

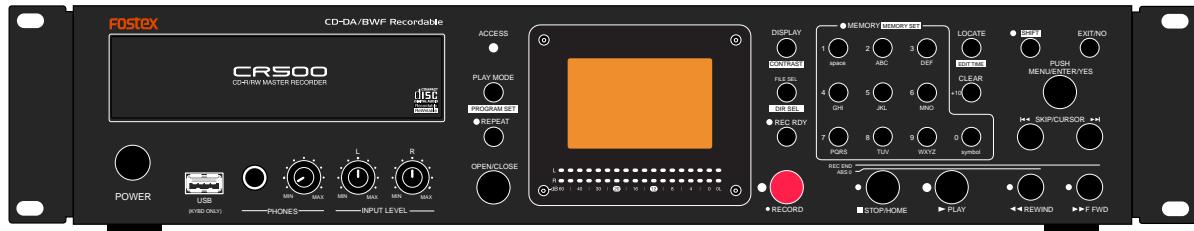


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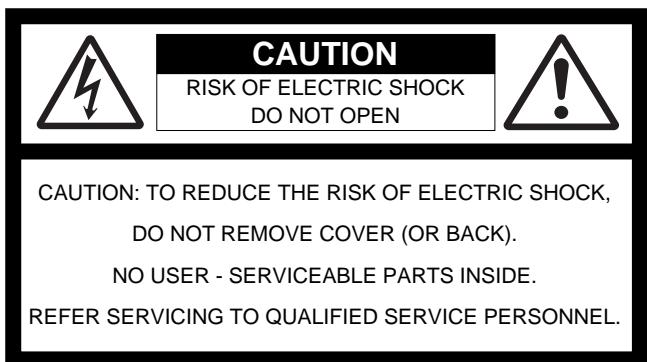
Owner's Manual

CD-R/RW Master Recorder

CR500



Fostex®



"WARNING"

"TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE."

SAFETY INSTRUCTIONS

1. Read Instructions - All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions - The safety and operating instructions should be retained for future reference.
3. Heed Warnings - All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions - All operating and use instructions should be followed.
5. Water and Moisture - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer.



An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

7. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. Grounding or Polarization - The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.

CAUTION:

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION:

POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU' AU FOND.



The lightning flash with arrowhead symbol, within an 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.

12. Power Cord Protection - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
14. Nonuse Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
15. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
16. Damage Requiring Service - The appliance should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the appliance; or
 - C. The appliance has been exposed to rain; or
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - E. The appliance has been dropped, or the enclosure damaged.
17. Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.
18. The appliance should be situated away from drops of water or spray of water.
19. Objects containing liquid such as vase must not be put on the appliance.
20. The appliance is not completely isolated from the power supply even if the power switch is at off position.
21. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
22. Only use attachments/accessories specified by the manufacturer.
23. An appliance with a protective earth terminal should be connected to a mains outlet with a protective earth connection.
24. An appliance should be placed in a position where an AC plug / inlet can be easily pulled out by hand.
25. Main plug is used as the disconnection device. It shall remain readily operable and should not be obstructed during intended use. To be completely disconnected the apparatus from supply mains, the mains plug of the apparatus shall be disconnected from the mains socket outlet completely.

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.
A circular icon containing a stylized figure pushing a hand truck or dolly, with a piece of equipment like a television set on it, indicating that the device should not be moved on a cart.
- 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.

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About this manual

This manual intends to be used as a guide for using the Fostex CR500 CD-R/RW master recorder.

This manual is written assuming that you have experience of using professional digital recorders and basic knowledge of digital recording.

By reading "Chapter 1: Overview" and "Chapter 3: Names and functions", you may roughly understand the outline of the CR500 and how to use the CR500.

Chapter 3 can be used as the index because we not only briefly describe functions of each control but also show the page where details are described.

"Chapter 2: Preparation before using the CR500" describes information for using the CR500 for the first time, such as realtime clock setting and initial formatting of the CD-R/RW disc.

Precautions

- For supplying the power to the unit, only use the Fostex power cable. If you use any other power cable, the unit may not work correctly and there is a serious risk of damage to the unit.
- Only use a power cable supplied by Fostex.
If you wish to use the unit in a country where the voltage of the AC power outlet does not match your power cable, ask your local Fostex dealer or service station for purchasing an appropriate power cable. Note that the unit can be used both in 50 Hz and 60 Hz areas.
- Make sure that the voltage of your AC power outlet matches the voltage requirements of the unit.
- When disconnecting the power cable, make sure that the unit [POWER] switch is set to "OFF".
Disconnecting the power cable while the power is "ON" may damage memory data because the unit always communicates with memory data.
- While the unit is accessing to a disc (for example, during recording), never turn off the power. Make sure that the unit completely stops accessing to the disc before you turn off the power. Otherwise, recorded data may be lost, as well as the disc may be damaged.

<Note>: Note that Fostex assumes no responsibility on data loss or whatsoever due to use of the unit.

<Note>: Fostex is not responsible for any "direct damage" or "indirect damage" caused by using the unit.

- Do not let water or other liquid, or metal objects such as pins, accidentally enter the inside of the unit (especially inside of the disc tray) because this may lead to electric shock or damage. Should water enter the inside of the unit, turn off the power, unplug the power cable, and consult your dealer or the nearest FOSTEX service station.

- Do not drop the unit or give it a strong shock. The internal circuits, display, panels may be damaged. Handle the unit with great care because it is a precision machine.
- To prevent possible electric shock and damage to the unit, do not remove the cover or reach the inside of the unit.
- Do not give a strong shock to the LCD display. The liquid used inside the LCD display is toxic. If the liquid is spilled, do not suck it in. If it is stained to your hand or skin, wash immediately with plenty of water.

<About replacing the lithium battery>

The CR500 uses a lithium battery internally. To replace the battery, ask your dealer or the nearest FOSTEX service station. If the battery is not correctly replaced, there may be a risk of explosion, etc.

Precautions on installation

Do not install the unit in the following conditions.

- * In a extremely hot or cold place
- * In a moist place
- * In a shaky or unstable place
- * In a dusty place
- * In a strong magnetic field or near a device which generates a magnetic field
- * In the direct sunshine
- * In the direct rain or water

• **Notes on moisture condensation**

When you bring the unit from a cold place to a warm place, moisture may condense on the drive, display, panels, etc. In such a case, leave the unit for a while until it warms up and evaporates any moisture.

Chapter-1: Overview

This chapter describes the main features of the CR500.

Main features

The CR500 is a two-track digital master recorder which uses a CD-R or CD-RW disc as a recording medium.

The CR500 supports both the BWF-P (interleave) and CD-DA formats for file formats of CD-R/RW discs. It also supports the UDF rev.1.02 (Universal Disk Format), CD-DA (Compact Disc Digital Audio) and ISO9660 file systems, enabling high quality recording and playback (playback only with a ISO9660 disc).

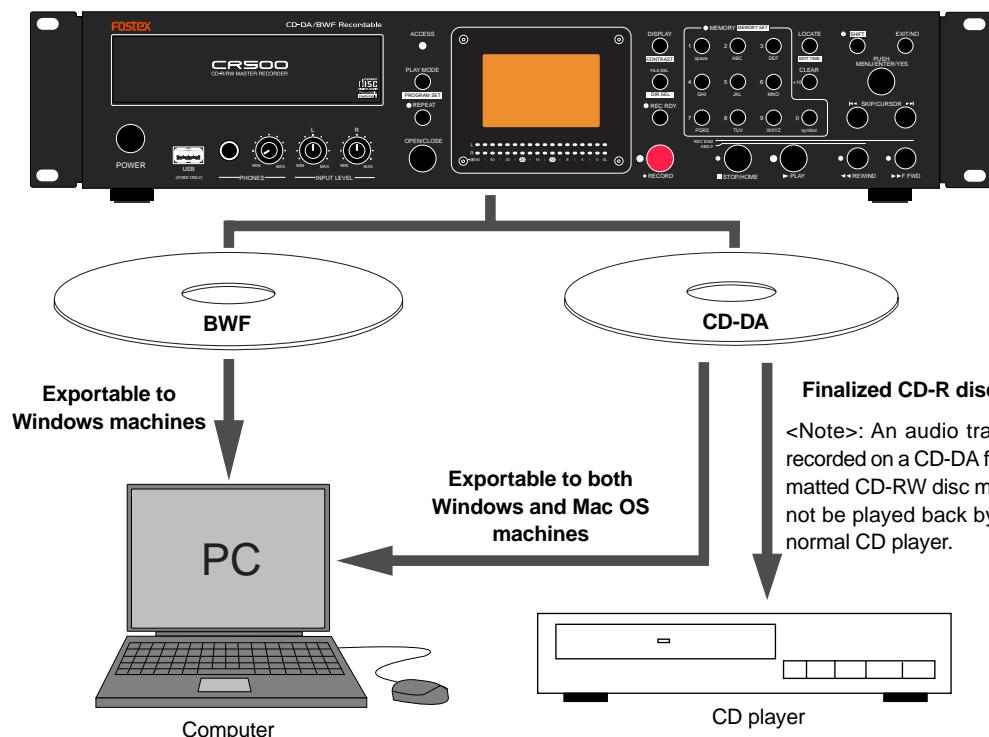
By finalizing a CD-R/RW disc recorded by the CR500, you can export files on the disc to a PC. You can also play back a finalized CD-DA disc by an audio CD player. The CR500 offers versatile playback functions including auto play and program play. By using these functions, you can also use the CR500 as a long continuous playback machine.

• Supporting two recording formats

The CR500 supports both the BWF (Broadcast Wave Format) and CD-DA (Compact Disc Digital Audio) formats as recording formats of CD-R/RW discs. You can record WAV audio files to a BWF formatted disc, and record audio tracks to a CD-DA formatted disc.

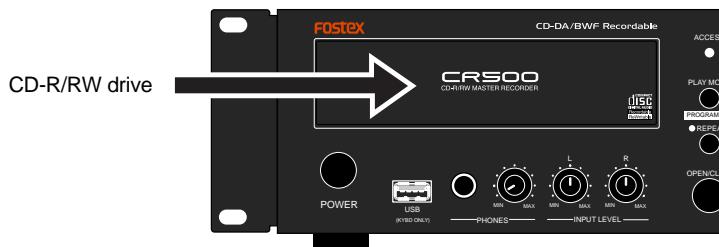
By closing a BWF disc, you can export a file to a Windows PC and divide the file into two mono-track files using the WAV Manager, a freeware application by Fostex (for details about the WAV Manager, ask your Fostex distributor or dealer). By finalizing a CD-DA disc, you can export tracks to a Windows or Mac OS computer, as well as can play it back by a CD player.

<Note>: In this manual, each audio data file recorded on a BWF formatted disc is called an "audio file", while each audio data file recorded on a CD-DA formatted disc is called an "audio track".



• **High-performance CD-R/RW drive built in.**

The CR500 is equipped with a high-performance CD-R/RW drive. The anti-buffer-underrun function enables reliable stereo recording/playback.



• **Various playback modes**

The CR500 supports various playback modes described below.

(1) **ALL PLAY mode**

Plays back all disc tracks continuously.

(2) **SINGLE PLAY mode**

Plays back a single track.

(3) **PROGRAM PLAY mode**

Plays back tracks of the playback list you program.

(4) **MEMORY PLAY mode**

Plays back the memorized track by the instant start function.

• **Supporting a wide range of Fs/Bit combinations for recording**

When formatting a CD-R/RW disc to the BWF format, you can choose a desired recording Fs/Bit combination from among the following.

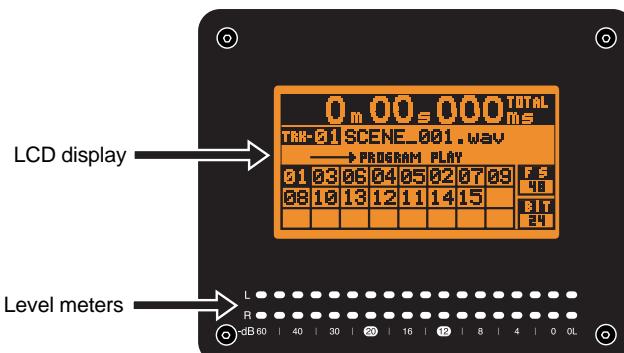
A file is then recorded by the selected Fs/Bit combination to the disc. (Note that a CD-DA formatted disc can only record 44.1kHz/16 bit tracks.)

- (1) 44.1kHz/16 bit, (2) 44.1kHz/24 bit, (3) 48kHz/16 bit,
- (4) 48kHz/24 bit, (5) 88.2kHz/24 bit, (6) 96kHz/24 bit

• **Easy-to-see large display and level meters**

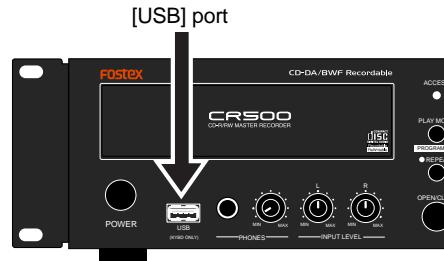
From a 132 x 64 dot matrix LCD display, you can see the time information, as well as the status of the unit setting. The dot-LED level meters (L and R) allow you to check recording or playback levels precisely.

The meter peak hold time is set to three seconds by default, however, you can set it between zero and nine seconds in one second steps using the "Peak Hold" menu item of the "SYS SETUP" menu in the MENU mode (see page 77).



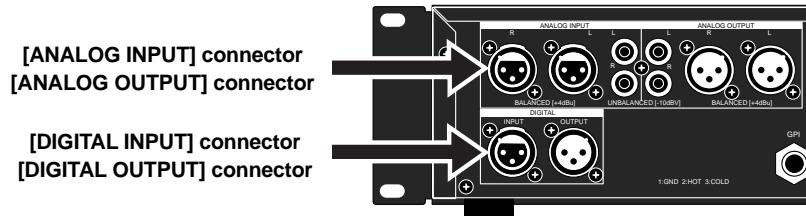
- A USB keyboard can be used for file name entry, etc.

The CR500 is equipped with the [USB] port for connecting an USB keyboard. You can enter a file name, directly bring up a menu screen, and control the transport from the USB keyboard (see page 37).



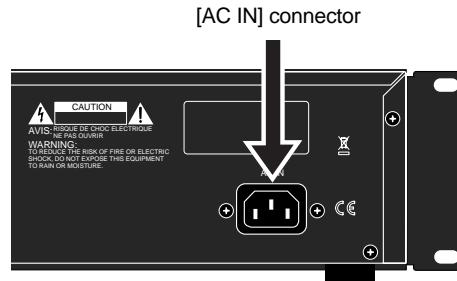
- Versatile analog and digital connectability

For analog input and output connection, both the balanced XLR and unbalanced RCA connectors are provided. For digital input and output connection, the balanced XLR connectors which can handle the AES/EBU or S/P DIF format digital signals are provided.



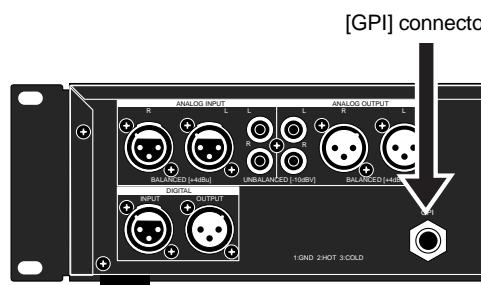
- For worldwide use

The CR500 has the [AC IN] connector, to which a separate power cable is connected. You can use the CR500 anywhere in the world by using an appropriate power cord.



- Fader start function

The CR500 provides the fader start function. By connecting a fader start control terminal of a mixing console to the [GPI] connector, you can control play and stop of the CR500 from the mixing console.



Chapter-2: Preparation before using the CR500

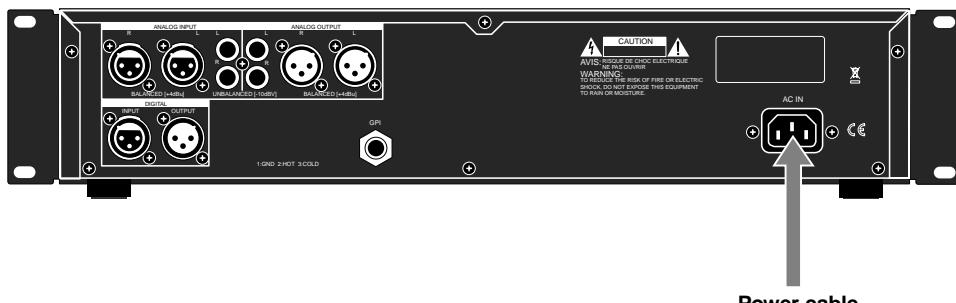
This chapter explains preparation before using the CR500 for the first time, including power connection, internal clock setting and initial formatting of a CD-R/RW disc. You must do these things correctly in order to use the CR500. Read this chapter before using the CR500.

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Power connection

Connect the supplied power cable to the [AC IN] connector on the rear panel first, and then to the AC outlet.



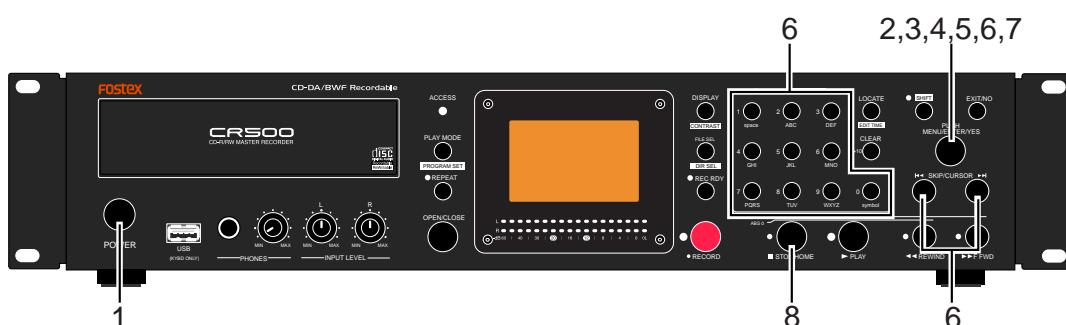
<Notes>: Connect the CR500 to the AC outlet of the voltage indicated on the rear panel. If you use the unit in another country where the power voltage or AC connector type is different, consult your dealer or local Fostex service station.

Realtime clock setting

After making power connection, turn on the CR500 and make setting of the realtime clock.

The realtime clock data is used for date/time of creation of an audio file which is made when you make a recording to a BWF formatted CD-R/RW disc.

By default, the realtime clock is set according to local date/time of the factory. Therefore, set the clock correctly according to your local date/time before using.



- 1) Press the [POWER] switch to turn on the CR500.
Soon after turning on the power of the unit, the display shows the screen below.

The time display shows "-m-s--ms", showing that the CR500 started up with no disc loaded on the drive.

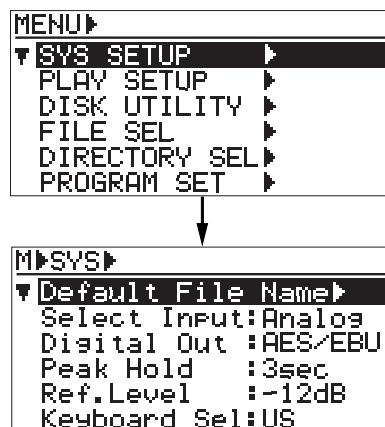


- 2) Press the [ENTER/YES] key.
The unit enters the MENU mode and the display now shows the MENU list screen on which "SYS SETUP ▶" is highlighted.



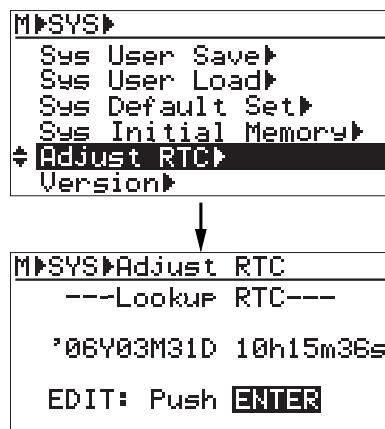
- 3) While "SYS SETUP ▶" is highlighted, press the [ENTER/YES] key again.

The display now shows the "SYS SETUP" menu, where "Default File Name ▶" is highlighted.



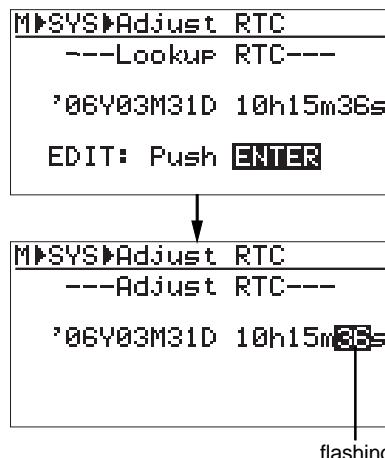
- 4) Use the [MENU] dial to scroll through the menu and highlight "Adjust RTC ▶", then press the [ENTER/YES] key.

The display now shows current clock data which runs in realtime.



- 5) Press the [ENTER/YES] key again.

The clock data at the moment when pressing the key is held and now you can edit the clock data.



- 6) Edit date/time data using the [MENU] dial or the numeric keys.

• Using the [MENU] dial:

You can edit the value at the cursor (highlighted) position. To move the cursor, use the [SKIP CURSOR ▲◀▶▼] key.

• Using the numeric keys:

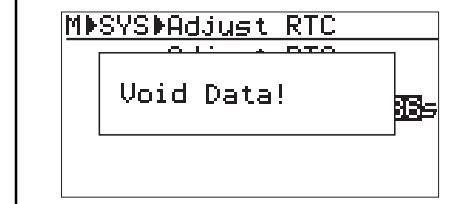
Each time you press any numeric key, the entered numbers move left from the cursor position.

For example, if you change the currently held data to "06Y 04M 01D 10h 00m 00s", press keys in the following order.
0 -> 6 -> 0 -> 4 -> 0 -> 1 -> 1 -> 0 -> 0 -> 0
-> 0 -> 0

- 7) After editing date/time data, press the [ENTER/YES] key.

The clock starts running from the entered date/time, while the display returns to the screen which shows current clock data which runs in realtime.

<Note>: If you enter illegal data in step 6) above and press the [ENTER/YES] key, the display shows "Void data!" and the display returns to the screen where you can edit data. Enter legal data and press the [ENTER/YES] key.



- 8) Press the [STOP/HOME] key to exit the MENU mode.

<Lithium battery replacement>

The unit has an internal lithium battery which is used for driving the realtime clock. The battery life is approximately five years. The battery replacement is done by local Fostex distributor's service department or their authorized service agent.

<Note>: The file creation date of the CR500 is recorded according to the internal realtime clock. However, because "GMT" of "UDF" is set to offset zero, there may be an error when reading the creation date by a PC.

UDF: Universal Disk Format
GMT: Greenwich Mean Time

Initial format of the CD-R/RW disc

Usable discs

With the CR500, you can use a CD-R or CD-RW disc which has any of the following logos. Also we recommend using discs manufactured by the following makers.

Recommended makers:

CD-R (Use 12x or higher disc):

Sony, TDK, Taiyo yuden, RICOH,
Mitsubishi chemical, Maxell

CD-RW (Use 4x ~ 12x disc):

Sony, TDK, RICOH, Mitsubishi chemical



Format types

When you format a CD-R/RW disc with the CR500, you can choose either of the following two format types.

- **BWF type:**

Choose this type when you make a recording in the WAV file format. With a BWF formatted CD-R/RW disc, you can make additional recordings until you finalize the disc, as far as the disc has enough space. The closed disc can be read by a Windows computer (see page 20 for details).

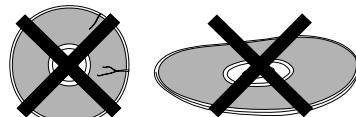
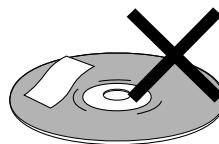
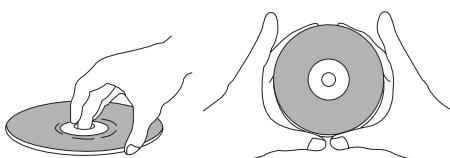
- **CD-DA type:**

Choose this type when you make an audio CD.

With a CD-DA formatted CD-R/RW disc, you can make additional recordings until you finalize the disc, as far as the disc has enough space. The finalized disc can be read by a Windows or Mac OS computer, as well as can be played back by a normal CD player (see page 20 for details).

Handling of CD-R/RW discs

- Handle a disc with care by holding them by the rim or by a finger through the center hole, rather than touching the surface. Do not get fingerprints, dust, scratch, etc. on the signal side.
- Do not affix any labels or stickers to the label side of the disc. Do not make a scratch on the label side. A scratch may make recording or playback impossible. Do not write on the label side of a disc with a hard pen such as a ballpoint pen and a pencil. Only use a soft pen.
- Do not use a curved or cracked disc, which may cause malfunction of the drive.
- If dust or fingerprint is attached to the signal side, wipe the disc gently with a soft dry cloth or a cloth with ethyl alcohol from the center towards the out-side edge. Do not wipe it from the outside towards the center.
- Read the instructions supplied with a disc before using.



Setting a disc

After turning on the CR500, press the [OPEN/CLOSE] key to open the disc tray.

After setting a CD-R/RW disc to the tray, press the [OPEN/CLOSE] key again closes the disc tray.



<Note>: When setting a disc to the tray, make sure that the label side is up.

After closing the tray, the unit loads the disc in the following manners depending on the disc condition. If the disc is illegal, the unit rejects the disc and opens the disc tray.

- **Unformatted CD-R/RW disc**

The unit recognizes that the disc is unformatted and shows "Blank Disk" on the display, followed by the "Format" menu item of the "DISK UTILITY" menu in the MENU mode.

- **Unused formatted CD-R/RW disc**

If you set an unused BWF formatted disc, the unit scans the disc and starts up with the screen showing that no BWF file exists on the disc.

If you set an unused CD-DA formatted disc, the unit scans the disc and starts up with the screen showing "Blank Disk", followed by the "Format" menu screen of the "DISK UTILITY" menu in the MENU mode.

- **Recorded CD-R/RW disc**

If you set a BWF formatted (or CD-DA formatted) CD-R/RW disc on which any audio file (or audio track) is recorded, the earliest recorded audio file (or audio track) on the disc is loaded.

If the "Power On Play" item of the "PLAY SETUP" menu in the MENU mode is set to "On", the CR500 automatically starts playback immediately after it starts up when you turn on the power (see page 81).

- **CD-DA format audio CD (including a commercially available CD)**

If you set an audio CD disc of the Red Book format, the unit starts up at the beginning of track 1. Only playback is possible with an audio CD.

Note that some copy-protected audio CDs may not be played back.

- **ISO9660 formatted disc**

If you set an ISO9660 formatted CD-ROM, CD-R or CD-RW disc, you can only play back a WAV file (BWF) on the disc (see page 67).

When you attempt to remove a disc after making recording, a confirmation screen for closing the disc (for a BWF formatted disc) or finalizing the disc (for a CD-DA disc) appears.

To export a WAV file on the BWF formatted disc to your computer, you have to close the disc. To play back an audio track on the CD-DA formatted disc by a normal CD player or to export an audio track to your computer, you have to finalize the disc (see pages 46 and 49).

Initial format of a disc

The following description shows how to do the initial format of an unused disc, assuming that the CR500 is turned on and no disc is set on the disc tray.

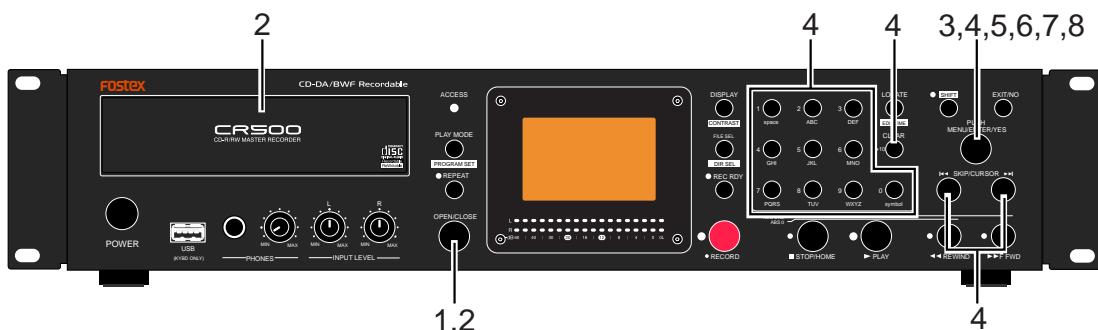
<The recordable time and the maximum number of tracks>

The table on the right shows the approximate recordable time and the maximum number of tracks after formatting a 700 MB CD-R/RW disc. Note that the actual recordable time is slightly different depending on discs.

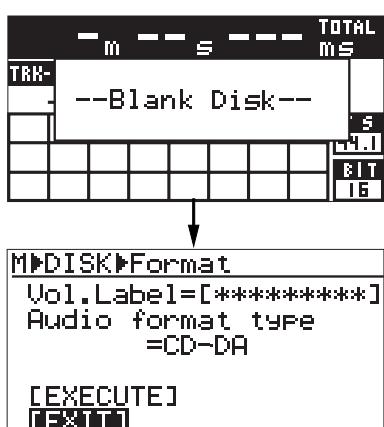
Format type	Recordable time	Maximum number of tracks
CD-DA (44.1/16)	Approx. 79 min.	Max. 99 tracks
BWF (44.1/16)	Approx. 66 min.	Max. 97 tracks
BWF (44.1/24)	Approx. 44 min.	Max. 97 tracks
BWF (48/16)	Approx. 61 min.	Max. 97 tracks
BWF (48/24)	Approx. 40 min.	Max. 97 tracks
BWF (88.2/24)	Approx. 22 min.	Max. 97 tracks
BWF (96/24)	Approx. 20 min.	Max. 97 tracks

You can check the recordable time and the maximum number of tracks on the input monitor screen.

<Note>: The recordable time of a BWF formatted disc decreases not only by making recording but also by closing the disc (see page 46) and by rewriting the file system data (see page 88).



- 1) Press the [OPEN/CLOSE] key to open the disc tray.
- 2) Set an unformatted CD-R/RW disc and press the [OPEN/CLOSE] key to close the disc tray. The unit recognizes that the disc is blank and enters the "Format" screen of the "DISK UTILITY" menu in the MENU mode.



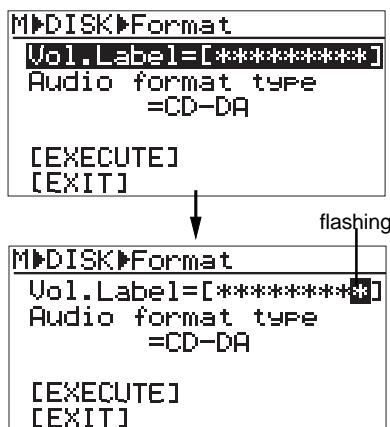
On this screen, you can format the disc after setting the disc volume label and format type.

We recommend to set the volume label because it can be used as the default file name when making recording to a BWF formatted disc.

If you do not edit the volume label, skip the next three steps and go to step 6.

<Note>: With a CD-DA disc, the volume label setting is ineffective and is not stored.

- 3) Use the [MENU] dial to highlight "Vol.Label" at the top and press the [ENTER/YES] key. The rightmost digit of the current volume label flashes and you can now edit the label.



- 4) Use the numeric keys or [MENU] dial to edit the volume label.

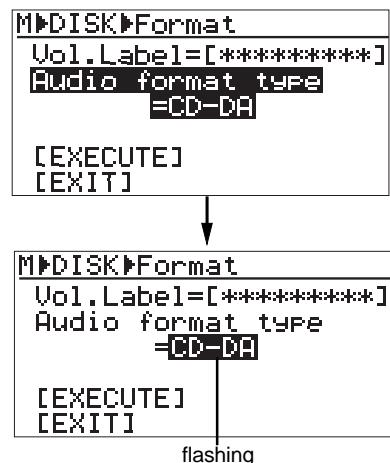
You can enter a desired alphanumeric character at the flashing point.

You can move the flashing point by using the [SKIP/CURSOR◀◀▶▶] keys. You can clear the character at the flashing point by pressing the [CLEAR/+10] key.

- 5) After completing editing, press the [ENTER/YES] key to set the volume label.

- 6) Use the [MENU] dial to highlight "Audio format type" and press the [ENTER/YES] key.

The current format type flashes ("CD-DA" flashes by default) and you can now select the format type.



You can select a desired format type from among "CD-DA" and various "BWF" types (see the table below). To make an audio CD, select "CD-DA". To record WAV files, select any one of "BWF" types shown below.

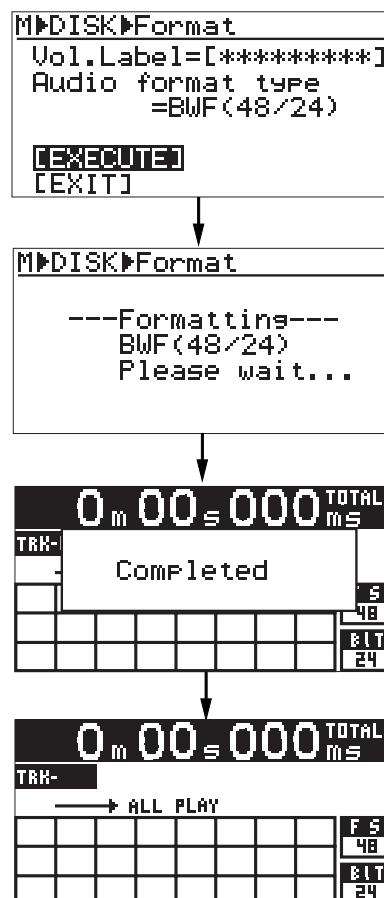
CD-DA: 44.1kHz/16Bit (Default)
BWF (44.1/16): 44.1kHz/16Bit
BWF (44.1/24): 44.1kHz/24Bit
BWF (48/16): 48kHz/16Bit
BWF (48/24): 48kHz/24Bit
BWF (88.2/24): 88.2kHz/24Bit
BWF (96/24): 96kHz/24Bit

- 7) Use the [MENU] dial to select a desired format type and press the [ENTER/YES] key.

- 8) Use the [MENU] dial to highlight "[EXECUTE]" and press the [ENTER/YES] key. (To cancel formatting, select "[EXIT]"). Formatting starts and the display shows the formatting status.

The screen below shows an example when the disc is formatted by "BWF (48/24)".

When formatting completes, "Completed" is shown and the unit exits the MENU mode. The display shows the Home screen.

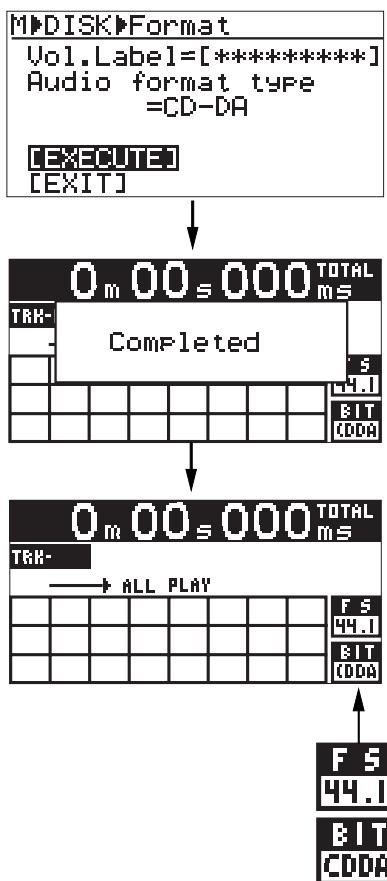


On the Home screen immediately after the disc has been formatted, track display is blank while the Fs and Bit information of the disc is shown.

After the CD-R/RW disc has been formatted, you can now make a recording with the CR500. See "Chapter 5: Recording" (from page 39) for details.

<Note>: You can re-format a formatted disc by the "Format" menu item of the "DISK UTILITY" menu in the MENU mode (see "Formatting a disk [Format]" on page 86).

<Note>: Formatting by the "CD-DA" type is executed immediately. After "Completed" is shown, the following Home screen appears.



<Note>: If you eject a CD-DA formatted disc without making recording or if you turn off the power and then on, the display shows "Blank Disc" again, followed by the "Format" screen.

With a CD-DA formatted CD-R/RW disc, you can make additional recordings until you finalize the disc.

The following table shows available Fs/Bit combinations for recording, as well as capabilities of additional recordings, reformatting, file name editing, file deletion, export to PC and playback by normal CD players.

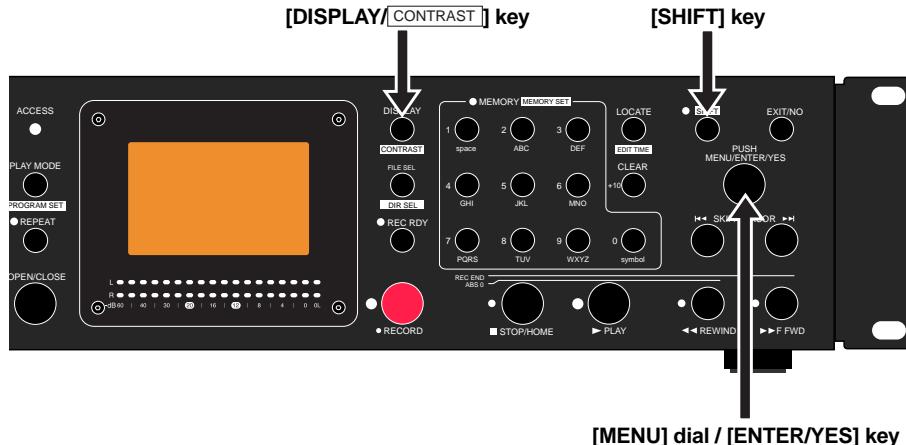
Format type			
BWF		CD-DA	
Disc type			
CD-R	CD-RW	CD-R	CD-RW
Available Fs/Bit for recording			
Selectable when formatting 44.1kHz/16Bit or 24Bit 48kHz/16Bit or 24Bit 88.2kHz/24Bit 96kHz/24Bit	Selectable when formatting 44.1kHz/16Bit or 24Bit 48kHz/16Bit or 24Bit 88.2kHz/24Bit 96kHz/24Bit	Fixed to 44.1kHz/16Bit	Fixed to 44.1kHz/16Bit
Additional recordings			
Possible until a disc is finalized.	Possible until a disc is finalized.	Possible until a disc is finalized.	Possible until a disc is finalized.
Reformatting of a recorded disc			
Impossible	Possible	Impossible	Possible
File name editing/file deletion/file restore			
Possible until finalized After editing, the file system must be stored. <Note>: Impossible when there is no remaining recordable space on the disc.	Possible until finalized After editing, the file system must be stored. <Note>: Impossible when there is no remaining recordable space on the disc.	Impossible.	Impossible.
File export to a PC			
Possible with a closed or finalized disc.	Possible with a closed or finalized disc.	Possible with a finalized disc.	Possible with a finalized disc.
* Only can be exported to a Windows machine.		* Can be exported to a Windows or Mac OS machine.	
Playback by a normal CD player			
Impossible.	Impossible.	Possible with a finalized disc.	Impossible.

<Note for reformatting>

Do not use the CR500 for reformatting a CD-RW disc on which you have made recording using another machine such as a PC. If you reformat such a disc using the CR500, data may not be completely erased. When you reformat a CD-RW disc using the "Format" menu item of the "DISK UTILITY" menu in the MENU mode, make sure that the disc has been recorded by the CR500.

Adjusting display contrast

The display contrast of the unit is adjusted suitably when shipped. If you want to change the contrast, follow the procedure described below.



- 1) Press the [SHIFT] key to turn on the [SHIFT] indicator, followed by the [DISPLAY/CONTRAST] key.

The popup message as shown below appears on the display and you can now adjust the display contrast.



- 2) While the popup message above is shown, rotate the [MENU] dial to adjust the display contrast.

Rotating the dial clockwise weakens the contrast, while rotating it counterclockwise strengthens the contrast.



<Weak contrast>



<Strong contrast>

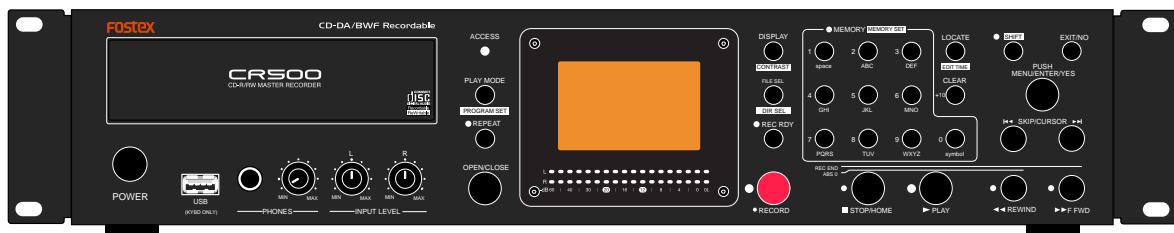
- 3) After adjusting the contrast, press the [ENTER/YES] key to confirm your setting.

The adjusted display contrast is now effective and the popup message above is dismissed.

<Note>: The contrast setting remains even if you turn off the power.
If you initialize the system memories from the "Sys initial Memories" or
<"Sys Default Set"> item of the "SYS SETUP" menu in the MENU mode, the contrast
is initialized to the factory preset.

Chapter-3: Names and functions

Front panel



Rear panel

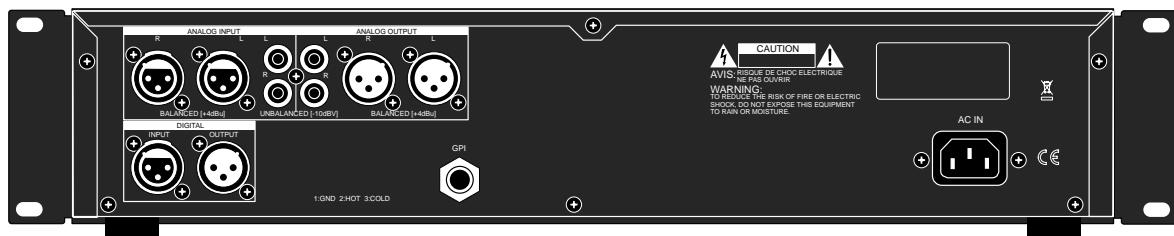
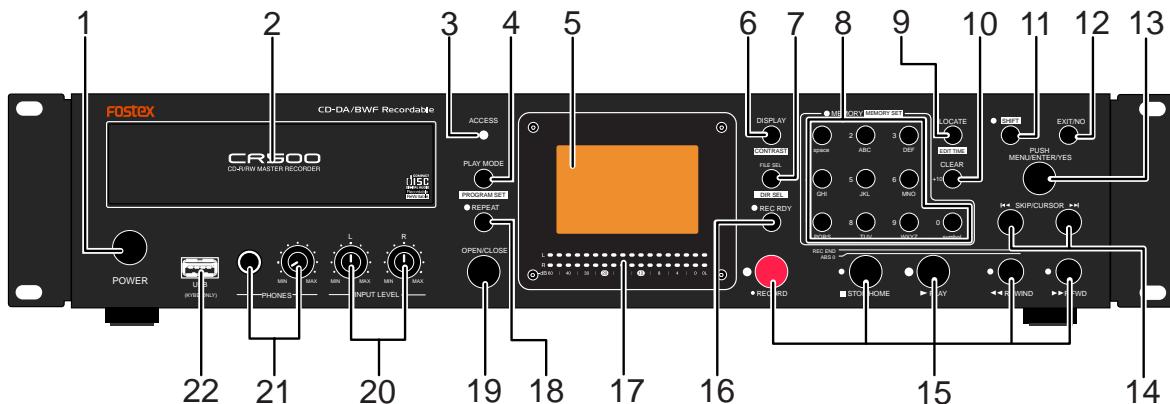


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Screen details	30
Home screen (available in stop or playback mode)	30
Input monitor screen (available while in record ready or recording)	32
MENU mode screen	34

Front panel section



About Non-shift mode and Shift mode

Some keys have the secondary function which is available when the SHIFT indicator is lit (i.e. in the Shift mode), while the primary function is available when the SHIFT indicator is unlit (i.e. in the Non-shift mode).

In this manual, we sometimes say "when SHIFTed" and "when unSHIFTed", instead of "when the SHIFT indicator is lit" (or "in the Shift mode") and "when the SHIFT indicator is unlit" (or "in the Non-shift mode") respectively.

Audio file and audio track

In this manual, each audio data file recorded on a BWF formatted disc is called an "audio file", while each audio data file recorded on a CD-DA formatted disc is called an "audio track".

1. [POWER] switch

Turns on or off the power of the unit.

2. Disc tray

Loads a CD-R or CD-RW disc. Use the [OPEN/CLOSE] key to open or close the tray.

You can also close the tray by pushing the front of the tray lightly.

3. [ACCESS] indicators

Indicates the condition of the CD-R/RW drive.

Depending on the drive condition, the indicator status changes as below.

Unlit	No disc is set in the tray.
Lit in green	The disc is stopped.
Flashing in orange	The unit is playing back the disc.
Flashing in red	The unit is recording to the disc.

4. [PLAY MODE/PROGRAM SET] key

This key has primary (unSHIFTed) and secondary (SHIFTed) functions.

When unSHIFTed:	While stopped, pressing this key switches the play mode in the following order (see page 54). “ALL PLAY” -> “SINGLE PLAY” -> “PROGRAM PLAY” -> “MEMORY PLAY” -> “ALL PLAY” <Note>: "PROGRAM PLAY" is shown only when the play list is set.
When SHIFTed:	Pressing this key brings up the screen for program setting on which you can set or edit the play list (page 57).

5. LCD display

This 132 x 64 dot LCD display shows file information, setting status, etc (see page 30).

6. [DISPLAY/CONTRAST] key

This key has primary (unSHIFTed) and secondary (SHIFTed) functions.

When unSHIFTed:	While stopped or playing, pressing this key switches the time display mode in the following order (see page 30). Total time -> Track time -> Total remaining time -> Track remaining time -> Total time...
When SHIFTed:	Pressing this key brings up the screen for adjust the display contrast. Adjust the display contrast using the [MENU] dial and press the [ENTER/YES] key to confirm (see page 22).

7. [FILE SEL/DIR SEL] key

This key has primary (unSHIFTed) and secondary (SHIFTed) functions.

When unSHIFTed:	Pressing this key brings up the screen for selecting an audio file (or audio track) (see page 51).
When SHIFTed:	Pressing this key brings up the screen for selecting a directory (see page 67). <Note>: The Shifted function is available only when a BWF formatted disc is loaded. It is not available with a CD-DA formatted disc.

Pressing the [STOP/HOME] key (or the [EXIT/NO] key) dismisses each selection screen and returns to the Home screen.

8. [MEMORY/MEMORY SET] key

The keys in this key group have primary (unSHIFTed) and secondary (SHIFTed) functions.

When unSHIFTed:	<p>Depending on the current play mode, the function differs.</p> <ul style="list-style-type: none"> • In ALL PLAY, SINGLE PLAY or PROGRAM PLAY mode: Pressing a key in this key group directly locates the beginning of the audio file (or audio track) corresponding to the key number. • In MEMORY PLAY mode: Pressing a key in this key group starts playback of the audio file (or audio track) set to the memory bank corresponding to the key number (Instant start function).
When SHIFTed:	<p>Note that the SHIFTed functions of the keys in this key group are effective only in the MEMORY PLAY mode. Pressing a key in this key group brings up the screen for setting a desired audio file (or audio track) to the corresponding memory bank (see page 62).</p>

In the MENU mode, the keys in this key group are used for entering alphanumeric characters.

9. [LOCATE/EDIT TIME] key

This key has primary (unSHIFTed) and secondary (SHIFTed) functions.

When unSHIFTed:	<p>Pressing this key locates the position previously located (see page 70).</p>
When SHIFTed:	<p>Pressing this key brings up the time edit screen and you can edit the current time (see page 70). After editing the time, pressing this key locates the edited time position. Pressing the [STOP/HOME] key (or the [EXIT/NO] key) dismisses the time edit screen and returns to the Home screen.</p>

10. [CLEAR/+10] key

This key is used when you select an audio file (or audio track) whose number is more than 9. For example, to select "15", press this key, followed by the [5/JKL] key (see pages 50 and 68). This key is also used to clear the highlighted character on the screen of the "Edit File Name" item of the "DISK UTILITY" menu in the MENU mode (see page 89).

11. [SHIFT] key

Pressing this key turns the shift mode on or off. When on, the indicator is lit and you can execute a SHIFTed (secondary) function of a key which has dual functions.

The SHIFTed function of a key (if available) is labeled under the key.

12. [EXIT/NO] key

This key has opposite functions to the [ENTER/YES] key.

It is used to cancel editing or execution.

In the MENU mode, pressing this key goes up the menu level. Pressing this key repeatedly exits the MENU mode.

13. [MENU] dial/[ENTER/YES] key

This knob has dual functions; the [MENU] dial for selecting an option and the [ENTER/YES] key for confirming the selection. Pressing the [ENTER/YES] key enters the MENU mode. In the MENU mode, you can use the [MENU] dial to make settings of each menu item of the MENU mode. The [MENU] dial also can be used for entering alphanumerical characters.

14. [SKIP/CURSOR] keys

Pressing the [$\blacktriangleleft\blacktriangleright$] or [$\blacktriangleright\blacktriangleright$] key skips to the beginning of the previous or next audio file (or audio track). You can skip to the beginning of a desired file by pressing the key as many times as required (see page 50 and 69).

When the display shows a screen for entering alphanumerical characters in the MENU mode, these keys can be used for moving the cursor position.

15. Transport control keys**[▶] PLAY] key**

- Pressing this key plays back the current audio file (or audio track).
- Pressing this key while holding down the [STOP/HOME] key enters the digital scrub mode.

[■] STOP/HOME] key

- During playback or recording, pressing this key stops the drive.
- Pressing the [PLAY] key while holding down this key enters the digital scrub mode (see page 56).
- Pressing this key exits any editing or setting mode and returns to show the Home screen.
- Pressing the [F FWD] or [REWIND] key while holding down this key locates a specific position as below.

[STOP/HOME] + [F FWD]	Locates the record end position (REC END) of the currently loaded disc (LOCATE REC END function).
[STOP/HOME] + [REWIND]	Locates the beginning (ABS 0) of the currently loaded disc (LOCATE ABS 0 function).

[▶▶] F FWD] key

- Pressing this key while stopped starts fast-forward at up to 30 times the normal playback speed.
- Pressing this key during playback executes forward cueing playback.
- While stopped, pressing this key while holding down the [STOP/HOME] key locates the last recording position of the current audio file (or audio track) (LOCATE REC END).

[◀◀] REWIND] key

- Pressing this key while stopped starts fast-rewind at up to 30 times the normal playback speed.
- Pressing this key during playback executes reverse cueing playback.
- While stopped, pressing this key while holding down the [STOP/HOME] key locates the beginning of the current audio file (or audio track) (LOCATE ABS 0).

[● RECORD] key

- While the [REC RDY] indicator flashes, pressing this key automatically creates a new audio file (or audio track) and starts recording.

16. [REC RDY] key

Pressing this key switches the record ready mode on and off. When it is on, you can monitor the input signal and adjust the recording level (see pages 32, 42 and 47).

While the recorder is in the record ready mode, the [REC RDY] indicator flashes. After recording starts, the indicator lights solidly.

17. Level meters

Show the recording/playback.

The nominal input level of the unit is set to "-12dB" by default. You can change it to "-20dB" using the "Ref. Level" menu item of the "SYS SETUP" menu in the MENU mode (see page 78).

18. [REPEAT] key

Pressing this key switches the repeat mode on and off.

When the repeat mode is on, the [REPEAT] indicator lights and the recorder repeats playback according to the current play mode until the [STOP/HOME] key is pressed.

<Note>: When the play mode is set to "MEMORY PLAY", the repeat playback function is disabled.

19. [OPEN/CLOSE] key

Pressing this key opens or closes the disc tray.

<Note>: You can also close the tray by pushing the front of the tray lightly.

20. [INPUT LEVEL] control

This control adjusts the input level (L and R) when recording analog audio signals (see page 42).

21. [PHONES] level control/[PHONES] jack

The [PHONE] jack is used to connect headphones, while the [PHONES] level control adjusts the headphone monitor level.

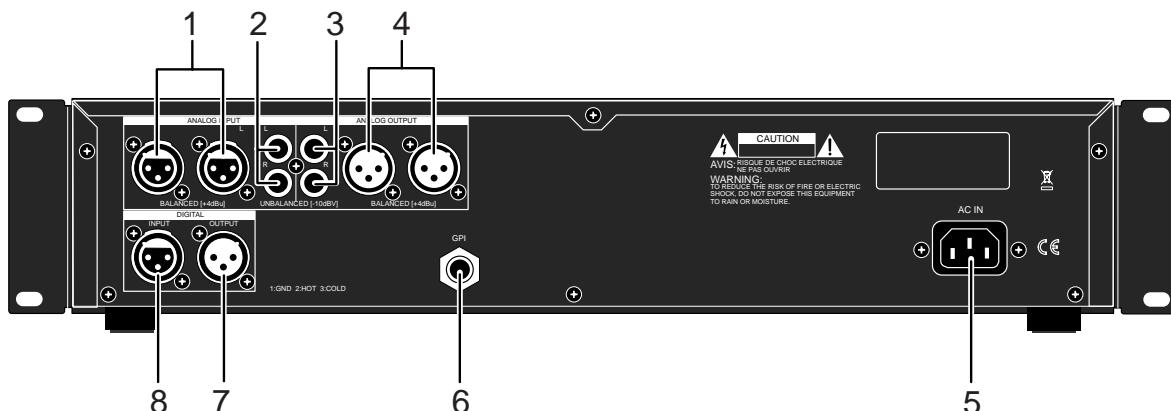
22. [USB (KYBD ONLY)] port

By connecting a USB keyboard to this port, you can enter a file name or control the transport, etc. from the keyboard (see page 37). You can also connect a numeric keyboard for entering numeric values and transport controls.

When you connect a USB keyboard, set the "Keyboard type" menu item of the "SYS SETUP" menu in the MENU mode appropriately (see page 78) to match the keyboard.

You can select between "JAPAN" and "US" (by default, it is set to "US").

Rear panel section



1. [ANALOG INPUT] connectors (XLR-3-31 type, balanced)

These connectors receive analog audio signals at +4dBu. When the RCA unbalanced analog input jacks are plugged, the balanced connectors are disabled (see page 36).

2. [ANALOG INPUT] connectors (RCA type, unbalanced)

These connectors receive analog audio signals at -10dBV (see page 36).

3. [ANALOG OUTPUT] connectors (RCA type, unbalanced)

These connectors send analog audio signals at -10dBV (see page 36).

4. [ANALOG OUTPUT] connectors (XLR-3-32 type, balanced)

These connectors send analog audio signals at +4dBu (see page 36).

5. [AC IN] connector

This connector is used to connect the supplied AC power cable (page 14).

6. [GPI] jack

This jack is used to connect to a mixing console providing the fader start/stop facility, which enables start/stop control of the CR500 from a console's fader (see page 36).

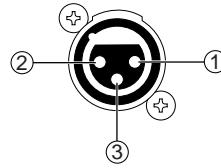
7. [DIGITAL OUTPUT] connector (XLR-3-32 type, balanced)

This connector sends AES/EBU or S/P DIF digital signals (see page 36). The digital output signal format (AES/EBU or S/P DIF) can be set by the MENU mode (see page 77).

8. [DIGITAL INPUT] connector (XLR-3-31 type, balanced)

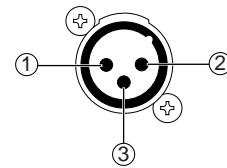
This connector receives AES/EBU or S/P DIF digital signals. The unit automatically recognizes the digital signal format (AES/EBU or S/P DIF) (see page 36).

<Pin assignment of XLR connectors>



XLR-3-31 type connector

1	GND
2	HOT
3	COLD



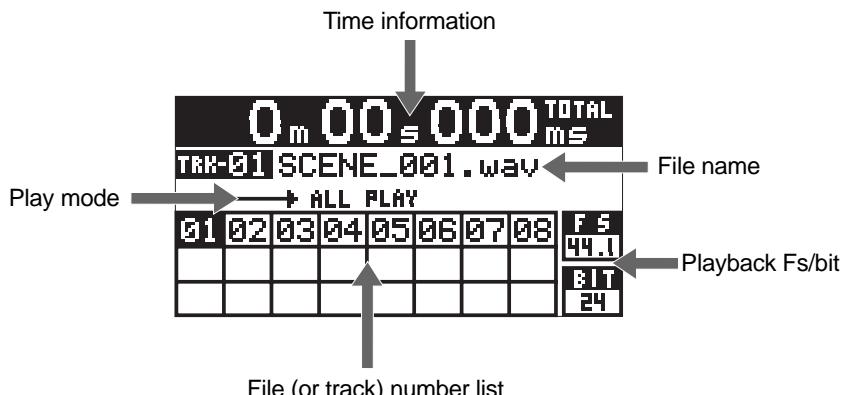
XLR-3-32 type connector

Screen details

Home screen (available in stop or playback mode)

When a formatted CD-R/RW disc is loaded and the unit is stopped or playing back, the "Home screen" is shown. The screen example below shows the Home screen when a recorded CD-R/RW disc is loaded.

On the Home screen, various information about the current setting and status is shown, as described below.



• Time information

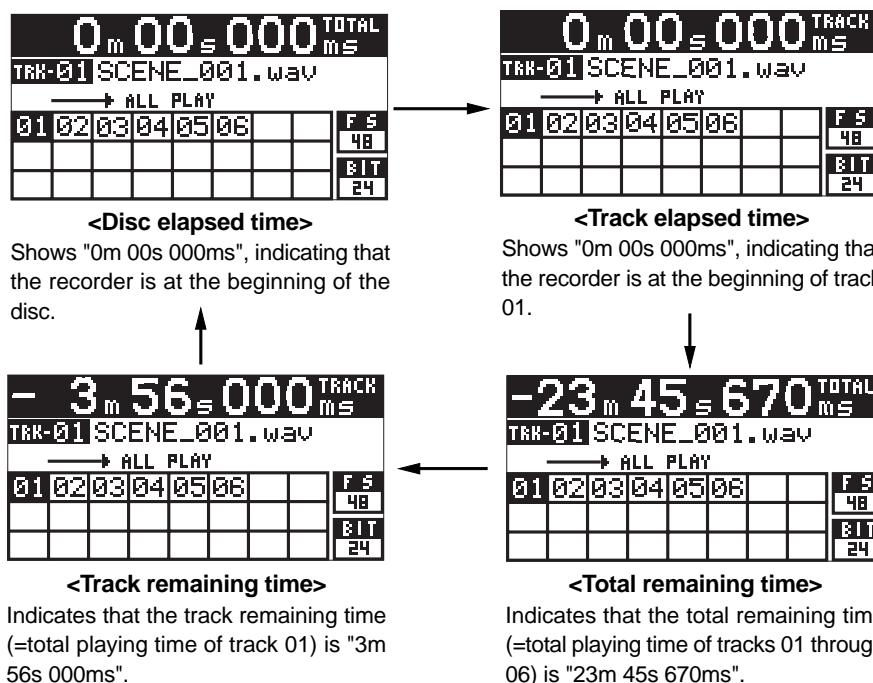
While stopped or during playback, the current recorder position is shown in "m:s:ms". By default, the disc elapsed time from the beginning of the disc is shown (TOTAL is indicated on the top left of the screen).

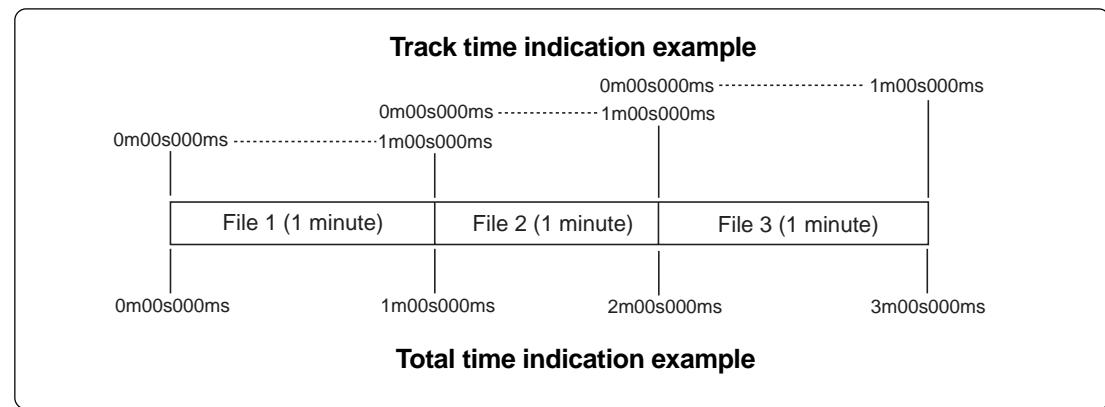
You can select the time mode shown here by pressing the [DISPLAY/CONTRAST] key from among the disc elapsed time, track elapsed time, total remaining time and track remaining time. Note that during recording, you cannot select the total remaining time and track remaining time.

When selecting the remaining time, negative time value is shown (see the screen examples below).

Also the appropriate icon (▶, ●, ■, ◀◀ or ▶▶) which shows transport status is lit.

The following shows a screen example of each of four time modes when the recorder is at the beginning of the disc.





• File name

Shows a track number and a name of the currently selected track (file).

• WAV file

A file name according to the setting of the "Default File Name" menu item of the "SYS SETUP" menu in the MENU mode is shown.

Depending on the "Default File Name" setting, "DATE information", "Scene Name + Take number" or "Reel Number + File Number" is shown (see page 75).

• Audio track (CD-DA)

A track name written in the CD-TEXT format is shown. If no name is saved in the CD-TEXT format, only the track number is shown (the file name field is blank).

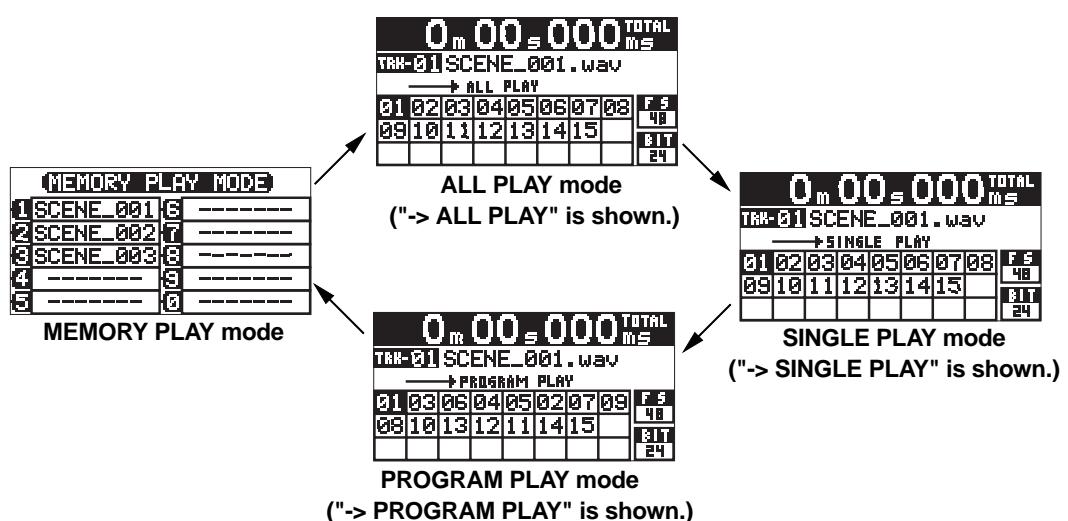
• Play mode

The currently selected play mode is shown. When the MEMORY PLAY mode is selected, the screen looks differently.

You can select the desired play mode by pressing the [PLAY MODE/PROGRAM SET] key from among "ALL PLAY", "SINGLE PLAY", "PROGRAM PLAY" and "MEMORY PLAY" (by default, ALL PLAY is selected). You can also select the desired play mode using the "Play Mode" menu item of the "PLAY SETUP" menu in the MENU mode (see page 83).

<Note>: If no file is set in the play list, you cannot select the PROGRAM PLAY mode ("No Play List" pops up).

In the MEMORY PLAY mode, if no audio data is set, "----" is shown in each memory bank (1 through 10) and the [MEMORY] indicator flashes fast.



• Audio file (or audio track) information

Numbers of recorded audio files (or audio tracks) are shown. The file (or track) which can be played back currently is highlighted. If no audio file (or audio track) is recorded to the disc, all boxes are blank.

When the ALL PLAY or SINGLE PLAY mode is selected, file (track) numbers are arranged from left top to right bottom in the order of recordings.

01	02	03	04	05	06	07	08
09	10	11	12	13	14	15	

When the PROGRAM PLAY mode is selected, file (track) numbers are arranged from left top to right bottom in the order of play list registration.

04	12	03	02	05	14	07	08
09	10	11	06	13	15	01	

• Playback FS/Playback bit

The Fs and bit information of the playback file is shown.

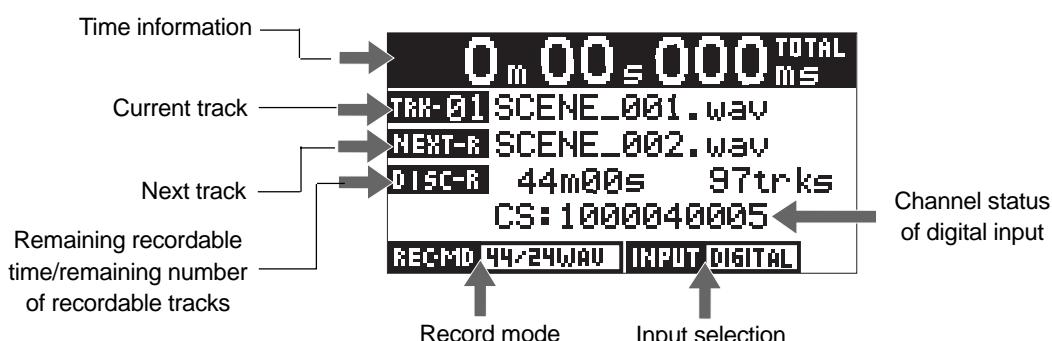
CD-DA (FS44.1 and BIT CDDA are shown.)	WAV file (FS and BIT information is shown as below.)																				
<table border="1"> <tr><td>FS</td><td>44.1</td></tr> <tr><td>BIT</td><td>CDDA</td></tr> </table>	FS	44.1	BIT	CDDA	<table border="1"> <tr><td>FS</td><td>44.1</td></tr> <tr><td>BIT</td><td>24</td></tr> </table> <table border="1"> <tr><td>FS</td><td>48</td></tr> <tr><td>BIT</td><td>16</td></tr> </table> <table border="1"> <tr><td>FS</td><td>88.2</td></tr> <tr><td>BIT</td><td>24</td></tr> </table> <table border="1"> <tr><td>FS</td><td>96</td></tr> <tr><td>BIT</td><td>24</td></tr> </table>	FS	44.1	BIT	24	FS	48	BIT	16	FS	88.2	BIT	24	FS	96	BIT	24
FS	44.1																				
BIT	CDDA																				
FS	44.1																				
BIT	24																				
FS	48																				
BIT	16																				
FS	88.2																				
BIT	24																				
FS	96																				
BIT	24																				

Input monitor screen (available while in record ready or recording)

The screen example below shows the screen which appears after pressing the [REC RDY] key to enter the record ready mode when a blank or additionally-recordable CD-R/RW disc is loaded and the Home screen is shown.

This screen is shown while in record ready or recording. While this screen is shown, the input monitor mode is enabled, so you can adjust the input levels when recording analog audio signals.

The input monitor screen shows the following information.



• Time information

The current recorder position is shown in "m:s:ms". By default, the disc elapsed time is shown ("TOTAL" is lit on the top left of the screen).

• **Current track**

Shows the track number of the currently selected file (or track). When recording a WAV file, a file name is also shown (if the disc is blank, only the track number is shown). When recording a CD-DA track, only the track number is shown.

• **Next track**

When recording a WAV file, a file name of the next audio file is shown. When recording a CD-DA track, only the next track number is shown.

• **Remaining recordable time/remaining number of recordable tracks**

Shows the remaining recordable time on the disc by the current Fs/bit setting in minutes/seconds, as well as the remaining number of recordable tracks.

• **Record mode**

Shows the record mode (including recording Fs, bit and format) of the disc currently loaded as below. The record mode is conformed to the format type you select when formatting a disc.

CD-DA disc	BWF disc (FS and BIT information is shown as well as "WAV", as below.)		
RECMD 44/16 CD-DA	RECMD 44/16 WAV	RECMD 48/24 WAV	RECMD 88/24 WAV

• **Input selection**

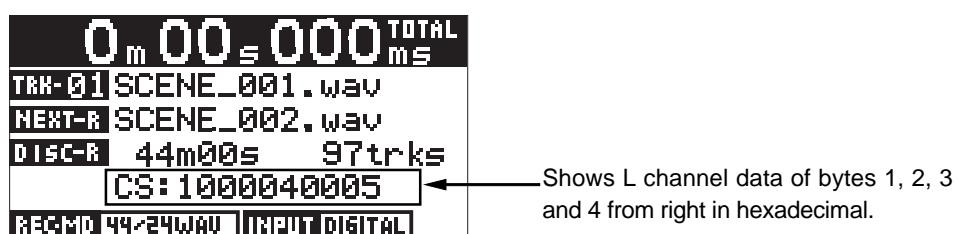
Shows the currently selected input source (analog or digital).

You can select the input using the "Select Input" menu item of the "SYS SETUP" in the MENU mode (see page 76).

INPUT ANALOG	Shown when "Analog" is selected (default). The recorder can record the analog audio signals fed to the [ANALOG INPUT] connectors on the rear panel.
INPUT DIGITAL	Shown when "Digital" is selected. The recorder can record the digital audio signal fed to the [DIGITAL INPUT] connector on the rear panel. When the unit is not receiving a correct digital signal, "DIGITAL" flashes and the recorder input is muted.

• **Channel status of digital input**

When "Select Input" is set to "Digital" and the unit is receiving a correct digital signal, the channel status of the digital signal is shown.



MENU mode screen

The following screen is the MENU list screen which appears when you enter the menu mode by pressing the [ENTER/YES] key while the recorder is stopped (see page 72).



This screen is the first level screen of the MENU mode and you can select a menu from 6 menus listed on this screen.

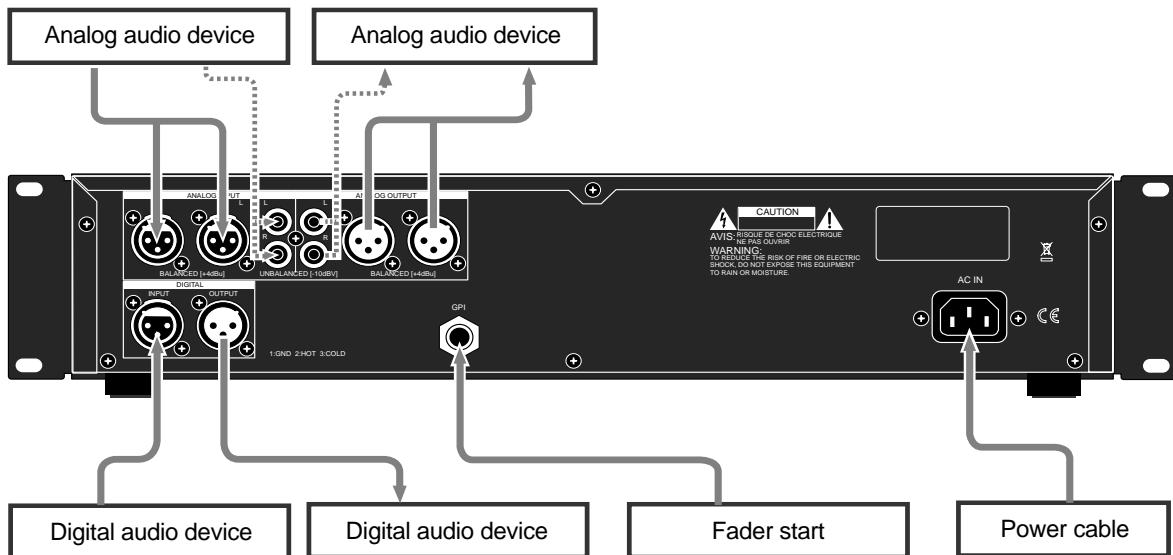
To select a menu, use the [MENU] dial to highlight the desired menu and press the [ENTER/YES] key. The display now shows the menu screen of the selected menu, as below.

	SYS SETUP menu screen On this menu screen, you can select a desired menu item from among those related to basic system setup (see page 73).
	PLAY SETUP menu screen On this menu screen, you can select a desired menu item from among those related to playback (see page 82).
	DISK UTILITY menu screen On this menu screen, you can select a desired menu item from among those related to disc management (see page 85).
	FILE SEL screen On this screen, you can select a desired file to be played back (see page 51). You can access to this screen by pressing the [FILE SEL]/[DIR SEL] key while the Home screen is shown.
	DIRECTORY SEL screen On this screen, you can select a desired directory (see page 67). You can access to this screen by pressing the [FILE SEL]/[DIR SEL] key in the Shift mode while the Home screen is shown. This screen is available only for a BWF formatted disc. When a CD-DA formatted disc is loaded, you cannot bring up this screen.
	PROGRAM SET screen On this screen, you can set the play list for program playback (see page 58). You can access to this screen by pressing the [PLAY MODE]/[PROGRAM SET] key in the Shift mode while the Home screen is shown.

Chapter-4: Connection

This chapter describes details about connection of analog and digital audio devices, as well as USB keyboard connection and functions.

Connecting to other devices



Analog audio connection (balanced/unbalanced)

The CR500 is equipped with both the balanced (XLR-3-31) and unbalanced (RCA) [ANALOG INPUT] connectors, ensuring broad compatibility. You can connect "+4dBu" signals to the balanced input connectors, while "-10dBV" signals to the unbalanced input connectors.

To record analog signals fed to the balanced or unbalanced [ANALOG INPUT] connectors, set the "Input Sel" menu item of the "SYS SETUP" in the MENU mode to "Analog" (see page 76). By default, the "Input Sel" menu item is set to "Analog". If it is set to "Digital", however, you need to change the setting.

The CR500 is also equipped with both the balanced (XLR-3-32) and unbalanced (RCA) [ANALOG OUTPUT] connectors, which feed +4dBu and -10dBV analog audio signals respectively.

<Note>: When both the balanced (XLR) and unbalanced (RCA) input connectors of [ANALOG INPUT] are plugged, the unbalanced input signal takes priority (the balanced XLR connector is disabled).

Digital audio connection (AES/EBU, S/P DIF)

The CR500 is equipped with the [DIGITAL INPUT] (XLR-3-31) connector which accepts digital audio signals of both IEC 60958 (AES/EBU) and IEC 60958 (S/P DIF) format. It automatically detects the format (AES/EBU or S/P DIF) of the digital input signal. Regardless of the Fs/bit information of the input signal, the CR500 records the input signal at the Fs/bit which is set when a disc is formatted.

To record a digital signal fed to the [DIGITAL INPUT] connectors set the "Input Sel" menu item of the "SYS SETUP" in the MENU mode to "Digital" (see page 76).

The CR500 is also equipped with the [DIGITAL OUTPUT] (XLR-3-32) connector which accepts digital audio signals of both IEC 60958 (AES/EBU) and IEC 60958 (S/P DIF) format, like the [DIGITAL INPUT] connector.

You can set the digital output signal format (AES/EBU or S/P DIF) using the "Digital Out" menu item of the "SYS SETUP" in the MENU mode (see page 77). The default setting of the "Digital Out" menu item is "AES/EBU".

<Note>: When recording digital audio, if a correct digital signal is fed to the [DIGITAL INPUT] connector, PLL (Phased-locked loop) is active. By entering the record ready mode, the CR500 locks to the input sync signal, while the "DIGITAL" icon on the Home screen changes from flashing to lit.

If the unit does not receive a correct digital signal or does not lock to the input sync signal, "DIGITAL" icon on the Home screen remains flashing and the recorder input is muted.

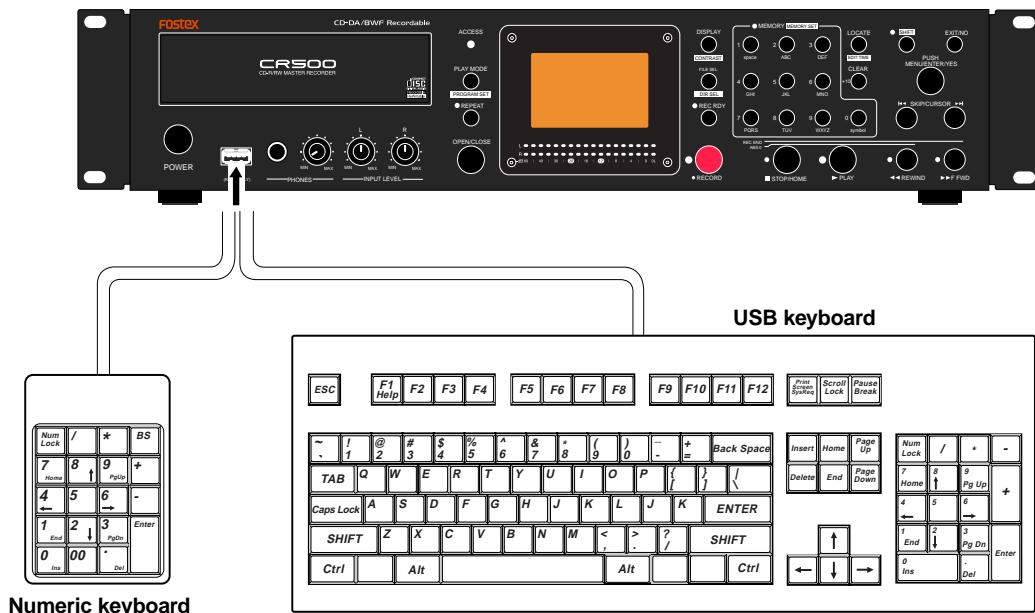
Fader start connection

By connecting the [GPI] jack (1/4" phone type) to the fader start port of a mixing console, you can play back and stop the CR500 by fader operation of an external mixing console.

USB keyboard connection

The CR500 is equipped with the [USB (KYBD ONLY)] port for USB keyboard connection.

By connecting a USB keyboard, you can edit a file name or a volume name (Reel Number), change setting, etc. from the keyboard (for the function assignment, see the next page). Also by connecting a USB keyboard, its keys duplicate some of CR500 key operations as shown on the table below.



<Note>: Before using the USB keyboard for controlling the CR500, set the keyboard type ("US" or "JAPAN") correctly to match your keyboard using the "Keyboard Sel" menu item of the "SYS SETUP" menu in the MENU mode (see page 78). By default, the "Keyboard Sel" menu item is set to "US".

Numeric keyboard

0 through 9 keys	Duplicates the function of the keys in the CR500 [MEMORY] key group.
, Del key	Duplicates the function of the [CLEAR/+10] key on the CR500 panel.
Enter key	Duplicates the function of the [STOP/HOME] key on the CR500 panel.
/ key	Duplicates the function of the [SKIP/CURSOR ▶◀] key on the CR500 panel.
* key	Duplicates the function of the [SKIP/CURSOR ▶▶] key on the CR500 panel.
+ key	Duplicates the function of the [PLAY] key on the CR500 panel.
- key	Duplicates the function of the [SHIFT] key on the CR500 panel.

USB keyboard

Function keys	
F1 key	Brings up the screen of the "Edit File Name" menu item of the "DISK UTILITY" menu in the MENU mode.
F3 key	Brings up the screen of the "Default File Name" menu item of the "DISK UTILITY" menu in the MENU mode.
F5 key	Switches the play mode to "ALL PLAY".
SHIFT + F5 keys	Switches the play mode to "SINGLE PLAY".
F6 key	Switches the play mode to "MEMORY PLAY".
SHIFT + F6 keys	Switches the play mode to "PROGRAM PLAY".
F7 key	Turns on the record ready mode.
SHIFT + F7 keys	Turns off the record ready mode.
F8 key	Acts the same as the [RECORD] key on the CR500 panel.
F9 key	Acts the same as the [STOP/HOME] key on the CR500 panel.
F10 key	Acts the same as the [PLAY] key on the CR500 panel.
F11 key	Acts the same as the [REWIND] key on the CR500 panel.
F12 key	Acts the same as the [F FWD] key on the CR500 panel.

Shortcut keys	
ALT + F keys	Enters the "FILE SEL" menu in the MENU mode.
ALT + D keys	Enters the "DIRECTORY SEL" menu in the MENU mode.
ALT + S keys	Enters the "SYS SETUP" menu in the MENU mode.
ALT + P keys	Enters the "PLAY SETUP" menu in the MENU mode.
ALT + L keys	Enters the "PROGRAM SET" menu in the MENU mode.
ALT + U keys	Enters the "DISK UTILITY" menu in the MENU mode.

Control keys	
Ctrl + L keys	Acts the same as the [LOCATE/ <input type="button" value="EDIT TIME"/>] key on the CR500 panel.

Special keys	
↑ / ↓ / → / ← keys	Moves the cursor point or scrolls through a list in the MENU mode.
BS key	Back space function.
DEL key	Acts the same as the [CLEAR/+10] key on the CR500 panel.
Esc key	Acts the same as the [EXIT/NO] key on the CR500 panel.
Enter key	Acts the same as the [ENTER/YES] key on the CR500 panel.
HOME key	Acts the same as the [STOP/HOME] key on the CR500 panel.
Space key	Acts the same as the [STOP/HOME] key on the CR500 panel.
→ key	Skips forwards.
← key	Skips backwards.

<Note>: Functions assigned to a USB keyboard and numeric keyboard may be enhanced in the future.

Chapter-5: Recording

This chapter describes how to record audio data using the CR500.

The CR500 can record audio to a BWF formatted or CD-DA formatted disc. To a BWF formatted disc, you can record WAV audio files. You can then export files to a Windows computer after closing the disc. To a CD-DA formatted disc, you can record audio tracks. After finalizing a CD-DA formatted disc, you can play it back by a normal CD player or export tracks to a Windows or Mac OS computer.

<Note>: With a BWF formatted disc, each time you make recording, an "audio file" is created. You can make up to 97 audio files on a disc as long as there is disc remaining space (note that closing the disc affects the maximum number of recordable audio files).

With a CD-DA formatted disc, each time you make recording, an "audio track" is created. You can make up to 99 audio tracks on a disc as long as there is disc remaining space.

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Before starting recording

<Closing and finalizing>

The CR500 can close or finalize a recorded disc. The following explains what are closing and finalizing.

Closing

Closing is done to a BWF formatted disc. A closed disc can be read by a Windows computer. You can close a disc when ejecting a recorded disc (see page 46). If you use a recorded disc only with the CR500 and do not use it with your computer, you do not need to close it (see <Notes> below).

If you want to close an unclosed disc which is not currently loaded to the CR500, load it to the CR500 and then attempt to eject it (i.e. press the [OPEN/CLOSE] key). The display shows the screen for closing the disc (see page 46).

<Note>: *Each time you close a BWF formatted disc, the number of remaining recordable files decreases by one and the remaining disc space decreases. Therefore, we recommend closing a disc only when it is necessary.*

<Note>: *You can also finalize a BWF formatted disc using the "Finalize" item of the "DISK UTILITY" menu in the MENU mode (see page 92). With a finalized formatted disc, you cannot make additional recordings, file name editing, file deletion and file restoring.*

Finalizing

Finalizing is done to a CD-DA formatted disc. A finalized disc can be read by a Windows or Mac OS computer, as well as can be played back by a normal CD player (only a CD-R disc can be played back by a normal CD player).

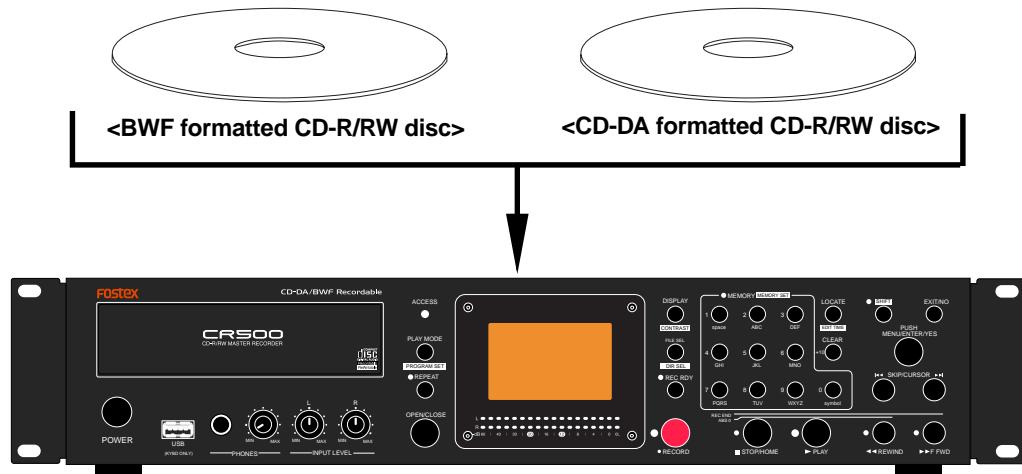
You can finalize a disc when ejecting a recorded disc (see page 49) or using the "Finalize" item of the "DISK UTILITY" menu in the MENU mode (see page 92).

<Note>: *Note that you cannot make additional recordings to a finalized disc.*

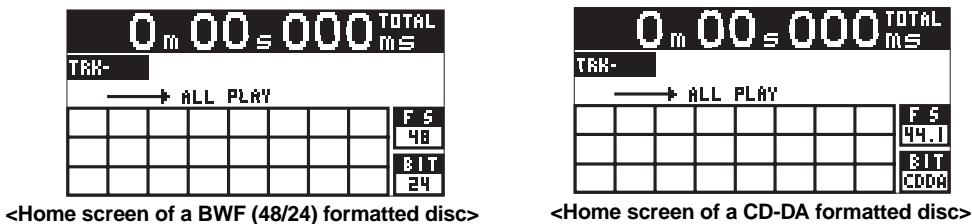
Preparation for recording

Before making recording of analog or digital audio, you must make preparation for recording as described below.

The following description assumes that the CR500 is turned on and a BWF formatted or CD-DA formatted blank CD-R/RW disc is set to the disc tray. To record WAV files, use a BWF formatted CD-R/RW disc. To record audio CD tracks, use a CD-DA formatted CD-R/RW disc.



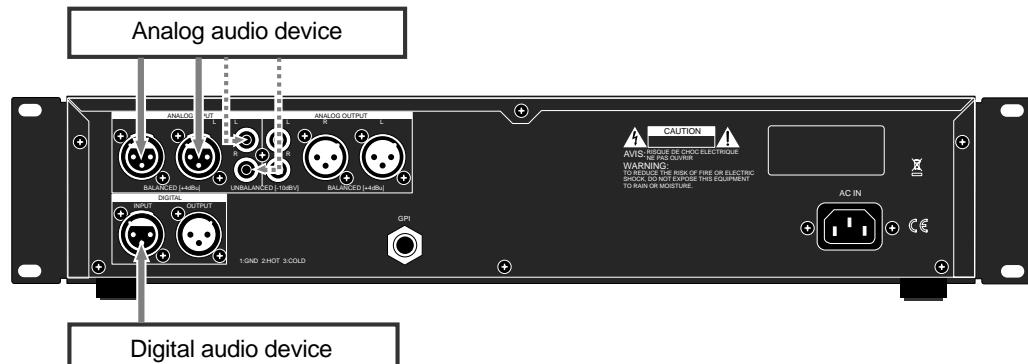
The following description is assumed that the Home screen as shown below appears on the display. The Home screen looks slightly different depending on the format type. The screen examples below show the Home screens for a BWF (48/24) formatted and CD-DA formatted discs.



Connecting a sound source

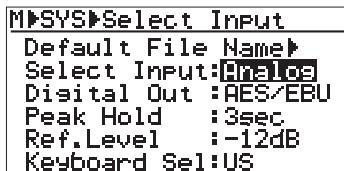
To record an analog audio signal, connect a sound source to the [ANALOG INPUT] (balanced or unbalanced) connectors. To record a digital audio signal, connect a sound source to the [DIGITAL INPUT] connector.

<Note>: If you make connection to both the analog balanced (XLR) and unbalanced (RCA) input connectors, the unbalanced input takes priority and the balanced input is disabled.

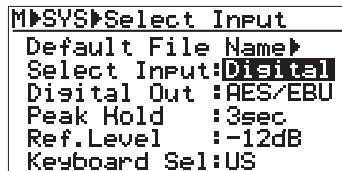


Selecting the input

According to the sound source, select the "Select Input" menu item of the "SYS SETUP" menu in the MENU mode appropriately to "Analog" or "Digital". See page 76 for details about the "Select Input" menu item.



If you record an analog audio source,
select "Analog".



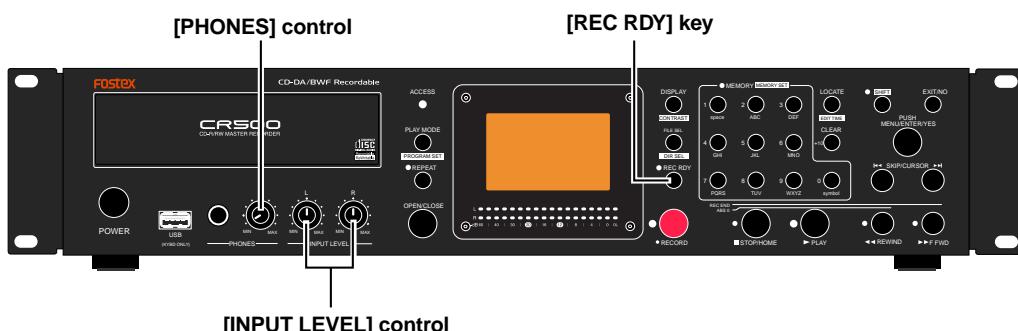
If you record a digital audio source,
select "Digital".

<Note>: You must set the "Select Input" menu item appropriately. Otherwise, the connected audio source is not fed to the recorder.

Adjusting recording levels (for analog input only)

You can adjust recording levels only when you record analog audio.

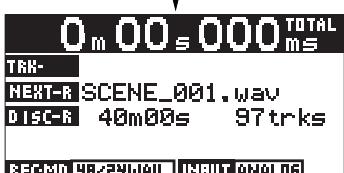
When you record digital audio, recording is always made at the same level as the digital source level.



- To adjust the input levels, press the [REC RDY] key to enter the record ready mode ([REC RDY] indicator flashes).

The display changes to the input monitor screen, which shows the format type, input selection, etc. In the record ready mode, the L and R level meters show input levels and you can now check and adjust the input levels.

The following shows input monitor screen examples for a BWF formatted disc and a CD-DA formatted disc. In these examples, the analog input is selected.



Input monitor screen for a BWF formatted disc

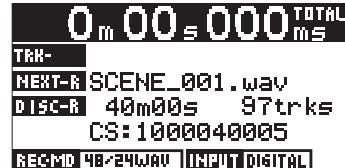


Input monitor screen for a CD-DA formatted disc

<Note>: When the "Select Input" menu item is set to "Digital", the input monitor screens for a BWF formatted disc and a CD-DA formatted disc look like the examples below ("INPUT DIGITAL" is shown).



Input monitor screen for
a CD-DA formatted disc



Input monitor screen for
a BWF formatted disc

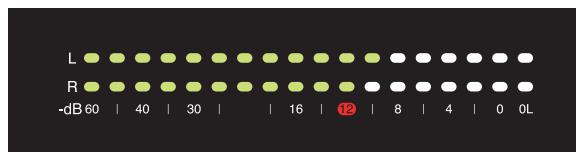
While the "Select Input" menu item is set to "Digital", if the unit receives a correct digital input signal and locks to it, "DIGITAL" of "INPUT DIGITAL" is lit. Just below the "DISC-R" field, the channel status information of the digital signal currently received is shown. If the unit does not receive a correct digital input signal or does not lock to the digital input signal, "DIGITAL" flashes and the input audio signal is muted. In such a case, check the digital output setting of the source device and connection between the source device and the [DIGITAL INPUT] connector of the CR500.

<Note>: By default, the file name shown on the input monitor screen for a BWF formatted disc is "<Scene Name> + <Take Number>" (with ".wav", the file extension). Using the "Default File Name" menu item of the "SYS SETUP" menu in the MENU mode, you can select the file name mode from among "<Scene Name> + <Take Number>" (default), "<Reel Number> + <Take Number>" and "<Date>" (see page 75). You can also edit the file name using the "Edit File Name" menu item of the "SYS SETUP" menu in the MENU mode (see page 89).

<Note>: Normally, no file name is indicated on the input monitor screen for a CD-DA formatted disc. However, if any file name is written by CD-TEXT, it is indicated. Note that you cannot edit the file name of an audio track on the CD-DA formatted disc.

- Feed an analog audio source and adjust the input levels appropriately using the [INPUT LEVEL] control (when feeding a digital audio source, you can only view the levels but cannot control it).

When the analog audio signals are fed, turning the [INPUT LEVEL] control clockwise raises the input level. Adjust the levels appropriately by checking the meter indication and monitoring via headphones.



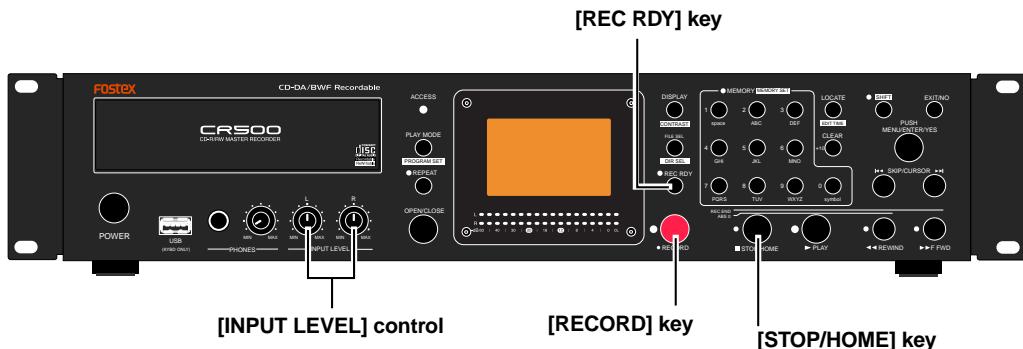
- * When the "Select Input" menu item is set to "Digital", you do not need to adjust the input levels.

<Note>: You should set the input levels appropriately so that the indicators near to "0"dB sometimes light but the "OL" indicators do not light. The reference level is set to "-12dBFS" by default. On the level meter scale, "12" (the -12dB point from the 24-bit full-scale level) is shown in red as the reference marker. You can change to set this level to "-20dB" via the "Ref.level" item in the "SYS SETUP" menu of the MENU mode (see page 78 for details).

Recording a WAV file

You can record analog or digital audio in the WAV file format.

The following description assumes that a BWF formatted blank CD-R (or CD-RW) disc is loaded.

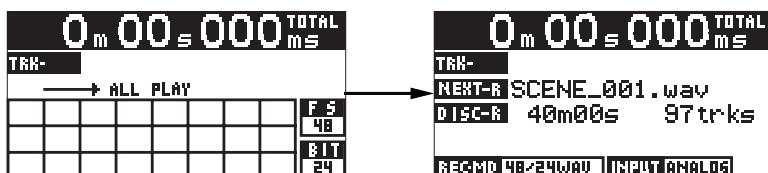


Starting recording

- Press the [REC RDY] key to enter the record ready mode.

The display changes to show the input monitor screen, on which you can see the remaining recordable time and the number of the tracks on the disc.

You can check the input level for recording. When the analog input is selected, you can adjust the input levels for left and right channels using the [INPUT LEVEL] controls. See "Adjusting recording levels" described earlier in this chapter for details about how to adjust the input levels.

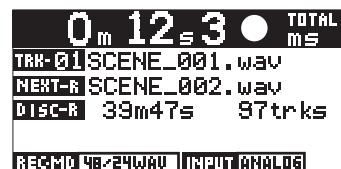


- Press the [RECORD] key to start recording.

When you start recording, the input monitor screen changes as the screen example below. While recording is in progress, the time indication is counted up, whereas the remaining recordable time is counted down (during recording, "●" is shown beside the time indication).

<Note>: In order not to miss the beginning of the audio input source, we recommend starting the recorder first.

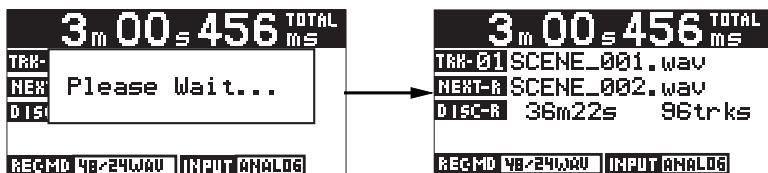
On the input monitor screen, the "TRK-01" field shows the name of the audio file currently recorded, while the "NEXT-R" field shows the name of the next audio file to be recorded. The file name depends on the setting of the "Default File Name" menu item of the "SYS SETUP" menu in the MENU mode (see page 75).



Stopping recording

- To stop recording, press the [STOP/HOME] key.

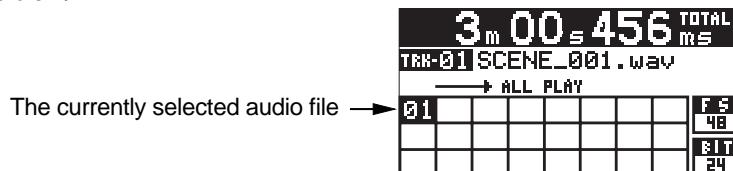
After finishing post-processing of recording ("Please Wait..." is shown on the display), the disc stops at the last recording position.



Checking the recorded audio file

- Press the [REC RDY] key to disable the record ready mode.

The display returns to the Home screen. You can confirm that an audio file has been created, as shown on the screen example below. The time indication shows the last recording position.



- To make another recording in succession, repeat the operation above.

We recommend checking the recordable time and the number of the recordable files on the disc when you make recording.

<Note>: Each time you make recording, the recorded file number is added to the track list on the Home screen. The screen example on the right shows the recorder condition when the recorder has just finished recording of the sixth audio file.

23 m 34 s 456 TOTAL ms
TRR-06 SCENE_006.wav
 → ALL PLAY
 01 02 03 04 05 06 F 5
 48
 B1T
 24

<Note>: With a BWF formatted CD-R or CD-RW disc, you can record additional WAV files to the disc as long as there is remaining recordable space. You can also delete unnecessary files (see page 90). After closing a recorded disc, you can export WAV files to a Windows computer. Note that you cannot reformat a recorded CD-R disc.

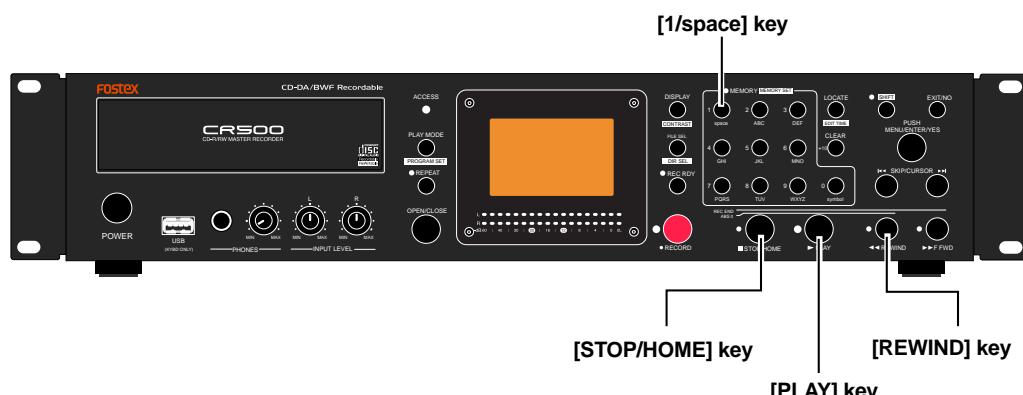
Playing back a recorded audio file

The recorder stops at the last recording position when stopping recording. You can skip back to the beginning of the audio file by either of the operations below.

The following assumes that a single audio file is recorded to a disc (see page 50 for file selection when more than one audio file is recorded).

<Hint>: The CR500 has four play modes. By default, the play mode is set to "ALL PLAY". Therefore, if there are more than one audio file is recorded, the recorder starts playback from the first (earliest) file continuously.

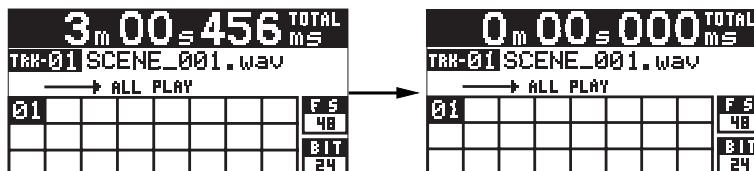
For details about the other play mode, see "Playback/locate" described later.



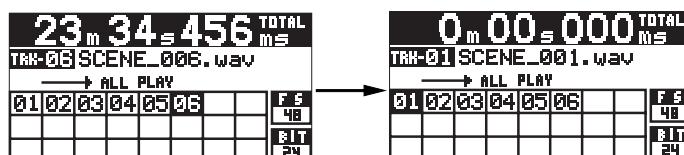
- Press the [REWIND] key while holding down the [STOP/HOME] key, or press the [1/space] key in the [MEMORY] key group.

If you press the [REWIND] key while holding down the [STOP/HOME] key, the recorder executes the "Locate ABS 0" function to go to the beginning of the disc and stops. If you press the [1/space] key in the [MEMORY] key group, the recorder goes to the beginning of the first audio file and automatically starts playback.

<Note>: Because the "Auto Play" menu item of the "PLAY SETUP" menu in the MENU mode is set to "On" by default, when you press the [1/space] key in the [MEMORY] key group, the recorder automatically starts playback after skipping to the beginning of the file (see page 84).



<Note>: When more than one audio file is recorded on a disc, if you press the [REWIND] key while holding down the [STOP/HOME] key to execute the "Locate ABS 0" function, the recorder goes to the beginning of the first audio file. That is, the "Locate ABS 0" function always locates the beginning of the disc (ABS 0), not the beginning of each file. If you wish to select a desired audio file to be played back from among more than one file, follow the instructions described on page 50.



- After executing "Locate ABS 0", press the [PLAY] key to start playback.

Closing a disc

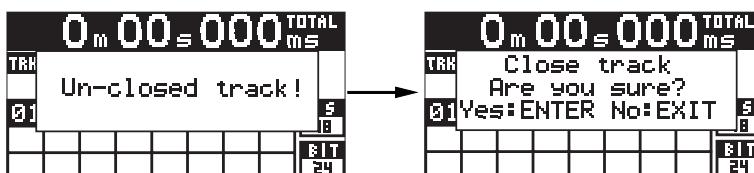
By closing a recorded BWF formatted disc, you can export WAV files to a Windows computer. You can close a disc when you eject the disc. Note that you can make additional recordings to a closed disc by reloading the disc.

<Notes>

- You cannot make additional recordings to a disc which is finalized using the "Finalize" item of the "DISK UTILITY" menu in the MENU mode (see page 92).
- Each time you close a disc, the number of remaining recordable files decreases by one and the remaining disc space decreases approximately one or two seconds (the screen shows the number of remaining recordable files calculated by "97 - (the number of recorded files + the number of times you close the disc)"). We recommend not closing a disc unless it is necessary if you do not like to waste tracks and the disc space.

- While stopped, press the [OPEN/CLOSE] key.

"Un-closed track!" pops up, followed by the confirmation screen.



- To close the disc, press the [ENTER/YES] key. To cancel closing, press the [EXIT/NO] key.

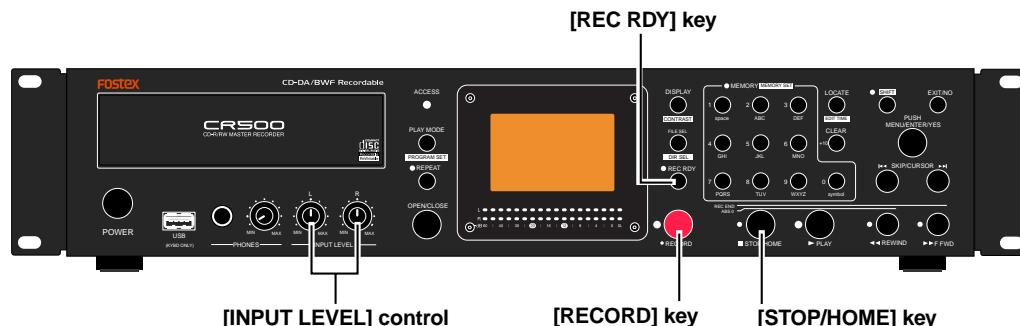
If you press the [ENTER/YES] key, "Please Wait Closing track..." pops up.

After completing closing, the disc is ejected. Note that it takes some time for closing.

If you press the [EXIT/NO] key, the disc is ejected immediately.

Recording a CD-DA track (Creating an audio CD)

You can record analog or digital audio to a disc in the CD-DA format. By finalizing a CD-DA disc on which one or more CD-DA tracks are recorded, an audio CD is created. You can export audio tracks on a finalized CD-DA disc to a Windows computer or play them back by a normal CD player. The following description assumes that a CD-DA formatted blank CD-R (or CD-RW) disc is loaded (you can only make 44.1kHz Fs/16-bit recordings with a CD-DA disc). **<Note>: An audio track recorded on a CD-DA formatted CD-RW disc may not be played back by a normal CD player.**

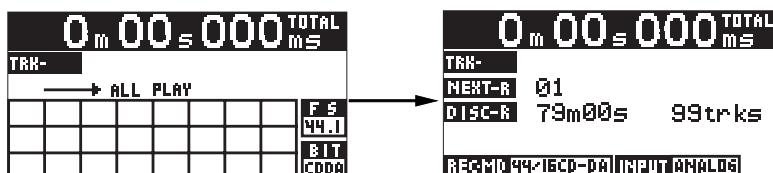


Starting recording

- Press the [REC RDY] key to enter the record ready mode.

The display changes to show the input monitor screen, on which you can see the remaining recordable time and the number of the tracks on the disc.

You can check the input level for recording. When the analog input is selected, you can adjust the input levels for left and right channels using the [INPUT LEVEL] controls. See "Adjusting recording levels" described earlier in this chapter for details about how to adjust the input levels.

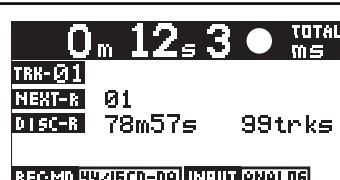


- Press the [RECORD] key to start recording.

When you start recording, the input monitor screen changes as the screen example below. While recording is in progress, the time indication is counted up, whereas the remaining recordable time is counted down (during recording, "●" is shown beside the time indication).

<Note>: In order not to miss the beginning of the audio input source, we recommend starting the recorder first.

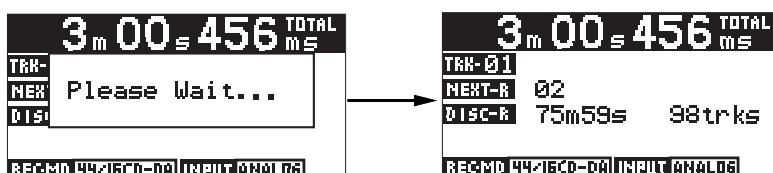
On the input monitor screen, the "NEXT-R" field shows the track number currently being recorded.



Stopping recording

- To stop recording, press the [STOP/HOME] key.

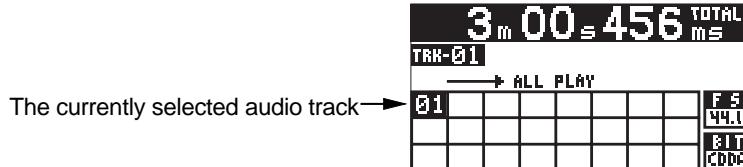
After finishing post-processing of recording ("Please Wait..." is shown on the display), the disc stops at the last recording position.



Checking the recorded audio track

- Press the [REC RDY] key to disable the record ready mode.

The display returns to the Home screen. You can confirm that an audio track is created, as shown on the screen example below. The time indication shows the last recording position.



- To make another recording in succession, repeat the operation above.

Note that each time you make a recording, check the recordable time and the number of the tracks on the disc.

<Note>: If you make recordings in succession, the track numbers are shown in the track list on the Home screen. In the screen example on the right, six audio tracks have been recorded in succession and the last track is now loaded.



<Note>: With a CD-DA formatted CD-R or CD-RW disc, you can record additional tracks to the disc until it is finalized as long as there is remaining recordable space. After finalizing a recorded disc, you can play back the disc by a normal CD player or export audio tracks to a Windows or Mac OS computer. Note that you cannot reformat a recorded CD-R disc.

Playing back the recorded audio track

The recorder stops at the last recording position when stopping recording. You can locate the beginning of the audio track by either of the operations below. The following assumes that a single audio track is recorded to a disc.

<Hint>: The CR500 has four play modes. By default, the play mode is set to "ALL PLAY". Therefore, if there are more than one audio track is recorded, the recorder starts playback from the first track continuously.

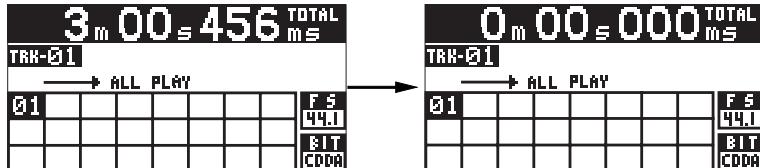
For details about the other play mode, see "Playback/locate" described later.



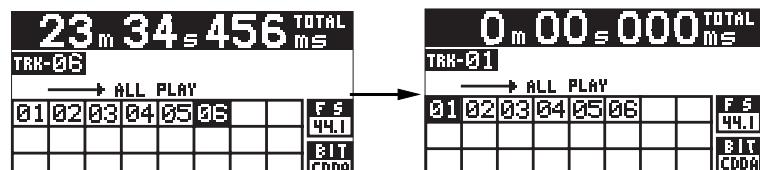
- Press the [REWIND] key while holding down the [STOP/HOME] key, or press the [1/space] key in the [MEMORY] key group.

If you press the [REWIND] key while holding down the [STOP/HOME] key, the recorder executes the "Locate ABS 0" function to skip to the beginning of the disc and stops. If you press the [1/space] key in the [MEMORY] key group, the recorder goes to the beginning of the audio track and automatically starts playback.

<Note>: Because the "Auto Play" menu item of the "PLAY SETUP" menu in the MENU mode is set to "On" by default, when you press the [1/space] key in the [MEMORY] key group, the recorder automatically starts playback after skipping to the beginning of the track (see page 84).



<Note>: When more than one audio track is recorded on a disc, if you press the [REWIND] key while holding down the [STOP/HOME] key to execute the "Locate ABS 0" function, the recorder goes to the beginning of track 1. That is, the "Locate ABS 0" function always locates the beginning of the disc (ABS 0), not the beginning of each track. If you wish to select a desired audio track to be played back from among more than one track, follow the instructions described on page 50.



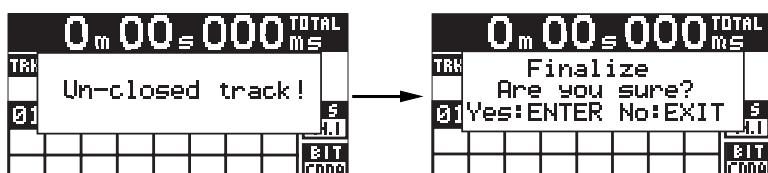
- After executing "Locate ABS 0", press the [PLAY] key to start playback.

Finalizing a disc

After finalizing a recorded CD-DA formatted disc, you can play back tracks by a normal CD player or export tracks to a Windows or Mac OS computer. You can finalize a disc when you eject the disc. You can also finalize a disc using the "Finalize" menu item of the "DISK UTILITY" menu in the MENU mode (see page 92).

<Note>: You cannot make additional recordings to a disc which has been finalized.

- While stopped, press the [OPEN/CLOSE] key.
"Un-closed track!" pops up, followed by the confirmation screen.



- To finalize the disc, press the [ENTER/YES] key. To cancel finalizing, press the [EXIT/NO] key.

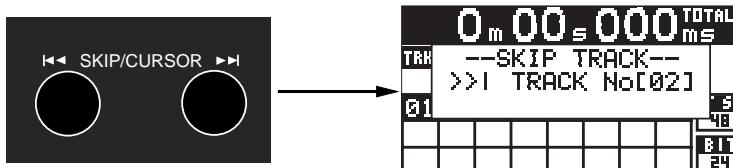
If you press the [ENTER/YES] key, "Please Wait Finalizing track..." pops up. After completing finalizing, the disc is ejected. Note that it takes some time for finalizing. If you press the [EXIT/NO] key, the disc is ejected immediately.

Selecting a song to be played back

When a disc contains more than one song ("audio file" on a BWF formatted disc or "audio track" on a CD-DA disc), you can select a desired song to be played back by any of the following three methods.

<Method 1>: Using the [SKIP/CURSOR] keys

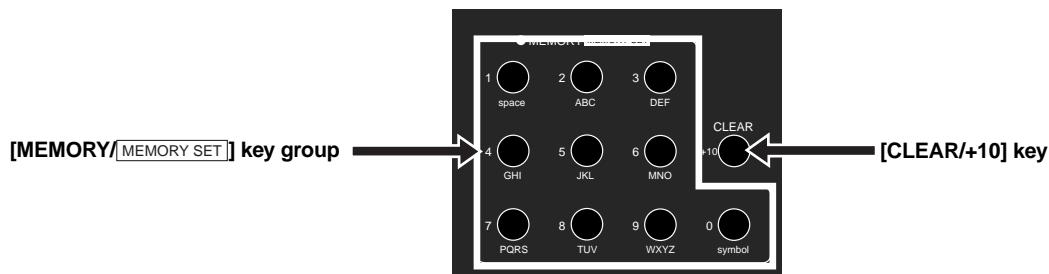
If you press the [SKIP/CURSOR] key, the following popup screen appears, and the recorder skips to the beginning of the current/previous or next song and stops. You can locate the desired track by pressing the appropriate key as many times as required.



<Note>: You can execute the operation above while stopped or during playback. If you execute the operation during playback, the recorder automatically starts playback after locating the specified song. If you enable the repeat function (by using the [REPEAT] key or the "PLAY SETUP" menu in the MENU mode), the recorder repeats playback.

<Method 2>: Using the [MEMORY/MEMORY SET] key group

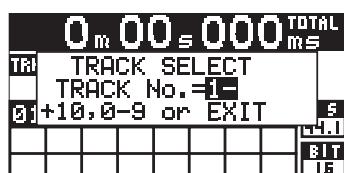
By specifying the file (track) number of a song using a key in the [MEMORY/MEMORY SET] key group, the recorder locates the beginning of the song. To specify a song whose number is two-digit, use the [CLEAR/+10] key to specify the tens digit and then press an appropriate key among the [0] through [9] keys (see the entry examples below).



<Note>: You can execute the operation above while stopped or during playback. The recorder automatically starts playback of the specified song. If you enable the repeat function (by using the [REPEAT] key or the "PLAY SETUP" menu in the MENU mode), the recorder repeats playback.

How to use the [CLEAR/+10] key

If you press the [CLEAR/+10] key once, the popup screen below left appears. Highlighted "1-" indicates the tens digit is "1". If you press the [CLEAR/+10] key again, highlighted "1-" changes to "2-", indicating that the tens digit is "2". That is, pressing the [CLEAR/+10] key increments the tens digit number.



For example, to select track 15, press the [CLEAR/+10] key once, followed by the [5/JKL] key in the [MEMORY/MEMORY SET] key group. To select track 24, press the [CLEAR/+10] key twice, followed by the [4/GHI] key in the [MEMORY/MEMORY SET] key group.

<Method 3>: Using the "FILE SEL" screen

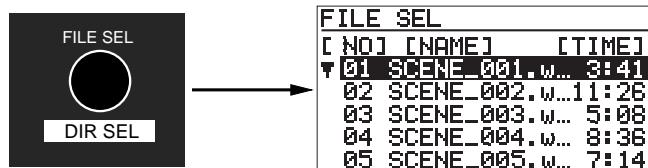
You can bring up the "FILE SEL" screen by the following two methods.

<Note>: When you select a file from the "FILE SEL" screen, the recorder does not start playback automatically.

• Press the [FILE SEL/DIR SEL] key to bring up the "FILE SEL" screen directly.

While stopped, pressing the [FILE SEL/DIR SEL] key brings up the "FILE SEL" screen, on which the songs on the current disc are listed. The currently selected song is highlighted.

(The screen example below shows the "FILE SEL" screen of a BWF formatted disc. When a CD-DA disc is set, the "FILE SEL" screen shows the track number and recording time.)



While the "FILE SEL" screen is shown, use the [MENU] dial (or the [SKIP/CURSOR ▶◀▶▶] keys) to select a desired song and press the [ENTER/YES] key. The display changes to show the Home screen of the selected song and you can now play back the song.

• Go down the menu to the "FILE SEL" menu.

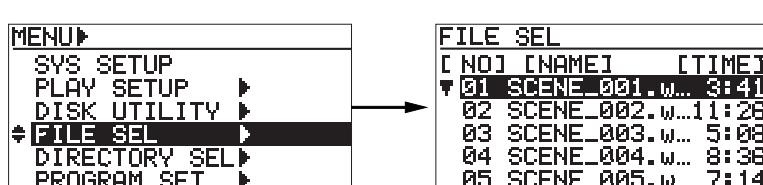
(1) While stopped, press the [ENTER/YES] key.

The unit enters the menu mode. The display shows the MENU list screen.



(2) Use the [MENU] dial to highlight "FILE SEL ▶" and press the [ENTER/YES] key.

The display shows the "FILE SEL" screen, the same one which appears by pressing the [FILE SEL/DIR SEL] key as described above.



(3) Use the [MENU] dial (or the [SKIP/CURSOR ▶◀▶▶] keys) to select a desired song and press the [ENTER/YES] key.

The display changes to show the Home screen of the selected song and you can now play back the song.

Chapter-6: Playback/Locate

This chapter describes playback functions of the CR500, as well as locate functions. The CR500 can play back commercially available audio CD discs, as well as CD-R/CD-RW discs recorded by the CR500 or other devices.

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About play mode

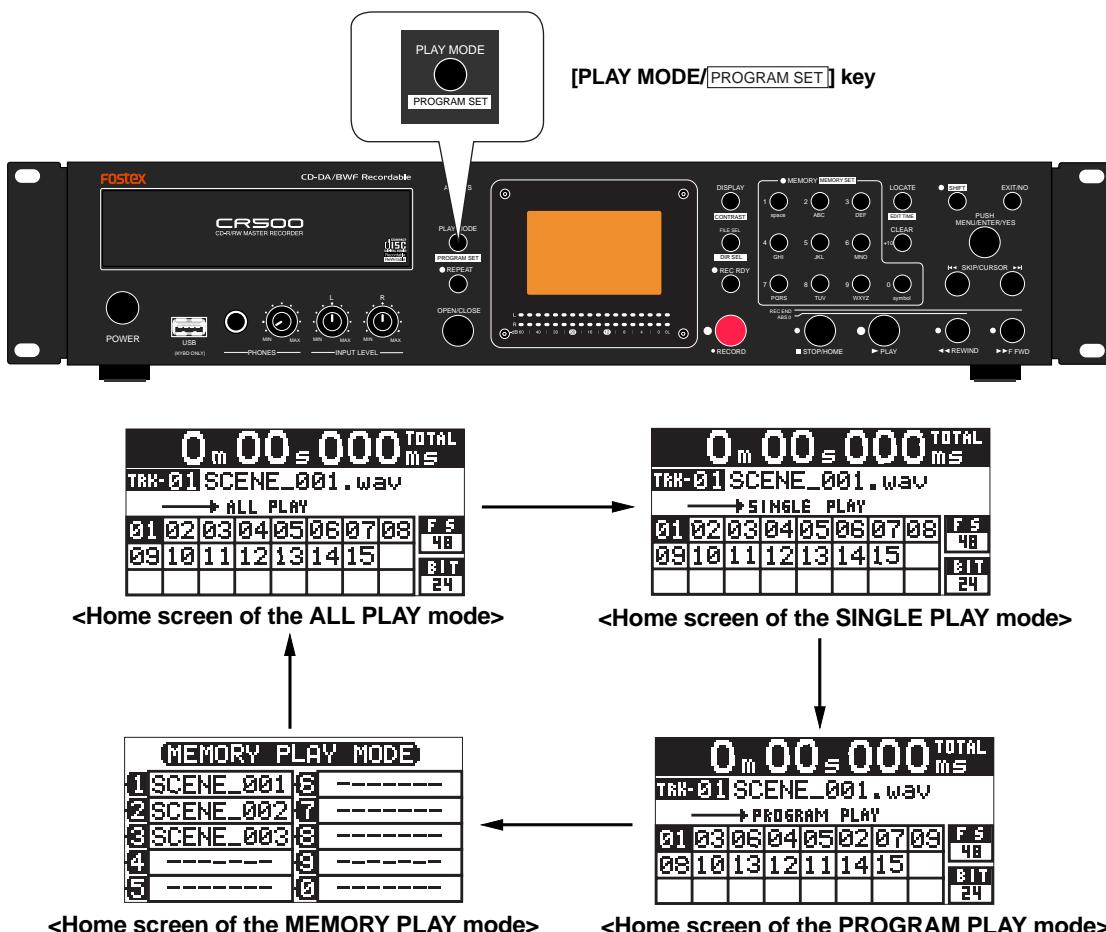
The CR500 has four play modes. Normally, the "ALL PLAY" or "SINGLE PLAY" mode is used when playing back a disc regardless of whether it is commercially available audio CD disc or CD-R/CD-RW discs recorded by the CR500 or other devices.

You can select the desired play mode from among the ALL PLAY, SINGLE PLAY, PROGRAM PLAY and MEMORY PLAY modes by pressing the [PLAY MODE/PROGRAM SET] key while stopped. See the Home screen examples of four play modes below. The Home screen example of the PROGRAM PLAY mode assumes that there are entries in the play list. Similarly, the Home screen example of the MEMORY PLAY assumes that some memory banks have entries.

<Note>: If you select "MEMORY PLAY" while no memory bank has an entry, the Home screen looks like the one below and you cannot execute playback. See page 62 for details about how to add an entry to a memory bank.

MEMORY PLAY MODE	
1	8
2	7
3	6
4	5
5	4

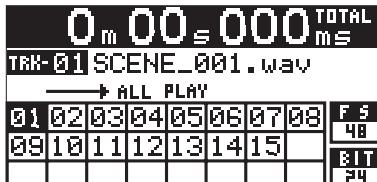
<Note>: If you select "PROGRAM PLAY" when the play list is not saved, the display shows "No Play List!" and returns to the ALL PLAY mode. See page 58 for details about how to create a play list.



<Hint>: You can also select the play mode using the "Play Mode" menu item of the "PLAY SETUP" menu in the MENU mode (see page 83).

Playback in the ALL PLAY mode

In the ALL PLAY mode, while the Home screen is shown, pressing the [PLAY] key starts playback of all songs on a disc continuously. When finishing playback of the last song, the CR500 stops at the end of the last song. (If you wish to play back tracks in a desired order, use the "PROGRAM PLAY" mode.)



<Home screen of the ALL PLAY mode>

<Hint 1>: By enabling the repeat function, you can repeat playback of all songs until you press the [STOP/HOME] key. You can enable or disable the repeat function by pressing the [REPEAT] key or by using the "Repeat" menu item of the "PLAY SETUP" menu in the MENU mode (see page 83).

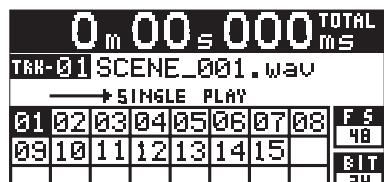
<Hint 2>: You can select the song from which playback starts in either of the following methods.

- (1) Use the numeric keys in the [MEMORY/MEMORY SET] key group and the [CLEAE/+10] key to enter the desired track number (see pages 50 and 68).
- (2) Use the [SKIP/CURSOR |◀◀▶▶|] keys (see pages 50 and 69).
- (3) Select a desired song on the "FILE SEL" screen (see page 51).

<Note>: If you select a song other than the first one as the song from which playback starts, the previous songs prior to the selected song are not played back. For example, if you select "05" on the screen above, only tracks (files) 05 through 15 are played back. Regardless of which song you start from, the recorder stops at the end of the last song after finishing playback of the last song. By default, the "Auto Play" menu item of the "PLAY SETUP" menu in the MENU mode is set to "On", so if you select a song by using a key in the [MEMORY/MEMORY SET] key group, the recorder automatically starts playback of the selected song.

Playback in the SINGLE PLAY mode

In the SINGLE PLAY mode, while the Home screen is shown, pressing the [PLAY] key starts playback of the song currently selected.



<Home screen of the SINGLE PLAY mode>

<Hint 1>: By enabling the repeat function, you can repeat playback of the current song until you press the [STOP/HOME] key. You can enable or disable the repeat function by pressing the [REPEAT] key or by using the "Repeat" menu item of the "PLAY SETUP" menu in the MENU mode (see page 83).

<Hint 2>: You can select the song to be played back in either of the following methods.

- (1) Use the numeric keys in the [MEMORY/MEMORY SET] key group and the [CLEAE/+10] key to enter the desired track number (see pages 50 and 68).
- (2) Use the [SKIP/CURSOR |◀◀▶▶|] keys (see pages 50 and 69).
- (3) Select a desired song on the "FILE SEL" screen (see page 51).

By default, the "Auto Play" menu item of the "PLAY SETUP" menu in the MENU mode is set to "On", so if you select a song by using a key in the [MEMORY/MEMORY SET] key group, the recorder automatically starts playback of the selected song.

Cueing/digital scrub

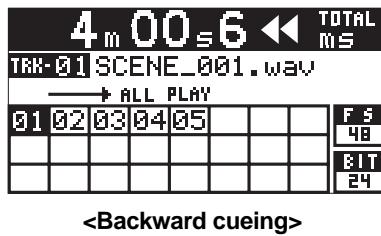
Cueing

In the cueing mode, you can cue forward or backward at up to three times the normal speed.

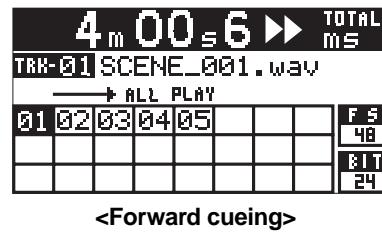
<Note>: The maximum cueing speed depends on the recording Fs/bit of a playback disc.

During playback, you can cue forward or backward by pressing the [F FWD] or [REWIND] key.

To return to the normal playback, press the [PLAY] key.



<Backward cueing>



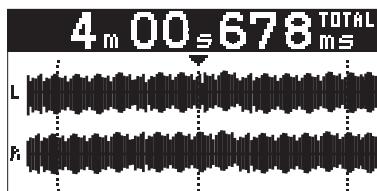
<Forward cueing>

<Note>: Cueing is possible in “ALL PLAY”, “SINGLE PLAY” and “PROGRAM PLAY” mode.

Digital scrub

The digital scrub function allows you to scrub audio.

When the recorder is stopped, pressing the [PLAY] key while holding down the [STOP] key enters the scrub mode, and the display changes to show the waveform screen as below. In this mode, you can scrub forward or backward in 10 milliseconds step using the [MENU] dial.



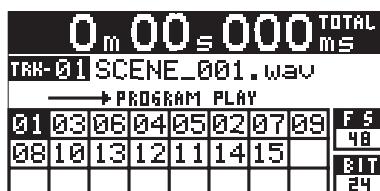
<Waveform screen in the scrub mode>

<Note>: To exit the scrub mode, press any one of the [STOP/HOME] key, [PLAY] key, [EXIT/NO] key and [ENTER/YES] key. If you exit the scrub mode by pressing the [ENTER/YES] key, the time data at the scrub point (pointed by ▼ on the waveform screen) is stored to the [LOCATE/_{EDIT TIME}] key. Therefore, pressing the [LOCATE/_{EDIT TIME}] key locates the scrub point.

<Note>: Cueing is possible in “ALL PLAY”, “SINGLE PLAY” and “PROGRAM PLAY” mode.

Playback in the PROGRAM PLAY mode

In the PROGRAM PLAY mode, while the Home screen is shown, pressing the [PLAY] key starts playback of the songs in the order of the play list. You can select the play mode which is only effective in the PROGRAM PLAY mode between "ALL PLAY" and "SINGLE PLAY" (see page 59). To make playback possible in the PROGRAM PLAY mode, the play list must be set in advance (see below).



<Home screen of the PROGRAM PLAY mode>

<Hint 1>: By enabling the repeat function, you can repeat playback until you press the [STOP/HOME] key. You can enable or disable the repeat function by pressing the [REPEAT] key or by using the "Repeat" menu item of the "PLAY SETUP" menu in the MENU mode (see page 83).

<Hint 2>: You can select the song from which playback starts in either of the following methods.

- (1) Use the numeric keys in the [MEMORY/**[MEMORY SET]**] key group and the [CLEAR/+10] key to enter the desired track number (see pages 50 and 68).
- (2) Use the [SKIP/CURSOR] keys (see pages 50 and 69).
- (3) Select a desired song on the "FILE SEL" screen (see page 51).

<Note>: If you select a song other than the first step (program number 01) in the play list as the song from which program playback starts, the songs in the play list prior to the selected song are not played back. For example, if you select "05" on the screen above, only songs in program numbers 05 through 15 are played back. Songs in program numbers 01 through 04 are not played back. Regardless of which program number you start from, the recorder stops at the end of the last song when finishing playback of the last song.

By default, the "Auto Play" menu item of the "PLAY SETUP" menu in the MENU mode is set to "On", so if you select a song by using a key in the [MEMORY/**[MEMORY SET]**] key group, the recorder automatically starts playback of the selected song.

<Notes>

The following are notes on using method (1) above for selecting a song,

- If you attempt to select a non-existing track number, "Illegal No. xx" (xx is the number you select) is shown and the operation is cancelled.
- If the same song is used in the play list more than once, selecting the song selects the one assigned to the youngest program number in the list. For example, let's assume that the play list has following five entries in program number order: 02, 05, 08, 02, and 07. If you press the [2/ABC] key in the [MEMORY/**[MEMORY SET]**] key group, 02 of program number 1 is selected. Therefore, to select 02 of program number 4, use method (2) or (3).

<Note>: You can store the play lists for 100 discs to the CR500 system memory. If you attempt to store a play list for a new disc when play lists for 100 discs are already stored, the CR500 deletes the oldest play list and stores the new play list. However, if you reload a disc whose play list has been deleted as in the case above, its play list is automatically stored as the newest list.

<Note>: By executing the "Sys Initial Memory" item of the "SYS SETUP" menu in the MENU mode, all play lists are reset (see page 80).

Creating the play list

The description below assumes that a BWF formatted disc on which more than one WAV file is recorded is loaded. However, it is also applicable to a CD-DA formatted disc on which more than one audio track is recorded.

<Note>: You can also access to the screen for setting the play list using the "PROGRAM SET" menu in the MENU mode. To do this, follow the procedure below.

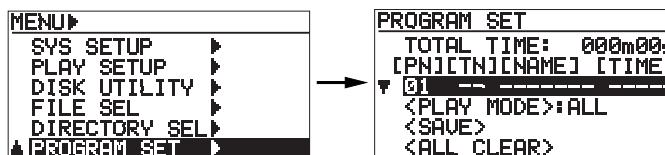
- 1) While stopped, press the [ENTER/YES] key.

The unit enters the menu mode. The display shows the MENU list screen.

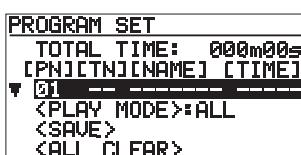


- 2) Use the [MENU] dial to highlight "PROGRAM SET ▶" and press the [ENTER/YES] key.

The display shows the screen for setting the play list for program playback. For the procedure afterwards, see the next page.



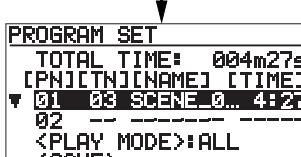
- 1) Press the [SHIFT] key to turn on the Shift mode, and press the [PLAY MODE] key.
The display shows the screen for setting the play list.



- 2) Press the [ENTER/YES] key.
The display changes to show the song list screen.



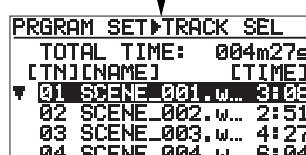
- 3) Use the [MENU] dial to select a desired song and press the [ENTER/YES] key.
The selected song is set to program number 01. (In the screen example below, file 03 is set.)



<Note>: To cancel setting, press the [CLEAR/+10] key while the program number of which you want to cancel the setting is highlighted (see page 60).

- 4) Use the [MENU] dial to move the cursor to "02" and press the [ENTER/YES] key.

The display changes to show the song list screen, as step 2) above.



- 5) Use the [MENU] dial to select a desired song and press the [ENTER/YES] key, as with step 3) above.

The selected song is set to program number 02. Repeat steps 4) and 5) until all desired songs are set to the play list.

To insert a song between songs in the play list:

To insert a song between program numbers 01 and 02 in the play list, for example;

- 1) **Move the cursor to program number 02 and press the [ENTER/YES] key.**

PROGRAM SET
TOTAL TIME: 019m19s
[PN][TN][NAME] [TIME]
▼ 01 03 SCENE_0... 7:08
02 01 SCENE_0... 4:25
03 05 SCENE_0... 3:21
04 02 SCENE_0... 4:25

PROGRAM SET
TOTAL TIME: 019m19s
[PN][TN][NAME] [TIME]
01 03 SCENE_0... 7:08
♦ 02 01 SCENE_0... 4:25
03 05 SCENE_0... 3:21
04 02 SCENE_0... 4:25

PRGRAM SET>TRACK SEL
TOTAL TIME: 004m27s
[TN][NAME] [TIME]
▼ 01 SCENE_001.w... 3:08
02 SCENE_002.w... 2:51
03 SCENE_003.w... 4:27
04 SCENE_004.w... 6:04

- 2) **Select a desired song to be inserted from the song list screen and press the [ENTER/YES] key.**

The selected song (example: 04 SCENE_004.wav) is inserted between the songs previously set to program numbers 01 and 02.

PRGRAM SET>TRACK SEL
TOTAL TIME: 004m27s
[TN][NAME] [TIME]
01 SCENE_001.w... 3:08
02 SCENE_002.w... 2:51
03 SCENE_003.w... 4:27
♦ 04 SCENE_004.w... 6:04

PROGRAM SET
TOTAL TIME: 025m23s
[PN][TN][NAME] [TIME]
▼ 01 03 SCENE_0... 7:08
02 04 SCENE_0... 6:04
03 01 SCENE_0... 4:25
04 05 SCENE_0... 3:21

If you insert a song to the list which has been saved, you need to save the list again.

After setting all desired song to the play list, select the play mode for PROGRAM PLAY.

- 6) **Move the cursor to "<PLAY MODE>" and press the [ENTER/YES] key.**

The currently selected play mode flashes and you can now select the mode (the default is ALL).

The play mode set here is only effective in the PROGRAM PLAY mode. You can select between ALL and SINGLE.

ALL	Continuously plays back songs in the play list in program number order.
SINGLE	Plays back only the selected song.

PROGRAM SET
TOTAL TIME: 019m19s
[PN][TN][NAME] [TIME]
04 02 SCENE_0... 4:25
05 --
♦ <PLAY MODE>:ALL
<SAVE>

PROGRAM SET
TOTAL TIME: 019m19s
[PN][TN][NAME] [TIME]
04 02 SCENE_0... 4:25
05 --
<PLAY MODE>:ALL
<SAVE>

- 7) **Use the [MENU] dial to select the play mode and press the [ENTER/YES] key.**

The play mode is set and the display returns to the previous screen.

- 8) **Use the [MENU] dial to move the cursor to "<SAVE>" and press the [ENTER/YES] key.**

The play list is created and the display returns to the Home screen shown before starting play list setting.

PROGRAM SET
TOTAL TIME: 019m19s
[PN][TN][NAME] [TIME]
05 --
♦ <PLAY MODE>:ALL
<SAVE>
<ALL CLEAR>

0 m 00 s 000 ms
TRK-01 SCENE_001.wav
→ ALL PLAY
01 02 03 04 05 06 07 08 [FS] 48
09 10 11 12 13 14 15 [BIT] 24

To check the play list created, press the [PLAY MODE/[PROGRAM SET]] key until the PROGRAM PLAY mode is selected.

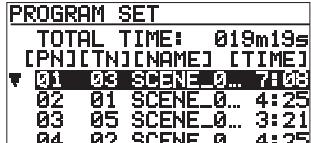
0 m 00 s 000 ms
TRK-03 SCENE_003.wav
→ PROGRAM PLAY
03 01 05 02 [FS] 48
[BIT] 24

The play list created is saved to the CR500 memory. If you load the same disc later and select the PROGRAM PLAY mode, the play list previously created is effective.

Deleting a song from the play list

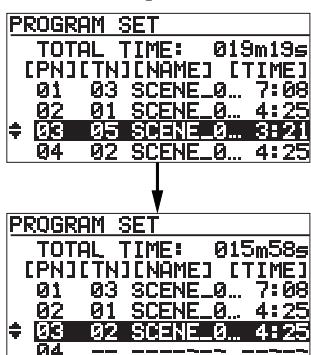
You can delete a song from the play list. The following description assumes that some songs are set to the play list and the Home screen of the PROGRAM PLAY mode is shown.

- Press the [SHIFT] key to turn on the Shift mode, and press the [PLAY MODE]/[PROGRAM SET] key. The display shows the play list screen on which some songs are set.



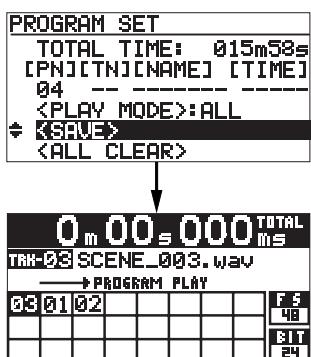
- Use the [MENU] dial to move the cursor to the song you want to delete, and press the [CLEAR/+10] key.

The example below shows how the screen changes when track 05 which is set to program number (PN) 03 is deleted. You can see that track 02 which is set after the deleted track moves up.



- Move the cursor to "<SAVE>" and press the [ENTER/YES] key.

The edited play list is saved and reflected to the Home screen of the PROGRAM PLAY mode. You can see that track 05 on program number 03 has been deleted in the screen example below.

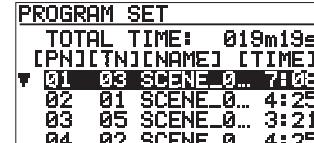


<Note>: After you edit the play list, do not forget to execute the save operation (select "<SAVE>" and press the [ENTER/YES] key). If you exit the "PROGRAM SET" menu without executing the save operation, editing is not reflected to the play list.

Deleting all songs in the play list

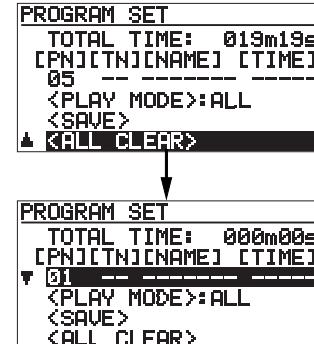
You can delete a song from the play list. The following description assumes that some songs are set to the play list and the Home screen of the PROGRAM PLAY mode is shown.

- Press the [SHIFT] key to turn on the Shift mode, and press the [PLAY MODE]/[PROGRAM SET] key. The display shows the play list screen on which some songs are set.



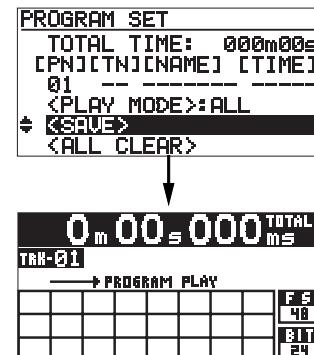
- Use the [MENU] dial to move the cursor to "<ALL CLEAR>", and press the [CLEAR/+10] key.

All songs in the play list are deleted and the display changes to show the play list screen with no entry, as shown below.



- Move the cursor to "<SAVE>" and press the [ENTER/YES] key.

The display changes to show the Home screen of the PROGRAM PLAY mode. You can see that the play list now has no entry as shown in the screen example below.



<Note>: After you edit the play list, do not forget to execute the save operation (select "<SAVE>" and press the [ENTER/YES] key). If you exit the "PROGRAM SET" menu without executing the save operation, editing is not reflected to the play list.

Playback in the MEMORY PLAY mode

While the Home screen of the MEMORY PLAY mode is shown, pressing a numeric key in the [MEMORY] key group instantly starts playback of audio data which is assigned to the corresponding memory bank (instant start function).

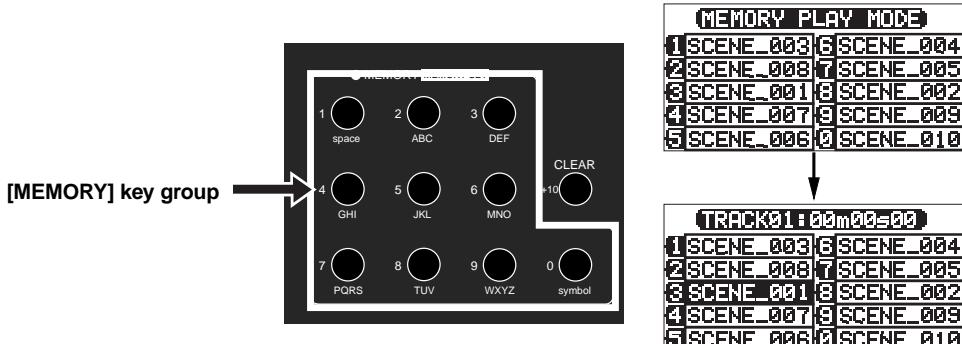
In the MEMORY PLAY mode, you can starts playback of the selected song from the desired start time and ends playback at the desired end time. To execute playback in the MEMORY PLAY mode, you need to assign a song to at least one memory bank (see below).

Executing MEMORY PLAY (instant start)

MEMORY PLAY MODE	
1 SCENE_003	6 SCENE_004
2 SCENE_008	7 SCENE_005
3 SCENE_001	8 SCENE_002
4 SCENE_007	9 SCENE_009
5 SCENE_006	0 SCENE_010

<Home screen of the MEMORY PLAY mode>

While the Home screen of the MEMORY PLAY mode as above is shown, pressing a numeric key in the [MEMORY] key group instantly starts playback of audio data which is set to the corresponding memory bank (instant start function). The following shows the example when the [3/DEF] key in the [MEMORY] key group is pressed.



<Note>: In the MEMORY PLAY mode, unlike other modes, you cannot use the repeat and auto play functions.

<Note>: You can store memory play data for 100 discs to the CR500 system memory. If you attempt to store a memory play data for a new disc when memory play data for 100 discs are already stored, the CR500 deletes the oldest memory play data and stores the new memory play data. However, if you reload a disc whose memory play data has been deleted as in the case above, its memory play data is automatically stored as the newest memory play data.

<Note>: By executing the "Sys Initial Memory" item of the "SYS SETUP" menu in the MENU mode, all memory play data are reset (see page 80).

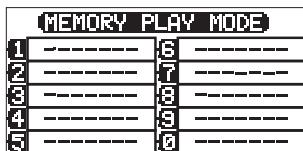
Assigning audio data to a memory

The description below assumes that a BWF formatted disc on which more than one WAV file is recorded is loaded, however, it is basically also applicable to a CD-DA formatted disc.

- 1) Press the [PLAY MODE/PROGRAM SET] key until the **MEMORY PLAY mode** is selected.

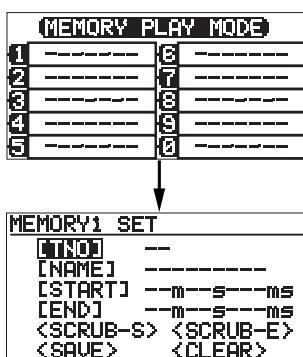
The display shows the Home screen of the MEMORY PLAY mode. All memory banks (1 through 10) are empty by default.

You can also select the MEMORY PLAY mode to bring up this screen using the "Play Mode" item of the "PLAY SETUP" menu in the MENU mode (see page 81).



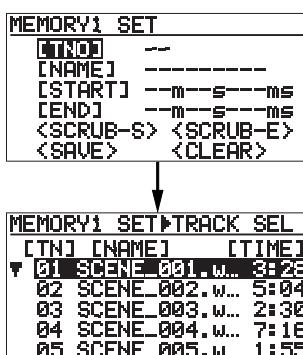
- 2) Press the [SHIFT] key to turn on the Shift mode, and specify the memory bank to which you want to assign audio data by pressing the corresponding numeric key in the **[MEMORY]** key group.

For example, if you press the [1/space] key, the display changes to show the setting screen for memory bank 1 (MEMORY 1).



- 3) While "[TNO]" is highlighted, press the **[ENTER/YES]** key.

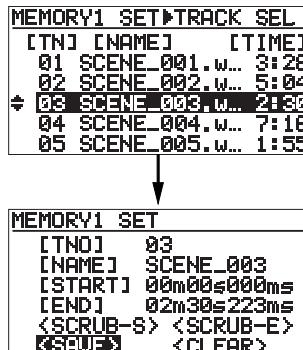
The display changes to show the audio file list screen for selecting an audio file.



- 4) Use the **[MENU]** dial to select a desired audio file and press the **[ENTER/YES]** key.

The display returns to the MEMORY 1 setting screen. The selected audio file is assigned to MEMORY 1 and "<SAVE>" is highlighted.

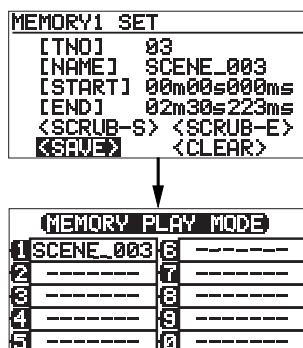
By default, the file name of the selected audio file is used as the "memory name", while the start time (00m00s000ms) and end time of the audio file are set as the start time and end time of the memory entry respectively.



<Note>: Before executing the save operation, you can edit the memory name, as well as playback start time and end time. However, in the procedure example here, we leave them as default. See the following pages for details about how to edit a memory name and the start/end time.

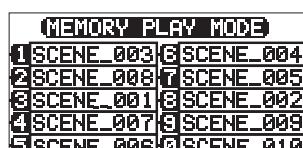
- 5) While "<SAVE>" is highlighted, press the **[ENTER/YES]** key.

The setting completes and the display returns to the Home screen on which you can see the file is assigned to MEMORY 1.



Repeat the procedure as many times as required until desired audio files are assigned to memory banks. You can assign up to 10 audio files to memory banks.

In the following screen example, all memory banks (1 through 9 and 0) have audio data. With a CD-DA disc, a track number is shown in the name field.



<Note>: Up to 10 memory play data can be set to the memory banks per disc. When you reload a disc whose files have been assigned to the memory banks, its memory play data is automatically recalled.

The flash memory of the CR500 can have memory play data for up to 100 discs. If you attempt to store memory play data for a new disc when memory play data for 100 discs are already stored, the CR500 deletes the oldest memory play data and stores the new memory play data.

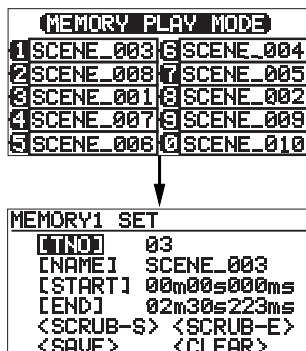
Replacing the audio file in a memory bank

You can replace the audio file in a memory bank with another file.

The following description assumes that one or more memory banks have audio data and the display shows the Home screen of the MEMORY PLAY mode.

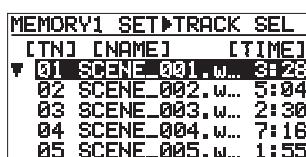
- 1) Press the [SHIFT] key to turn on the Shift mode, and specify the memory bank of which you want to replace the audio file by pressing the corresponding numeric key in the [MEMORY] key group.
For example, if you press the [1/space] key, the display changes to show the setting screen for memory bank 1 (MEMORY 1).
- 4) After you finish replacing the audio file(s), use the [MENU] dial to move the cursor to "<SAVE>" and press the [ENTER/YES] key. The new memory play data is saved, and the display returns to the Home screen of the MEMORY PLAY mode.

<Note>: Do not forget to execute the save operation. Otherwise, the editing is cancelled.



- 2) While "[TNO]" is highlighted, press the [ENTER/YES] key.

The display changes to show the audio file list screen for selecting an audio file.



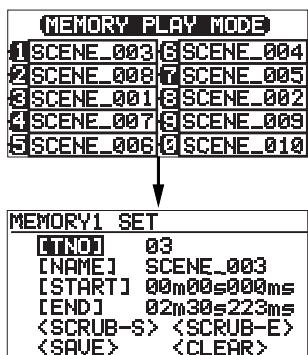
- 3) Use the [MENU] dial to select a desired audio file and press the [ENTER/YES] key.
The audio file currently assigned to memory bank 1 is replaced with the newly selected audio file.

To replace the audio file of another memory bank, repeat the same procedure.

Editing a memory name

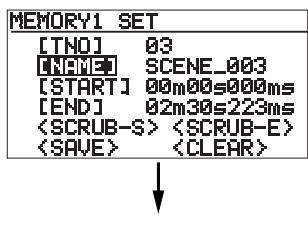
By default, the original file name is set as the memory name in a memory bank. You can edit this name. The following description assumes that at least one memory bank has audio data and the display shows the Home screen of the MEMORY PLAY mode.

- 1) Press the [SHIFT] key to turn on the Shift mode, and specify the memory bank you want to edit by pressing the corresponding numeric key in the [MEMORY] key group. For example, if you press the [1/space] key, the display changes to show the setting screen for memory bank 1 (MEMORY 1).



- 2) Move the cursor to "[NAME]" and press the [ENTER/YES] key.

The rightmost digit of the current memory name starts flashing and you can now edit the name.



- 3)

Edit the memory name.

Use the [SKIP/CURSOR |◀◀▶▶|] keys to move the cursor point (flashing point). Use the numeric ([MEMORY]) keys or [MENU] dial to select the desired character of the flashing point. Pressing the [CLEAR/+10] key deletes the immediate right character of the flashing point. Therefore, by pressing the [CLEAR/+10] key repeatedly when the leftmost character flashes, you can delete the whole current name.

- 4) After entering the desired name, press the [ENTER/YES] key.

The old name is replaced with the new name.

- 5) After editing, move the cursor to "<SAVE>" and press the [ENTER/YES] key.

The display returns to the Home screen of the MEMORY PLAY mode.

<Note>: Do not forget to execute the save operation above. Otherwise, the editing is cancelled.

Editing the start time/end time by entering time data

By default, the selected song is played back from the beginning to the end of the file when MEMORY PLAY is executed by pressing a numeric key.

You can, however, edit the playback start time and end time by entering desired time data (or using digital scrub function, as described on the next page).

The following description assumes that one or more memory banks have audio data and the display shows the Home screen of the MEMORY PLAY mode.

- 1) Press the [SHIFT] key to turn on the Shift mode, and specify the memory bank whose data you want to edit by pressing the corresponding numeric key in the [MEMORY] key group.

For example, if you press the [1/space] key, the display changes to show the setting screen for memory bank 1 (MEMORY 1).



- 2)

Move the cursor to "[START]" or "[END]" and press the [ENTER/YES] key.

To edit the playback start time, select "[START]".

To edit the playback end time, select "[END]".

MEMORY1 SET	
[TN01]	03
[NAME]	SCENE_003
[START]	00m00s000ms
[END]	02m30s223ms
<SCRUB-S>	<SCRUB-E>
<SAVE>	<CLEAR>

<Example when you select "[START]">

MEMORY1 SET	
[TNO]	03
[NAME]	SCENE_003
[START]	00m00s000ms
[END]	02m30s223ms
<SCRUB-S>	<SCRUB-E>
<SAVE>	<CLEAR>

MEMORY1 SET	
[TNO]	03
[NAME]	SCENE_003
[START]	00m00s000ms
[END]	02m30s223ms
<SCRUB-S>	<SCRUB-E>
<SAVE>	<CLEAR>

<Example when you select "[END]">

MEMORY1 SET	
[TNO]	03
[NAME]	SCENE_003
[START]	00m00s000ms
[END]	02m30s223ms
<SCRUB-S>	<SCRUB-E>
<SAVE>	<CLEAR>

MEMORY1 SET	
[TNO]	03
[NAME]	SCENE_003
[START]	00m00s000ms
[END]	02m30s223ms
<SCRUB-S>	<SCRUB-E>
<SAVE>	<CLEAR>

- 3) Use the numeric ([MEMORY]) keys or [MENU] dial to enter the desired number.

Use the [SKIP/CURSOR [$\blacktriangleleft\blacktriangleright$]] keys to move the cursor point (flashing point). Use the numeric ([MEMORY]) keys or [MENU] dial to enter the desired value of the flashing point.

By pressing the [CLEAR/+10] key repeatedly, you can reset time to 00m00s000ms.

- 4) After entering the desired time, press the [ENTER/YES] key.

The start (or end) time is replaced with the new value.

- 5) After editing, move the cursor to "<SAVE>" and press the [ENTER/YES] key.

The display returns to the Home screen of the MEMORY PLAY mode.

<Note>: Do not forget to execute the save operation above. Otherwise, the editing is cancelled.

Editing the start time/end time using the digital scrub function

You can edit the playback start time and end time by using digital scrub function.

The following description assumes that one or more memory banks has audio data and the display shows the Home screen of the MEMORY PLAY mode.

- 1) Press the [SHIFT] key to turn on the Shift mode, and specify the memory bank whose data you want to edit by pressing the corresponding numeric key in the [MEMORY] key group. For example, if you press the [1/space] key, the display changes to show the setting screen for memory bank 1 (MEMORY 1).

(MEMORY PLAY MODE)	
1 SCENE_003	6 SCENE_004
2 SCENE_008	7 SCENE_005
3 SCENE_001	8 SCENE_002
4 SCENE_007	9 SCENE_009
5 SCENE_006	0 SCENE_010

MEMORY1 SET	
[TNO]	03
[NAME]	SCENE_003
[START]	00m00s000ms
[END]	02m30s223ms
<SCRUB-S>	<SCRUB-E>
<SAVE>	<CLEAR>

- 2) Move the cursor to "<SCRUB-S>" or "<SCRUB-E>", and press the [ENTER/YES] key.

To edit the playback start time, select "<SCRUB-S>".

To edit the playback end time, select "<SCRUB-E>".

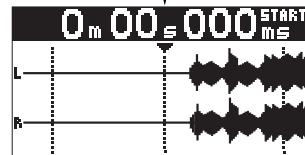
Pressing the [ENTER/YES] key brings up the waveform screen of audio data.

While this screen is shown, you can scrub audio for fine adjustment of time using the [MENU] dial.

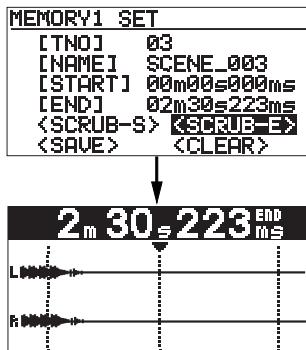
"▼" on the screen indicates the playback start (or end) time.

<Example when you select "<SCRUB-S>">

MEMORY1 SET	
[TNO]	03
[NAME]	SCENE_003
[START]	00m00s000ms
[END]	02m30s223ms
<SCRUB-S>	<SCRUB-E>
<SAVE>	<CLEAR>



<Example when you select "<SCRUB-E>">



- 3) Use the [MENU] dial to scrub forward or backward for adjusting the start (or end) point. At a point where audio is recorded, You can hear the scrubbing sound.

3) Use the [MENU] dial to scrub forward or backward for adjusting the start (or end) point. At a point where audio is recorded, You can hear the scrubbing sound.

- 4) After adjusting the start (or end) point, press the [ENTER/YES] key. The time of the point replaces the start (or end) time and is shown in the "[START]" (or "[END]") field.

- 5) After editing, move the cursor to "<SAVE>" and press the [ENTER/YES] key. The display returns to the Home screen of the MEMORY PLAY mode.

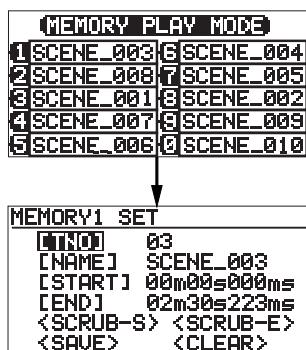
<Note>: Do not forget to execute the save operation above. Otherwise, the editing is cancelled.

Deleting memory play data

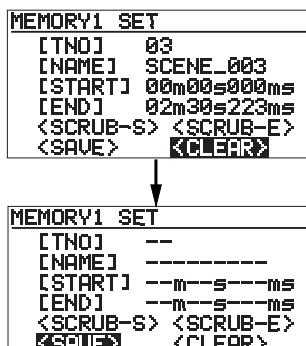
You can delete data in a memory bank. The following description assumes that one or more memory banks have audio data and the display shows the Home screen of the MEMORY PLAY mode. <Note>: You cannot delete whole memory play data of a disc at once.

- 1) Press the [SHIFT] key to turn on the Shift mode, and specify the memory bank whose data you want to edit by pressing the corresponding numeric key in the [MEMORY] key group.

For example, if you press the [1/space] key, the display changes to show the setting screen for memory bank 1 (MEMORY 1).

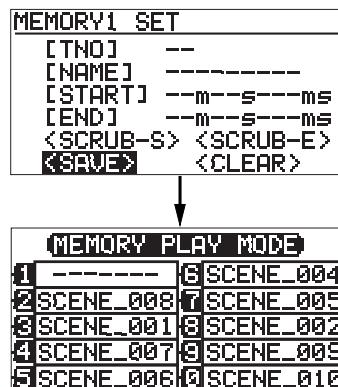


- 2) Use the [MENU] dial to move the cursor to "<CLEAR>" and press the [ENTER/YES] key. Data in MEMORY 1 is cleared. The screen shows MEMORY 1 is now blank and the cursor automatically moves to <SAVE>.



- 3) After editing, move the cursor to "<SAVE>" and press the [ENTER/YES] key.

The display returns to the Home screen of the MEMORY PLAY mode. The memory bank whose data has been deleted shows "-----".



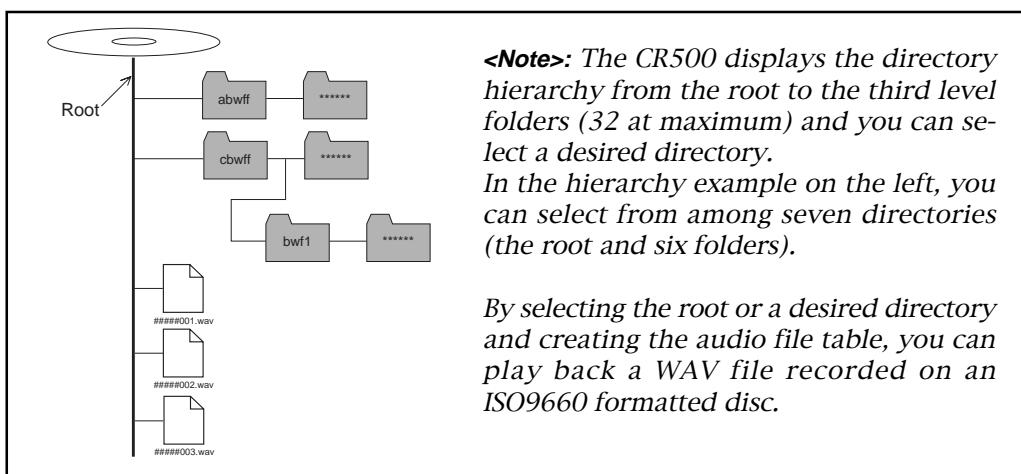
<Note>: Do not forget to execute the save operation above.

To assign new audio data to the memory bank whose data has been deleted, follow the procedure described above.

<Note>: If you attempt to execute MEMORY PLAY (Instant start) of an empty memory bank, "Memory 1 No Entry" appears and the operation is cancelled.

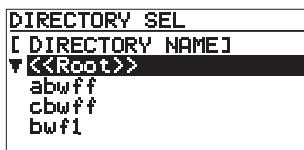
Playing back an ISO9660 formatted disc

You can play back an audio file (WAV file) on an ISO9660 formatted disc recorded by a computer by selecting the root or a directory. The procedure example below assumes that an ISO9660 formatted disc which has the directory hierarchy as shown below is loaded.



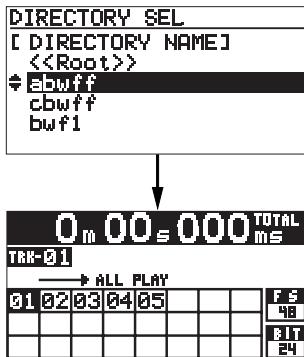
1) Set an ISO9660 formatted disc to the disc tray and close the tray.

The CR500 recognizes that an ISO9660 formatted disc is loaded and brings up the directory select screen as below.



2) Use the [MENU] dial to select the root (or a directory) and press the [ENTER/YES] key.

The audio file table of the root (or a directory) is created and the display returns to the Home screen.



3) Pressing the [PLAY] key starts playback from the first file on the audio file table.

You can use various playback functions as with a disc recorded by the CR500.

<Note>: To select another directory (or root), carry out either of the following operations.

- While the display shows the Home screen as shown on the left, press the [SHIFT] key to turn on the Shift mode, and press the [FILE SEL/DIR SEL] key.

The display changes to show the directory select screen as shown on the left, on which you can select the root or a directory.



- While the display shows the Home screen as shown on the left, press the [ENTER/YES] key to enter the menu mode and use the [MENU] dial to select "DIRECTORY SEL ▶", then press the [ENTER/YES] key.

The display changes to show the directory select screen as shown on the left, on which you can select the root or a directory.



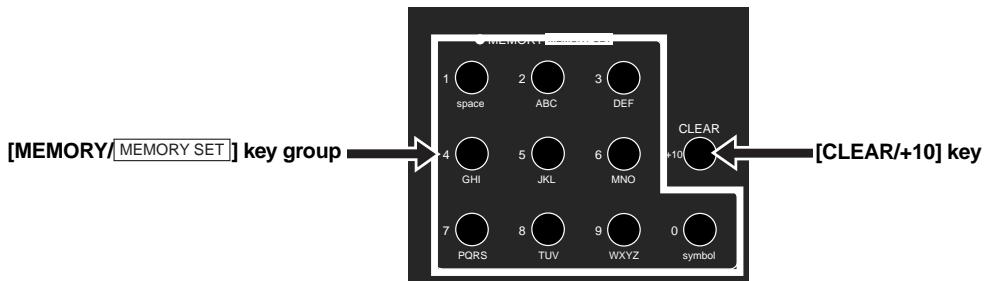
Locate/skip functions

The CR500 provides versatile locate/skip functions.

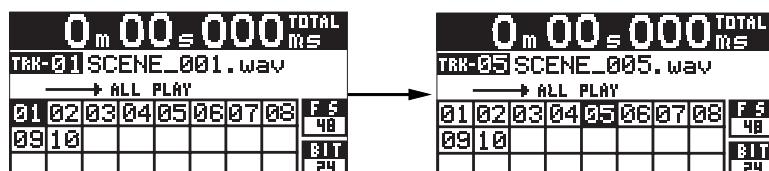
Locating an audio file (or audio track)

When more than one song is recorded on a CD-R/RW disc, you can immediately locate the beginning of a song.

While the recorder is stopped, pressing a numeric key of the [MEMORY/[MEMORY SET]] key group locates the beginning of a corresponding numbered song. To specify a file (track) numbered over 10, use also the [CLEAR/+10] key.

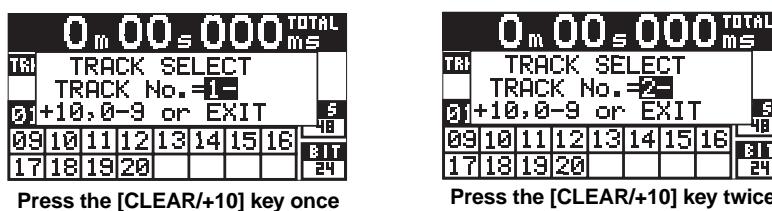


While track 01 is selected, pressing the [5/JKL] key in the [MEMORY/[MEMORY SET]] key group locates the beginning of track 05 and starts playback.



To locate a track numbered over 10, press the [CLEAR/+10] key, followed by an appropriate key in the [MEMORY/[MEMORY SET]] key group.

If you press the [CLEAR/+10] key once, the popup screen below left appears, highlighted "1-" indicates the tens digit is "1". If you press the [CLEAR/+10] key again, highlighted "1-" changes to "2-", indicating that the tens digit is "2". That is, pressing the [CLEAR/+10] key increments the tens digit number.



For example, to select a track between 10 and 19, press the [CLEAR/+10] key once, followed by the appropriate key in the [MEMORY/[MEMORY SET]] key group. To select a track between 20 and 29, press the [CLEAR/+10] key twice, followed by the appropriate key in the [MEMORY/[MEMORY SET]] key group.

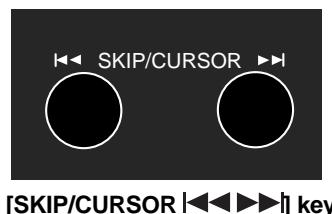
<Note>: The locate function above is available when the play mode is selected to "ALL PLAY", "SINGLE PLAY" and "PROGRAM PLAY". In the "MEMORY PLAY" mode, pressing a numeric key of the [MEMORY/[MEMORY SET]] key group executes the memory play function.

<Note>: Because the "Auto Play" menu item of the "PLAY SETUP" menu in the MENU mode is set to "On" by default, the recorder automatically starts playback after locating the specified point. If you want to change "Auto Play" setting, see page 84.

Skipping between audio files (or audio tracks)

When more than one song is recorded on a CD-R/RW disc, you can immediately skip to the beginning of a desired song.

While the recorder is stopped, pressing the [SKIP/CURSOR ▶▶] or [SKIP/CURSOR◀◀] key skips to the beginning of the next or current/previous song. Therefore, you can skip to the desired song by pressing the appropriate [SKIP/CURSOR◀◀▶▶] key as many times as required.



The following shows how the display changes by pressing the [SKIP/CURSOR ▶▶] key once to skip to the second song while the first song is selected.



<Note>: The skip function above is always available regardless of the play mode.

<Note>: If you press the [SKIP/CURSOR ▶▶] or [◀◀] key during playback, playback automatically starts from the beginning of the selected song.

Locating the specific ABS time (Locate ABS 0/Locate REC END)

Pressing the [REWIND] key while holding down the [STOP/HOME] key immediately locates the beginning of the current disc ("Locate ABS 0" function).

Pressing the [F FWD] key while holding down the [STOP/HOME] key immediately locates the record end position of the current disc ("Locate REC END" function).

<Note>: With the "Locate ABS 0" and "Locate REC END" functions, you cannot select an audio file (or audio track) individually. To select a file (or track) individually, use the [SKIP/CURSOR◀◀▶▶] key as described above or use other methods described in "Selecting a song to be played back" on page 51.

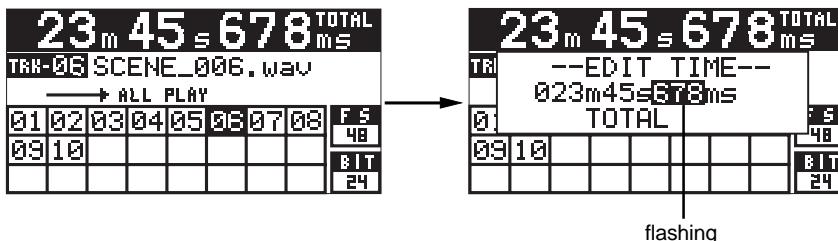
Locating a point by entering a time

By entering a time, you can immediately locate the corresponding point
Depending on the current time mode, you can specify the point by the disc elapsed time or track elapsed time.



- While the recorder is stopped or during playback, press the [SHIFT] key to turn on the Shift mode, and press the [LOCATE/EDIT TIME] key.

The current time is captured and the popup screen for editing time is shown.



<Note>: The time information area on the screen shows the captured time in the current time mode (the disc elapsed time or track elapsed time).

- Use the [MENU] dial (or the numeric keys) to enter the desired time.

You can use the cursor position by using the [SKIP/CURSOR $\blacktriangleleft\blacktriangleright$] keys.

You can reset the time on the screen to "000m 00s 000ms" by pressing the [CLEAR/+10] key. You can enter a time within the range between "000m 00s 000ms" and "999m 59s 999ms".

<Note>: If you enter an illegal time and attempt to locate the corresponding point, the display shows "Out of Zone!" and the operation is rejected. Enter a legal value.

- After entering the time, press the [LOCATE/EDIT TIME] key.

The recorder immediately locates the corresponding point and stops.

<Note>: When you press the [LOCATE/EDIT TIME] key in step 3) above, the time is stored to the [LOCATE/EDIT TIME] key. Therefore, next time you press the [LOCATE/EDIT TIME] key, you can locate the same point. The stored time is effective until you edit the time by the steps above.

<Note>: If you have never executed the locate function using the [LOCATE/EDIT TIME] key, pressing the [LOCATE/EDIT TIME] key locates the beginning of the disc.

Chapter-7: MENU mode

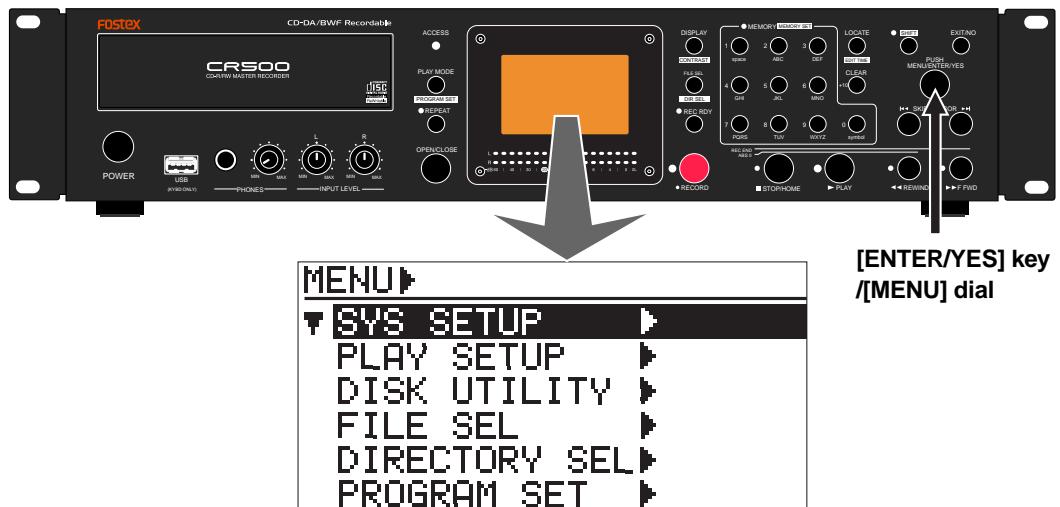
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About MENU mode

In the MENU mode, various essential setting menus and execution menus are available. While the recorder is stopped, pressing the [ENTER/YES] key enters the MENU mode and the display shows the MENU list screen. There are six menus in the MENU list. You can select a desired menu using the [MENU] dial.

This chapter describes "SYS SETUP", "PLAY SETUP" and "DISK UTILITY" menus. For details of the other menus, see the appropriate pages indicated on the table below.



Main menu name	Contents
SYS SETUP menu	This menu has 12 menu items for setting preferences (see the next and following pages).
PLAY SETUP menu	This menu has four menu items regarding playback modes and functions. Among the four menu items, the "Play Mode" and "Repeat" menu items can be also accessed from the [PLAY MODE] and [REPEAT] keys respectively.
DISK UTILITY menu	This menu has six menu items regarding a disc (CD-R/RW disc) or files. You can format a disc, store the file system, edit an audio file name, delete an unnecessary audio file, and restore a deleted audio file. (Note that you cannot edit, delete or restore a file with a CD-DA formatted disc.)
FILE SEL menu	This menu allows you to select an audio file (or audio track). You can directly enter this menu simply by pressing the [FILE SEL] key on the panel (see page 51 for details).
DIRECTORY SEL menu	The menu shows the directory hierarchy screen from the root to the third level, and you can select the desired directory. You can directly enter this menu by pressing the [SHIFT] key to activate the Shift mode, followed by the [FILE SEL] key (see page 67 for details).
PROGRAM SET menu	The menu creates the play list for executing program playback. You can directly enter this menu by pressing the [SHIFT] key to activate the Shift mode, followed by the [PLAY MODE] key (see page 58 for details).

SYS SETUP menu

In the SYS SETUP menu, 12 menu items are available. The following table shows each menu item name and available values (or action), as well as the default setting.

<Note>: This section explains all the menu items except "Adjust RTC". For the details about "Adjust RTC" menu item, see "Setting the realtime clock" on page 14.

Menu item	Available value or action		Default
Default file name	File name mode	Date, Take, Reel	Take
	Scene Name	Up to 19 characters can be entered.	SCENE
	Take Number	001 to 999	001
Select input	Analog, Digital		Analog
Digital out	AES/EBU, S/P DIF		AES/EBU
Peak hold	0sec. to 9sec.		3sec.
Ref. level	-12dB, -20dB		-12dB
Keyboard Sel	US, JAPAN		US
Sys User Save	Saves the current system settings of the SYS SETUP and PLAY SETUP menu items to the user system memory.		-
Sys User Load	Loads the user system memory.		-
Sys Default Set	Initializes the system settings of the SYS SETUP and PLAY SETUP menu items.		-
Sys Initial Memory	Initializes the system settings of the SYS SETUP and PLAY SETUP menu items, as well as clears the flash memory.		-
Adjust RTC	**Y **M **D **h **m **s		Adjusted to the factory local time.
Version	Displays the ROM version.		Shipped version

Basic procedure for using the "SYS SETUP" menu

The basic procedure for using the "SYS SETUP" menu is as described below, though the actual procedure may differ depending on menu. It is assumed that a blank or recorded CD-R/RW disc is set to the disc drive.

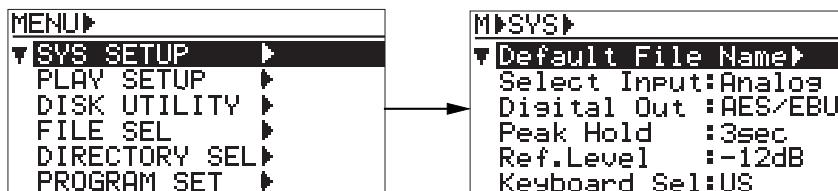
1) While the recorder is stopped, press the [ENTER/YES] key.

The unit enters the MENU mode and the MENU list screen as below is shown. Initially, "SYS SETUP ▶" is highlighted.



2) While "SYS SETUP ▶" is highlighted, press the [ENTER/YES] key.

The display now shows the SYS SETUP menu screen. Initially, "Default file name ▶" is highlighted.



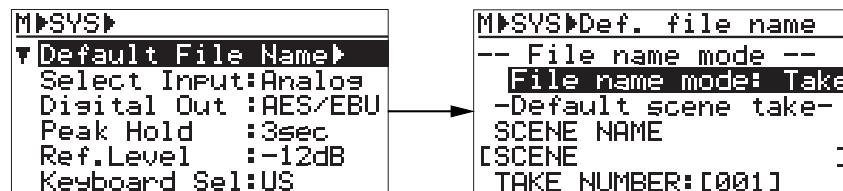
3) Use the [MENU] dial to select the desired menu item and press the [ENTER/YES] key.

The display now shows the first level screen of the selected menu item. Selecting a menu item with "▶" on the right goes down to the next level screen. If you select a menu item without "▶", the current setting flashes and you can now make selection on the current level screen.

For details of each item, see the next and following pages.

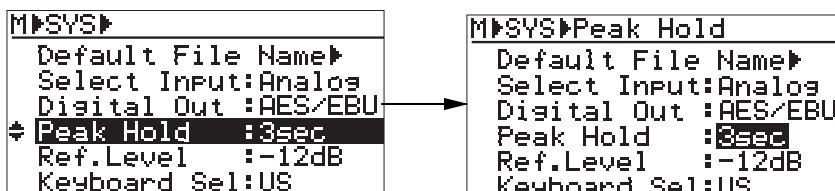
- Example of a menu item which has the next level screen

(Selecting the item goes down to the next level screen.)



- Example of a menu item of which you can make setting on the first level screen

(When you select the item, the current setting flashes.)



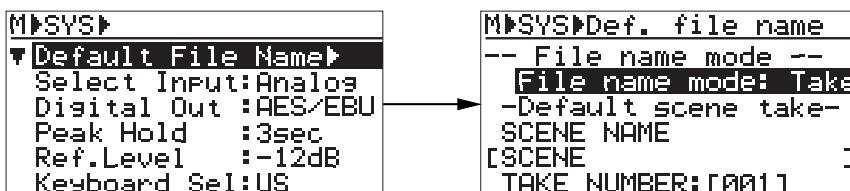
Pressing the [EXIT/NO] key goes up the level one by one. Therefore, you can finally exit the MENU mode by pressing the [EXIT/NO] key repeatedly. Also, you can directly exit the MENU mode by pressing the [STOP/HOME] key.

Default file name setting [Default File Name]

The "Default File Name" menu item selects the default name format of an audio file which is created automatically when recording is made to a BWF formatted disc. You can give a file name which has date information (according to the internal realtime clock), a scene name with a take number or a reel number with a file number. (Note that you cannot give a file name to a CD-DA formatted disc.)

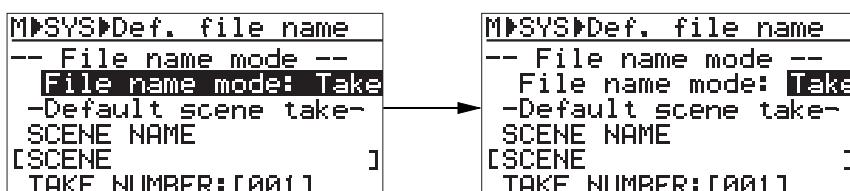
• Selecting "File name mode"

By selecting "Default File Name ▶" on the SYS SETUP menu screen and pressing the [ENTER/YES] key, the second level screen appears.



On this screen, "File name mode: xxx" is highlighted.

By pressing the [ENTER/YES] key again, the current setting (the default is "Take") starts flashing and you can now make selection using the [MENU] dial. You can select from among "Take" (default), "Date" and "Reel". After selecting the desired mode, press the [ENTER/YES] key to confirm the setting.



If you select "Take", set "Default File Name" on the same screen (see below).

(When you select "Date" or "Reel", the "Default File Name" setting is not effective.

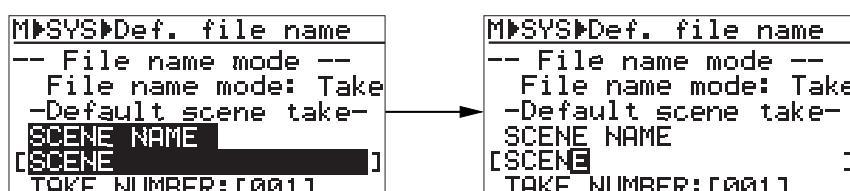
Date	The internal realtime clock data (with ".wav", the file extension) is set to the file name. Example: B05h 05m 06s 10may 2006.wav
Take	"<SCENE NAME> + <TAKE NUMBER>" (with ".wav", the file extension) is set to the file name. The TAKE NUMBER is incremented automatically each time recording is made. Example: Scene_001.wav, Scene_002.wav, ...
Reel	The reel number (= Vol. Label) which is set when formatting a disc is set to the file name. Example: 123_001.wav, 123_002.wav, ...

• Default file name (SCENE NAME/TAKE NUMBER) setting

When you set "File name mode" to "Take" and press the [ENTER/YES] key, you can set the desired scene name and take number.

Use the [MENU] dial to highlight "SCENE NAME [SCENE]" and press the [ENTER/YES] key. The rightmost character of the current scene name starts flashing and you can now start entering a desired name.

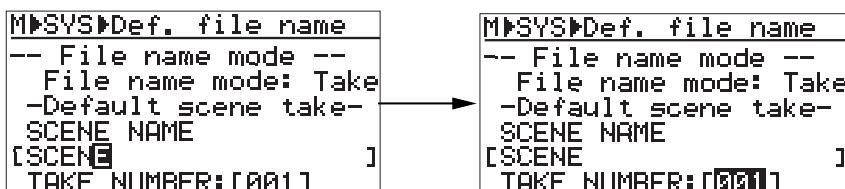
To enter a name, use the [SKIP/CURSOR◀◀▶▶] keys to move the cursor position and enter a desired name using the [MENU] dial or numeric keys. After entering the desired scene name, pressing the [ENTER/YES] key confirms the setting.



SCENE NAME	Up to 19 ASCII characters can be entered. The first character must be alphabetical. The ".wav" extension is automatically added, therefore, you do not need to enter it.
-------------------	--

After entering the scene name and pressing the [ENTER/YES] key, the cursor automatically moves to "001" in the take number field.

Enter the desired take number in the same manner as for the scene name, and press the [ENTER/YES] key to confirm your setting.



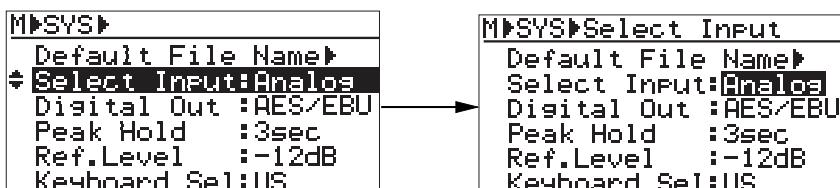
TAKE NUMBER	Any number between 001 and 999 can be entered. <Note>: If you enter "000" in the TAKE NUMBER field, it is automatically set as "001".
--------------------	--

* After making "Default File Name" setting, press the [STOP/HOME] key to exit the MENU mode.

Input selection [Select Input]

The "Select Input" menu item selects the recording source between analog and digital. The setting is stored to the Flash ROM of the unit.

Select the "Select Input" menu item on the SYS SETUP menu screen and press the [ENTER/YES] key. The current setting starts flashing (the default is "Analog") and you can now make selection. Use the [MENU] dial to select "Analog" or "Digital" and press the [ENTER/YES] key to confirm the setting.

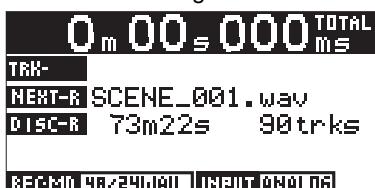


Analog	You can record the analog audio signals fed to the [ANALOG INPUT] connectors (balanced or unbalanced). This is the default.
Digital	You can record the digital audio signal fed to the [DIGITAL INPUT] connector.

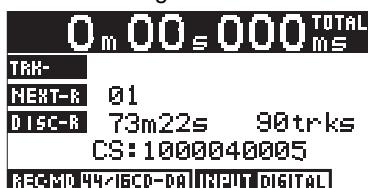
* To exit the MENU mode, press the [STOP/HOME] key.

The selected input source is shown at the bottom of the Input monitor screen, as indicated by an arrow below.

<When "Analog" is selected>



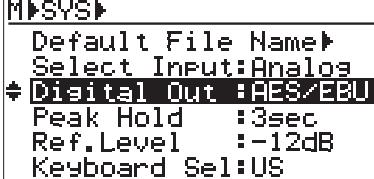
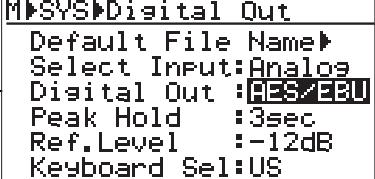
<When "Digital" is selected>



Digital output signal format selection [Digital Out]

The "Digital Out" menu item selects the format (AES/EBU or S/P DIF) of the digital signal which is output from the [DIGITAL OUTPUT] connector.

Select the "Digital Out" menu item on the SYS SETUP menu screen and press the [ENTER/YES] key. The current setting (the default is "AES/EBU") starts flashing and you can now select the desired option. Use the [MENU] dial to select between "AES/EBU" and "S/P DIF", and press the [ENTER/YES] key to confirm your setting.

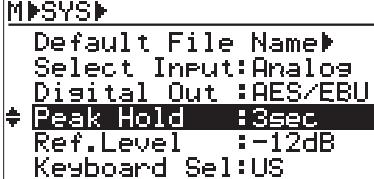
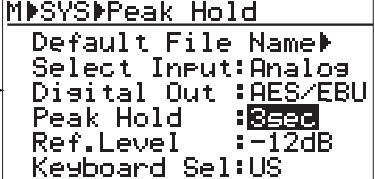
	
AES/EBU	IEC 60958 (AES/EBU) format digital signal is output.
S/P DIF	IEC 60958 (S/P DIF) format digital signal is output.

* To exit the MENU mode, press the [STOP/HOME] key.

Peak hold time setting [Peak Hold]

The "Peak Hold" menu item sets the peak hold time of the peak level meters.

Select the "Peak Hold" menu item on the SYS SETUP menu screen and press the [ENTER/YES] key. The current setting (the default is "3sec") starts flashing and you can now set the peak hold time. Use the [MENU] dial to select the desired time and press the [ENTER/YES] key to confirm your setting.

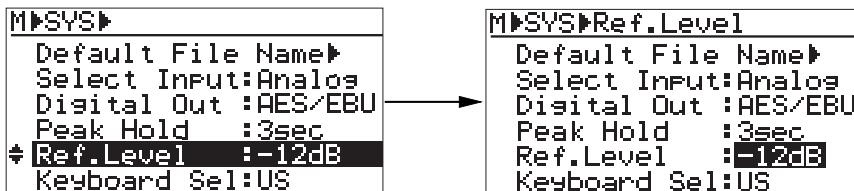
	
You can set the time between "0sec" and "9sec" in one second step.	

* To exit the MENU mode, press the [STOP/HOME] key.

Reference level setting [Ref. Level]

The "Ref. Level" menu item selects the reference input level. The reference level is set to "-12dB" by default, but you can change it to "-20dB".

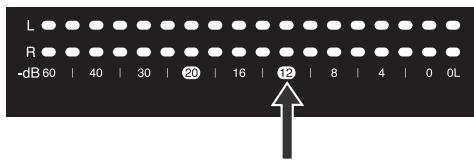
Select the "Ref. Level" menu item on the SYS SETUP menu screen and press the [ENTER/YES] key. The current setting starts flashing (the default is "-12dB") and you can now select the desired option. Use the [MENU] dial to set the desired level and press the [ENTER/YES] key to confirm your setting.



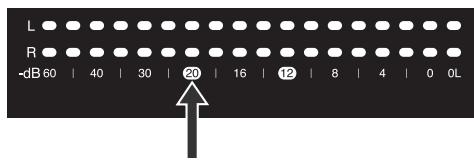
You can select from between "-12 dB" and "-20 dB" (the default is "-20dB").

* To exit the MENU mode, press the [STOP/HOME] key.

The reference level setting is reflected to the level meters on the front panel.
The associated level indicator is lit in red.



This indicator is lit in red when
"-12dB" is selected.



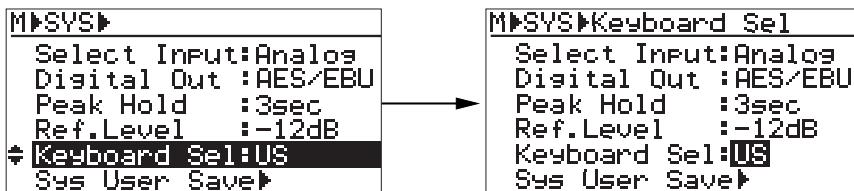
This indicator is lit in red when
"-20dB" is selected.

USB keyboard type setting [Keyboard Sel]

The "Keyboard Sel" menu item selects the type (between "US" or "JAPAN") of a USB keyboard connected to the [USB (KYBD ONLY)] connector .

Select the "Keyboard Sel" menu item and press the [ENTER/YES] key.

The current setting (the default is "US") starts flashing and you can now select the type. Use the [MENU] dial to select the desired option and press the [ENTER/YES] key to confirm your setting.



US	A US keyboard can be connected. This is the default.
JAPAN	A Japanese keyboard can be connected.

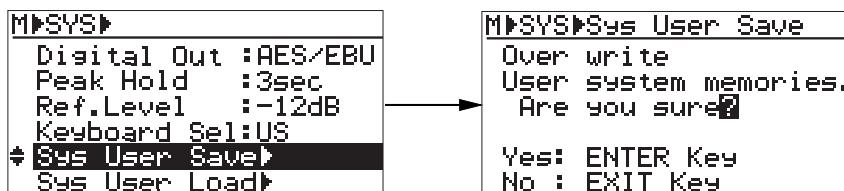
* To exit the MENU mode, press the [STOP/HOME] key.

Saving SYS SETUP data [Sys User Save]

Using the "Sys User Save ►" menu item, you can save the current setup data (including SYS SETUP data, PLAY SETUP data and contrast level) to the user memory. The saved setup data can be loaded using the "Sys User Load" menu item (see below for details) at any time.

Select "Sys User Save ►" on the SYS SETUP menu screen and press the [ENTER/YES] key. The display changes to show the confirmation screen (where "?" of "Are you sure?" flashes).

To save SYS SETUP/PLAY SETUP data, press the [ENTER/YES] key. To cancel the operation, press the [EXIT/NO] key.



<Note>: The following setup data is saved to the user memory.

- | | | | |
|------------------|-------------------------------------|--------------------------------------|---------------------------------------|
| * SYS SETUP: | (1) File name mode
(4) Ref.level | (2) Select input
(5) Keyboard sel | (3) Peak hold time
(6) Digital out |
| * PLAY SETUP: | (1) Play mode
(4) Power on play | (2) Repeat | (3) Auto play |
| * Contrast level | | | |

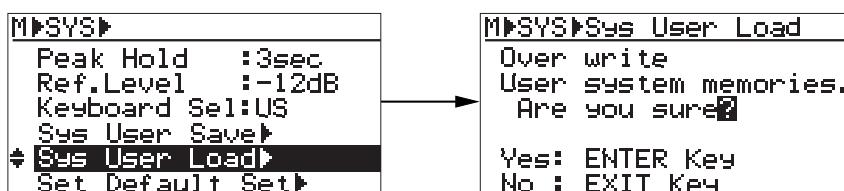
* To exit the MENU mode, press the [STOP/HOME] key.

Loading SYS SETUP data [Sys User Load]

Using the "Sys User Load ►" menu item, you can load the setup data (including SYS SETUP data, PLAY SETUP data and contrast level) from the user memory.

Select "Sys User Load ►" on the SYS SETUP menu screen and press the [ENTER/YES] key. The display changes to show the confirmation screen (where "?" of "Are you sure?" flashes).

To load the setup data, press the [ENTER/YES] key. To cancel the operation, press the [EXIT/NO] key.



<Note>: If you execute "Sys Default Set" (Initializing system memory data) or "Sys Initial Memory" (Initializing flash memory), the setup data is initialized. Therefore, even though you execute "Sys User Load", you cannot load the setup data you saved.

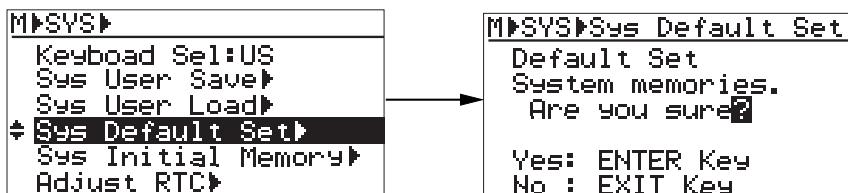
* To exit the MENU mode, press the [STOP/HOME] key.

Initializing system memory data [Sys Default Set]

Using the "Sys Default Set ►" menu item, you can initialize the setup data (including SYS SETUP data, PLAY SETUP data and contrast level) to the factory preset data.

Select "Sys Default Set ►" on the SYS SETUP menu screen and press the [ENTER/YES] key. The display changes to show the confirmation screen (where "?" of "Are you sure?" flashes).

Pressing the [ENTER/YES] key initializes the setup data, and the display returns to the previous screen. To cancel the initialization, press the [EXIT/NO] key.



<Note>: The following setup data is initialized.

- | | | |
|------------------|--|--|
| * SYS SETUP: | (1) "File Name Mode" setting
(3) "Peak Hold Time" setting
(5) "Keyboard Sel" setting | (2) "Select Input" setting
(4) "Ref.Level" setting
(6) "Digital Out" setting |
| * PLAY SETUP: | (1) "Play Mode" setting
(3) "Auto Play" setting | (2) "Repeat" setting
(4) "Power On Play" setting |
| * Contrast level | * User memory data | |

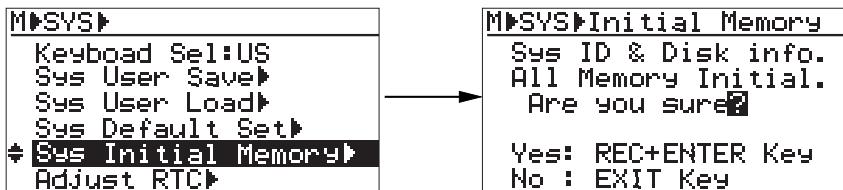
* To exit the MENU mode, press the [STOP/HOME] key.

Initializing flash memory [Sys Initial Memory]

Using the "Sys Initial Memory ►" menu item, you can initialize the flash memory data (including all system memory data, the play list for program play and the memory play data) to the factory preset data.

Select "Sys Initial Memory ►" on the SYS SETUP menu screen and press the [ENTER/YES] key. The display changes to show the confirmation screen (where "?" of "Are you sure?" flashes).

Press the [ENTER/YES] key holding down the [RECORD] key, initializes the flash memory, and the display returns to the previous screen. To cancel the initialization, press the [EXIT/NO] key.



<Note>: The following setup data is initialized.

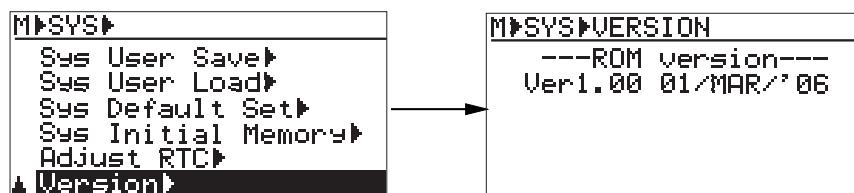
- | | | |
|--------------------|--|--|
| * SYS SETUP: | (1) "File Name Mode" setting
(3) "Peak Hold Time" setting
(5) "Keyboard Sel" setting | (2) "Select Input" setting
(4) "Ref.Level" setting
(6) "Digital Out" setting |
| * PLAY SETUP: | (1) "Play Mode" setting
(3) "Auto Play" setting | (2) "Repeat" setting
(4) "Power On Play" setting |
| * Memory play data | * Play list for program play | * Contrast level * User memory data |

* To exit the MENU mode, press the [STOP/HOME] key.

ROM version checking [Version]

Using the "Version ▶" menu item, you can check the version of the unit.

Select "Version ▶" on the "SYS SETUP" menu screen and press the [ENTER/YES] key.
The display changes to show the ROM version.



* To exit the MENU mode, press the [STOP/HOME] key.

PLAY SETUP menu

In the PLAY SETUP menu, four menu items are available. The following table shows each menu item name and its function, as well as the default setting.

Menu item	Function	Default
Play Mode	Selects the play mode. You can also use the [PLAY MODE/ PROGRAM SET] key on the panel to select the play mode (see page 54).	ALL
Repeat	Selects on/off of the repeat mode. You can also use the [REPEAT] key on the panel to select the play mode.	Off
Auto Play	Selects whether the recorder automatically starts playback after locating the song when you specify the desired song to be played back using the numeric keys in the [MEMORY/ MEMORY SET] key group and [CLEAR/+10] key.	On
Power On Play	Selects whether the recorder automatically starts playback when turning on the unit.	Off

Basic procedure for using the "PLAY SETUP" menu

The basic procedure for using the "PLAY SETUP" menu is as described below.

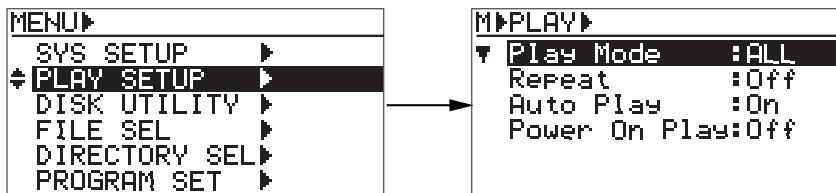
- 1) While the recorder is stopped, press the [ENTER/YES] key.

The unit enters the MENU mode and the MENU list screen as below is shown.



- 2) Use the [MENU] dial to highlight "PLAY SETUP ▶" and press the [ENTER/YES] key.

The display now shows the PLAY SETUP menu screen.



- 3) Use the [MENU] dial to select the desired menu item and press the [ENTER/YES] key.

The display now shows the first level screen of the selected menu item.

The current setting flashes and you can now make selection on the current level screen.

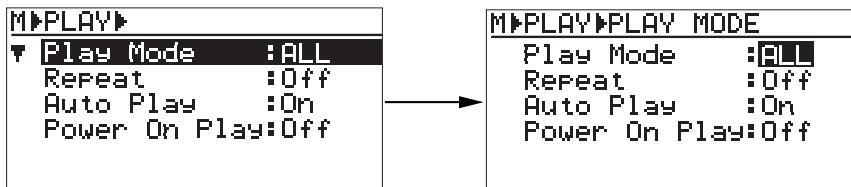
- 4) Use the [MENU] dial to select the desired option and press the [ENTER/YES] key to confirm the selection.

Play mode selection [Play Mode]

The "Play Mode" menu item selects the play mode.

<Note>: The play mode also can be selected using the [PLAY MODE/PROGRAM SET] key.
The selection using the [PLAY MODE/PROGRAM SET] key is reflected to the PLAY SETUP menu screen.

Select the "Play Mode" menu item on the PLAY SETUP menu screen and press the [ENTER/YES] key. The current setting starts flashing (the default is "ALL") and you can now make selection. Use the [MENU] dial to select "ALL", "SINGLE", "PROGRAM" or "MEMORY" and press the [ENTER/YES] key to confirm the setting.



ALL	Sets the play mode to "ALL PLAY".
SINGLE	Set the play mode to "SINGLE PLAY".
PROGRAM	Set the play mode to "SINGLE PLAY". When the play list is not saved, you cannot select the PROGRAM PLAY mode. If you select "PROGRAM" and press the [ENTER/YES] key, your selection is ignored and the play mode is set to "ALL".
MEMORY	Set the play mode to "MEMORY PLAY".

* To exit the MENU mode, press the [STOP/HOME] key.

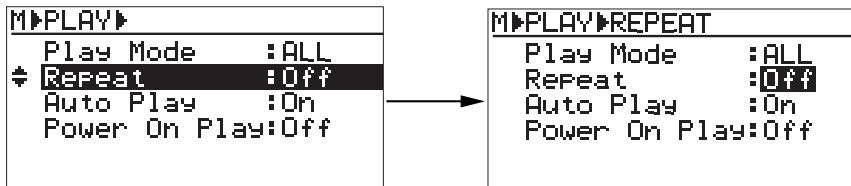
Repeat mode on/off [Repeat]

The "Repeat" menu item selects on/off of the repeat mode.

<Note>: You can also select on/off of the repeat mode using the [REPEAT] key.
The selection using the [REPEAT] key is reflected to the PLAY SETUP menu screen.

<Note>: You cannot repeat playback in the MEMORY PLAY mode.

Select the "Repeat" menu item on the PLAY SETUP menu screen and press the [ENTER/YES] key. The current setting starts flashing (the default is "Off") and you can now make selection. Use the [MENU] dial to select "Off" or "On" and press the [ENTER/YES] key to confirm the setting.



On	The recorder repeats playback of the song(s) according to the current play mode until you stop.
Off	The recorder stops playback after playing back the song(s) according to the current play mode.

* To exit the MENU mode, press the [STOP/HOME] key.

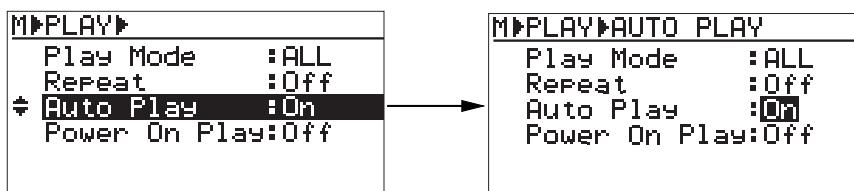
Auto play mode on/off [Auto Play]

The "Auto Play" menu item selects whether or not the recorder automatically starts playback after carrying out either of the following operations.

- (1) Selecting a song by using the numeric and [CLEAR/+10] keys while the recorder is stopped or playing.
- (2) Selecting a song by the [SKIP/CURSOR **|◀◀▶▶|**] keys while the recorder is playing.

<Note>: By default, when you select a desired song using the [SKIP/CURSOR **|◀◀▶▶|**] keys or the "FILE SEL" screen while the recorder is stopped, the recorder locates the beginning of the selected song and stops. However, when you do it while the recorder is playing, the recorder starts playback after locating the beginning of the selected song. Also note that the auto play function is not available when locating ABS 0.

Select the "Auto Play" menu item on the PLAY SETUP menu screen and press the [ENTER/YES] key. The current setting starts flashing (the default is "On") and you can now make selection. Use the [MENU] dial to select "Off" or "On" and press the [ENTER/YES] key to confirm the setting.



* To exit the MENU mode, press the [STOP/HOME] key.

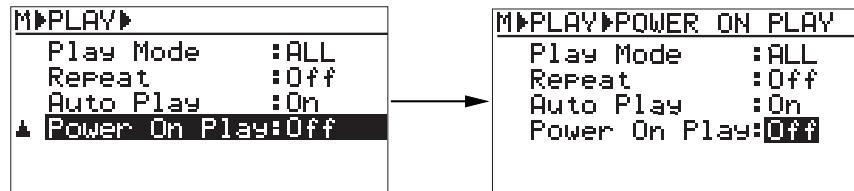
Auto play on/off when powered on [Power On Play]

This menu item selects whether the recorder starts playback or not when you turn on the power with a disc is set to the disc tray.

<Note>: If you turn on the power when this menu item is set to "On", the recorder automatically starts playback in the play mode previously selected when you turned off the power last time. For example, if the play mode was set to "PROGRAM PLAY" mode when you turned off the power last time, the recorder starts playback in the "PROGRAM PLAY" mode after you turn on the power.

<Note>: If the play mode was set to "MEMORY PLAY" when you turned off the power last time, the recorder does not start playback after you turn on the power regardless of "Power On Play" setting.

Select the "Power On Play" menu item on the PLAY SETUP menu screen and press the [ENTER/YES] key. The current setting starts flashing (the default is "Off") and you can now make selection. Use the [MENU] dial to select "Off" or "On" and press the [ENTER/YES] key to confirm the setting.



* To exit the MENU mode, press the [STOP/HOME] key.

DISK UTILITY menu

In the DISK UTILITY menu, six menu items regarding a disc and file are available. The following table shows each menu item name and its function.

Menu item	Function
Format	Executes the initial format or reformat of a CD-R/RW disc. You cannot reformat a recorded CD-R disc.
Rewrite File Sys	Rewrites the file system after editing (name editing, file deletion, etc.) of a WAV audio file recorded to a BWF formatted disc. This item is not available with a CD-DA disc.
Edit File Name	Edits and saves a file name of a WAV audio file recorded to a BWF formatted disc. This item is not available with a CD-DA disc.
Delete File	Deletes an unnecessary WAV audio file recorded to a BWF formatted disc. This item is not available with a CD-DA disc.
Restore Del. File	Restores a WAV audio file which has been deleted from an unfinalized BWF formatted disc. This item is not available with a CD-DA disc.
Finalize	Finalizes a BWF or CD-DA formatted CD-R/RW disc. A finalized CD-DA disc can be played back by a normal CD player, however, depending on a CD player, a CD-RW disc cannot be played back.

Formatting a disc [Format]

This menu item is used to format an unformatted CD-R/RW disc or reformat a formatted CD-RW disc.

<Note>: When you load an unformatted CD-R/RW disc, the display automatically goes down to the second level screen of the "Format" menu. For details, see "Preparation before using the CR500" on page 18.

<Note>: You can reformat the following CD-R/RW discs.

- (1) **BWF formatted or CD-DA formatted blank CD-R/RW discs**
 - (2) **BWF formatted or CD-DA formatted recorded CD-R/RW discs**
- You cannot reformat a recorded CD-R disc.

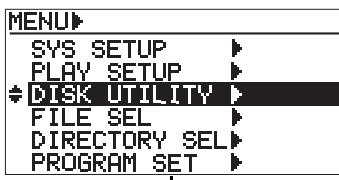
- 1) While the recorder is stopped, press the [ENTER/YES] key.

The unit enters the MENU mode and the MENU list screen as below is shown.



- 2) Use the [MENU] dial to highlight "DISK UTILITY ▶" and press the [ENTER/YES] key.

The display now shows the DISK UTILITY menu screen. Initially, "Format ▶" is highlighted.



- 3) While "Format ▶" is highlighted, press the [ENTER/YES] key.

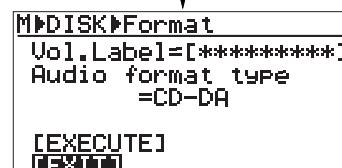
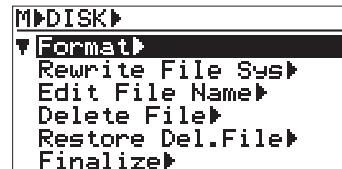
The display now shows "Format" screen.

You can edit a disc volume label (=reel number) and select the format type (between BWF and CD-DA).

A disc volume label can be used as the default file name for audio files to be recorded in a BWF formatted disc.

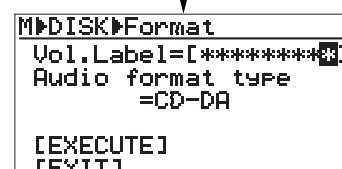
If you do not edit a volume label, skip steps 4) through 6) below.

<Note>: With a CD-DA disc, the volume label setting is ineffective and is not stored.



- 4) Use the [MENU] dial to highlight "Vol. Label" and press the [ENTER/YES] key.

The rightmost character of the current volume label flashes and you can now edit the label.



- 5) Use the numeric keys or the [MENU] dial to enter a desired character at the cursor position.

You can move the cursor position by using the [SKIP/CURSOR ▲◀▶▼] keys.

You can clear the character at the cursor position by pressing the [CLEAR/+10] key

- 6) After editing the volume label, press the [ENTER/YES] key to confirm your setting.

- 7) Use the [MENU] dial to highlight "Audio format type" and press the [ENTER/YES] key.

The currently selected format type (the default is "CD-DA") flashes and you can now select the format type.



You can select a format type from among "CD-DA" and the various "BWF" types (see the table below).

CD-DA (default) : 44.1kHz/16Bit
BWF (44.1/16) : 44.1kHz/16Bit
BWF (44.1/24) : 44.1kHz/24Bit
BWF (48/16) : 48kHz/16Bit
BWF (48/24) : 48kHz/24Bit
BWF (88.2/24) : 88.2kHz/24Bit
BWF (96/24) : 96kHz/24Bit

- 8) Use the [MENU] dial to select the desired type and press the [ENTER/YES] key to confirm your selection.

- 9) Use the [MENU] dial to highlight "[EXECUTE]" and press the [ENTER/YES] key. (To cancel formatting, highlight "[EXIT]" instead of "[EXECUTE]").

The display shows the "CAUTION" screen as below, on which "Are you sure?" flashes. To cancel formatting, press the [EXIT/NO] key.

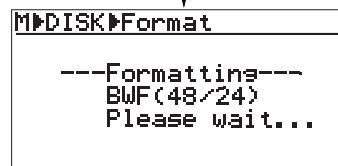
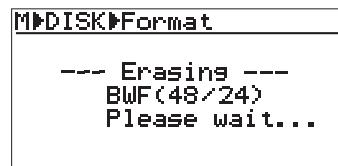


flashing

- 10) Press the [ENTER/YES] key to start formatting the disc.

When you select any of the BWF types in step 8) above, the unit erases data before formatting the disc as shown in the screens below. When you select "CD-DA" in step 8) above, the unit only erases data.

When formatting (or erasing) completes, the display shows "Completed", while the unit exits the MENU mode. The display returns to the Home screen.

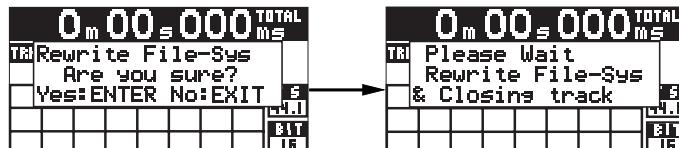


<Note>: To reformat a formatted disc with the different format type, execute the same procedure as above.

Rewriting the file system [Rewrite File Sys]

This menu item rewrites the file system. It is available only with a BWF formatted disc (**Note: This menu item is not available with CD-DA discs and finalized BWF discs**). After you edit a WAV file on the UDF file system (such as file name editing, file deletion and file restoring), you have to rewrite the file system using this menu item.

<Note>: If you attempt to eject a disc after making editing on the file system without rewriting, the popup screen as below left appears. Pressing the [ENTER/YES] key starts rewriting the file system (the popup screen as below right appears). After completing rewriting, the disc is ejected.



If you press the [EXIT/NO] key instead of the [ENTER/YES] key when the popup screen above left is shown, the disc is ejected without rewriting the file system. In this case, the editing you made is cancelled and the system returns to the condition before editing.

<Note>: Each time you rewrite the system file using the "Rewrite File Sys" menu item, the number of remaining recordable files decreases by one and the remaining disc space decreases. Therefore, we recommend rewriting the system file after you complete all file editing operations.

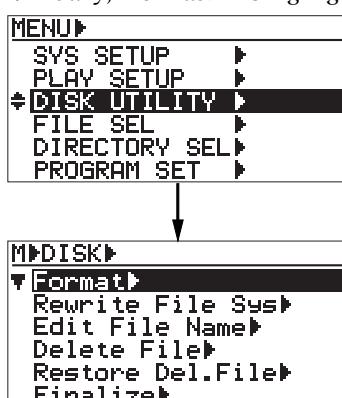
- While the recorder is stopped, press the [ENTER/YES] key.

The unit enters the MENU mode and the MENU list screen as below is shown.



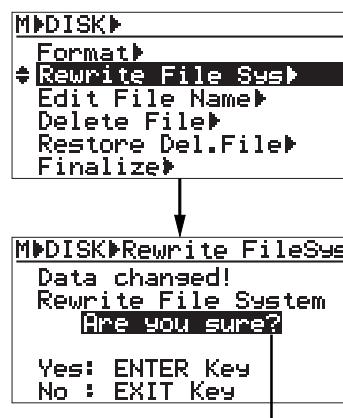
- Use the [MENU] dial to highlight "DISK UTILITY▶" and press the [ENTER/YES] key.

The display now shows the DISK UTILITY menu screen. Initially, "Format▶" is highlighted.



- Use the [MENU] dial to highlight "Rewrite File Sys▶" and press the [ENTER/YES] key.

The display changes to show the confirmation screen as below, where "Are you sure?" flashes. Pressing the [ENTER/YES] key rewrites the file system. Pressing the [EXIT/NO] key cancels rewriting.

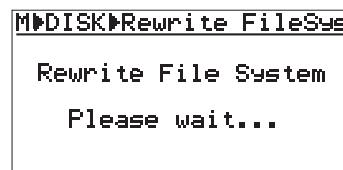


<Notes>

- If you carry out the operation of step 3) when you have not made any editing after rewriting the file system last time, the display shows "No data changed!".
- If you carry out the operation of step 3) when a CD-DA disc is set, the display shows "Void!".

- Press the [ENTER/YES] key to rewrite the system file.

The display shows the screen below while executing. After rewriting completes, the display shows the Home screen.



Editing a file name [Edit file name]

The "Edit File Name" menu item edits the file name of a WAV file on an unfinalized BWF disc. **This menu item is not available with CD-DA discs and finalized BWF discs.**

<Note>: After editing a file name, do not forget to rewrite the file system using the "Rewrite File Sys" menu item described on the previous page. However, each time you rewrite the system file, the number of remaining recordable files decreases by one and the remaining disc space decreases. Therefore, we recommend rewriting the system file after you complete all file editing operations.

If you attempt to eject an edited disc without rewriting the file system, the popup screen for rewriting the file system appears (see the previous page).

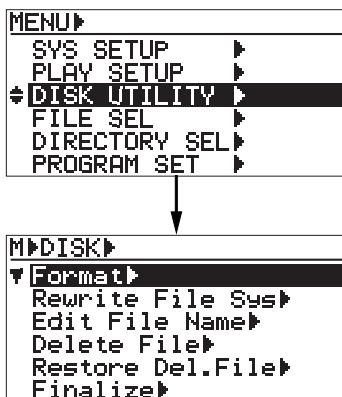
- 1) While the recorder is stopped, press the [ENTER/YES] key.

The unit enters the MENU mode and the MENU list screen as below is shown.



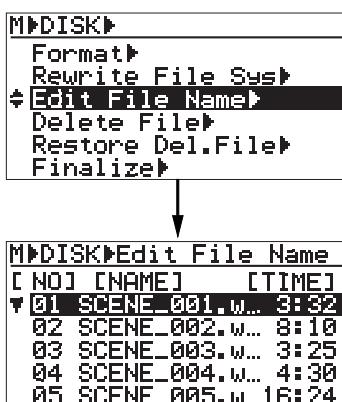
- 2) Use the [MENU] dial to highlight "DISK UTILITY ▶" and press the [ENTER/YES] key.

The display now shows the DISK UTILITY menu screen.



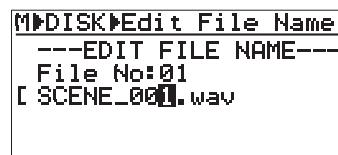
- 3) Use the [MENU] dial to highlight "Edit File Name ▶" and press the [ENTER/YES] key.

The display now shows the screen for selecting an audio file from the audio file list.



- 4) Use the [MENU] dial to select an audio file you want to edit and press the [ENTER/YES] key.

The display now shows the "EDIT FILE NAME" screen. On this screen, you can edit the current file name (the rightmost character of the name flashes).



5) Edit the file name.

Use the [SKIP/CURSOR] keys to move the cursor point (flashing point).

Use the numeric ([MEMORY]) keys or [MENU] dial to select the desired character of the flashing point.

Pressing the [CLEAR/+10] key deletes the immediate right character of the flashing point.

Therefore, by pressing the [CLEAR/+10] key repeatedly when the leftmost character flashes, you can delete the whole current name.

<Note>: Do not edit or delete ".wav", the file extension of a file name. If you attempt to save a file name which does not have this file extension, the display shows "Void" and returns to the previous screen.

- 5) After entering the desired name, press the [ENTER/YES] key.

The old name is replaced with the new name.

- 6) To exit the MENU mode, press the [STOP/HOME] key.

The display returns the Home screen which has been shown before entering the MENU mode.

Deleting an unnecessary audio file [Delete File]

The [Delete File] menu item deletes an unnecessary WAV file on an unfinalized BWF disc. **This menu item is not available with CD-DA discs and finalized BWF discs.**

<Note>: After deleting an audio file, do not forget to rewrite the file system using the "Rewrite File Sys" menu item described on the previous page. However, each time you rewrite the system file, the number of remaining recordable files decreases by one and the remaining disc space decreases. Therefore, we recommend rewriting the system file after you complete all file editing operations.

If you attempt to eject an edited disc without rewriting the file system, the popup screen for rewriting the file system appears (see the previous page).

<Note>: A deleted file still exists as a "hidden file" on the disc. You can restore a hidden file by the "Restore Del File" menu item described on the next page.

- 1) While the recorder is stopped, press the [ENTER/YES] key.

The unit enters the MENU mode and the MENU list screen as below is shown.



- 2) Use the [MENU] dial to highlight "DISK UTILITY ▶" and press the [ENTER/YES] key.

The display now shows the DISK UTILITY menu screen.



- 3) Use the [MENU] dial to highlight "Delete File ▶" and press the [ENTER/YES] key.

The display now shows the screen for selecting an audio file from the audio file list.



- 4) Use the [MENU] dial to select an audio file you want to delete and press the [ENTER/YES] key.

The confirmation screen pops up.
To delete the file, press the [ENTER/YES] key.
To cancel deleting the file, press the [EXIT/NO] key.



- 5) Press the [ENTER/YES] key to delete the file.

The selected audio file is deleted and the display returns to show the screen for selecting an audio file from the audio file list.

- 6) To exit the MENU mode, press the [STOP/HOME] key.

The display returns the Home screen which has been shown before entering the MENU mode.

<Note>: If you delete the audio file which is selected before entering the MENU mode, the display shows the Home screen of the file next to the deleted audio file.

Restoring a deleted audio file [Restore Del. File]

Using the "Restore Del. File" menu item, you can restore a hidden file which has been deleted by the "Delete File" menu item. **This menu item is not available with CD-DA discs and finalized BWF discs.**

<Note>: After restoring a deleted audio file, do not forget to rewrite the file system using the "Rewrite File Sys" menu item described on the previous page. However, each time you rewrite the system file, the number of remaining recordable files decreases by one and the remaining disc space decreases. Therefore, we recommend rewriting the system file after you complete all file editing operations.

If you attempt to eject an edited disc without rewriting the file system, the popup screen for rewriting the file system appears (see the previous page).

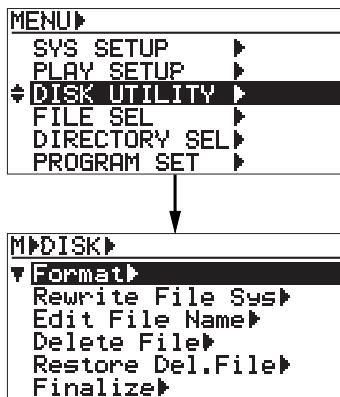
- 1) While the recorder is stopped, press the [ENTER/YES] key.

The unit enters the MENU mode and the MENU list screen as below is shown.



- 2) Use the [MENU] dial to highlight "DISK UTILITY ▶" and press the [ENTER/YES] key.

The display now shows the DISK UTILITY menu screen.



- 3) Use the [MENU] dial to highlight "Restore Del. File ▶" and press the [ENTER/YES] key.

The display now shows the screen for selecting a deleted audio file.



- 4) Use the [MENU] dial to select an audio file you want to restore and press the [ENTER/YES] key.

The selected audio file is restored. File restoring starts.

The display shows "Please wait....", followed by "Completed", and returns to the screen for selecting a deleted audio file.

- 5) To exit the MENU mode, press the [STOP/HOME] key.

The display returns the Home screen which has been shown before entering the MENU mode.

Finalizing a disc [Finalize]

The "Finalize" menu item finalizes a BWF formatted or CD-DA formatted CD-R/RW disc. A finalized CD-DA disc can be played back by a normal CD player. You can also finalize a CD-DA formatted disc when you eject it after recording (see page 49).

<Note>: By finalizing a CD-DA formatted CD-R/RW disc, TOC (Table Of Contents) is recorded and the disc is closed. Therefore, you cannot make additional recordings. Also in the case of a BWF formatted CD-R/RW disc which has been finalized using this menu item, you cannot make additional recordings, as well as file name editing and file deletion.

- 1) While the recorder is stopped, press the [ENTER/YES] key.

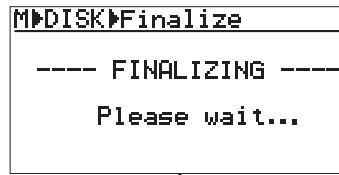
The unit enters the MENU mode and the MENU list screen as below is shown.



- 4) Press the [ENTER/YES] key.

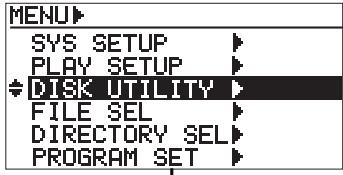
Finalizing starts.

The display shows "Please wait....", followed by "Completed".

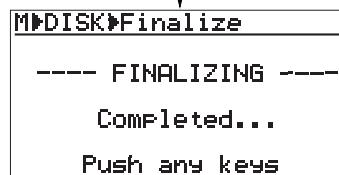


- 2) Use the [MENU] dial to highlight "DISK UTILITY ▶" and press the [ENTER/YES] key.

The display now shows the DISK UTILITY menu screen.



- 5) Press any operation key on the panel.
- The display returns the Home screen which has been shown before entering the MENU mode.

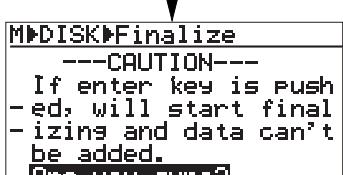


- 3) Use the [MENU] dial to highlight "Finalize ▶" and press the [ENTER/YES] key.
- The display now shows the confirmation screen, where "Are you sure?" flashes.



<Note>: If you attempt to make an additional recording to a finalized CD-R/RW disc, the following popup screen appears over the input monitor screen.

Cannot record!
This disk is alr
-eady finalized.



flashing

Chapter-8: Specifications

CR500 main specifications

Inputs/Outputs

* 0dBu = 0.775Vrms, 0dBV = 1Vrms

Reference level: -12dBFS/-20dBFS (default: -12dBFS, selectable in the "Ref.Level" menu item of the SYS SETUP menu)

ANALOG INPUT L, R (balanced)

Connector	:	XLR-3-31 type (balanced, pin-2: hot)
Input impedance	:	10kΩ or higher
Reference input level	:	+4dBu
Maximum input level	:	+24dBu (-20dBFS)

ANALOG INPUT L, R (unbalanced)

Connector	:	RCA pin jack
Input impedance	:	10kΩ or higher
Reference input level	:	-10dBV
Maximum input level	:	+10dBV (-20dBFS)

ANALOG OUTPUT L, R (balanced)

Connector	:	XLR-3-32 type (balanced, pin-2: hot)
Output load impedance	:	10kΩ or higher
Reference output level	:	+4dBu
Maximum output level	:	+24dBu (-20dBFS)

ANALOG OUTPUT L, R (unbalanced)

Connector	:	RCA pin jack
Output load impedance	:	10kΩ or higher
Reference output level	:	-10dBV
Maximum output level	:	+10dBV (-20dBFS)

PHONES

Connector	:	Ø6mm Stereo Phone jack
Output load impedance	:	8Ω or higher
Maximum output level	:	100mW (32Ω)

DIGITAL INPUT

Connector	:	XLR-3-31 type (balanced, pin-2: hot)
Format	:	IEC 60958 (S/P DIF) or IEC 60958 (AES/EBU), auto selection.

DIGITAL OUTPUT

Connector	:	XLR-3-32 type (balanced, pin-2: hot)
Format	:	IEC 60958 (S/P DIF) or IEC 60958 (AES/EBU), The format of an output signal is selected in the "Digital Out" menu item of the SYS SETUP menu.

USB (USB keyboard Only)

Connector	:	USB series "A" receptacle The keyboard uses Default Scan Code 2.
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GPI (Fader Start)

Connector	:	Ø6mm Phone jack
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Recording/playback

Recording medium	:	ATAPI (E-IDE) CD-R/RW drive
Sampling frequency (fs)/		
Quantization (bit)	:	fs 44.1kHz / 48kHz, 16bit
	:	fs 44.1kHz / 48kHz / 88.2kHz / 96kHz, 24bit
Recording tracks	:	2 (STEREO)
Reference recording level	:	-12dBFS/-20dBFS (selectable in the MENU mode)
Shock loop function	:	20 seconds

Performance

* Analog input to ADC to DAC to analog output: (fs 48kHz 24bit, Ref: -12dBFS)

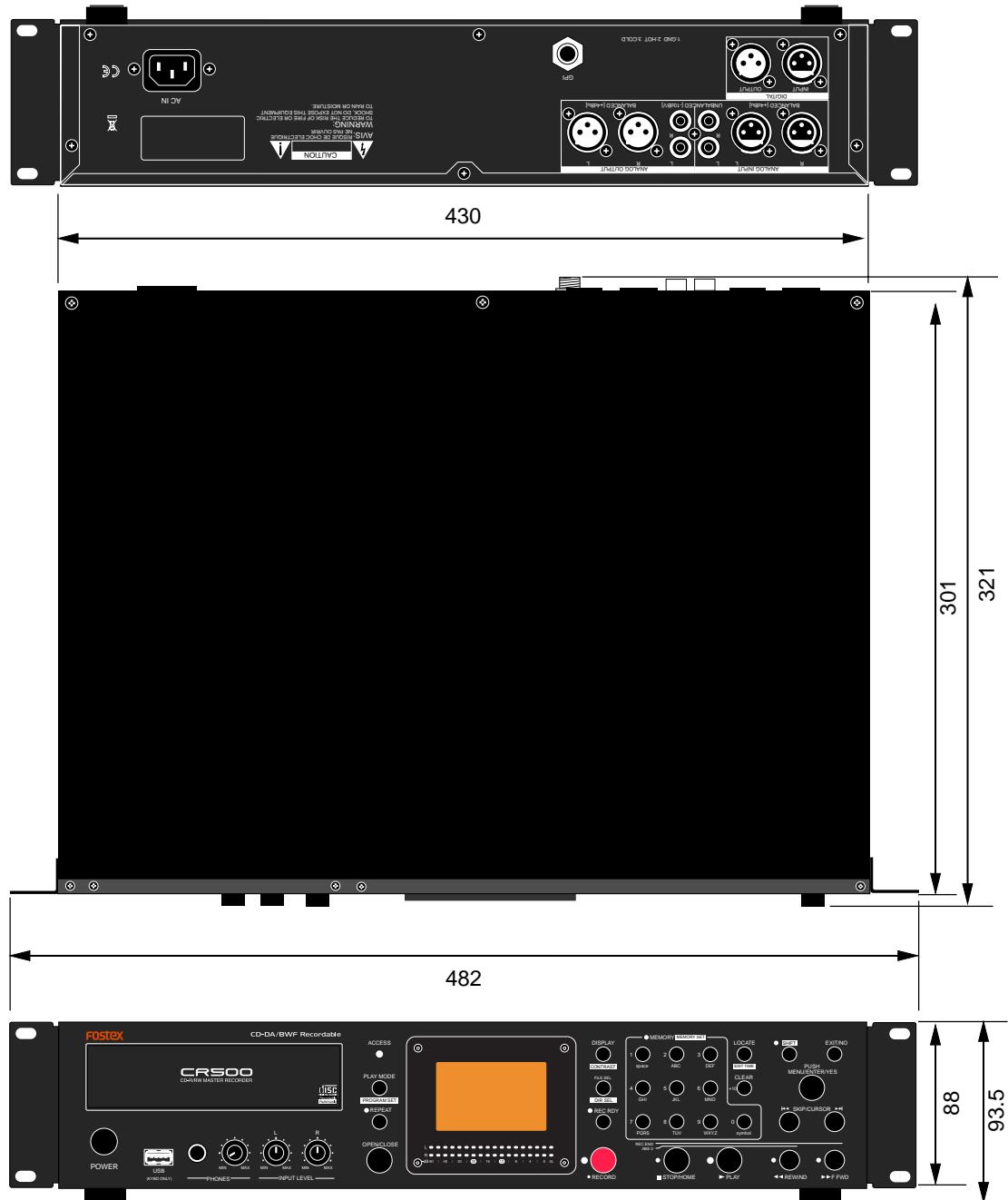
R/P Frequency response	:	20Hz - 20kHz +/-1dB (fs 44.1/48kHz)
	:	20Hz - 40kHz +/-2dB (fs 88.2/96kHz)
Signal to noise ratio	:	100dB (Typical)
Dynamic range (1kHz, -60dBFS)	:	100dB (Typical)
T. H. D. (1kHz, -1dBFS)	:	0.01% or less

General

External dimensions	:	93.5 (H) x 482 (W) x 321 (D) mm (including the projection parts)
Weight	:	Approx. 4.8 kg
Power requirements	:	120VAC 50/60Hz 230VAC 50/60Hz 240VAC 50/60Hz
Power consumption	:	Approx. 14W

- * Specifications and appearance are subject to change without notice for product improvement.
- * All company names and model names mentioned in this manual are trademarks or registered trademarks of their respective holders.

Physical dimensions



Declaration of EC Directive

This equipment is compatible with the EMC Directive (89/336/EEC) - Directive on approximation of member nation's ordinance concerning the electromagnetic compatibility and with the Low Voltage Directive (73/23/EEC) - Directive on approximation of member nation's ordinance concerning electric equipment designed to be used within the specified voltage range.

The Affect of Immunity on This Equipment

The affect of the European Specification EN61000-6-1 (coexistence of electromagnetic waves - common immunity specification) on this equipment are as shown below.

In the electrical fast transient/burst requirements, surge, conducted disturbances by radio-frequency fields, power frequency magnetic field, radiate electromagnetic field requirements and static electricity discharging environment, this could be affected by generation of noise in some cases.

FOSTEX DISTRIBUTORS LIST IN EUROPE

* Including non-EU countries (as of January, 2005)

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FOR THE US CUSTOMERS ONLY

FOSTEX AMERICA LIMITED WARRANTY

The following statement defines specific legal rights. You may also have additional rights depending on the state in which the Fostex product was purchased.

WARRANTY PROTECTION

All Fostex parts are warranted for one (1) year from the date of original purchase, except for recording media, such as hard disc drives and compact flash cards, heads, lamps and fuses, which are warranted, for one hundred-eighty (180) days. Fostex America will repair and / or replace parts during the term of this warranty. Labor costs are also covered by Fostex America for one (1) year from the date of original purchase. Except as specified below, this warranty covers all defects in material and workmanship in this product.

The following are not covered by this warranty:

1. Batteries.
2. Damage to any product that has been altered.
3. Damage to any product on which the original serial number has been defaced, modified or removed.
4. Damage to or deterioration of the external cabinet.
5. Damage occurring during shipment of the product. (**NOTE:** Shipping claims must be presented to the carrier.)
6. Damage resulting from accident, misuse, abuse or neglect.
7. Damage resulting from failure to perform routine maintenance and / or calibration procedures.
8. Damage resulting from failure to follow instruction in the owner's manual.
9. Damage resulting from repair or attempted repair or by someone other than a Fostex America Service technician or a technician at an authorized Fostex America service station.
10. Damage resulting from causes other than product defects, including lack of technical skill, competence or experience on the part of the user.
11. External appearance items such as cosmetic parts, knobs, liquid crystal displays, buttons, etc.
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13. Damage resulting from misuse or abuse on rental units.

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CALIBRATION AND MAINTENANCE PROCEDURES ARE NOT COVERED BY THIS WARRANTY.**

Fostex America reserves the right to inspect all products submitted pursuant to this warranty. If such an inspection shows reasonable cause to believe that any of the above exclusions to the above warranty are applicable, then Fostex America or the authorized service station will charge prevailing service rates and parts, costs for any repairs.

FOSTEX AMERICA LIMITED WARRANTY

To claim all warranty service, first access www.fostex.com to receive service authorization (RMA number). Then present the authorization together with the bill of sale, which shows the date of original purchase to Fostex America. This warranty is not transferable.

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If this product needs service, you must take it, or package it carefully, using ample packaging materials to prevent damage during shipment and mail it to the distributor from whom you have purchased this product, postage pre-paid and insured.

NOTE: Fostex America will not assume responsibility for damages or losses occurred in transit, but will reasonably assist the sender in processing any claims whenever possible (such as submitting statements to the carriers when applicable).

Any collect or C.O.D. shipments will be refused. In order to obtain warranty repairs, you must include the following:

1. Date proof of original purchase (copy pf bill of sale or charge slip).
2. A note describing the problem with sufficient particularity to allow Fostex America to inspect or adjust the problem.
3. All accessory items appurtenant to that problem.

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Service Department

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