal is detected at this connector, WORD, VIDEO or TriLevel is shown.

D-INx ("x" is the channel)

This shows the digital input signal status as follows.

Digital input signal status	Display
Locked	Locked (xx.xxx kHz)
Sampling rate converter ON	Locked (xx.xxx kHz FsCnv)
Unlocked	Unlocked (xx.xxx kHz)
No signal	Unlocked (no signal)
No audio signal present	Not Audio
Other Cbit information differs from the actual operation mode	Unmatched Cbit

MASTER

Use the buttons to select the master clock to use.

●INT button (default):

Use this unit's internal clock.

●WORD button

Synchronize with the word clock input through the WORD/VIDEO IN connector.

●VIDEO button




Synchronize with the video clock input through the WORD/VIDEO IN connector.

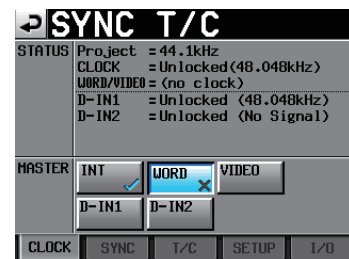
●DIN-1/DIN-2 buttons

Synchronize with the clock of the digital signal selected as the input of DIGITAL IN 1/2.

You cannot select an input as the master clock if the sampling rate converter is ON for that input.

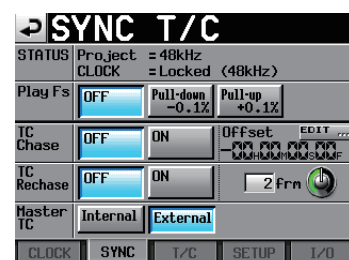
NOTE

- A  mark appears on the button of the currently active master clock.
- If synchronization from an external clock is interrupted, the unit's internal clock becomes active. In this case, the  mark appears on the INT button to show that it has become the active clock, and the  mark appears on the button of the selected external clock that was lost.



SYNC page

Make settings related to synchronization on this page.



STATUS

Shows the status of the currently loaded project's sampling frequency and clock synchronization.

Play Fs

When playing a take with a sampling frequency of 48 kHz, 48 kHz pull-up or 48 kHz pull-down, the unit can be made to synchronize with an external clock by setting it to play back with pull-down or pull-up (default: OFF).

Depending on the combination of project sampling frequency and Play Fs settings, the unit will operate with the sampling frequency shown below.

Project sampling frequency	Play Fs setting		
	OFF	Pull-down	Pull-up
48kHz	48kHz	48kHz -0.1%	48kHz +0.1%
48kHz pull-down	48kHz -0.1%	Not possible	48kHz
48kHz Pull-up	48kHz +0.1%	48kHz	Not possible
All others	Project sampling frequency	Not possible	Not possible

CAUTION

Set this to OFF before recording.

Recording is not possible when set to Pull-up +0.1% or Pull-down -0.1%. If you try to record when not OFF, "Cannot REC" appears in a warning pop-up window.

TC Chase

Use to turn playback synchronized with timecode ON or OFF (default).

Set it to ON when you want to match the timing of this unit's audio with a timecode master device (audio recorder, video or built-in timecode generator). You can also set timecode offset (TC Offset) with the timecode master device.

Set the offset value by touching the EDIT button to open the CHASE OFFSET screen. Set the value in a range between -23:59:59.29 and +23:59:59.29 (default: 00:00:00.00).

NOTE

TC Chase can also be turned ON and OFF by pressing the SHIFT and CALL keys at the same time.

TC Rebase

Turn this function, which re-synchronizes when synchronization with timecode becomes inaccurate, ON or OFF (default).

When set to OFF, after synchronizing once, input timecode is ignored and the unit operates in free run mode.

When set to ON, set the amount of inaccuracy that triggers recharging.

To set this amount, touch the knob and turn the DATA dial to select a value in frames of 1/3, 1, 2 (default), 5 or 10.

Master TC

Set whether the unit synchronizes with the built-in timecode generator or with timecode input from another device.

● INTERNAL button

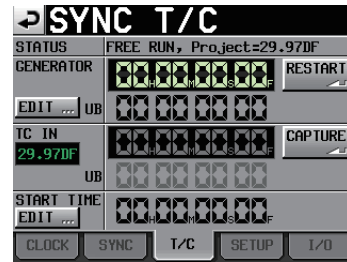
Synchronize with the built-in generator.

● EXTERNAL button (default)

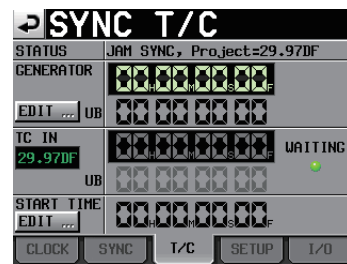
Synchronize with timecode input from another device.

T/C page

Make settings related to timecode on this page.



Set to free run



Set to jam sync (and free once)

STATUS

This shows the timecode generator mode of the unit and the timecode frame type of the currently loaded project.

GENERATOR

The top line shows the current timecode generator.

The bottom line shows the user bits (UB).

Touch the GENERATOR item EDIT button or the user bits (UB) display area to open the T/C USER BITS screen.

When the timecode generator is in free run mode, touch the RESTART button to reset the timecode of the timecode generator to the start time.

TC IN

The top line shows the time of the input timecode and the frame type.

The bottom line shows the user bits (UB) of the input timecode.

In Free Run mode, touch the CAPTURE button to capture the current timecode and set it as the timecode of the timecode generator.

If the timecode generator mode is Free Once or Jam Sync, the capture status (WAITING) indicator lights green when waiting for timecode, and it turns off after timecode is captured.

START TIME

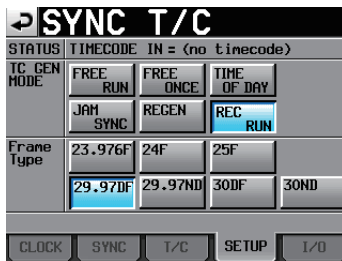
When you touch the GENERATOR item RESTART button, the time when the timecode restarts is shown.

Touch the START TIME item EDIT button or the START TIME display area to open the START TIME screen.

11 – Internal settings

SETUP page (SYNC T/C screen)

Make settings related to the timecode generator on this page.



STATUS

When timecode is input, the timecode frame rate is shown.

TC GEN MODE

Use the buttons to set the timecode generator mode.

- **FREE RUN** button
The timecode generator runs on its own.
- **FREE ONCE** button:
After the input timecode is captured once, the unit starts free run mode.
- **TIME OF DAY** button
If you conduct any of the following operations, the time will be captured from the internal clock and free run mode will start.
 - Turn the power on
 - Set TC GEN MODE to this mode
 - Reset the internal clock
- **JAM SYNC** button
When timecode is input, the unit synchronizes to it.
If timecode input is interrupted, the unit enters free run mode.
- **REGEN** button
The unit synchronizes to the input timecode.
- **REC RUN** button (default):
The timecode generator only functions during recording.
At all other times, the timecode generator stops.

Frame Type

Set the timecode frame type of the currently loaded project.
23.976F, 24F, 25F, 29.97DF (default), 29.97ND, 30DF, 30ND

I/O page

Set the synchronization signal status display and timecode output on this page.



STATUS

This shows the status of synchronization signals.

- **TIMECODE IN**
When timecode is input, the timecode frame rate is shown.
- **WORD/VIDEO IN**
When a synchronization signal is detected at this connector, WORD, VIDEO or TriLevel is shown.

TC Out Mode

Use the buttons to set the timecode output mode.

- **GenOut** button
Timecode is output from the internal timecode generator.
- **PlayOut** button (default)
In timeline mode, the timecode time for playback and recording is output.
In take and playlist modes during playback, the timecode recorded in the file is output.

Remote settings (REMOTE SETUP)

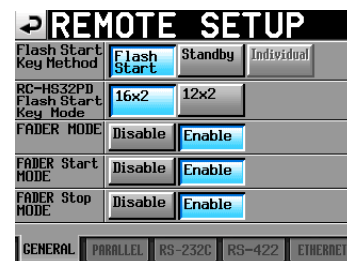
Make settings for the PARALLEL, RS-232C and RS-422 connectors.

The REMOTE SETUP screen has 5 pages: GENERAL, PARALLEL, RS-232C, RS-422 and ETHERNET.

Touch the tabs at the bottom of the screen to open the corresponding page.

GENERAL page (REMOTE SETUP screen)

Make flash start key settings on this page.



Flash Start Key Method Set how the flash start key operates.

- **Flash Start** button (default)
Touch a flash start key to start flash playback.
- **Standby** button
When stopped, touch a flash start key to start playback standby. Then, press the PLAY key to start playback.

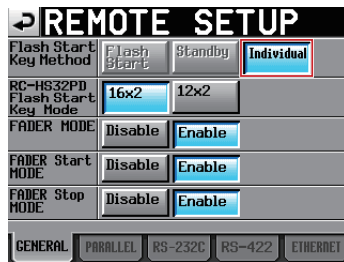
During playback, touching another flash start key will cause the corresponding take or entry to become lined up for playback. Press the PLAY key to start playback of that entry. If the Play Mode is set to All Take, when the currently playing entry completes playback, the entry that is lined up will start playing. If the Play Mode is set to One Take, when the currently playing entry completes playback, the entry that is lined up will start playback standby.

● Individual button

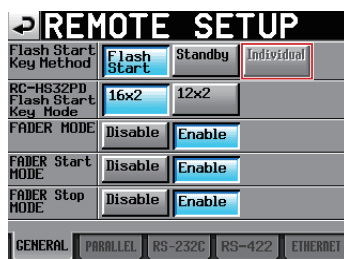
When the operation mode is A/B MIXED playlist mode, this setting is fixed to "Individual".

Other items are disabled and cannot be selected.

In other operation modes, "Individual" is disabled and cannot be selected.



A/B MIXED playlist operation mode



Operation modes other than A/B MIXED playlist

RC-HS32PD Flash Start Key Mode

This sets the number of flash start keys for a TASCAM RC-HS32PD remote controller (sold separately) in dual playlist mode.

16x2 button (default): 16 keys can be used by both A and B for a total of 32 keys.

12x2 button: 12 keys can be used by both A and B for a total of 24 keys.

NOTE

In take mode, single playlist mode and A/B MIXED playlist mode, 32 keys are always used.

FADER MODE

Set whether faders on an external TASCAM RC-HS32PD remote controller (sold separately), for example, are enabled or not.

When set to Disable, the internal fader is fixed at 0 dB.

Setting buttons: Disable, Enable (default)

FADER Start MODE

When the fader start function of an external TASCAM RC-HS32PD remote controller (sold separately), for example, is on, set whether fader start, which allows you to start playback by raising the fader from ∞ when in playback standby, is enabled or not.

Setting buttons: Disable, Enable (default)

FADER Stop MODE

When the fader stop function of an external TASCAM RC-HS32PD remote controller (sold separately), for example, is on, set whether fader stop, which allows you to put playback into standby by lowering the fader to ∞ during playback, is enabled or not.

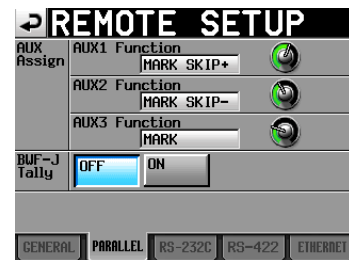
Setting buttons: Disable, Enable (default)

NOTE

- If both the FADER Start MODE and FADER Stop MODE items are set to Disable, the fader start function of the external TASCAM RC-HS32PD remote controller (sold separately) will be turned off automatically, and the FADER START indicator will turn off. In this state, if you press the Fader Start key on the TASCAM RC-HS32PD remote controller, a "Cannot Change Now. Fixed in current mode" warning appears in a pop-up window.
- FADER MODE, FADER Start MODE and FADER Stop MODE can each be set independently for on-air mode and for other modes.

PARALLEL page

Set the AUX 1-3 functions of the PARALLEL connector.



AUX Assign

Touch a knob to select it, making the background yellow, and turn the DATA dial to set the parameter.

The parameters that can be selected include F.FWD, REW, MARK, MARK SKIP-, MARK SKIP+, ONLINE, CALL and FADER START B.

- AUX1 Function (default: MARK SKIP+)

Set the function of the PARALLEL connector pin 17 (AUX1).
- AUX2 Function (default: MARK SKIP-)

Set the function of the PARALLEL connector pin 18 (AUX2).
- AUX3 Function (default: MARK)

Set the function of the PARALLEL connector pin 19 (AUX3).

BWF-J Tally

When not operating in BWF-J mode (when the Follow BWF-J item is OFF), set whether a BWF-J tally is output.

Setting buttons: OFF (default), ON

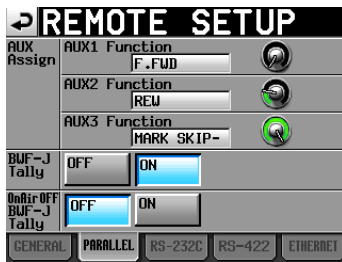
NOTE

- NOTE BWF-J tallies are always output when BWF-J mode is on.
- This setting can be set independently for on-air mode and for other modes. Only the on-air mode is used as a USER PRESET item.

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OnAir OFF BWF-J Tally

When in on-air mode and the ON AIR button is OFF, set whether a BWF-J tally is output.



Setting buttons

OFF: BWF-J tally is not output.

ON (default): BWF-J tally is output.

NOTE

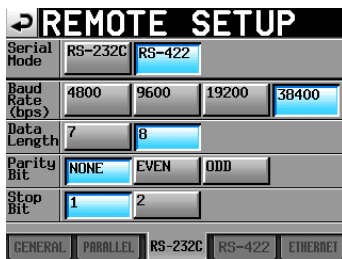
- *This setting is only effective when in on air mode. It is not shown in other operation modes.*
- *Even when set to OFF, BWF-J tally functions will still work in BWF-J mode.*
- *When set to OFF, the output of cue and tally signals will be as follows.*

Output: STOP, PLAY, ONLINE

Not output: BC\$STANDBY, BC\$END, BC\$CM, BC\$PAUSE, BC\$STOP

RS-232C page

Make RS-232C serial control transmission settings on this page.



Serial Mode

Set the serial connection mode with the following buttons.

Setting buttons: RS-232C, RS-422 (default)

(RS-232C support is planned for a future version upgrade)

NOTE

- *The RS-232C and RS-422 connectors cannot both be used at the same time. Only the connector selected with this setting is operable.*
- *This setting is synchronized with the Serial Mode item on the RS-422 page.*

Baud Rate (bps)

Set the transmission speed (baud rate) with these buttons.

Setting buttons: 4800, 9600, 19200, 38400 (default)

Data Length

Set the data length in bits with these buttons.

Setting buttons: 7, 8 (default)

Parity Bit

Set whether or not there is a parity bit with these buttons.

Setting buttons: NONE (default), EVEN, ODD

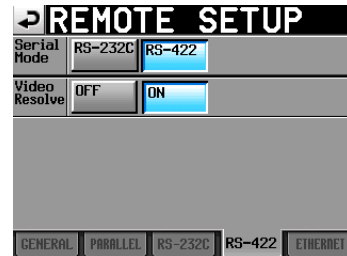
Stop Bit

Set the stop bit with these buttons.

Setting buttons: 1 (default), 2

RS-422 page

Make RS-422 serial control transmission settings on this page.



Serial Mode

Set the serial connection mode with the following buttons.

Setting buttons: RS-232C, RS-422 (default)

(RS-232C support is planned for a future version upgrade)

NOTE

- *The RS-232C and RS-422 connectors cannot both be used at the same time. Only the connector selected with this setting is operable.*
- *This setting is synchronized with the Serial Mode item on the RS-232C page.*

Video Resolve

When slaving this unit to a VCR, video sync signals might be used instead of word sync signals for the common standard clock. In the same way as with word sync signals, you can select whether the video clock is followed (synchronizing the beginning of timecode frames with video signal frame edges) or it is independent from the frame clock.

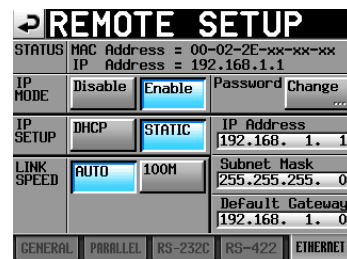
This must be turned ON to accurately control this unit from a video editor.

ON button (default): Timecode frame edges synchronized with video signal frame edges

OFF button: Independent from video frame clock

ETHERNET page

Make Ethernet communication settings on this page.



STATUS

This shows this unit's MAC Address and current IP Address.

IP MODE

Use these buttons to enable or disable Ethernet functions.

Setting buttons: Disable (default), Enable

IP SETUP

Use to switch between DHCP and STATIC.

When set to DHCP and there is a DHCP server on the LAN, the IP Address, Subnet Mask and Default Gateway settings should be acquired automatically.

When set to STATIC, you must set the IP Address, Subnet Mask and Default Gateway manually.

Setting buttons: DHCP, STATIC (default)

LINK SPEED

Use these buttons to set the link speed.

Setting buttons:

AUTO (automatically adjusts speed according to connection)

100M (default, operates with fixed speed of 100 Mbps)

IP Address/Subnet Mask/Default Gateway

Use these fields to set the IP Address, Subnet Mask and Default Gateway values when IP SETUP is set to STATIC. These also show their setting values.

Defaults: 0. 0. 0. 0

Depending on the IP SETUP setting, this area appears differently as shown below.

IP Address	IP Address	IP Address
192.168. 1. 1	192.168. 1. 1	192.168. 1. 1
Subnet Mask	Subnet Mask	Subnet Mask
255.255.255. 0	255.255.255. 0	255.255.255. 0
Default Gateway	Default Gateway	Default Gateway
192.168. 1. 0	192.168. 1. 0	192.168. 1. 0

DHCP

STATIC

Field selected

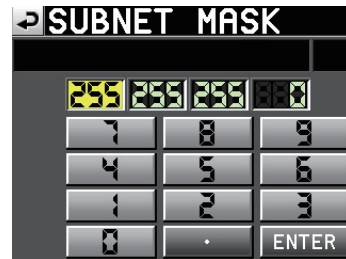
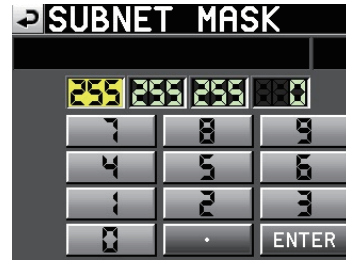
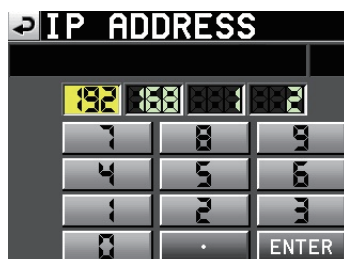
■ Changing IP Address, Subnet Mask and Default Gateway settings

Touch the corresponding area of the REMOTE SETUP screen ETHERNET page to open its setting adjustment screen.

- Each field has 3 digits. (You do not need to input "0" before values of 1–2 digits.)
- The first field (largest unit) is selected when a screen opens.
- After selecting a field, touch a number button to enter it as the first digit. Input further digits to the end of the same field in the same way as when using a calculator.
- Touch the period (point) button to move to the next field.

Example:

When screen opened	192.	168.	1.	1	
"1234" input	234.	168.	1.	1	First "1" is discarded
". "input	192.	168.	1.	1	



■ Changing the password

Touch the Change button in the Password section of the REMOTE SETUP screen ETHERNET page to open the CHANGE PASSWORD screen where you can set the password.

You can input up to 9 characters (default: "HS-4000").

Mixer settings (MIXER SETUP)

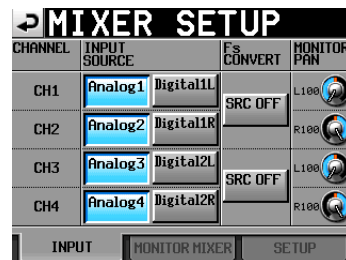
Make mixer settings.

The MIXER SETUP screen has 3 pages: INPUT, MONITOR MIXER and SETUP.

Touch the tabs at the bottom of the screen to open the corresponding page.

INPUT page

Make input settings on this page.



INPUT SOURCE

Set the input source for each channel.

Select an analog (AnalogX) or digital (DigitalX) input. ("X" is the channel.)

Analog and digital cannot both be selected for a channel at the same time.

- Analog 1-4 buttons (default): ANALOG IN 1-4
- Digital 1L/1R/2L/2R buttons: Left and right channels for digital inputs 1 and 2

Fs CONVERT

Turn the sampling rate converter ON or OFF for each pair of inputs. Channels 1–2 and 3–4 are set in pairs, so different settings cannot be used for individual channels in each pair (default for both pairs: SRC OFF).

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MONITOR PAN

Use these to adjust the stereo position used for monitoring each channel.

Touch a knob, making its background yellow, and use the DATA dial to set its stereo position.

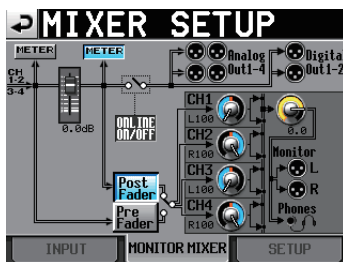
Setting range: L100 – C (default) – R100

Defaults: L100 for CH1 and CH3 and R100 for CH2 and CH4

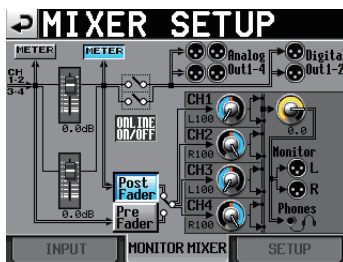
MONITOR MIXER page

Make monitoring mixer settings on this page.

This page differs when in dual and A/B MIXED mode from when in other operation modes.



When in modes other than dual or A/B MIXED mode



When in dual or A/B MIXED mode

METER buttons

Use these buttons to set whether the meter shows the position before or after the online fader.

Touch the button on the left to show the level before the fader or touch the button on the right to show the level after the fader on the meter.

Post/Pre Fader buttons

Use these buttons to set whether the monitoring output is from before or after the online fader.

Pre Fader button:

Signals from before the online fader are output for monitoring.

Post Fader button (default):

Signals from after the online fader are output for monitoring.

Pan knobs

Use these to adjust the stereo position used for monitoring each channel.

Touch a knob, making its background yellow, and use the DATA dial to set its stereo position.

Setting range: L100 – C (default) – R100

Defaults: L100 for CH1 and CH3 and R100 for CH2 and CH4

Level knob

Use this to adjust the level of the monitoring output.

Touch this knob, making its background yellow, and use the DATA dial to adjust the level.

Setting range: 0.0 dB (–∞, default) – +10 dB

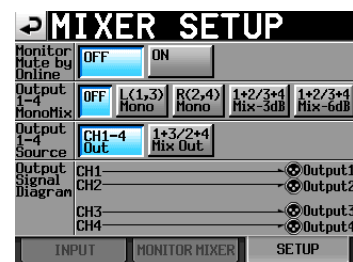
NOTE

If the monitoring mixer overload indicator appears on the Home Screen, use the level knob to lower the level.

Monitoring mixer overload indicators

If the left or right monitoring mixer channel overloads, the background of the corresponding L or R becomes red.

SETUP page (MIXER SETUP screen)



Monitor Mute by Online

Set whether monitoring is automatically muted or not during online playback (default: OFF).

Output 1-4 MonoMix

- OFF button (default): output without mixing to mono.
- L (1, 3) Mono button

The CH1 audio signal is output from both ANALOG LINE OUT 1 and 2 connectors.

The CH3 audio signal is output from both ANALOG LINE OUT 3 and 4 connectors.

- R (2, 4) Mono button

The CH2 audio signal is output from both ANALOG LINE OUT 1 and 2 connectors.

The CH4 audio signal is output from both ANALOG LINE OUT 3 and 4 connectors.

- 1+2/3+4 Mix –3dB button

The CH1 and CH2 audio signals are each attenuated 3 dB, mixed together and output from both ANALOG LINE OUT 1 and 2 connectors.

The CH3 and CH4 audio signals are each attenuated 3 dB, mixed together and output from both ANALOG LINE OUT 3 and 4 connectors.

- 1+2/3+4 Mix –6dB button

The CH1 and CH2 audio signals are each attenuated 6 dB, mixed together and output from both ANALOG LINE OUT 1 and 2 connectors.

The CH3 and CH4 audio signals are each attenuated 6 dB, mixed together and output from both ANALOG LINE OUT 3 and 4 connectors.

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Output signals for Output 1-4 MonoMix and Output 1-4 Source setting combinations [Put table in one column if possible]

Output 1-4 MonoMix setting	Output 1-4 Source setting			
	ANALOG LINE OUT connector	CH1-4 Out	ANALOG LINE OUT connector	1+3/2+4 Mix Out
OFF	1	CH1	1	CH1+CH3
	2	CH2	2	CH2+CH4
	3	CH3	3	CH1+CH3
	4	CH4	4	CH2+CH4
L (1, 3) Mono	1	CH1	1	CH1+CH3
	2	CH1	2	CH1+CH3
	3	CH3	3	CH1+CH3
	4	CH3	4	CH1+CH3
R (2, 4) Mono	1	CH2	1	CH2+CH4
	2	CH2	2	CH2+CH4
	3	CH4	3	CH2+CH4
	4	CH4	4	CH2+CH4
1+2 / 3+4 Mix -3dB	1	(CH1-3dB) + (CH2-3dB)	1	(CH1-3dB) + (CH2-3dB) + (CH3-3dB) + (CH4-3dB)
	2	(CH1-3dB) + (CH2-3dB)	2	(CH1-3dB) + (CH2-3dB) + (CH3-3dB) + (CH4-3dB)
	3	(CH3-3dB) + (CH4-3dB)	3	(CH1-3dB) + (CH2-3dB) + (CH3-3dB) + (CH4-3dB)
	4	(CH3-3dB) + (CH4-3dB)	4	(CH1-3dB) + (CH2-3dB) + (CH3-3dB) + (CH4-3dB)
1+2 / 3+4 Mix -6dB	1	(CH1-6dB) + (CH2-6dB)	1	(CH1-6dB) + (CH2-6dB) + (CH3-6dB) + (CH4-6dB)
	2	(CH1-6dB) + (CH2-6dB)	2	(CH1-6dB) + (CH2-6dB) + (CH3-6dB) + (CH4-6dB)
	3	(CH3-6dB) + (CH4-6dB)	3	(CH1-6dB) + (CH2-6dB) + (CH3-6dB) + (CH4-6dB)
	4	(CH3-6dB) + (CH4-6dB)	4	(CH1-6dB) + (CH2-6dB) + (CH3-6dB) + (CH4-6dB)

NOTE

ANALOG LINE OUT 1 and 2 signals are simultaneously output from DIGITAL LINE OUT 1, and ANALOG LINE OUT 3 and 4 signals are simultaneously output from DIGITAL LINE OUT 2.

Output 1-4 Source

Select the output signals for Outputs 1-4.

- CH1-4 OUT button (default):

Output the signals of CH1-4 as is to the ANALOG LINE OUT 1-4 connectors.

- 1+3/2+4 Mix Out button:

The signals of CH1 and CH3 are mixed and output through the ANALOG LINE OUT 1 and 3 connectors and the left channels of the DIGITAL LINE OUT 1 and 2 connectors, and the signals of CH2 and CH4 are mixed and output through the ANALOG LINE OUT 2 and 4 connectors and the right channels of the DIGITAL LINE OUT 1 and 2 connectors.

Output signal block diagrams

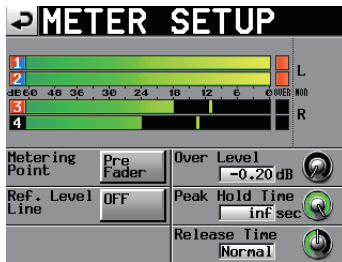
The signal path lines in the block diagram at the bottom of the screen change according to the Output 1-4 MonoMix and Output 1-4 Source settings.

Output 1-4 MonoMix setting	Output 1-4 Source setting	
	CH1-4 Out	1+3/2+4 Mix Out
OFF		
L (1, 3) Mono		
R (2, 4) Mono		
1+2 / 3+4 Mix -3dB		
1+2 / 3+4 Mix -6dB		

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Level meters settings (METER SETUP)

Make level meter settings.



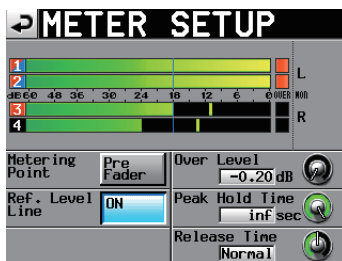
Metering Point

Set whether the meters show the signal before or after the online faders.

	Meters show the levels before the faders (default).
	Meters show the levels after the faders. In this case, the button appears light blue.

Ref. Level Line

Touch to turn the reference level line that appears on the level meter ON (default) or OFF.



Reference level line display ON

Over Level

Use this to set the level at which the overload indicator lights.

The peak indication level is this amount below the maximum level (full scale).

Touch this knob and use the DATA dial to adjust the level.

Setting options: -0.20 dB (default), -0.17 dB, -0.13 dB, -0.10 dB, -0.06 dB, -0.03 dB

This setting is reflected in the Audio Over setting of the Auto Marker item on the OPTIONS page of the REC SETUP screen.

Peak Hold Time

Use this to set the peak hold time.

Touch this knob and use the DATA dial to adjust the time.

Setting options: 0 sec, 1 sec, 2 sec (default), inf (infinite hold)

Release Time

Use this to set the release time.

Touch this knob and use the DATA dial to adjust the time.

Setting options: Slow, Normal (default), Fast

NOTE

If you press the EXIT/CANCEL (PEAK CLEAR) key when the Home Screen is open, the peak hold display resets.

System settings (SYSTEM SETUP)

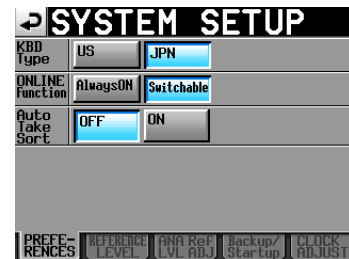
Make system settings on this screen.

The SYSTEM SETUP screen has 5 pages: PREFERENCES, REFERENCE LEVEL, ANA Ref LVL ADJ, Backup/Startup and CLOCK ADJUST.

Touch the tabs at the bottom of the screen to open the corresponding page.

PREFERENCES page

Set system preferences on this page.



KBD Type

Set the connected keyboard type to either US for English-language keyboards or JPN for Japanese keyboards.

Setting buttons: US, JPN (default)

ONLINE Function

Set whether or not to enable the online function (default: Switchable).

Set to "Switchable" to allow online playback mode to be enabled from the ONLINE key on the front panel, the parallel connector, serial connector (RS-232C) or a TASCAM RC-HS32PD remote controller (sold separately).

Set to AlwaysON to not allow online playback to be used and always output the sound from all connectors. (See "Using the numeric entry screen to edit the playback beginning and ending positions" on page 90.)

Auto Take Sort

When this setting is ON, the playback order of takes in the current session will automatically be reordered by take name in character code order at the times indicated below.

Setting buttons

OFF: Auto Take Sort function disabled (default)

ON: Auto Take Sort function enabled

● Auto Take Sort execution timing

- When the unit is started with media in the current slot
- When media is inserted in the current slot
- When the current slot is changed
- When a project is loaded
- When a session is loaded

NOTE

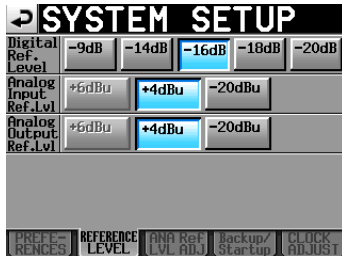
Even if Auto Take Sort is set to ON, automatic take sorting will not occur in the following circumstances. If you want to reorder the playback order of takes by their names in character code order after the following operations, use the SORT button in the pull-up menu on the take list screen.

- After stopping recording
- After adding a file to the current session by FTP
- After adding a file to the current session using the copy function

- After adding a file to a playlist from a different session
- After executing a REBUILD manually
- After executing a REBUILD from a pop-up message that appears when a take or folder has been added or deleted by FTP

REFERENCE LEVEL page

Set reference levels on this page.



Digital Ref. Level

Set the reference level for digital inputs and outputs to a number of decibels below the maximum level (full scale).

Setting options: -9dB, -14dB, -16dB, -18dB, -20dB (default)

Analog Input Ref. Lvl

Set the reference level for analog inputs.

The options differ according to the Digital Ref. Level setting.

Digital Ref. Level setting	Analog Input Ref. Lvl
-9dB	Fixed at +6dB
Not -9dB	+4dB or -20dB

Analog Output Ref. Lvl

Set the reference level for analog line outputs.

The options differ according to the Digital Ref. Level setting.

Digital Ref. Level setting	Analog Output Ref. Lvl
-9dB	Fixed at +6dB
Not -9dB	+4dB or -20dB

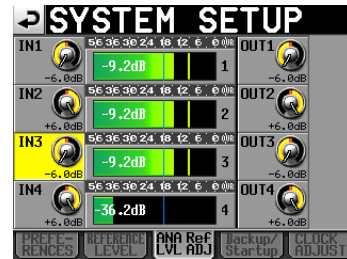
NOTE

Sound input through the analog audio inputs according to the analog input reference level becomes sound in the digital domain according to the digital reference level.

The analog audio outputs output digital sound according to the digital reference level as analog sound according to the analog output reference level.

ANA Ref LVL ADJ page

You can make fine adjustments to the analog input and output reference levels independently for each channel.



Use an INX knob to adjust the analog input level of the corresponding channel, and use an OUTX knob to adjust the analog output level of the corresponding channel. ("X" is the channel number.)

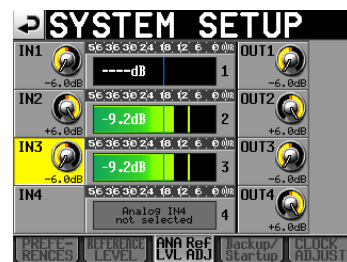
Touch a knob to select it, highlighting its area in yellow, and use the DATA dial to adjust the level.

Turn the dial to adjust it in 0.1-dB intervals, and press and turn the dial to adjust it in 1-dB intervals.

The value is shown beneath each knob.

Setting range: -6dB – +6dB (default: 0dB)

If an analog input for a channel is not set, the corresponding knob will not be shown and Analog INx not selected will appear in the menu area.



CH4 has no analog input

Backup/Startup page

Use this page to import and export system files, save and load user settings and change the unit startup settings.



System Backup

- Use the Export button to write all system backup data (including user preset data) to the selected card.
- Use the Import ALL button to write all system backup data (including user preset data) from the selected card to the built-in memory. This user preset data will immediately affect how the unit operates.
- Use the Import User button to write only the user preset data from the system backup data on the selected card to the user preset in the built-in memory. This user preset data does not immediately affect how the unit operates. To make the user

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preset data affect operation, use the Load Preset item User button to load it.

- If there is no system backup file, a pop-up window appears stating the importing will not occur.

Save User Preset

Touch the Save button to save the current settings as preset data in the built-in memory.

Load Preset

Touch the User button to load the user preset settings or the Factory button to load the factory preset settings (values set when unit shipped).

Startup MODE

Last Setting: Last used settings are restored at startup.

User Preset: User Preset settings are used at startup.

Factory Preset: Factory Preset settings are used at startup.

NOTE

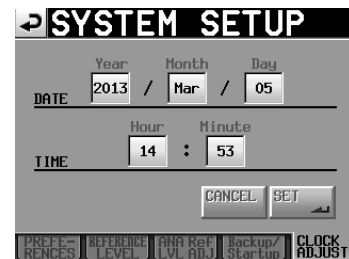
- The following backup settings, which are not saved with projects, are included when saving and loading a preset.

Screen name	Page name	Setting
Home Screen		Time counter display mode
LOCK SETUP screen		All settings
PLAY SETUP screen	CONTROL page	PLAY Inhibit Time
SYNC T/C screen	CLOCK page	MASTER
	SYNC page	Master TC
ON AIR Fs screen		ON AIR Fs
REMOTE SETUP screen	GENERAL page	FADER MODE
		FADER Start MODE
		FADER Stop MODE
	PARALLEL page	AUX Assign
	RS-232C page	All settings
	ETHERNET page	All settings
MIXER SETUP screen	INPUT page	INPUT SOURCE
		MONITOR PAN
	MONITOR MIXER page	PreFader/PostFader
	SETUP page	Output 1-4 MonoMix Output 1-4 Source
SYSTEM SETUP screen	PREFERENCE page	All settings
	REFERENCE LEVEL page	All settings
	ANA Ref LVL ADJ page	All settings
	Backup/Startup page	Startup MODE
OPERATION MODE screen		Whether the operation mode is on air mode or another mode. (If anything other than on air mode, the operation mode saved on the CF card is made active.)
VERSION/OPTION screen	WAV LOCK page	WAV LOCK

- When the unit is shipped new, the user preset settings are the same as the factory preset settings.
- When the user preset memory Startup MODE setting is set to Last Setting or Factory Preset, if the Startup MODE is changed to User Preset but the Save User Preset is not executed, the User Preset will load the next time the unit starts. Then, however, the Startup Mode saved in the User Preset memory (Last Setting or Factory Preset) will be restored. At this time, the Last Setting or Factory Preset settings will not be reloaded. The next time the unit is started, though, the Last Setting or Factory Preset settings will be loaded.

CLOCK ADJUST page

Set the time of the built-in clock.



Touch the item that you want to set, and use the DATA dial to adjust the item. (See "Setting the time of the built-in clock" on page 27.)

Touch the SET button on the CLOCK ADJUST page or press the DATA dial to confirm the setting.

NOTE

While setting the time, the clock stops and the ":" does not blink.

When you touch the SET button, the clock starts again and the ":" blinks.

Version display and optional functions (VERSION/OPTION)

Use this screen to view version information and make settings for optional functions.

The VERSION/OPTION screen has two pages: VERSION INFO and WAV LOCK.

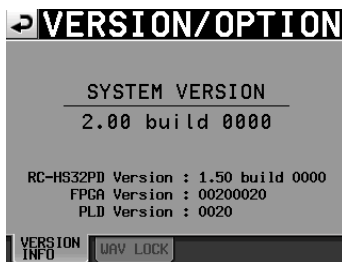
Touch the tabs at the bottom of the screen to open the corresponding page.

VERSION INFO page

Show the system version.



Touch the bottom center of the screen to show the version of the internal device data and the version of any TASCAM RC-HS32PD remote controller (sold separately) connected to the unit.



WAV LOCK page

This is the setting screen for a paid optional function that allows you to lock audio files with a password so that they can only be played on this unit or another HS-4000 unit that has the same password. For details, see “Importing all takes” on page 56.



AUTHORIZE KEY

Open the screen where you can input the authorization key.

Password

Open the screen where you can change the password.

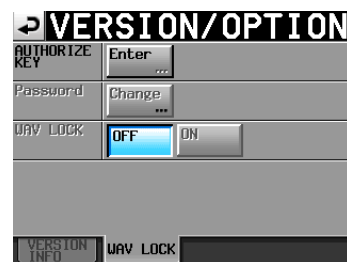
WAV LOCK

OFF (default): When recording and bouncing, audio files are created without being password-locked.

ON: When recording and bouncing, password-locked audio files are created.

NOTE

- The Password item and the WAV LOCK setting buttons are disabled until the WAV LOCK function is made usable.



- When the WAV LOCK function is set to ON, a key icon (🔑) appears to the right of the transport status icon on the Home Screen.



11 – Internal settings

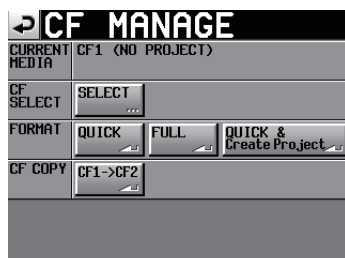
Managing CF cards (CF MANAGE)

Use this screen to manage CF cards.

CAUTION

*If you execute any of the **FORMAT** item commands or **CF COPY**, all the data on the CF card will be erased.*

Execute these commands only if you are absolutely certain that you want to erase the card.



CURRENT MEDIA

This shows the currently selected card slot name and its status.

CF SELECT

This opens the CF SELECT screen where you can select the CF card used for recording and playback.

FORMAT

Format the CF card.

● QUICK button

This only formats CF card management information.

● FULL button

This formats the entire CF card.

● QUICK & Create Project button

After formatting only the CF card management information, a new project is automatically created with the same settings as the current project.

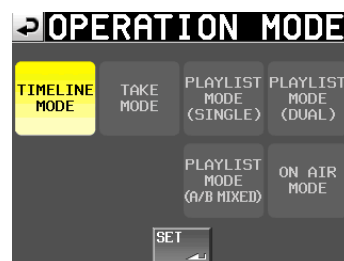
CF COPY

Use to copy a CF card.

The entire CF card in the current CF slot will be copied to the CF card in the other CF slot.

Operation mode selection (OPERATION MODE)

Set the unit's operation mode on this page.



After selecting an operation mode, touch the SET button to switch to it and return to the Home Screen.

TIMELINE MODE

The timeline mode becomes active and the Home Screen reopens.

TAKE MODE

The take mode becomes active and the Home Screen reopens.

PLAYLIST MODE (SINGLE)

The single playlist mode becomes active and the Home Screen reopens.

PLAYLIST MODE (DUAL)

The dual playlist mode becomes active and the Home Screen reopens.

PLAYLIST MODE (A/B MIXED)

The A/B MIXED playlist mode becomes active and the Home Screen reopens.

ON AIR MODE

The on-air mode becomes active and the Home Screen reopens.

Folder structure

The folder structure is as shown below.

You can check the CF card folder and file structure by accessing it from a computer using a card reader, for example.

Be careful, however, because the HS-4000 might not be able to play a project if you change or erase files inside it or change any names.

NOTE

- *Poly files are created directly in the session folder.*
With mono files, subfolders are created inside the session folder for each take. When the Mono File Place setting is SubFolder, files are created in the take subfolders. When the setting is Session Root, files are created directly in the session folder.
- *Other management files and folders are created in addition to these.*

CAUTION

- *Even when Mono File Place is set to Session Root, subfolders are created and management files are stored in them. Do not erase these subfolders.*
- *Do not store other data in the ".system\backup" folder created on each card for management. Doing so could cause data to be erased.*

File names

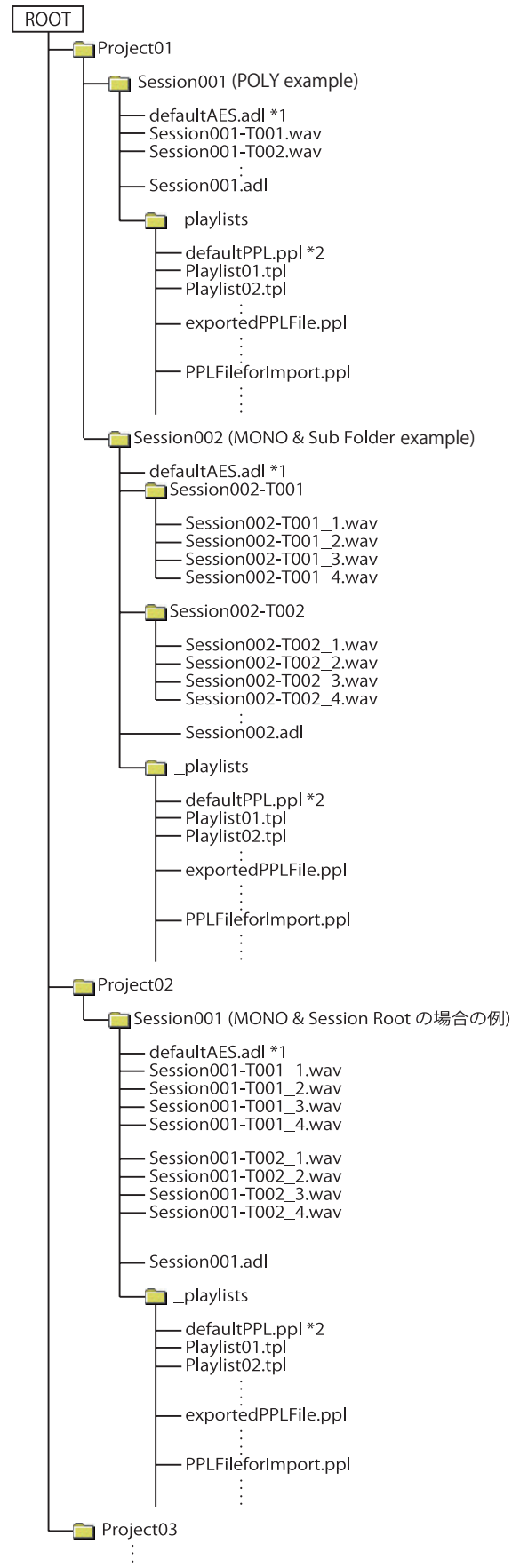
The format used in naming files is as follows.

1–4 track poly files

[Take name first half]-[letter][take number].wav

1–4 track mono files (planned for a future firmware version upgrade)

[Take name first half]-[letter][take number]_[track number].wav



*1 AES31 file created automatically

*2 PPL file created automatically

12 – Mark and locate functions

Mark functions

Adding marks

Use the following methods to create marks.

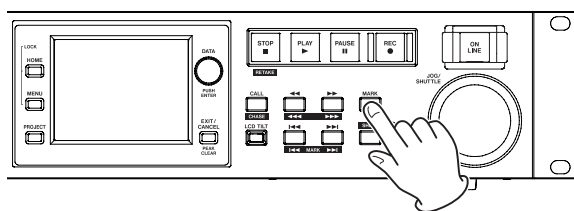
One timeline or take can have a maximum of 99 marks, including marks created by key operations and automatic marks.

Push the MARK key on the front panel.

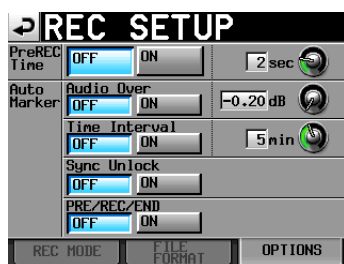
Press the MARK key to add a mark at that playback/recording time.

In timeline mode, marks are only added to the timeline. Marks are not added to the audio files.

Mark names are in the format "MARK XX".



Use the auto marker function



When the Auto Marker function is set to ON, marks can be automatically added when audio overs occur, at regular time intervals when synchronization errors occur, and when pre recording starts, recording starts and recording stops. (See "OPTIONS page" on page 102.)

In timeline mode, automatic marks are added to the timeline and the audio file itself.

Auto marks are named according to how they were made as follows.

When auto mark was made	Mark name
When audio over occurs	OVER xx
At every time interval	TIME xx
When a synchronization error occurs	UNLK xx

CAUTION

The following auto marks are only added to audio files (takes). In timeline mode, they do not appear in timelines.

When auto marks are made	Mark name
Recording start point	REC xx
Recording end point	END xx
Pre-recording start point	PRE xx

NOTE

- An "audio Over" occurs when the level exceeds the maximum level (full scale) minus the value set by the user. (In the example setting shown in the column to the left, this would be when the level exceeds the maximum level minus 0.20 dB.)
- If a mark is triggered using parallel control, a mark is added in the same manner as if the MARK key had been pushed.
- If an auto mark is added for an audio over or synchronization error, the same type of mark will not be added again until at least 10 seconds pass.

Using keys to locate to marks

While pressing and holding the SHIFT key, press the I◀◀ [MARK I◀◀] or ▶▶I [MARK ▶▶I] key to locate to the previous or next mark.

NOTE

If MARK SKIP +/- is input using parallel control, the unit will locate to the next or previous mark.

12 – Mark and locate functions

MARK LIST screen

Touch the Mark List button on the Home Screen to open the MARK LIST screen.



NAME buttons

Touch to sort by mark name in descending or ascending order.

When the mark names are sorted in ascending order, a \triangle icon appears inside the NAME button. When in descending order, a ∇ icon appears inside this button.

TIME buttons

Touch to sort marks by time in descending or ascending order.

When they are sorted by time in ascending order, a \triangle icon appears inside the TIME button. When in descending order, a ∇ icon appears inside this button.

Mark name buttons

Touch to select a mark.

LOCATE () buttons

Touch to locate to the corresponding mark position.

LIST INFO button

Touch to open a MARK LIST screen that shows a list of the number of marks by type in the currently selected take.

EDIT NAME button

Touch this button to open the MARK NAME screen where you can edit the name of the selected mark.

EDIT TIME button

Touch this button to open the MARK EDIT screen where you can edit the position of the selected mark.

MULTI SELECT button

Use this to enable the selection of multiple marks.


DELETE button

Touch this button to erase the selected mark.

Scroll buttons

Use these buttons to scroll to the beginning or end of the mark list or to scroll one page (five lines) at a time. You can also scroll through the mark list one line at a time using the DATA dial.

Locating to marks

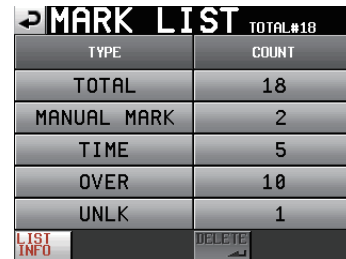
Touch a  button to locate to the corresponding mark.

Viewing mark list information

Touch the LIST INFO button on the MARK LIST screen to open the LIST INFO page.

This screen shows a list of the number of marks by type in the currently loaded take.

Touch the LIST INFO button again to return to the MARK LIST screen.



TYPE	COUNT
TOTAL	18
MANUAL MARK	2
TIME	5
OVER	10
UNLK	1

Mark list information screen

NOTE

After recording, the MARK LIST screen might show a TOTAL number of marks that is 2 or 3 greater than the sum of the MANUAL MARK, TIME, OVER and UNLK marks. This is because the total includes REC, END and PRE (when prerecording) marks that are created during recording.

12 – Mark and locate functions

Erasing marks

1. Select the mark that you want to erase on the MARK LIST screen.



MARK LIST screen

2. Touch the DELETE button on the MARK LIST screen.
3. When a confirmation pop-up message appears, touch the OK button or press the DATA dial to erase the mark.



Erasing a mark using the MARK LIST screen

NOTE

On the MARK LIST screen, you can also select the mark type that you want to delete and press the DELETE button to erase all the marks of the same type.

When you do this, a "Delete all marks of this type?" confirmation pop-up appears. Touch the OK button or press the DATA dial to erase all the marks of the same type.

MARK LIST TOTAL#18	
TYPE	COUNT
TOTAL	18
MANUAL MARK	2
TIME	5
OVER	10
UNLK	1
LIST INFO	DELETE

Mark list information screen



Erasing marks using the mark list information screen

Editing mark positions

You can change the positions (times) of marks added using the MARK key (marks named "MARK XX").

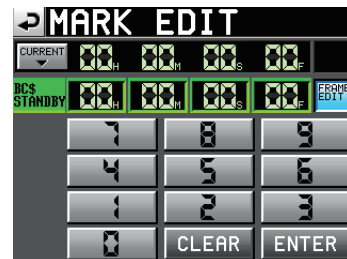
NOTE

The positions of auto marks cannot be edited.

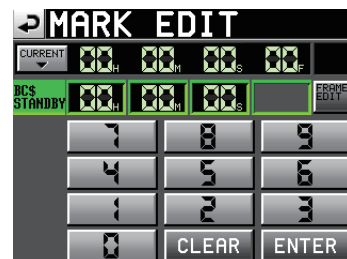
1. Select the mark that you want to edit on the MARK LIST screen.



2. Touch the EDIT TIME button to open the MARK EDIT screen. Touch the FRAME EDIT button to set whether or not the frame value can be edited.



FRAME EDIT on



FRAME EDIT off

3. Use the number buttons on the screen to input the mark position. Use the DATA dial to change the time for the selected number.
Press the ENTER button to confirm the setting and return to the MARK LIST screen.
Touch the CLEAR button to reset the input value.
 - If you begin input without selecting a digit, input will start from the smallest one.
 - To input a specific digit, touch it to make its background yellow, then use the number buttons or the DATA dial to enter two digits at a time.
 - Touch the CURRENT ▼ button to copy the current playback position to the input value.

TIP

This can also be edited using an externally connected keyboard.

Press the keyboard's Enter key to confirm a setting and its ESC key to clear all the values.

12 – Mark and locate functions

Editing mark names

1. Select the mark that you want to edit on the MARK LIST screen.



2. Touch the EDIT NAME button to open the MARK NAME screen.



Use the same input method as in “Editing the project name” on page 40.

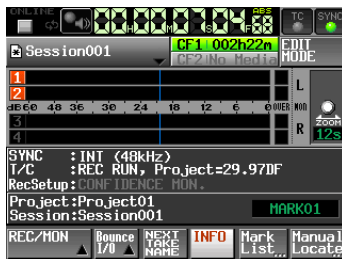
If you want to input a BWF-J cue name, touch the BC\$ button at the upper right and select a cue name from the pull-down menu that appears.



NOTE

You can also open the MARK NAME screen by touching the mark name area on the Home Screen (in timeline mode, when the INFO display is open).

However, since the names of automatic marks cannot be edited, the MARK NAME screen is not shown for them.

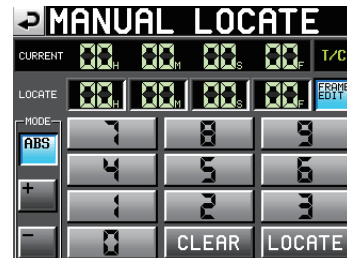


Manual locate function

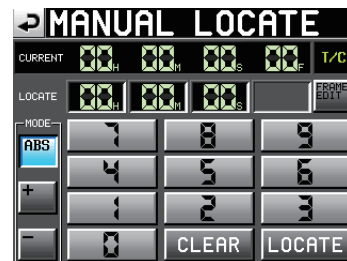
You can directly input a time and locate to it.

Touch the Manual Locate button on the Home Screen to open the MANUAL LOCATE screen.

Touch the FRAME EDIT button to set whether or not the frame value can be edited.



FRAME EDIT on



FRAME EDIT off

There are three locate modes as follows.

- ABS Input an actual time and locate to it.
- + Input an amount of time to go forward from the current time.
- Input an amount of time to go backward from the current time.

Input the time using the number buttons.

You can also select a number field in the LOCATE area and use the DATA dial to adjust the time.

Press the LOCATE button to locate to that new time and return to the Home Screen.

Touch the CLEAR button to clear all input values.

NOTE

When the CURRENT time display is set to T/C, you can locate based on the timecode time.

TIP

This can also be edited using an externally connected keyboard.

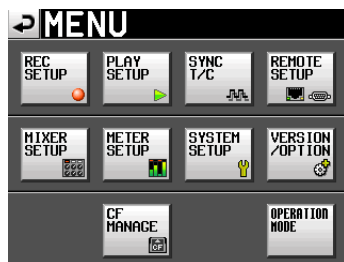
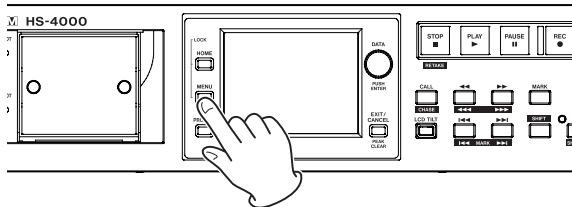
Press the keyboard's Enter key to confirm a setting and its ESC key to clear all the values.

13 – Other functions

Confidence monitoring

During recording, the recorded audio can be read back right away from the media and output for monitoring.

1. Press the MENU key on the front panel to open the MENU screen.



2. Touch the REC SETUP button to open the REC SETUP screen.



3. Touch the ON button of the Confidence Monitor item to enable the confidence monitoring function (default: ON).

Confidence monitoring operation conditions

To use the confidence monitoring function, the following settings are necessary.

Fs (sampling frequency): 44.1k, 48k, 48k-0.1% or 48+0.1k
TIMELINE Rec Tracks (in timeline mode): 2tr
Number of tracks armed for recording (in take mode): No more than 2 total

NOTE

- Set the Fs item when creating a project, and set the TIMELINE Rec Tracks item when creating a session (or when creating a project for the first session). These cannot be changed after the creation of a project or session.
- When using confidence monitoring, the playback sound is delayed about 2.4 seconds before output.
- When a region (take) is divided or the recording region (take) reaches the maximum size, the confidence monitoring playback sound will be interrupted for a few seconds.

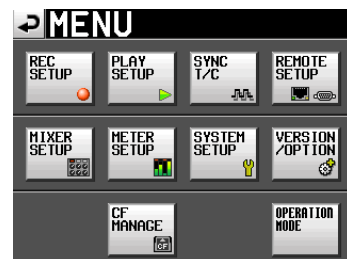
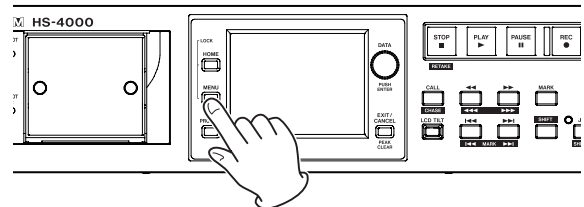
Online functions

Use the ONLINE key to turn this function on/off.

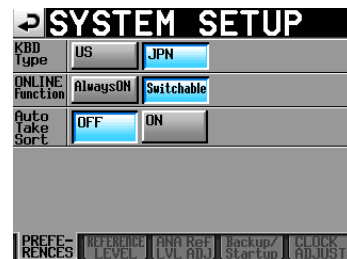
Enabling the online function

In order to use online function, the online function must be set to Switchable.

1. Press the MENU key on the front panel to open the MENU screen.



2. Touch the SYSTEM SETUP button to open the SYSTEM SETUP screen.



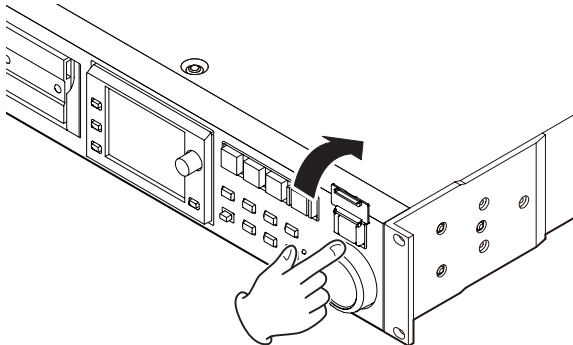
3. Touch the Switchable button of the ONLINE Function item to change the online function setting (default value: Switchable).

When the online function setting is AlwaysON, the online playback mode is always enabled and the ONLINE key stays lit to indicate this status.

Switching the online playback mode

When the online function can be changed (ONLINE Function item is set to Switchable), the following operations can be used to turn the online playback mode on/off.

- Main unit: press the ON LINE key



- When parallel control connected: ONLINE event
- When RS-232C serial control connected: ONLINE command
- TASCAM RC-HS32PD remote controller (sold separately): press the ONLINE key

In dual or A/B MIXED mode, only the online playback mode for the selected player can be turned ON/OFF on screen. When using a TASCAM RC-HS32PD remote controller (sold separately), however, regardless of which player is selected, you can press the player A or B ONLINE key to turn online playback mode ON/OFF for the corresponding player.

When online playback mode is turned ON/OFF, the following occurs depending on the mode.

When in timeline, take, single playlist or on-air mode

- When online playback mode is turned ON, the **ONLINE** icon appears at the top left of the screen and the ON LINE key lights red.
- When online playback mode is turned OFF, the **ONLINE** icon disappears from the top left of the screen and the ON LINE key becomes unlit.

When in dual playlist or A/B MIXED mode

- When online playback mode is turned ON, the **MON** icon changes to the **ONLINE** icon at the top left of the time counter for the selected player, the time counter background turns red and the ON LINE key lights.
- When online playback mode is turned OFF, the **ONLINE** icon changes to the **MON** icon at the top left of the time counter for the selected player, the time counter background turns black and the ON LINE key becomes unlit.

Outputs during online playback

The relationship between online playback mode and sound outputs are as follows.

Online playback mode	OFF	ON
Analog line outputs (1–4)	-	✓
Digital line outputs (1–2, AES/EBU)	-	✓
Analog monitoring output (L, R)	✓*	✓*
Headphones	✓*	✓*
RC-HS32PD (headphones, speakers)	✓*	✓*

*The monitoring signal is always output.

CAUTION

When the ONLINE Function item is set to Always ON, sound is always output from all connectors.

TIP

By turning the Monitor Mute by Online item (MIXER SETUP screen SETUP page) ON, you can enable monitoring output to automatically be turned off when online playback mode is on.

For details about the Monitor Mute by Online item, see "SETUP page (MIXER SETUP screen)" on page 110.

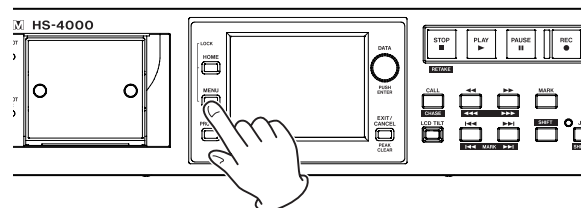
Flash start function

Use the flash start function to instantly start playback of takes that you have designated in advance.

A maximum of 96 takes (2x96 takes in dual player mode) can be started instantly using a keyboard or devices connected to this unit's remote connectors (REMOTE and PARALLEL).

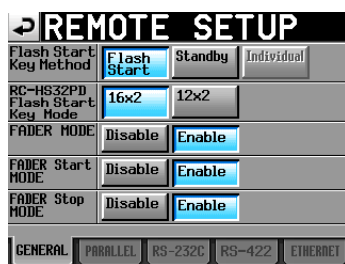
Setting the flash key function

1. Press the MENU key on the front panel to open the MENU screen.



13 – Other functions

2. Touch the REMOTE SETUP button to open the REMOTE SETUP screen.



On the GENERAL page, set what happens when a flash start key is pressed, and set whether the two banks of flash start keys have 12 or 16 buttons each when using the TASCAM RC-HS32PD remote controller (sold separately) in dual playlist mode. For details, see “GENERAL page (REMOTE SETUP screen)” on page 106.

Selecting the flash start page

1. In take mode, select the session that you want to play back. (See “Loading sessions” on page 43.)
When in playlist mode, select a playlist. (See “Loading playlists” on page 80.)
2. Use the DATA dial to select the page that contains the takes or files that you want to play.
When in dual playlist mode, use the SELECT button to select the current player first.
The takes or entries numbered from 1 to 96 in the selected session or playlist can be played back using flash start.
The pages depend on the RC-HS32PD Flash Start Key Mode and player mode.

	Take, single playlist or A/B MIXED playlist mode	Dual playlist mode	
Page	16x2	16x2	12x2
1	1-32	1-16	1-12
2	33-64	17-32	13-24
3	65-96	33-48	25-36
4	-	49-64	37-48
5	-	65-80	49-60
6	-	81-96	61-72
7	-	-	73-84
8	-	-	85-96

NOTE

- When using a TASCAM RC-HS32PD remote controller (sold separately), file names (or the first parts of long file names) appear on the keys, making it easy to check the files.
- When using a TASCAM RC-SS20 remote controller (sold separately), the takes or entries numbered from 1 to 20 on each page can be played back using flash start.
- When using a computer keyboard, the takes or entries numbered from 1 to 12 on each page can be played back using flash start.

Flash start playback

When the Flash Start Key Method item is set to Flash Start, pressing a flash start key causes the corresponding take or entry to start playback immediately.

Standby playback (only with RC-HS32PD connected)

When the Flash Start Key Method item is set to Standby, pressing a flash start key when stopped puts the corresponding take or entry into playback standby and that key blinks yellow. Following this, pressing the PLAY key will cause playback to start and the key to become green.

During playback, touching another flash start key will cause the corresponding take or file to become lined up for playback, and that key will become yellow.

When a take or entry is lined up for playback, pressing the PLAY key will cause that take to start playing.

To cancel standby, touch the key for the lined up take (yellow key) again.

Operation using a computer keyboard

You can control this unit by connecting an IBM-PC-compatible keyboard with a PS/2 or USB interface to the unit.

Connect PS/2 keyboards to the KEYBOARD connector on the front panel of this unit. Connect USB keyboards to the USB connector on the front panel of this unit.

A variety of operations are possible, but using the keyboard is especially efficient for inputting names.

Setting the keyboard type

Set the keyboard type to suit the connected keyboard.

Change the KBD Type setting on the PREFERENCES page of the SYSTEM SETUP screen. (See “PREFERENCES page” on page 112.)

Using the keyboard to input names

You can edit and input characters for the following items in the same manner as inputting characters on a computer.

- Project names (See “Editing the project name” on page 40.)
- Session names (See “Editing the name of the first session” on page 41.), (See “Creating new sessions” on page 43.)
- Take names (See “Editing take names” on page 76.)
- Playlist names (See “Creating a new playlist” on page 77.), (See “Saving a playlist” on page 93.)
- Exported PPL file names (See “Creating a JPPA PPL file from the loaded playlist” on page 94.)
- Exported AES31 file names (See “Exporting AES31 editing information” on page 55.)
- Playlist entry titles (See “Editing entry titles” on page 88.)
- Bounce file names (See “Bouncing” on page 67.)
- First half of the next take name
- Letter in the second half of the next take name
- Mark (See “Editing mark names” on page 121.)

You can also use it to enter numbers for the following items.

- Editing the T/C USER BITS
- Editing the START TIME
- Editing mark positions (See “Editing mark positions” on page 120.)

- Inputting manual locate points (See “Manual locate function” on page 121.)
- Editing timecode offset (See “SYNC page” on page 104.)

Selecting the type of character to input:

In the same manner as with a computer, use the Shift and Caps Lock keys to select the type of character to input.

Inputting characters:

You can use the number, letter and symbol keys to input them directly.

Moving the cursor:

Use the ←/→ keys.

Use the HOME/↑ key to move the cursor to the beginning.

Use the END/↓ key to move the cursor to the end.

Erasing characters:

Use the Delete key to erase the character at the cursor position.

Use the Backspace key to erase the character before the cursor position.

Inserting characters:

Input the character at the desired position.

CAUTION

- *The following symbols and punctuation marks cannot be used in names.*
 \ / : * ? " < > |
- *Japanese katakana cannot be input.*
- *The letter in the second half of the next take name can only be an uppercase letter from the alphabet.*

NOTE

If the LOCK SETUP screen KEYBOARD CHARACTER item is set to LOCK, names cannot be input using a keyboard.

List of keyboard operations

In addition to inputting names, a keyboard can be used to control the transport and conduct various other operations. The following is a summary of keyboard key functions.

Keyboard	Operation
F1 key	Same as I◀◀ key
F2 key	Same as ▶▶I key
F3 key	Same as CALL key
F4 key	Same as STOP key
F5 key	Same as PLAY key
F6 key	Same as PAUSE key
F7 key	Turn auto cue ON/OFF
F8 key	Same as REC key
F9 key	Turn auto ready ON/OFF
F10 key	Turn repeat mode ON/OFF
F11 key	Change play mode
F12 key	-
CTRL + F1 key	FLASH 1
CTRL + F2 key	FLASH 2
CTRL + F3 key	FLASH 3
CTRL + F4 key	FLASH 4
CTRL + F5 key	FLASH 5
CTRL + F6 key	FLASH 6
CTRL + F7 key	FLASH 7
CTRL + F8 key	FLASH 8
CTRL + F9 key	FLASH 9
CTRL + F10 key	FLASH 10
CTRL + F11 key	FLASH 11
CTRL + F12 key	FLASH 12

NOTE

If the LOCK SETUP screen KEYBOARD F-KEY item is set to LOCK, function key operations are disabled.

Network functions (FTP/Telnet/VNC)

FTP (file transfer protocol)

By using an FTP client application, you can transfer files between this unit and a computer. Connect to this unit and login in the same way as with other FTP servers.

After connecting and logging in, “A:” and “B:” will appear in the root folder. These correspond to the CF1 and CF2 slots.

If the corresponding slot does not contain a card, nothing will appear after the “A:” or “B:”.

NOTE

- *To display Japanese, use an FTP application that supports Unicode.*
- *Always set the maximum number of simultaneous transfers of the FTP client application to "1".*
If not set to "1" files cannot be transferred properly.
- *For information about FTP client applications that have been confirmed to work properly with this unit, please contact TASCAM customer support.*

13 – Other functions

Required settings when connecting by FTP

The following settings are necessary when connecting to this unit by FTP.

- IP address: This unit's IP address is shown in the IP Address field of the REMOTE SETUP screen ETHERNET page.
- Port number: 21
- User name: HS-4000 (case sensitive, cannot be changed)
- Password: The default password is "HS-4000". The password is case sensitive and can be changed by using the Password Change button on the REMOTE SETUP screen ETHERNET page.

NOTE

- The number of simultaneous connections should be "1".
- Depending on the FTP client application, two simultaneous connections with this unit might be possible, but files might not be transferred correctly, so you should not use two or more simultaneous FTP connections with this unit.
- FTP connections cannot be made when the EXT. CTRL item has been set to LOCK on the LOCK SETUP screen. When an FTP connection is active, setting this to LOCK will end the connection.
- When an FTP connection is active, changing any settings on the REMOTE SETUP screen ETHERNET page will end the connection.

Working with files using an FTP client application

- Reading files from the unit
You can read files from this unit at any time.
- Adding new files to the unit
You can add new files to this unit at any time.
When recording, if you add BWF or WAV files to the current session, they will be shown in the list with existing files, recorded files and added files in that order.
- Overwriting existing files on the unit
You can only overwrite the current take when the unit is stopped.
You cannot overwrite a take that is currently in use on the playlist mode entry editing screen. You can overwrite other existing files at any time.
However, if the PLAY SETUP screen GENERAL page Play Mode item is set to All Take, overwriting the take following the current take during playback might not be possible depending on the timing.

CAUTION

- In playlist mode, if you overwrite a take that has been added to a playlist as an entry, a "?" will be shown for the corresponding entry on the ENTRY list and file ASSIGN screens, and that file will be ignored for playback. To enable playback of a file that has overwritten another, add the overwritten file as an entry.
- In On-Air mode, if you overwrite a file shown on the on air list screen, the corresponding take will be unchecked and the file will be ignored for playback. Rebuild when the following rebuild confirmation message is shown.
When you rebuild, all the takes will be enabled for playback (checked), so deselect any that you do not want to be played back.



- If overwriting causes the size, number of channels, bit-rate or sampling frequency of an audio file to be different from the previous file, inconsistencies could occur in the existing timeline or playlist.

If such an inconsistency occurs, the following error message might appear when you start playback.



Conduct the following to eliminate the inconsistency and stop the error message from occurring.

Timeline mode: Erase the affected region.

Take mode: Delete the affected take from the CF card.

Playlist mode: Add the overwritten file as an entry.


On-air mode: Rebuild using the Home Screen pull-down menu REBUILD button.

- Do not overwrite an existing audio file with a file that uses a different sampling frequency. The inconformity will be unresolvable.
3. Deleting files on the unit
- The current take can be deleted only when the unit is stopped.
- Files other than the current take can be deleted at any time.
- However, deleting files will cause inconsistencies between the system files and audio files, so it is necessary to rebuild after deleting a file.
- After deleting a file (and stopping playback or recording), the following rebuild confirmation message will appear. Touch OK to rebuild.



- If you do not rebuild, inconsistencies between the system files and audio files will occur and a message like the following might appear.



- When rebuilding becomes necessary,  icons will appear on the following buttons. Touch a REBUILD button in one of the menus to rebuild.
 - File name buttons on the Home Screen
 - PROJECT screen MENU buttons
 - REBUILD buttons in various menus
- 4. Adding new folders to the unit
You can add new folders to this unit at any time.
- 5. Deleting folders from the unit
You can only delete the current project/session folder when stopped.
You can delete any folder other than the current project/session folder from this unit at any time.
- 6. Editing the names of files/folders on the unit
You cannot edit the names of files/folders on this unit.

NOTE

If you work with files/folders on this unit by FTP during recording, you will not be able to retake (erasing the last recorded region/take).

Remote control by Telnet

Remote control of this unit over Ethernet is possible via port 23 using Telnet.

Necessary setting for connections by Telnet

The following settings are necessary for connecting to this unit by Telnet.

IP address: This unit's IP address is shown in the IP Address field of the REMOTE SETUP screen ETHERNET page.

Port number: 23

Password: The default password is "HS-4000". The password is case sensitive and can be changed by using the Password Change button on the REMOTE SETUP screen ETHERNET page.

Connecting to this unit by Telnet

1. After connecting with this unit by Telnet using the above IP address and port number, press the computer Enter key.
2. When "Enter Password" appears on the Telnet console, input the above password and press the Enter key.
3. When login succeeds, "Login Successful" appears on the Telnet console. Input "exit" and press the Enter key to end the Telnet connection.

NOTE

- Two simultaneous Telnet connections are possible.
- Telnet connections cannot be made when the EXT. CTRL item has been set to LOCK on the LOCK SETUP screen.
When a Telnet connection is active, setting this to LOCK will end the connection.
- When a Telnet connection is active, changing any settings on the REMOTE SETUP screen ETHERNET page will end the connection.
- For information about this unit's Telnet command protocol, please contact TASCAM customer support.

VNC (virtual network computing)

By using a VNC viewer application, you can view and operate the screens that appear on this unit's display on a computer.

In the VNC viewer application, you can use a mouse to conduct the following operations.

- Mouse left click: Same as touching the unit's LCD.
- Mouse wheel click: Same as pressing the unit's ENTER key.
- Mouse wheel operation: Same as using the unit's DATA dial.
- Mouse wheel push and turn: Same as using the unit's DATA dial while pressing it to make large setting changes (COARSE mode operation).

In addition, when the VNC viewer application is active, you can conduct the following operations by using the computer keyboard.

- F1 – F12 keys: These work the same as an external keyboard connected to the unit. For details see the "List of keyboard operations" on page 128.
- Home key: This works the same as this unit's HOME key and opens the Home Screen. Press the End key while pressing and holding the Home key to open the LOCK SETUP screen.
- End key: This works the same as this unit's MENU key and opens the MENU screen. Press the End key while pressing and holding the Home key to open the LOCK SETUP screen.
- Page Down: This works the same as this unit's PROJECT key and opens the PROJECT screen.
- Cursor ↑ key: This works the same as turning the unit's DATA dial right.
- Cursor ↓ key: This works the same as turning the unit's DATA dial left.
- Character input key: Use to input characters when a keyboard screen appears on the unit.

Necessary setting for VNC connection

The following settings are necessary for connecting to this unit using a VNC viewer application.

- IP address: This unit's IP address is shown in the IP Address field of the REMOTE SETUP screen ETHERNET page.
- Password: The default password is "HS-4000". The password is case sensitive and can be changed by using the Password Change button on the REMOTE SETUP screen ETHERNET page.

NOTE

- Two or more simultaneous VNC connections are not possible.
- If the EXT. CTRL item has been set to LOCK on the LOCK SETUP screen, display is possible but operation is not when using a VNC viewer application.
- When connected by VNC, changing any settings on the REMOTE SETUP screen ETHERNET page will end the connection.
- For information about VNC viewer applications that have been confirmed to work properly with this unit, please contact TASCAM customer support.
- When files are being transferred by FTP or when the system sampling frequency is 88.2 or 96 kHz, VNC viewer application display and operation will not be smooth.
- Even if the LOCK SETUP screen EXT. CTRL item is set to UNLOCK, if the KEYBOARD CHARACTER item is set to LOCK, names cannot be input using a keyboard via VNC.

13 – Other functions

- Even if the LOCK SETUP screen EXT. CTRL item is set to UNLOCK, if the KEYBOARD F-KEY item is set to LOCK, keyboard function keys cannot be used via VNC.

WAV LOCK function (paid option)

This paid optional function allows you to lock audio files with a password so that they can only be played on this unit or another HS-4000 unit that has the same password.

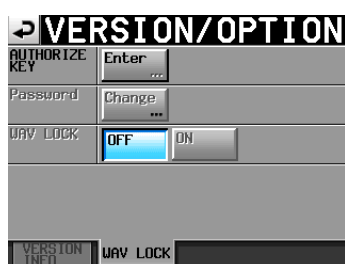
Enabling the WAV LOCK function

1. Purchase an authorization key for the WAV LOCK function.

NOTE

Please contact TASCAM Customer Support for information about purchasing an authorization key.

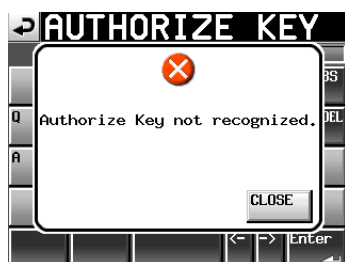
2. Touch the AUTHORIZE KEY item Enter button on the VERSION/OPTION screen WAV LOCK page.



3. After the AUTHORIZE KEY input screen opens, input the authorization key including any "-" (hyphens).



If you input an incorrect authorization key, an error message will appear and the AUTHORIZE KEY input screen will reopen.



4. After inputting a valid authorization key, the ENTER WAV LOCK PASSWORD screen where you can input the password that locks audio files opens. Input the password and touch the Enter button.

The password is case sensitive and must be 8 characters or less.

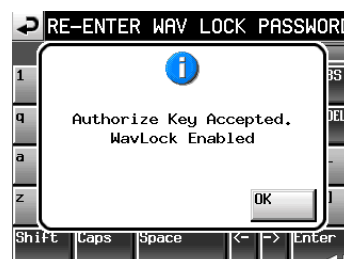


5. After touching the Enter button, the RE-ENTER WAV LOCK PASSWORD screen where you must input the password again opens. Input the password and touch the Enter button.



If the input password does not match the one input on the ENTER WAV LOCK PASSWORD screen, an error message appears, and the ENTER WAV LOCK PASSWORD screen opens again.

6. If the input password matches the one input on the ENTER WAV LOCK PASSWORD screen, the "Authorize Key Accepted." message appears.



Touch the OK button to return to the WAV LOCK page where the Password and WAV LOCK setting buttons are now enabled.

Changing the WAV LOCK password

In order to prevent the password from being changed unintentionally, the authorization key must be input before changing the WAV LOCK password.

1. Touch the Password Change button on the VERSION/OPTION screen WAV LOCK page.



13 – Other functions

- After the AUTHORIZE KEY input screen opens, input the authorization key including any "-" (hyphens).



If you input an incorrect authorization key, an error message will appear and the AUTHORIZE KEY input screen will reopen.



- After inputting a valid authorization key, the ENTER WAV LOCK PASSWORD screen where you can input the password that locks audio files opens. Input the password and touch the Enter button.

The password is case sensitive and must be 8 characters or less.



- After touching the Enter button, the RE-ENTER WAV LOCK PASSWORD screen where you must input the password again opens. Input the password and touch the Enter button.



If the input password does not match the one input on the ENTER WAV LOCK PASSWORD screen, an error message appears, and the ENTER WAV LOCK PASSWORD screen opens again.

If the input password matches the one input on the ENTER WAV LOCK PASSWORD screen, the password will be changed and the project will reload.

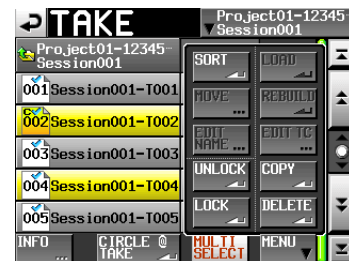
Enabling and disabling the password lock

You can enable the password lock for files that have not been locked, and you can disable the password lock for files in order to make them playable on other devices.

- Enabling/disabling password lock for the selected take
- On the TAKE list screen, select the take for which you want to enable/disable the password lock. (You can use the MULTI SELECT button to select multiple takes.)



- Open the pull-up menu.
Touch the LOCK button to enable the password lock.
Touch the UNLOCK button to disable the password lock.



Enabling and disabling the password lock for all takes in the current session

- On the take list screen, open the pull-up menu when no takes are selected.
- Touch the LOCK button to enable the password lock.
Touch the UNLOCK button to disable the password lock.



- Operation restrictions when using files with passwords that do not match
The following operations are not possible when using a file locked with a password that is different from the one used by this unit.

- Playback

Timeline mode:

If you try to play back a time in a timeline that contains a locked file, "[take number: take name] cannot be unlocked" appears and that file will be silent.

Other operation modes:

You cannot select a locked file as the current take or play it back.

13 – Other functions

- Audio editing
- Mark editing
- Start TC editing
- Circle Take
- Disabling password lock

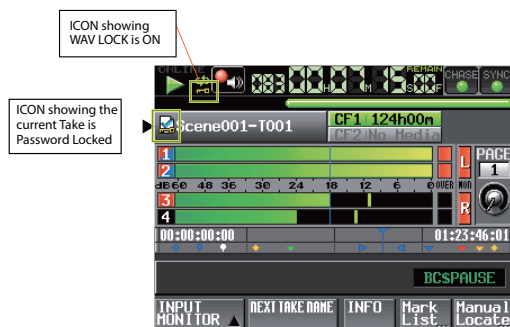
NOTE

Copying the file is possible.

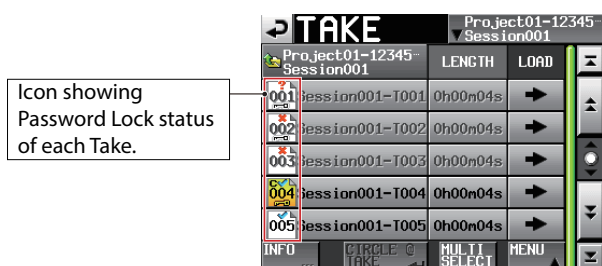
Checking password lock status

An icon shows the file password lock status of a take or entry.

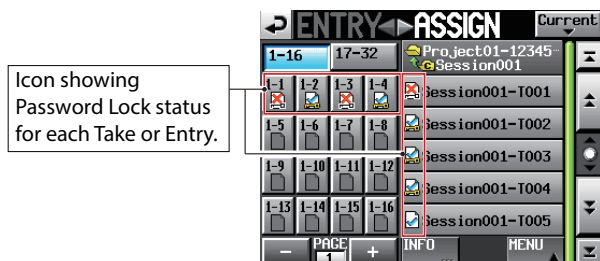
- Home Screen in take mode



- Take list screen



- File assign screen



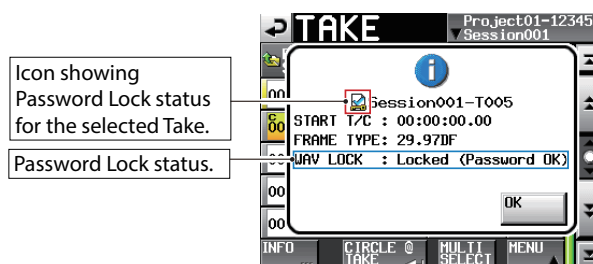
- Examples of icons showing password lock status

Status	Home Screen/ ASSIGN screen	TAKE/ENTRY list screens
Password lock disabled (ordinary file)		
Password locked, and unit password matches		
Password locked, but unit password does not match*		
MONO take(s) with mixed password locked and/or password matching status*		
Invalid WAV file*		

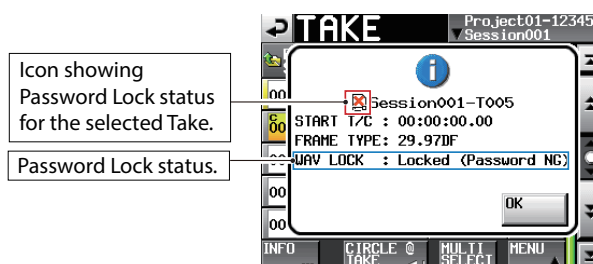
*On the RC-HS32PD remote control, the corresponding flash start keys will appear red and playback will not be possible.

You can also check the password lock status of locked takes in the selected take information pop-up message on the TAKE list screen.

Password matches the unit password



Password does not match the unit password



14 – Timecode synchronization

In this chapter, we explain playback synchronization with timecode.

This unit's playback and recording can be synchronized with SMPTE timecode input through the TIMECODE IN connector on the rear panel. For recording and playback, this unit can be synchronized with SMPTE timecode input through the TIMECODE IN connector on its rear panel or with its built-in timecode generator ("master timecode" hereafter).

Timecode synchronization differs according to the operation mode.

Playback synchronized with timecode

Timeline mode

In timeline mode, playback can be synchronized with master timecode.

When playing back with timecode synchronization, when playback starts, it synchronizes with master timecode.

Take mode

Playback synchronized with timecode is not supported.

Playlist mode

Playback synchronized with timecode is not supported.

On-air mode

Playback synchronized with timecode is not supported.

Recording synchronized with timecode

Timeline mode

In timeline mode, recording can be synchronized with master timecode.

When recording with timecode synchronization, master timecode is captured the instant that recording starts, and recording starts from that time (timecode time) on the timeline.

Take mode

In take mode, recording cannot be synchronized with master timecode.

The timecode from the built-in timecode generator is captured at the beginning of recording as the file starting time.

Playlist mode

In playlist mode, recording is not possible regardless of timecode synchronization status.

On-air mode

In on-air mode, recording is not possible regardless of timecode synchronization.

14 – Timecode synchronization

Basic operation

1. In timeline mode, load the session to be used for recording or playback.
2. On the SYNC T/C screen SYNC page, select the master timecode (Master TC).
3. To playback synchronized with timecode, press the PAUSE key to put the unit into playback standby.
To record synchronized with timecode, press the REC key to put the unit into recording standby.
4. Either of the following operations will enable synchronized playback.
 - While pressing and holding the SHIFT key, press the CALL [CHASE] key on the front panel.
 - On the SYNC T/C screen SYNC page, set TC Chase to ON.At this time, the TC indicator becomes the CHASE indicator on the Home Screen. In addition, if turned on when stopped, the unit enters playback standby.
5. If master timecode is started when in playback standby, playback synchronized with timecode starts from the timecode time when this unit was synchronized with the master timecode.
If master timecode is started when in recording standby, recording synchronized with timecode starts from the timecode time when this unit was synchronized with the master timecode. [The meanings of these sentences are unclear.]
The CHASE indicator on the Home Screen appears green.'

NOTE

During playback synchronized with timecode, to start recording synchronized with timecode, press the PLAY key while pressing and holding the REC key.

6. Press the STOP key during recording or playback with timecode synchronization to stop the transport. The CHASE indicator on the Home Screen blinks when stopped.
7. When stopped, press the PLAY or PAUSE key to restart playback synchronized with timecode.
When stopped, press the REC key to restart recording synchronized with timecode.
8. Either of the following operations will turn synchronization off.
 - While pressing and holding the SHIFT key, press the CALL [CHASE] key on the front panel.
 - On the SYNC page of the SYNC T/C screen, set TC Chase to OFF.

If you do this during playback, playback operation will continue. The CHASE indicator on the Home Screen is replaced with the TC indicator.

NOTE

You cannot turn synchronization off during recording. Press the STOP key to stop recording before turning synchronization off.

Timecode offset

You can set an offset for master timecode synchronization. By doing so, you can synchronize to master timecode for playback with a set time difference. (See "SYNC page" on page 104.)

Rechase

This unit continues to monitor master timecode even after synchronized playback starts. Should the playback time of this unit and the master timecode become unsynchronized for any reason, the unit can "rechase" the timecode.

You can set whether or not the unit uses rechase and the degree of the discrepancy before rechasing (see "SYNC page" on page XX). (See "SYNC page" on page 104.)

CAUTION

During synchronized recording, this unit only synchronizes to master timecode once at the start of recording. There is no rechase function as there is with synchronized playback

15 – Importing files recorded by other devices

This unit can import audio files that meet the following conditions and play them back. In addition, this unit can play back audio files on a CF card prepared on other TASCAM HS series units as soon as the card is loaded if the files meet the following conditions.

- File formats: BWF or WAV
- Sampling frequencies: 44.1, 47.952, 48, 48.048, 88.2, 96 kHz (47.952/48.048: 48 kHz \pm 0.1% pull-up/down)
- Bit length: 16/24-bit
- Number of tracks: 4 or less
- FILE MODE: POLY file (support for MONO files is planned for a future version)

CAUTION

Since the sampling frequency (or sampling rate—the value of the Fs item in this unit) that can be played back is fixed by the project, the file sampling frequency must match the project Fs value.

Preparation before importing

Check the sampling frequency (sampling rate) of the file that you want to import in advance.

1. Select a project with an Fs value that matches the sampling frequency of the file or create a new project with the same sampling frequency as the file using the Fs item on CREATE PROJECT screen 1/3.



CREATE PROJECT screen 1/3

2. Create a session as necessary.

NOTE

For details about creating projects and sessions, see “Project operations” on page 39 and “Session operations” on page 43.

3. Make a note of the names of the project and session that you want to use for importing the file.
In this example, the name of the project is “Project_i” and the name of the session is “Session_i”.
4. Confirm that the slot indicator where the card is inserted is not blinking rapidly and eject the CF card.
5. Insert the CF card into a CF card slot of a computer or card reader, for example.
A CF card formatted by this unit will appear on the computer as a drive named “HS-4000”.
In this example, the drive name HS-4000 is used.
6. Copy the BWF-format file that you want to import into the Session_i session folder inside the Project_i project folder, which is in the HS-4000 drive.

CAUTION

Do not eject the CF card while data is being written to it. Doing so could damage data on the CF card and even make data unreadable. For details, please see the manuals for your computer, card reader or other device being used for this purpose.

7. After writing data completes, remove the CF card from the CF card slot of the computer or other device.

Using imported files on this unit

1. Insert the CF card that you copied the file to into this unit's card slot
2. Press the PROJECT key on the front panel to open the PROJECT screen, and touch the ➡ button to the right of the project that contains the imported file (Project_i) to open the session selection screen.
3. Select the session that contains the imported file (Session_i), so that it appears yellow.
4. Touch the MENU button to open a pull-up menu, and touch the REBUILD button.



The imported file is now recognized as a take.

5. You can play back the imported file in the following ways.
In timeline mode, use the editing functions to add the file to the timeline and play it back (See “7 – Timeline mode” on page 50.)
Play it back in take mode (See “8 – Take mode” on page 68.)
In playlist mode, add it to a playlist and play it back (See “9 – Playlist mode” on page 77.).

16 – Troubleshooting

If the operation of this unit becomes irregular, please check the following things before requesting repair.

If the following measures do not resolve the problem, contact the store where you purchased the device or a TEAC Repair Center.

Power does not turn on.

- Confirm that the power plug, for example, is connected completely.

Media is not recognized.

- Confirm that the CF card is securely inserted into the CF slot.
- Pause recording or playback.

The unit controls do not function.

- Is the panel lock function ON?

Playback is not possible.

- Confirm that the file is compatible with the unit, which supports sampling frequencies of 44.1, 47.952, 48, 48.048, 88.2 and 96 kHz (47.952/48.048: 48 kHz±0.1% pull-up/down) and bit rates of 16 and 24.
- Confirm that the sampling frequencies of the project and the audio file are the same.

There is no sound.

- Check the monitoring system connections and the amplifier volume setting.
- On the MONITOR MIXER page of the MIXER SETUP screen, check that the monitor level settings (level knob settings) are not all the way down.
- When using a TASCAM RC-HS32PD remote controller (sold separately), confirm that the fader is not lowered.
- If you cannot hear the input signal, arm the recording and turn input monitoring ON.
- If you cannot hear the playback sound, turn input monitoring OFF.
- Check the online function and online playback mode settings.
- Check the MIXER SETUP screen SETUP tab to see if the Monitor Mute by Online item is set to ON. If it is set to ON, monitoring signals will be muted when online.

Recording is not possible.

- Reconfirm connections.
- Adjust the recording levels.
- If the CF card does not have enough capacity, erase unneeded data and increase the amount of open space or change the CF card.
- If the maximum number of recordable takes or the maximum take number has been reached, change the recording session.
- If the total number of items in the folder, including files and subfolders, is too large, change the recording session.

Setting changes are not remembered.

- This unit backs up settings whenever the CF card selection is changed, a project, session or take is loaded, and playback or recording occurs.
After startup, if none of these actions is conducted, settings might not be backed up even if they are changed.

I hear noise.

- Confirm that none of the cables have problems.

The touch panel does not work properly.

- Do not use commercially-available protective film for LCD screens on the touch panel.
- Confirm that the panel lock function is not engaged and locking the display.

I cannot create a new project.

- Confirm that a project with the same name does not already exist.
- If the amount of space remaining on the CF card is too small, a new project cannot be created. Erase unnecessary data and then try again.

17 – Messages

The following is a list of messages that the HS-4000 shows in pop-up windows. Refer to this list to learn more about each message as well as how to respond to them.

Message	Details and responses	Remarks
N selected Take(s) (is/are) copied. Select Copy destination.	The selected take has been copied. Select where you want to save the copy.	N = number of selected takes
nnn: NNNNNNNN cannot be found.	The take of the number and name shown cannot be found.	nnn: take number NNNNNNNN: take name
nnn: NNNNNNNN cannot be unlocked.	In timeline mode, this appears if you try to play back a file that has been locked with a password that is not the same as used by the unit.	nnn: take number NNNNNNNN: take name
"nnn": "eeeeeee" "ttttttt" fs / bit / FileMode / NumOfTracks Entry LENGTH: *h**m**s**f START T/C: hh:mm:ss.ff	This shows entry information.	"nnn": entry number "eeeeeee": entry name (If the entry has not been named, then "<none>" appears) "ttttttt": take name fs: sampling frequency bit: bit rate FileMode: MONO or POLY NumOfTracks: number of tracks Entry LENGTH: length of entry START T/C: entry start timecode time
"ssssssss" TAKES: n Fs: f TOTAL SIZE: u TOTAL TIME: t	This shows session information.	"ssssssss" = session name n: number of takes f: sampling frequency u: space used t: total time of all takes
"tttttttt" date fs / bit / FileMode / NumOfTracks SIZE: u LENGTH: *h**m**s**f	This shows take information.	"tttttttt" = take name date: year/month/date hour: minute fs: sampling frequency bit: bit rate FileMode: MONO or POLY NumOfTracks: number of tracks u: space used
"tttttttt" START T/C: **h**m**s**f FRAME TYPE: **F	This shows take information.	"tttttttt" = take name START T/C: file start timecode time FRAME TYPE: frame type
"pppppppp" SESSION: n Fs: f TIMECODE: t	This shows project information.	"pppppppp" = project name n: number of sessions f: sampling frequency t: timecode frame type
<AES31 ADL Info> "ffffff" Size: **MB yyyy / mm / dd hh: mm	This shows information about the AES31 editing info file.	"ffffff" = editing info file name
Authorize Key Accepted. WAV Lock Enabled	A valid authorization key has been input, so the WAV Lock function has been enabled.	
Authorize Key not recognized.	The authorization key is invalid.	
Bounce Selected Region to file? "ffffff"	The selected region will be bounced to "ffffff".	"ffffff" = file name
CHn-n D-In: Fs convert On Cannot select as Master clock.	You tried to select a digital input that is using sampling rate conversion as the clock master.	n-n = 1-2, 3-4, 5-6, 7-8
Canceled	An operation has been canceled.	
Cannot Change Now Confidence Monitor cannot set to ON while current fs / rec channels.	Sampling frequency or recording track settings prevent confidence monitoring from being enabled.	
Cannot Change Now Currently **	This item cannot be changed during playback, recording, online or on-air operation or when chasing timecode.	** = Playing, ONLINE, Chasing TC, Recording or ON AIR
Cannot Change Now Fixed in current mode.	In the current mode, settings are fixed and cannot be changed.	

17 – Messages

Message	Details and responses	Remarks
Cannot Change Now Inc.Play cannot set to ON while Play Inhibit Time is Inf.	Since the "Play Inhibit Time" item is set to "Inf", the "Inc. Play" item cannot be turned ON.	
Cannot Copy for Insert. "nnnnnnnn" already exist in current session.	Since a file with the same name already exists in the current session, the file cannot be copied for insertion.	nnnnnnnn = file name
Cannot Copy for Paste. "nnnnnnnn" already exist in current session.	Since a file with the same name already exists in the current session, the file cannot be copied for pasting.	nnnnnnnn = file name
Cannot Copy. Destination Project is different Fs.	The copy destination sampling frequency is different so copying is not possible.	
Cannot Copy Not enough space on CFn	The CF card does not have enough space, so you cannot copy to it.	n = 1 or 2
Cannot Copy. "ttttttt" already exist in current session.	When assigning a take from another session to an entry, that take is copied to the current session. In this case, a file with the same name as the copied take already exists in the current session. RENAME button: change the name and copy the file CANCEL button: do not copy	"ttttttt" = name of take to copy
Cannot Copy. Folder already exists on CFn. Overwrite session?	A folder with the same name already exists at the copy destination. Do you want to overwrite it?	n = 1 or 2
Cannot Copy. Selected Take already exist in Copy destination.	Copying is not possible because the selected take already exists at the copy destination.	
Cannot create more than 100 projects	The maximum number of projects that can be created has already been reached, so a new project cannot be created.	
Cannot create new mark point. Mark point already exists at the same timestamp.	You tried to create a mark at a time where a mark already exists. You cannot create a mark at the same time as another mark.	
Cannot create new project. Media Full.	The CF card does not have enough space, so you cannot create a new project.	
Cannot Edit Multiple levels at the same time. Please select 1 track.	Multiple levels cannot be edited at the same time. Select only one track.	
Cannot Edit read-only file.	This file has been set as read-only and cannot be edited.	
Cannot Edit. System limit reached.	The amount of working memory open is insufficient for managing the timeline region or editing history, so editing is not possible.	
Cannot execute bounce Media Full.	The CF card does not have enough space, so bouncing is not possible.	
Cannot execute bounce Bounce file size is over 2GB.	The resulting file size after the bounce would exceed 2 GB, so bouncing is not possible.	
Cannot execute. File property is not matched to current project.	The file properties do not match the current project, so the operation cannot be executed.	
Cannot execute. Media Full.	The media does not have enough space, so you cannot execute the function.	
Cannot edit this mark point. Mark point already exists at the same timestamp.	Since a mark already exists at the same time, the mark cannot be edited.	Even if time data are the same for frame units and larger, editing will be possible if subframe or smaller units, which do not appear on screen, are different.
Cannot increment Take. Interval is too short. Or Media almost full	Either the REC key was pressed less than 4 seconds after recording started or the media is full, so starting recording of the next take is not possible.	

Message	Details and responses	Remarks
Cannot increment Take. System limit reached, Please make new session.	The total number of files in the folder, including files and subfolders, is too large, so starting recording of the next take is not possible.	
Cannot load to [A or B]. "IIIIIIII" is already loaded to [B or A].	The playlist that you tried to load is already loaded to B or A, so it cannot be loaded to the other player. Load a different playlist.	"IIIIIIII" = playlist name
Cannot make more than 1000 sessions.	The maximum number of sessions has already been reached, so a new session cannot be created.	
Cannot make new Session. Media Full.	The CF card does not have enough space, so you cannot create a new session.	
Cannot RECORD. (Internal state error)	Something is preventing recording.	
Cannot RECORD. ABS time is over 24h	The timeline mode's ABS time exceeds 24 hours so recording cannot be started.	
Cannot RECORD. Media Full.	The CF card does not have enough space, so you cannot start recording.	
Cannot RECORD Play Fs setting is not OFF Please change Play Fs to OFF	Recording is not possible because Play Fs is set to Pull-up or Pull-down. Set Play Fs to OFF.	
Cannot RECORD System limit reached. Please make new Session.	The total number of items in the folder, including files and folders, is too large, so starting recording is not possible.	
Cannot RECORD. Take limit reached. Please change to another Session	Since the maximum number of recordable takes or maximum take number has been reached, recording is not possible. Change the session.	
Cannot Retake. No Recent REC history.	Retaking is not possible.	
Cannot set Mark point in ON AIR Mode.	Marks cannot be added when in on-air mode.	
Cannot set Mark point in read-only file.	Marks cannot be added to a file that has been set as read-only	
Cannot set Mark point. Mark limit reached.	No more than 99 marks can be created in one file.	
Cannot turn Fs convert On. CHn-n D-In is already Master Clock.	You tried to turn the sampling rate converter on for the digital input that is selected as the master clock.	n-n = 1-2, 3-4, 5-6, 7-8
Cannot use Bridge file because it is illegal.	The bridge file is invalid, so it could not be used.	
Capture BC\$ Time to ALL? BC\$STANDBY -> Start BC\$END -> End	Confirm changing all entries to the region between BC\$STANDBY and BC\$END mark times.	
Capture BC\$ Time? BC\$STANDBY -> Start BC\$END -> End	Confirm changing to the region between BC\$STANDBY and BC\$END mark times	
CFn (vvvvvvvv) Fs: fs USED SIZE: u FREE SIZE: f TOTAL SIZE: t	This shows information about the CF card when in on air mode.	n = 1 or 2 vvvvvvvv = volume level fs: current sampling frequency setting u: used capacity f: unused capacity t: total capacity of CF card
CFn DEVICE ERROR	The CF card cannot be recognized.	n = 1 or 2
CFn Format failed	An error occurred during formatting, and formatting could not be completed.	n = 1 or 2
CFn formatting not optimal for Recording.	Since the media was not formatted by this unit, normal recording operations cannot be guaranteed. Format the media with this unit before use.	n = 1 or 2 This appears when recording is started using a card formatted with a cluster size that is smaller than the standard of this unit.

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Message	Details and responses	Remarks
CFn formatting not optimal for Recording / Search. Format this card?	Since the media was not formatted by this unit, normal recording and search operations cannot be guaranteed. Format the media with this unit before use.	n = 1 or 2 This appears when a card formatted with a cluster size that is smaller than the standard of this unit is loaded.
CFn has no projects. Please create a project.	The CF card does not have even one project.	n = 1 or 2
CFn is not available	The CF card cannot be used.	n = 1 or 2
CFn MEDIUM ERROR	The unit was unable to read the CF card.	n = 1 or 2
CFn not recommended for Recording / Search. (not UltraDMA)	This CF card does not meet the specifications required by the system, so normal recording and searching operations cannot be guaranteed.	n = 1 or 2
CFn Read Error	An error occurred when reading the card.	n = 1 or 2
CFn to CFn' Copy failed.	Copying all of CFn to CFn' was not possible.	n = 1 or 2 n' = 2 or 1
CFn unrecognized format Please Format this card.	The CF card has been formatted in a format other than FAT. Format it for use with this unit.	n = 1 or 2
CFn unsupported type	This CF card does not meet the specifications required by the system, so it cannot be used.	n = 1 or 2
CFn Write Error	An error occurred when writing to the card.	n = 1 or 2
CFn"vvvvvvvv" NUM OF PROJECTS: p USED SIZE: u FREE SIZE: f TOTAL SIZE: t	This shows information about the CF card.	n = 1 or 2 "vvvvvvvv" = volume level p: number of projects u: used capacity f: unused capacity t: total capacity of CF card
Change Fs to nnkHz?	Reconfirms changing the system Fs to the shown sampling frequency.	nn: sampling frequency
Clear Current EDL and Import All Takes?	Reconfirms clearing the current timeline and importing all the takes.	
Clear In/Out Point?	Reconfirms clearing the IN and OUT points.	
Confidence Monitor is not available with current Fs/Rec CH settings.	The sampling frequency or recording track settings prevent the use of confidence monitoring.	
Completed	The operation has completed.	
CONFIRM QUICK FORMAT CFn & Create Project? "pppppppp" "ssssssss" fs / bit / FrameType / NumOfTracks	Reconfirm that you want to conduct both quick- formatting and project creation at once	n = 1 or 2 "pppppppp" = name of project created "ssssssss" = name of session created
Copy CFn to CFn' This will erase all data on CFn'.	Confirm that you want to copy all of CFn to CFn'.	n = 1 or 2 n' = 2 or 1
Copying session(s)...	One or more entire sessions are being copied.	
Copy N selected session(s) to CFn?	Confirm that you want to copy the selected session(s).	N = number of selected takes n = 1 or 2
Copy n selected Take?	Confirm that you want to copy the selected take.	n = number of takes "Takes" if n is 2 or more.
Copying Session...	The session is being copied.	
Copying Take...	The take is being copied.	"Takes" if multiple takes are being copied.
Create new Playlist? "pppppppp"	Confirm that you want to create a new playlist.	"pppppppp" = playlist name
Create new project? "pppppppp" "ssssssss" Fs: **kHz, Frame Type: **F	Confirm that you want to create a new project.	"pppppppp" = name of project created "ssssssss" = name of first session created
Create Project failed	Creation of a project failed.	
Creating Project ...	A project is being created.	
Currently loaded playlist will be exported to PPL"IIIIIIII"	The currently loaded playlist will be exported in PPL format.	"IIIIIIII" = name of playlist created

Message	Details and responses	Remarks
Currently loaded playlist(s) will be exported to PPL. Overwrite latest PPL file? "pppppppp"	The currently loaded playlist will be exported in PPL format. Do you want to overwrite the last exported PPL file?	"pppppppp" = PPL file name
Currently loaded playlist [A or B] will be exported to PPL "IIIIIIII"	The currently loaded playlist will be exported in PPL format.	"IIIIIIII" = name of playlist created
Currently loaded session will be exported to AES31. "aaaaaaa"	The currently loaded session will be exported to an AES31 editing information file.	"aaaaaaa" = name of AES31 editing information file created
Currently loaded session will be exported to AES31. Overwrite latest AES31 file? "aaaaaaa"	The currently loaded session will be exported in AES31 format. Do you want to overwrite the last exported AES31 file?	"aaaaaaa" = AES31 file name
Delete all marks of this type? (Count: N)	Confirm the deletion of marks of the selected type.	N = number of marks of selected type
Delete N selected marks?	Confirm the deletion of the selected marks.	N = number of selected marks
Delete N selected project?	Confirm the deletion of the selected projects.	N = number of selected projects
Delete N selected playlist?	Confirm the deletion of the selected playlists.	N = number of selected playlists
Delete N selected session?	Confirm the deletion of the selected sessions.	N = number of selected sessions
Delete N selected take?	Confirm the deletion of the selected takes.	N = number of selected takes
Deleting Project...	A project is being deleted.	
Deleting Playlist...	A playlist is being deleted.	
Deleting Session...	A session is being deleted.	
Deleting Take...	A take is being deleted.	
Digital Input Error CHx-x D-IN (Unlocked) CHx-x D-IN (no signal) CHx-x D-IN (not audio) CHx-x D-IN (unmatched Cbit)	An error occurred with the digital input selected as the input signal.	x = channel name Unlocked: not synchronized with system no signal: no signal being input not audio: Cbit information of input signal is not audio unmatched Cbit: other Cbit information of input signal is different from actual operation mode
Directory contents changed. REBUILD required. REBUILD Now?	The contents of the folder were changed, so rebuilding is necessary.	
Directory contents changed via FTP. REBUILD required. REBUILD Now?	Rebuilding is necessary because the contents of the folder were changed by FTP.	
Edit Completed	Editing execution has been completed.	
EDL Import completed but there are some wrong regions.	EDL importing has completed, but one or more regions have problems.	
EDL Load completed but there are some wrong regions.	EDL loading has completed, but one or more regions have problems.	
--- error --- INFO WRITING	An error occurred while writing information.	
Execute Insert? CHa -> CHa' CHb -> CHb' CHc -> CHc' CHd -> CHd'	Confirm execution of the insertion operation.	a/b/c/d = insertion source channel number a'/b'/c'/d' = insertion destination channel number

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Message	Details and responses	Remarks
Execute Paste? CHa -> CHa' CHb -> CHb' CHc -> CHc' CHd -> CHd'	Confirm execution of the paste operation.	a/b/c/d = paste source channel number a'/b'/c'/d' = paste destination channel number
Export System Backup Data to CFn?	Confirm copying system backup data to a CF card.	n = 1 or 2
External Clock Lost, Switched to Internal	Synchronization with an external clock was interrupted, so the internal clock was activated.	
External Clock Regained Switch to External?	Synchronization with an external clock became possible again.	
EXTERNAL Control Locked	External control connectors are locked to prevent misoperation.	
--- FORMAT --- Completed	Formatting has completed.	
--- FULL FORMAT --- FORMAT CFn? This will erase all DATA on card	Full formatting will be conducted.	n = 1 or 2
--- FULL FORMAT --- Formatting CFn...	Full formatting is being conducted.	n = 1 or 2
Import All System Backup Data from CFn?	Confirm copying all system backup data from a CF card.	n = 1 or 2
Import selected Playlist "ppppppppp"	The selected project will be imported.	"ppppppppp" = name of playlist imported
Import selected EDL? "aaaaaaa"	Confirm importing the selected AES31 editing information file into the current session.	"aaaaaaa" = AES31 editing information file to be imported
Import User Preset Data from System Backup Data on CFn?	Confirm copying user preset data from system backup data on a CF card.	n = 1 or 2
Initializing ...	The unit is initializing (starting up after being turned on).	
KBD CHARACTER KEY Locked	The keyboard character keys (excluding function keys) have been locked to prevent accidental operation.	
KBD FUNCTION KEY Locked	The keyboard function keys have been locked to prevent accidental operation.	
Last loaded project has no session. Please make new session.	The last selected project does not have any sessions. Make a new session.	
Last loaded project cannot be found. Please select a project.	The last selected project cannot be found. Select another project.	
Last loaded session cannot be found. Please select a session.	The last selected session cannot be found. Select another session.	
Loading File ...	The file is loading.	
Load Factory Preset?	Confirm loading factory presets.	
Load selected project? "ppppppppp"	Confirm that you want to load the selected project.	"ppppppppp" = name of project to load
Load selected playlist? "ppppppppp"	Confirm that you want to load the selected playlist. In dual mode, the "Load to A" button will load the Player A playlist and the "Load to B" button will load the Player B playlist.	"ppppppppp" = name of playlist to load
Load selected session? "ssssssss"	Confirm that you want to load the selected session.	"ssssssss" = name of session to load
Load selected take? "tttttttt"	Confirm that you want to load the selected take.	"tttttttt" = name of take to load
Load User Preset?	Confirm loading user preset settings.	
Loading Project ...	The selected project is loading.	
Loading Playlist ...	The selected playlist is loading.	
Loading Session ...	The selected session is loading.	

Message	Details and responses	Remarks
Loading Take ...	The selected take is loading.	
Make new Session? "sssssss" TIMELINE Start Time: **h**m**s**f TIMELINE Rec Tracks: N tr	Confirm that you want you want to make a new session.	"sssssss" = session name N = number of tracks
Make Playlist failed	Creation of playlist failed.	
Make session failed	Creation of session failed.	
Making Playlist ...	A playlist is being created.	
Making session ...	A session is being created.	
Mark Point set	A mark has been created.	
Network Control Locked	Network control is locked to prevent misoperation.	
New Session Name must not start with "@"	The session name is not allowed. You cannot use the "@" symbol at the beginning of a session name.	
No Call Point	The call point does not exist. (The session or take has not been played back since it was loaded.)	
No Mark Point	No marks exist. You tried to skip marks before any marks were added.	This disappears automatically after 2 seconds.
No Tracks Armed for Record	No tracks have been armed for recording.	
Now working ... Do not remove Media.	The media is in use, so do not remove it.	
--- ONLINE Function --- Changes Output Routing. Touch OK to make ONLINE *****.	Enabling and disabling the ONLINE function changes the audio output routing.	***** = always ON/switchable
ONLINE is not available in Adjust Screen.	The ONLINE key does not function on the ADJUST ENTRY screen.	
Operation failed.	The operation could not be completed for some reason.	
Operation failed. Internal File / Session limit reached.	The maximum number of sessions that can be created has been reached, so the operation could not be completed.	
Operation failed. Cannot find this ***. Please Rebuild.	The selected project/session/take could not be found, so the operation could not be completed. Rebuild the selected item.	*** = name of project, session or take
Operation failed. Path Name is too long.	The path name has more characters than allowed, so the operation could not be completed.	After you give a project or session a long name using a computer, this message could appears when making a session or recording results in a file path name of more than 255 characters.
Operation Failed. Unmatched Fs.	The sampling frequency does not match.	
Password mismatch. Password not changed	The passwords entered the first and second times were different, so the password was not changed.	
Play Error.	An error occurred during playback.	
Play Error Buffer underrun	Data reading could not keep up during playback.	
PlayError. nnn:NNNNNNNN	A playback error occurred with the take of the number and name shown.	nnn: take number NNNNNNNN: take name
Playlist Import completed but there are some wrong entries.	Playlist importing has completed, but some entries have problems.	
Playlist Load completed but there are some wrong entries in Playlist*	Playlist loading has completed, but some entries have problems.	Playlist* = "Playlist", "Playlist A", "Playlist B" or "Playlist A/B"
<PlayList [AorB] Info> "PPPPPPPP" Size: **MB" yyyy / mm / dd hh: mm	This shows playlist information (A/B).	"PPPPPPPP" = playlist name

17 – Messages

Message	Details and responses	Remarks
"<PlayList Info> "PPPPPPPP" Size: **MB yyyy / mm / dd hh: mm PLEASE CONFIRM --- FULL FORMAT --- FORMAT CFn? This will erase all data on card	This shows playlist information.	"PPPPPPPP" = playlist name
PLEASE CONFIRM --- QUICK FORMAT --- FORMAT CFn? This will erase all data on card	Reconfirm that you want to full format the media.	n = 1 or 2
PLEASE CONFIRM --- QUICK FORMAT --- FORMAT CFn? This will erase all data on card	Reconfirm that you want to quick format the media.	n = 1 or 2
PLEASE CONFIRM Copy CFn to CFn'? This will erase all data on CFn'.	Reconfirm that you want to copy all of CFn to CFn'.	n = 1 or 2 n' = 2 or 1
PLEASE CONFIRM Change Fs to nnkHz? PLEASE CONFIRM	Reconfirm changing the system Fs to the shown sampling frequency.	nn: sampling frequency
Export System Backup Data to CFn? PLEASE CONFIRM	Reconfirm exporting system backup data to a CF card.	n = 1 or 2
Import All System Backup Data from CFn? PLEASE CONFIRM	Reconfirm importing all system backup data from a CF card.	n = 1 or 2
Import User Preset Data from System Backup Data on CFn? PLEASE CONFIRM	Reconfirm importing user preset data from system backup data on a CF card.	n = 1 or 2
PLEASE CONFIRM Load Factory Preset?	Reconfirm loading factory preset settings.	
PLEASE CONFIRM Load User Preset?	Reconfirm loading user preset settings.	
PLEASE CONFIRM Reset ALL Start/End Point?	Confirm resetting the starting and ending times of all entries to the file beginning and endings.	
PLEASE CONFIRM Save current setting to User Preset?	Reconfirm saving the current settings to the user preset.	
PLEASE CONFIRM Capture BC\$ Time to ALL? BC\$STANDBY -> Start BC\$END -> End	Reconfirm changing all entries to the region between the BC\$STANDBY and BC\$END marks.	
PLEASE CONFIRM Delete N selected take(s)?	Reconfirm deleting take(s).	N = number of selected takes
Project Delete failed.	Deleting a project failed.	
Project Load failed.	Loading a project failed.	
Project Rename failed	Changing the name of a project failed.	
Project save failed.	An error occurred while saving the project, and saving failed. Use the CLOSE button to close the pop-up message. The FAT file system might be broken. Format the CF card or use a different one. Formatting will erase all data on the card.	
Project Screen is not available while Recording	The project screen cannot be changed while recording.	
Project Screen is not available in Jog Mode	The project screen cannot be changed when in jog mode.	

Message	Details and responses	Remarks
--- QUICK FORMAT --- FORMAT CFn? This will erase all DATA on card	Quick formatting will be executed.	n = 1 or 2
--- QUICK FORMAT --- Formatting CFn...	Quick formatting is being executed	n = 1 or 2
QUICK FORMAT CFn & Create Project? "pppppppp" "sssssss" fs / bit / FrameType / NumOfTracks	Quick formatting will be executed and a project will be created.	n = 1 or 2 "pppppppp" = name of created project "sssssss" = name of the first created session fs: sampling frequency bit: bit rate Frame Type: frame type NumOfTracks: number of tracks
RECORD stopped. ABS time is over 24h.	The timeline mode's ABS time exceeded 24 hours so recording stopped.	
Reading Media ...	The media is being read.	
Reading DATA...	Data is being read.	
Rebuild all Projects?	Confirm that you want to rebuild all projects.	
Rebuild changed Directory?	Confirm rebuilding a changed directory.	This appears when you touch a REBUILD button showing a ⚠ mark after a file on this unit has been changed by FTP.
Rebuild current Project?	Confirm rebuilding the current project.	
Rebuild current project and changed Directory?	Confirm rebuilding the current project and a changed folder (directory).	This appears when you touch a REBUILD button showing a ⚠ mark after a file on this unit has been changed by FTP.
Rebuild current Session?	Confirm rebuilding the current session.	
Rebuild current session and changed Directory?	Confirm rebuilding the current session and a changed folder (directory).	This appears when you touch a REBUILD button showing a ⚠ mark after a file on this unit has been changed by FTP.
Rebuild failed	Rebuilding failed.	
Rebuild selected project?	Confirm rebuilding the selected project.	
Rebuild selected project and changed Directory?	Confirm rebuilding the selected project and a changed folder (directory).	This appears when you touch a REBUILD button showing a ⚠ mark after a file on this unit has been changed by FTP.
Rebuild selected Session?	Confirm rebuilding the selected session.	
Rebuild selected session and changed Directory?	Confirm rebuilding the selected session and a changed folder (directory).	This appears when you touch a REBUILD button showing a ⚠ mark after a file on this unit has been changed by FTP.
Rebuilding All ...	All projects are being rebuilt.	
Rebuilding project ...	A project is being rebuilt.	
Rebuilding Session ...	A session is being rebuilt.	
RECORD Error	An error occurred during recording.	
RECORD Error Buffer overflow	The recording buffer became full during recording, and writing to the card could not keep up.	
RECORD stopped. Media Full.	The CF card ran out of space, so recording stopped.	
Redo Completed	Redoing an edit has completed.	
REMOTE Locked	The remote connectors have been locked to prevent misoperation.	
REMOTE/KEYBOARD Locked	The remote and keyboard connectors have been locked to prevent misoperation.	
Renaming Project "pppppp" to "nnnnnn"	The project is being renamed.	"pppppp" = old project name "nnnnnn" = new project name

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Message	Details and responses	Remarks
--- RETAKE --- Ignore last RECORD pass?	Confirm that you want to retake.	
Save changes in Current Playlists? A:aaaaaaa B:bbbbbbb	Confirm that you want to save changes to the current playlists.	aaaaaaa: player A playlist name bbbbbbb: player B playlist name
Save changes in Current Playlist? "pppppppp"	Confirm that you want to save changes to the current playlist.	"pppppppp": playlist name
Save changes in Current Session? "sssssss"	Confirm that you want to save changes to the current session.	"sssssss": session name
Save current setting to User Preset?	Confirm that you want to save the current settings to the user preset.	
Save Failed.	Saving a file failed.	
Saving File ... Do not remove CF	A file is being saved. Do not remove the CF card.	
Saving File ... Do not remove Media.	A file is being saved. Do not remove the media.	
Screen Locked Touch Panel Locked Out	The touch screen has been locked to prevent misoperation.	
Screen Locked LCD Section Locked	LCD section controls have been locked to prevent misoperation.	
Select Insert Position [File T/C][Current Position]	Select the file T/C position or current position as the file insertion position.	
Select Paste Position [File T/C][Current Position]	Select the file T/C position or current position as the file paste position.	
Session Copy failed.	Copying a session could not be completed.	
Session Delete failed.	Deleting a session failed.	
Session Load failed.	Loading a session failed.	
Sort all takes?	Confirm that you want to sort the playback order of all takes by their names in character code order.	
Take Copy failed.	Copying a take could not be completed.	
Take Delete failed.	Deleting a take failed.	
TAKE limit back to full. Change to Sub Folder?	If Mono File Place is set to SubFolder, the limit to the number of takes will be restored to the maximum.	
TAKE limit reduced.. Change to Session Root?	If Mono File Place is set to Session Root, the limit to the number of takes will be reduced.	
Take Load failed.	Loading of a take failed.	
There is no Entry.	The playlist does not have any entries, so playback is not possible. Select a playlist with entries or add entries to the current one.	
There is no project. Please create a project.	There is no project so recording is not possible. Make a project.	
There is no Session. Please make a Session.	There is no session so recording is not possible. Make a session.	
There is no Take.	There is no take, so playback is not possible. Select a session with takes.	
This file was converted to BWF format.	The file format was changed to BWF.	This appears if the Start Timecode of a WAV file is edited.
This name already exists.	Another project, session or take already has that name.	
This name already exists. Overwrite this file? "nnnnnnnn"	Another project, session or take already has that name. Do you want to overwrite it?	"nnnnnnnn" = name of project, session or take
Transport Locked Transport Section Locked	The transport keys have been locked to prevent misoperation.	
Undo Completed	Undoing an edit has completed.	
Unsupported File	The format of the file that you tried to play or add to a playlist is not supported.	
Unsupported Fs	The sampling frequency of the file that you tried to add to a playlist is not supported.	

Message	Details and responses	Remarks
--- WAV LOCK --- All Takes already Locked.	All takes have already been locked with the password.	
--- WAV LOCK --- All Takes already Unlocked.	All takes have already had password lock disabled.	
--- WAV LOCK --- Lock All Takes?	Confirm that you want to lock all takes with the password.	
--- WAV LOCK --- Lock n Take?	Confirm that you want to lock the selected takes with the password.	n: number of takes
--- WAV LOCK --- Selected Takes already Locked.	The selected takes have already been locked with the password.	
--- WAV LOCK --- Selected Takes already Unlocked.	The selected takes have already had password lock disabled.	
--- WAV LOCK --- Unlock All Takes?	Confirm that you want to disable the password lock for all takes.	
--- WAV LOCK --- Unlock n Take?	Confirm that you want to disable the password lock for the selected takes.	n: number of takes
--- WAV LOCK --- Lock Error n takes failed.	Enabling password lock was not possible for the shown number of takes.	n: number of takes
--- WAV LOCK --- Unlock Error n takes failed.	Password lock was not disabled for the number of takes indicated.	n: number of takes
Writing System File...	Recording information is still being written after recording has stopped.	

18 – Specifications

General

Recording media

CompactFlash (CF) card

File system

FAT32 (4 GB or more)

FAT16 (2 GB or less)

File format

BWF(Broadcast Wave Format)

WAV(Waveform Audio Format)

Number of channels

4 channels

(except in dual playlist and A/B MIXED modes)

2-channel stereo mix × 2

(in dual playlist and A/B MIXED modes)

Quantization bit rate

16-bit, 24-bit

Sampling frequencies

44.1/47.952/48/48.048/88.2/96 kHz

(47.952/48.048kHz:48k±0.1% Pull-down/Pull-up)

Clock reference

INTERNAL, WORD IN, VIDEO IN, DIGITAL IN (1–2)

Timecode frame

23.976, 24, 25, 29.97DF, 29.97NDF, 30DF, 30NDF

Inputs and outputs

Analog audio inputs and outputs

The error for nominal and maximum levels is ±1 dB for all input and output jacks except the PHONES jack.

ANALOG LINE IN 1-4 connectors

Connector type: XLR-3-31 (1: GND, 2: HOT, 3: COLD)

Input impedance 4.3 kΩ

Nominal input level:

+4dBu (1.23Vrms) ±1dB/–20dBu (0.0775Vrms) ±1dB

(+4dBu/–20dBu selectable)

(+4 dBu/–20 dBu selectable)

(+6 dBu when Digital Ref. Level is set to -9 dB)

Maximum input level (selectable):

+15dBu (4.36Vrms) (D.Ref: –9dBFS, A.Input: +6dBu)

+18dBu (6.16Vrms) (D.Ref: –14dBFS, A.Input: +4dBu)

+20dBu (7.75Vrms) (D.Ref: –16dBFS, A.Input In: +4dBu)

+22dBu (9.76Vrms) (D.Ref: –18dBFS, A.Input: +4dBu)

+24dBu (12.3Vrms) (D.Ref: –20dBFS, A.Input: +4dBu)

–6dBu (0.388Vrms) (D.Ref: –14dBFS, A.Input: –20dBu)

–4dBu (0.489Vrms) (D.Ref: –16dBFS, A.Input: –20dBu)

–2dBu (0.616Vrms) (D.Ref: –18dBFS, A.Input: –20dBu)

0dBu (0.775Vrms) (D.Ref: –20dBFS, A.Input: –20dBu)

Digital Ref. Level

Analog Input Ref. Level

ANALOG LINE OUT 1-4 connectors

Connector type: XLR-3-32 (1:GND, 2:HOT, 3:COLD)

Output impedance: 75Ω or less

Nominal output level:

+4dBu(1.23Vrms)±1dB/–20dBu(0.0775Vrms)±1dB

(+4dBu/–20dBu selectable)

(+6 dBu when Digital Ref. Level is set to -9 dB)

Maximum output level (selectable):

+15dBu (4.36Vrms) (D.Ref: –9dBFS, A.Output: +6dBu)

+18dBu (6.16Vrms) (D.Ref: –14dBFS, A.Output: +4dBu)

+20dBu (7.75Vrms) (D.Ref: –16dBFS, A.Output: +4dBu)

+22dBu (9.76Vrms) (D.Ref: –18dBFS, A.Output: +4dBu)

+24dBu (12.3Vrms) (D.Ref: –20dBFS, A.Output: +4dBu)

–6dBu (0.388Vrms) (D.Ref: –14dBFS, A.Output: –20dBu)

–4dBu (0.489Vrms) (D.Ref: –16dBFS, A.Output: –20dBu)

–2dBu (0.616Vrms) (D.Ref: –18dBFS, A.Output: –20dBu)

0dBu (0.775Vrms) (D.Ref: –20dBFS, A.Output: –20dBu)

D.Ref: Digital reference level setting

A.Output: Analog Output reference level setting

MONITOR ANALOG OUT L/R connectors

Connector type: XLR-3-32(1:GND, 2:HOT, 3:COLD)

Output impedance: 100Ω

Nominal output level:

- Reference level =+6dBu (1.55Vrms) when set to –9dB
- Reference level =+4dBu (1.23Vrms) when not set to –9dB

Maximum output level (selectable):

+15dBu (4.36Vrms) (D.Ref: –9dBFS, A.Output: +6dBu)

+18dBu (6.16Vrms) (D.Ref: –14dBFS, A.Output: +4dBu)

+20dBu (7.75Vrms) (D.Ref: –16dBFS, A.Output: +4dBu)

+22dBu (9.76Vrms) (D.Ref: –18dBFS, A.Output: +4dBu)

+24dBu (12.3Vrms) (D.Ref: –20dBFS, A.Output: +4dBu)

D.Ref: Digital reference level setting

A.Output: Analog output reference level setting

PHONES jack

Standard 6.3-mm (1/4") stereo jack

Maximum output level:

45 mW + 45 mW or more (THD+N 0.1% or less, into 32 Ω)

Digital audio inputs and outputs

DIGITAL LINE IN 1–2 connectors

Connector type: XLR-3-31

Maximum input signal voltage amplitude: 200 mVp-p

Minimum input signal voltage amplitude: 10 Vp-p

Input impedance 110Ω ±20%

FORMAT:

AES3-2003/IEC60958-4(AES/EBU)IEC60958-3(S/PDIF)

Supported sampling frequencies:

44.1/47.952/48/48.048/88.2/96kHz(Single/Double)

(47.952/48.048:48kHz±0.1% pull-down/pull-up)

When SRC is ON, the receivable range is 32–192 kHz.

DIGITAL LINE OUT 1–2 connectors

Connector type: XLR-3-32

Output voltage: 2 – 5 Vp-p

Output impedance: 110 Ω ±20%

FORMAT:

IEC60958–4 (AES3–2003, AES/EBU)

Supported sampling frequencies:

44.1/47.952/48/48.048/88.2/96 kHz

(47.952/48.048:48kHz±0.1% pull-down/pull-up)

(Single/Double)

Control inputs and outputs

RS–422

Connector type: D-sub 9-pin (female, inch-specification)

RS–232C

Connector type: D-sub 9-pin (female, inch-specification)

PARALLEL

Connector type: D-sub 25-pin (female, inch-specification)

TIME CODE IN

Connector type: XLR-3-31

Signal voltage amplitude: 0.5 – 10 Vp-p

Input impedance 10 k Ω

Format: SMPTE 12M-1999 compliant

TIME CODE OUT

Connector type: XLR-3-32

Signal voltage amplitude: 2 Vp-p

Output impedance: 100 Ω

Format: SMPTE 12M-1999 compliant

WORD/VIDEO IN connector

Connector type: BNC

Input voltage: 5V TTL equivalent (WORD IN)

Signal voltage amplitude: 1 Vp-p (VIDEO IN)

Input impedance: 75 Ω ±10%

Permissible frequency variation during external synchronization:
±100 ppm

Includes switch for enabling termination

Input frequency (WORD):

44.1/47.952/48/48.048/88.2/96 kHz

(47.952/48.048:48kHz±0.1% pull-down/pull-up)

Input signal (VIDEO):

24/25/29.97/30Frame

(NTSC/PAL Black burst, HDTV Tri-Level)

WORD/VIDEO THRU/OUT connector

Connector type: BNC

Signal voltage amplitude: 5V TTL equivalent

Output impedance: 75 Ω ±10%

Output frequency (WORD):

44.1/47.952/48/48.048/88.2/96 kHz

(47.952/48.048kHz:48k±0.1% Pull-down/Pull-up)

Frequency stability ±10 ppm or less (Ta = 20° C)

OUT/THRU switch included (OUT is only for WORD OUT)

ETHERNET

Connector type: RJ45

Supported specifications: 100BASE-TX, 1000BASE-T

KEYBOARD

Connector type: Mini DIN (PS/2)

USB Connector:

USB A-type 4-pin

Protocol: USB2.0 HIGH SPEED(480Mbps)

REMOTE

Connector type: ETHERCON (CAT6 supported)

Supplied power voltage: 41 V

Signal: LVDS serial

Audio performance

Frequency response

ANALOG IN to ANALOG OUT:

- 20Hz - 20kHz:±0.5dB

(Fs=44.1/48kHz, JEITA) (recording and playback)

- 20Hz - 40kHz: +0.5dB/–2dB

(Fs=88.2/96kHz, JEITA) (recording and playback)

Distortion

ANALOG IN to ANALOG OUT:

0.005% or less (JEITA) (recording and playback)

S/N ratio

ANALOG IN to ANALOG OUT:

100 dB or more (JEITA) (recording and playback)

Other specifications

Power

AC 100-240 V, 50–60 Hz

Power consumption

19W

External dimensions (W x H x D, excluding protrusions)

482.6 x 94 x 317.1mm/19.00 x 3.70 x 12.48 in

Weight

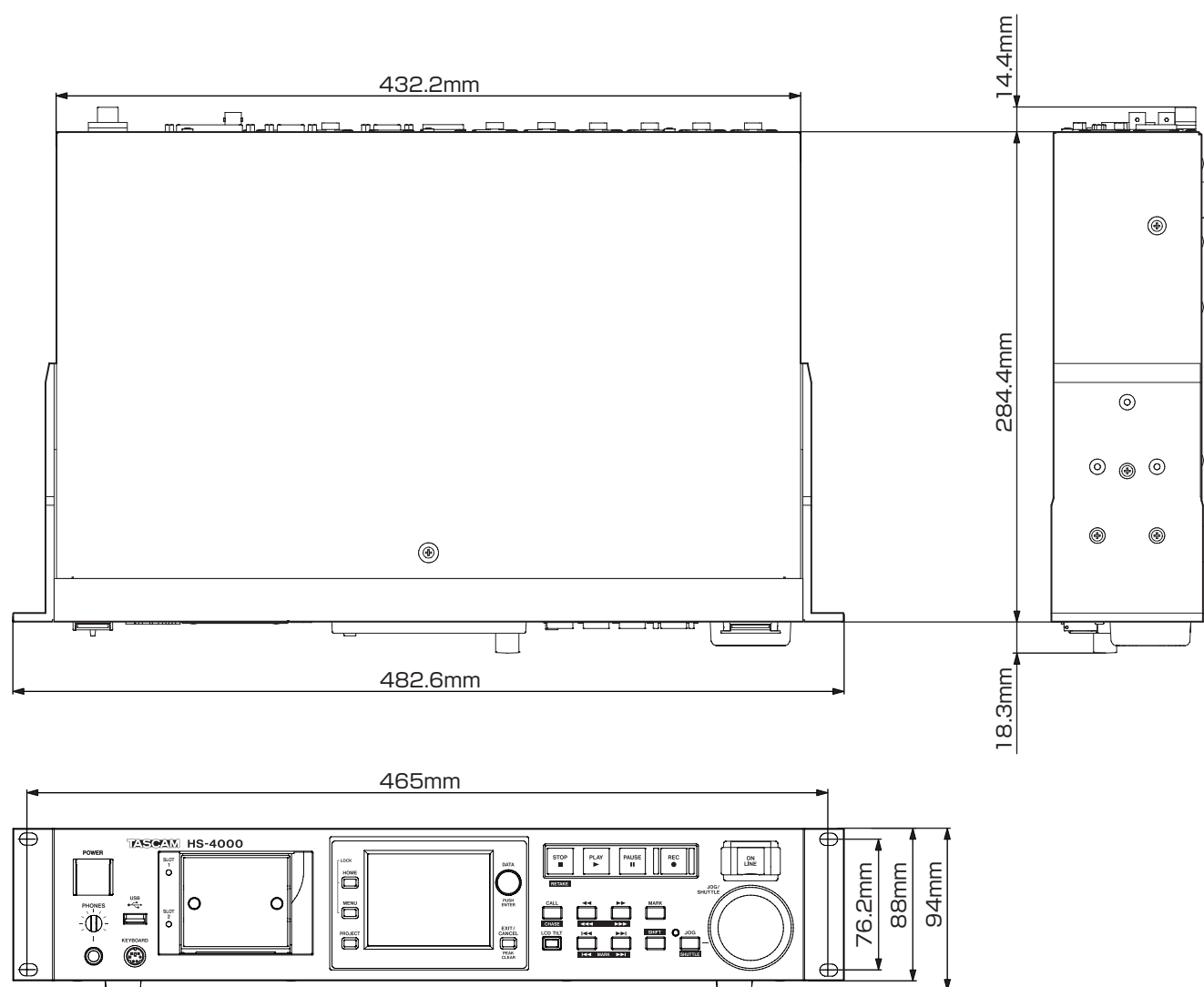
5.1 kg/11.24 lb

Operating temperature range

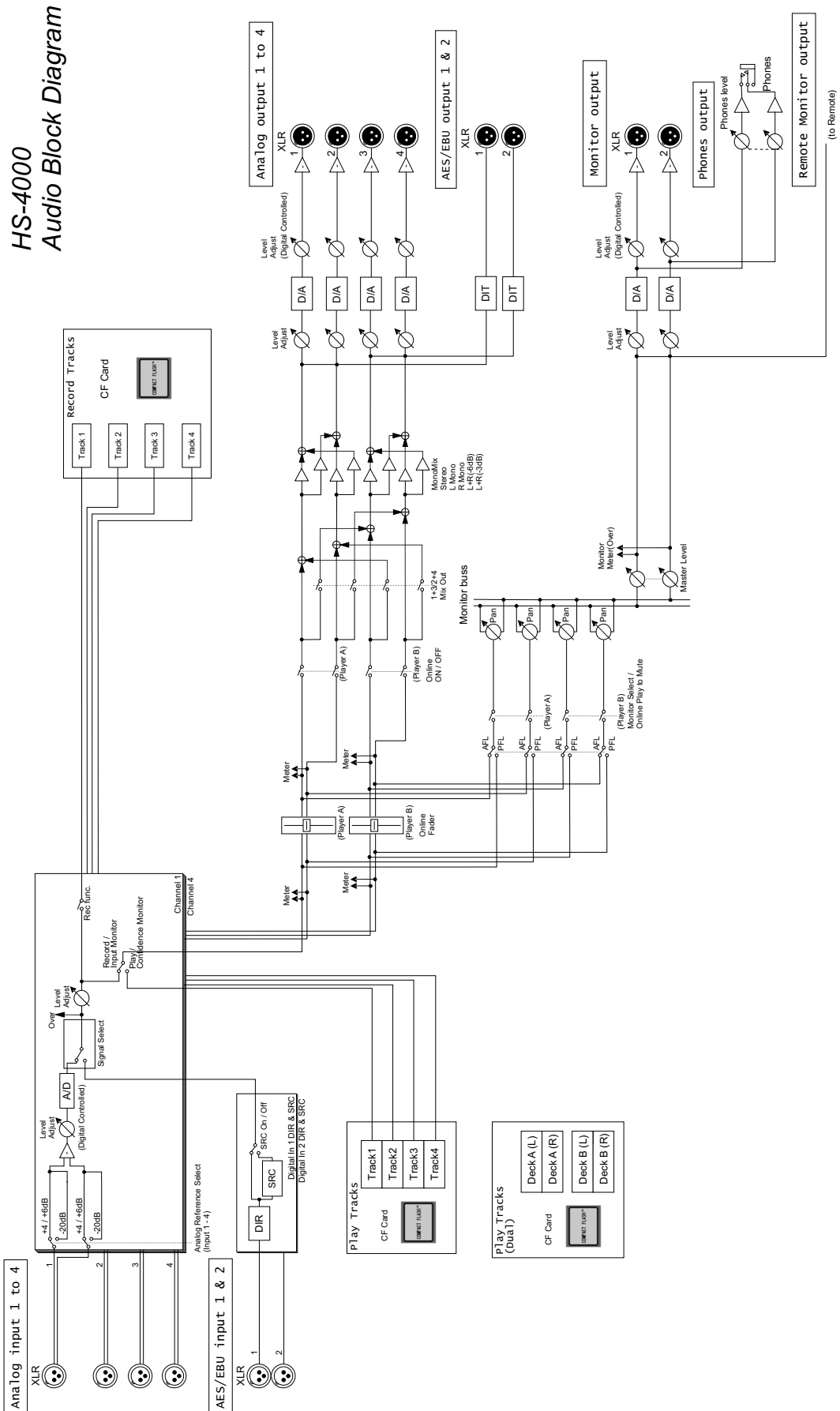
5 - 35 °C

18 – Specifications

Dimensional drawings



Block diagram



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