

PSD450mkII

Digital Audio Recording System

User Manual



CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT





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.

WARNING

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

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

ATTENTION: POUR EVITER LES CHOC ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

CAUTION

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURE OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS EXPOSURE.

LASER SAFETY

This unit employs a laser. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.

NOTE TO CATV SYSTEM INSTALLER:

This reminder is provided to call the CATV (Cable-TV) system installer's attention to Section 820-40 of the NEC which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

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

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

NOTE: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

Cet appareil numérique de la Classe B conforme à la norme NMB-003 du Canada.

SD Logo is a trademark. microSD Logo is a trademark.

SUPERSCOPE

Important Safety Instructions

READ BEFORE OPERATING EQUIPMENT

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

1. Read instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Clean only with dry cloth.
6. Do not use this apparatus near water.
7. To ventilate the unit, do not install it in a rack or bookshelf, and note the following: Do not insert objects beneath the unit. Do not block ventilation slots at the top of the unit. Do not place anything about 1 meter above the top panel. Make a space of about 8" (20 cm) around the unit.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



Additional Safety Information!

- This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
- Apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- When the switch is in the OFF position, the apparatus isn't completely switched-off from the MAINS.

WARNINGS

Do not expose the equipment to rain or moisture.

Do not remove the cover from the equipment.

No naked flame sources, such as lighted candles, should be placed on the equipment.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Set the unit up on an even surface away from direct sunlight, high temperatures, high humidity, and excessive vibration.

Do not place heavy items on the unit.

Do not use high voltage power sources. This can overload the unit and cause a fire.

Do not handle the plug with wet hands. This can cause electric shock.

Do not let metal objects fall inside the unit.

Do not let liquids get into the unit.

Do not spray insecticides onto or into the unit.

Do not attempt to repair this unit by yourself.

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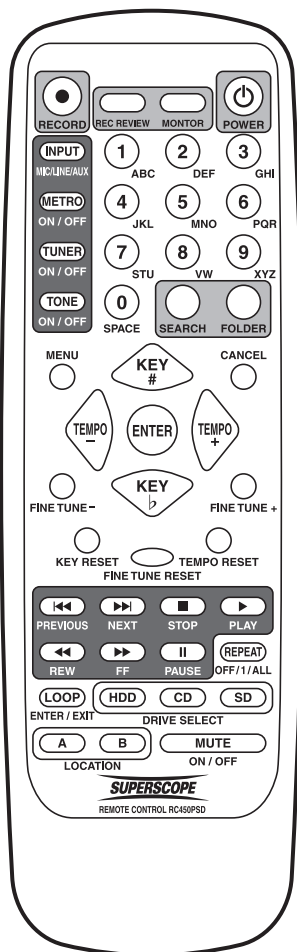
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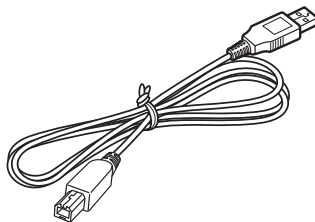
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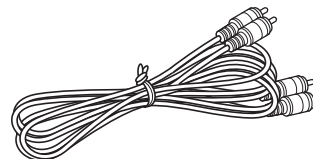
Infrared (IR) Remote



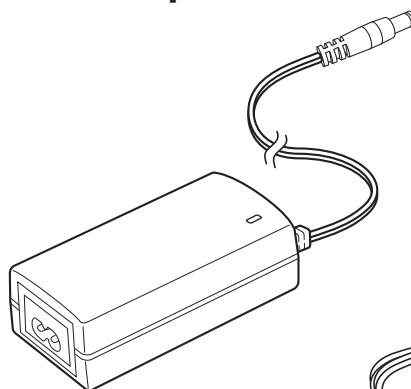
USB Cable



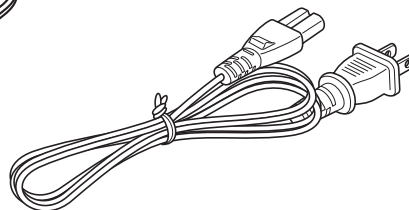
RCA Patch Cables



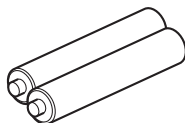
AC Adapter



AC Power Cord



AAA Batteries



The following items (not pictured) are also in the box:

- Instruction Manual on CD-ROM (PDF format)
- Quick Start Guide (printed)

■ Introduction

Thank you for purchasing a Superscope PSD400 Series Recording System.

Were you looking for a high-quality, portable recorder? A music practice and transcription tool? If either factor is important to you, we're confident you'll find your recorder to be an immensely powerful and versatile audio system. Here are just a few features of the PSD400 recorder series:

General Features

- 3.5-inch liquid crystal color display for easy navigation of all features.
- Record up to 6 hours with eight nickel metal hydride AA batteries (or 3.6 hours with alkaline batteries).
- USB connection for transferring audio files to and from a computer.
- Stereo internal microphones.
- Stereo XLR combo microphone jacks.
- 48 V phantom power.

Recording Features

- Record live performances to the Internal Memory, external USB storage, or direct to Compact Disc.
- Record WAV or MP3 files to the Internal Memory or external USB storage.
- Burn Compact Discs from audio files on your Internal Memory or external USB storage.
- Layer audio with the Overdub feature.
- Edit file information or recorded audio (Trim, Divide, etc.).

Music Practice Features

- Change the key of a song without affecting tempo (+/- one octave in half steps or finer increments).
- Change the tempo of a song without affecting musical pitch (-75% to +50%).
- Create new versions of audio files in different keys and tempos.
- Seamlessly loop different sections of audio material for practice or transcription.
- Reduce lead vocals from stereo recordings.
- Rehearse with the built-in metronome.
- Tune your instrument with the 440 Hz tone or chromatic tuner.

Package Contents

- One Superscope PSD450mkII Recorder.
- One AC adapter (DA450PSD).
- One infrared wireless remote controller (RC450PSD).
- 2-AAA type batteries (for remote control).
- One USB cable.
- One RCA stereo audio system cable.
- One instruction manual on CD-ROM.
- One Quick Start Guide (printed).

Perchlorate Material - special handling may apply,
See www.dtsc.ca.gov/hazardouswaste/perchlorate.

■ Preparations Before Use

AC Adapter Connection

Connect the power output plug of the adapter to the DC IN jack of the recorder. Connect the AC Power cord to the household AC power receptacle.

AC Adapter Safety

Only use the AC adapter that is provided with the recorder. Use of other adapters may result in damage to the recorder and invalidate the warranty.

Using Batteries

The recorder is designed for use with 8 "AA" size Alkaline or Nickel-Metal Hydride (Ni-MH) batteries.

The recorder DOES NOT allow for charging of rechargeable batteries. If you use rechargeable batteries, you must use an external battery charger (see battery charger manufacturer instructions for operation and safe use).

The battery capacity monitoring is different for alkaline batteries and Ni-MH batteries. Please select the correct battery type you are using from the [System Settings menu](#) of the recorder.

To operate the recorder with battery power, install batteries into the recorder as follows:

1. Remove the battery cover from the rear side of the recorder.
2. Insert the batteries into the battery compartment, making sure to align the positive (+) and negative (-) end of each battery according to the polarity diagram shown inside the compartment.
3. Re-attach the battery cover to the rear side of the recorder.

✘ Burning CDs with battery power is not recommended. Please connect AC power before burning a CD.

Safety Cautions When Handling Batteries

To avoid leakage, overheating, fire and rupturing, always follow the points below when using batteries with the recorder.

- Electrolyte leakage or corrosion may occur if batteries are kept inside the recorder for prolonged periods of time. Remove batteries prior to prolonged storage of the recorder.
- When installing batteries into the recorder, make sure the batteries are installed with the proper polarity shown inside the battery compartment of the recorder.
- Do not attempt to recharge non-rechargeable batteries.
- Do not install old/exhausted batteries into the recorder. Dispose of old batteries properly.
- Do not mix the types (Alkaline or Ni-MH) or voltages of batteries.

Remote Controller Notes

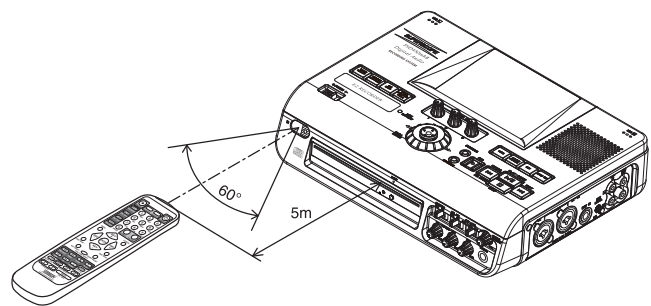
The remote controller may not work if the infrared receiver is exposed to direct sunlight.

The remote controller will not work when there is an obstacle between the wireless remote controller and the infrared receiver.

Please be careful when using the remote controller near other equipment that responds to infrared signals.

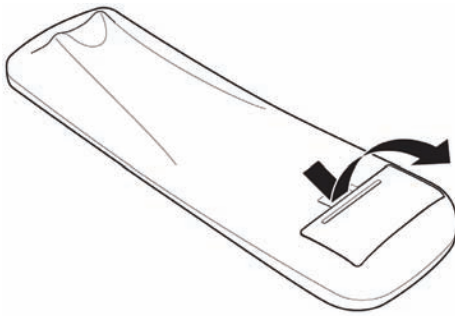
Please do not place objects on the remote controller. If an object resting on the remote continuously depresses a button, battery power will drain.

The remote controller will work within a range of 5 m and 60 degrees right or left of the IR receiver, as indicated by the following image:

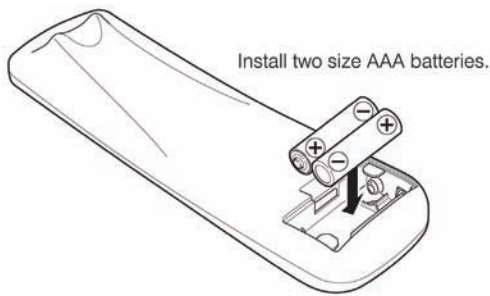


Remote Controller Battery Installation

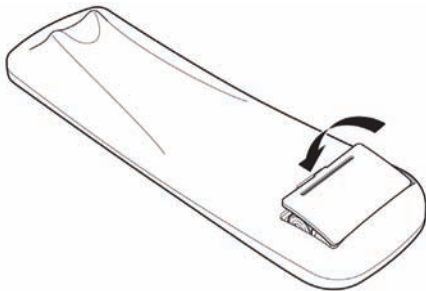
Place 2-AAA batteries (included) inside the wireless remote controller before it is used. Replace batteries by removing the battery cover as shown:



Always match the polarity of the 2-AAA batteries with the polarity indication inside the battery compartment.



Close the battery cover as shown:



With improper battery use, batteries may rupture, leak, and cause corrosion. Please read the following guidelines carefully:

If the remote controller is not in use for a long period of time (more than one month), remove the batteries. Please do not mix old batteries and new batteries together.

Please match the polarity of the battery (+/-) with the polarity indication on the remote controller.

Batteries may have the same shape, but different voltages. Do not mix different battery types.






If a battery leaks, clean the liquid from the battery compartment and dispose of the leaking battery according to the guidelines of your local government.

Please dispose of all used batteries according to the guidelines of your local government.



About Discs

Playable discs

| | | | |
|-------|---|---|---|
| CD-R |  |  | |
| CD-RW |  |  |  |

Finalized CD-R and CD-RW discs recorded in the CD-DA format and MP3 format can be played with the unit.

- Finalize is the process to make a CD-R/CD-RW playable for players (not recorders).
- Some discs may not be able to be played depending on condition of the discs and recording software.
- Single CDs (8 cm) cannot be used.

Disc Care

The glossy side shining like a rainbow is the front side of the disc, and the side on which the label is printed is the back. Unlike conventional turntables for playing analog discs, the unit reads the information recorded on the disc from underneath without contacting it using a beam of laser light. Therefore, the performance of a compact disc will not degrade like conventional analog records.

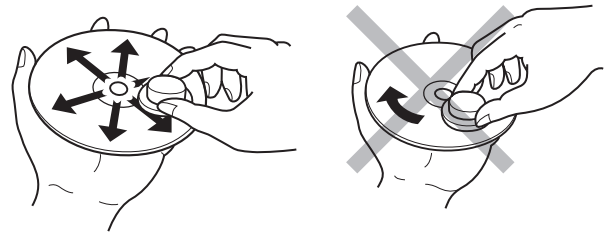
Handle discs carefully so as not to damage or scratch the front side.

To protect the disc, avoid placing it in the following locations:

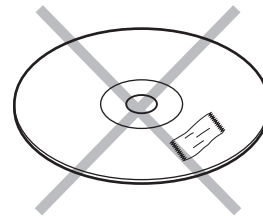
- In direct sunlight or near a source of heat like a heater.
- In a place which is damp or dirty.
- In a place which could be exposed to rain, such as near a window.

Always keep the disc surface clean.

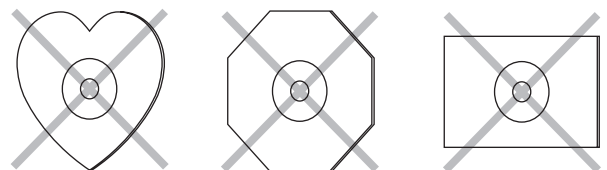
When cleaning the disc surface, always be sure to use a special compact disc cleaner and wipe as shown below.



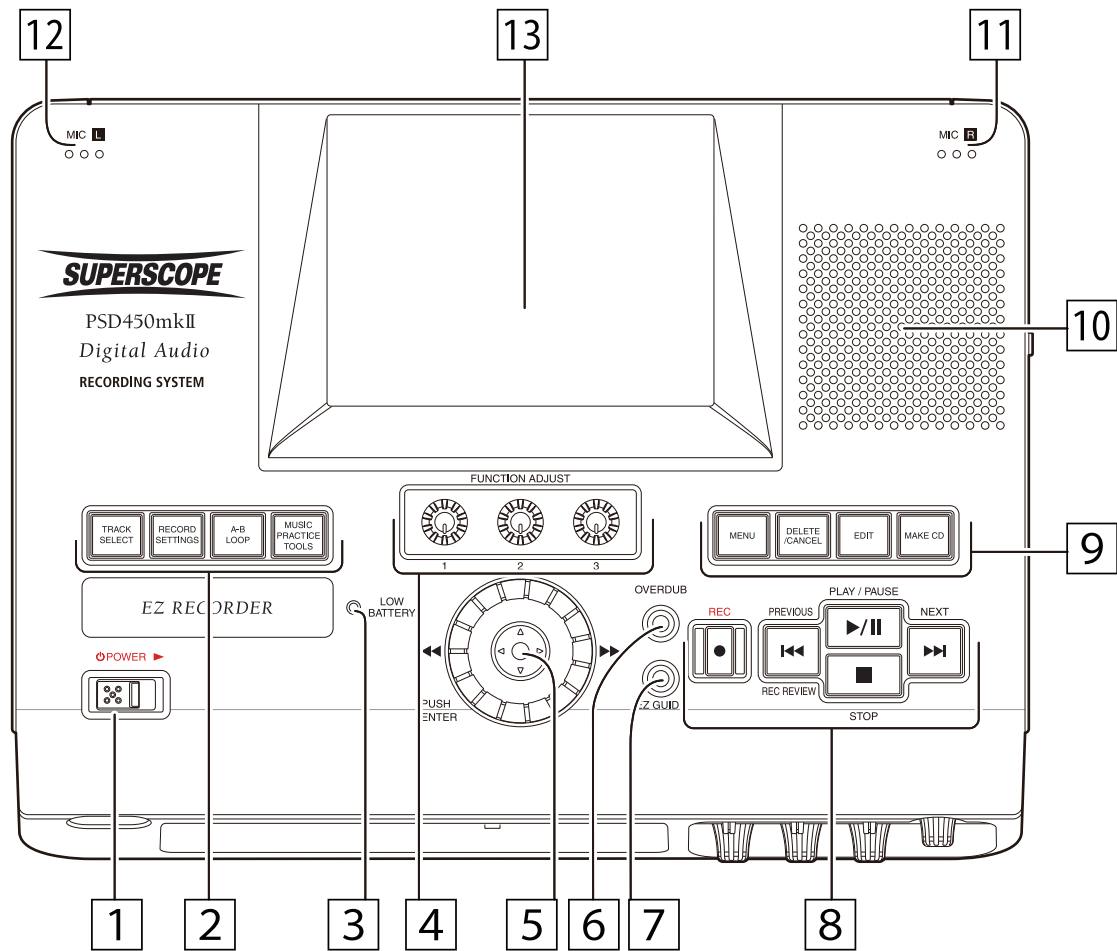
- Do not use conventional record cleaner for analog records, as this will adversely affect the disc surface. Store discs properly by placing them in their disc cases.
- Do not attach a piece of paper or sticker on the label side of disc. When a disc has a piece of plastic tape or rental CD label with paste protruded from the edge or when a disc has a trace of such a sticky object, do not attempt to play the disc. If such a disc is played on the CD player, it may cause the disc drive to malfunction or it may be impossible to remove the disc.



- Do not use a disc with a special shape. Do not attempt to play a disc with a special shape such as a heart-shaped disc or octagonal disc. Equipment malfunction may result.



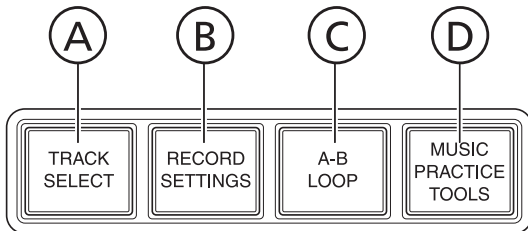
Top Panel



1 POWER

Slide the POWER switch to the right to turn power ON or OFF.

2 FUNCTION CONTROL Buttons



| | |
|---------------------|--------------------------|
| (A) TRACK SELECT | (C) A-B LOOP |
| (B) RECORD SETTINGS | (D) MUSIC PRACTICE TOOLS |

A. TRACK SELECT

Press to select a track for playback, Edit, or Overdub. Also, use to select a record location. Press this button a second time to return to the main screen.

B. RECORD SETTINGS

Press to set for recording as follows; Input Source, Recording Folder, Record Format (WAV/MP3), Stereo/Mono setting, Bit Number/Bit Rate. Press this button a second time to return to the main screen.

C. A-B LOOP

Press to set the A-B loop when a music file plays. Press and hold for 3 seconds to display the A-B loop detail screen.

D. MUSIC PRACTICE TOOLS

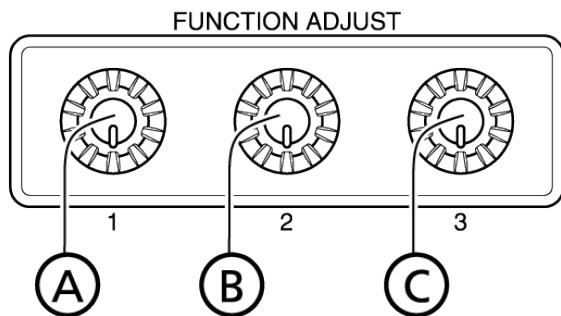
Press to display the setting screen as follows; TEMPO/KEY/Fine Tune, Voice Reduction, Tuner, Tone, Metronome.

3 Low Battery Indicator

LED flashes when the battery power is low.

4 FUNCTION ADJUST Knobs

Turn to adjust various parameters. In addition, pushing the knobs resets certain settings to their default values. Refer to indication on display for knob/function relationship.

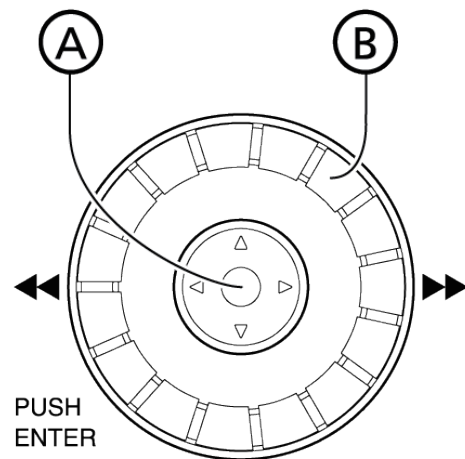


Ⓐ FUNCTION ADJUST #1 knob

Ⓑ FUNCTION ADJUST #2 knob

Ⓒ FUNCTION ADJUST #3 knob

5 JOG WHEEL / JOYSTICK / ENTER



Ⓐ JOYSTICK / ENTER

Ⓑ JOG WHEEL

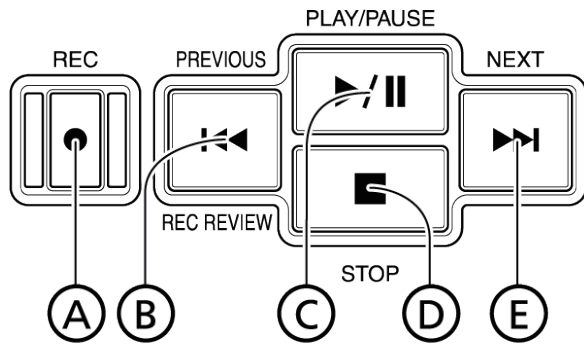
- A. Move the joystick up and down to select items, or in certain modes, to change screens. Move the joystick right and left to change parameters, or in Play mode to search through a track. In addition, push the joystick to "ENTER" (select) items or settings.
- B. Turn the jog wheel to select various items or parameters.

6 OVERDUB

When an accompaniment track is selected, press this button to enter Overdub mode. When overdubbing is complete, press this button to return to the main screen.

7 EZ GUIDE

Press for assistance operating the most popular features.

8 CONTROL Buttons (Transport)

A REC

B PREVIOUS & REC REVIEW

C PLAY/PAUSE

D STOP

E NEXT

A. REC Button

From Stop mode, press to enter Record Pause mode or Record mode. The Record LED will flash during Record Pause mode and remain lit during Record mode. From Stop mode, press to enter Record Pause mode or Record mode. The Record LED will flash during Record Pause mode and remain lit during Record mode. From Record mode, press to increment a track.

Note: The Record button cannot be used to increment tracks when recording direct to CD.

B. PREVIOUS & REC REVIEW Button

During playback, press to return to the beginning of the track. If playback is within one second of the start point, press to return to the beginning of the previous track. In Stop mode, press to return to the beginning of the previous track. In Record Mode, press to stop recording and automatically play back the recently recorded file (Rec Review function).

C. PLAY/PAUSE Button

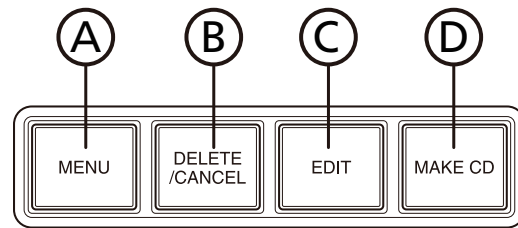
From Stop mode, press to start or pause playback. From Record Pause mode, press to begin recording. From Record mode, press to pause the recording and increment a track.

D. STOP Button

Press to stop playback or recording.

E. NEXT

Press to advance to the next track.

9 CONTROL Buttons (Top Right)

A MENU

B DELETE / CANCEL

C EDIT

D MAKE CD

A. MENU

Press to view menu options.

B. DELETE / CANCEL

Press to cancel settings and delete characters when editing titles and file information, or delete the music data.

C. EDIT

Press to view edit options.

D. MAKE CD

Press to:

- Burn a CD (audio or data)
- Finalize a CD
- Duplicate a CD
- Erase (CD-RW only)

10 Internal Speaker

All sounds can be heard through the built-in monitor speaker.

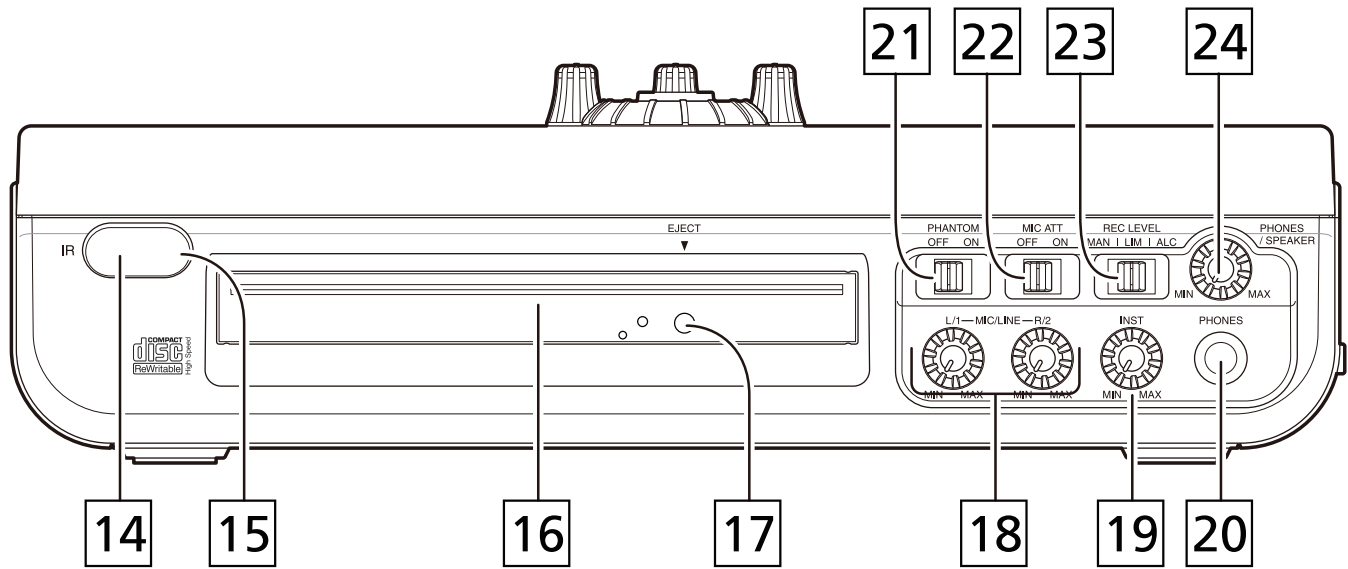
11 - 12 Internal Mic R & Internal Mic L

Use the Right and Left internal mics to record without additional equipment.

13 LCD Color Display

High-resolution full-color liquid crystal display monitor. Please refer to [LCD Display](#) for an explanation of display icons.

Front Panel



14 Infrared (IR) Receiver

The infrared receiver detects signals from the wireless remote controller.

15 IR Signal Indicator

This LED flashes red when a signal from the wireless remote controller is received.

16 CD-RW Drive

Insert an audio CD for playback, accompaniment, transfer to the Internal Memory or duplication. Insert a CD-R/RW for burning audio or data discs.

17 EJECT Button

Press to eject a compact disc from the CD-RW drive.

18 MIC / LINE L & R Level Control

Turn these knobs to adjust the level of the MIC/LINE inputs.

19 INST (Instrument) Level Control

Turn this knob to adjust the level of the INST input.

20 PHONES Jack

Connect stereo headphones here. This input accepts ¼" headphone plugs.

21 PHANTOM Power ON/OFF SWITCH

Switch on to supply 48 V phantom power to microphones connected to the XLR inputs. Switch off when a microphone does not need phantom power.

22 MIC ATT ON/OFF

If input level controls are turned low and microphone or instrument levels are still too strong, switch on to add 15 dB of attenuation.

23 RECORD LEVEL MAN / LIM / ALC

This switch determines the method for setting record levels.

MAN (Manual)

Input level is controlled by manual adjustment of the Mic/Line, INST, or AUX level controls.

LIM (Limiter)

Input level is controlled by manual adjustment of the Mic/Line, INST, or AUX level controls. A limiter circuit protects against signal overload.

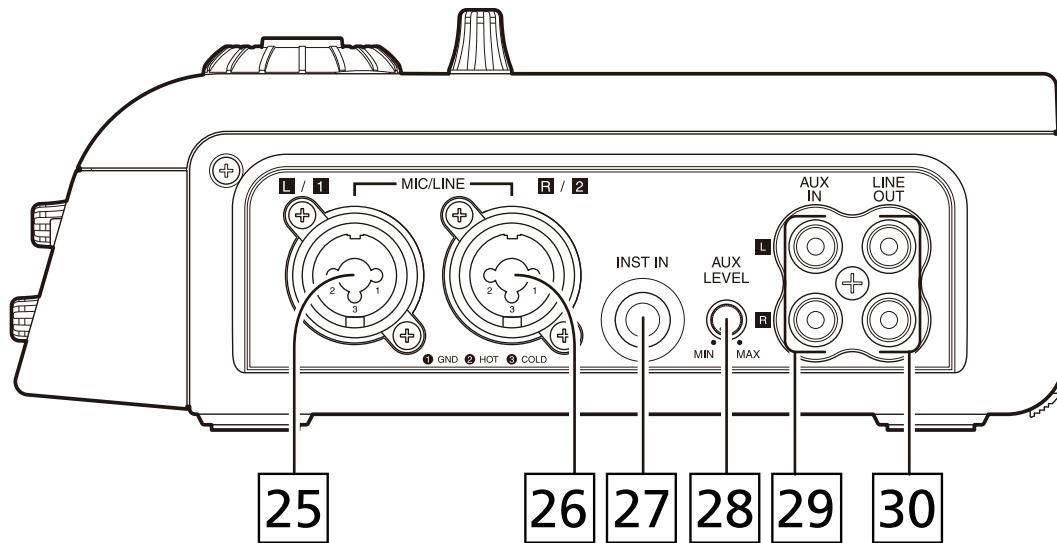
ALC (Automatic Level Control)

The Mic/Line, INST, or AUX level controls are bypassed and input level is controlled automatically. A limiter circuit protects against signal overload.

24 PHONES / SPEAKER LEVEL

Turn this knob to adjust the level for the built-in speaker and headphones.

■ Right Side Panel



25 Left / XLR / 1/4" Input Jack

Connect microphones or line level equipment with XLR or 1/4" inch plugs here. Push the RECORD SETTINGS button [2B] to select the input you wish to use.

26 Right / XLR / 1/4" Input Jack

Connect microphones or line level equipment with XLR or 1/4" inch plugs here. Push the RECORD SETTINGS button [2B] to select the input you wish to use.

27 INST IN Jack

Connect an electric guitar, bass, or keyboard here.
VU Meter Overload If your keyboard or guitar/bass signals routinely cause the VU meters to display "OVER," change INST Input Gain setting to Low.

28 AUX LEVEL

Turn this knob to adjust the input signal level of the AUX IN.

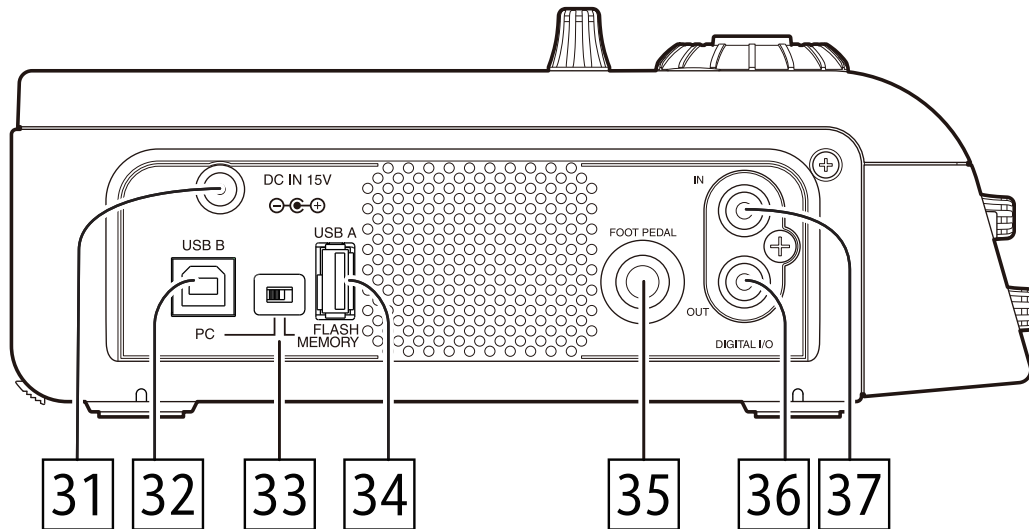
29 AUX IN Jacks

Use these inputs when connecting line level equipment with RCA outputs, such as CD players or mixing boards.

30 LINE OUT Jacks

Connect these outputs to the inputs of another audio device, such as an amplifier, mixing board or alternate recording device.

■ Left Side Panel



31 DC Input Jack

Connect the DA450PSD AC to DC adapter here. Do not use any adapter other than the DA450PSD.

32 USB Connector B

Connect a USB cable here to transfer data between a computer and the Internal Memory. In USB mode, all other features will be inactive. The recorder will not enter USB mode during recording or when menu screens are active.

33 USB PC / Flash Memory Switch

Slide to "PC" when connecting a PC, slide to "FLASH MEMORY" when connecting a USB memory or other USB device.

34 USB Connector A

Connect a USB memory or other USB device.

35 FOOT PEDAL Jack

Connect an optional foot pedal here to provide Play/ Pause, or Record/Pause control. The Superscope FT200 foot pedal is available at our online store.

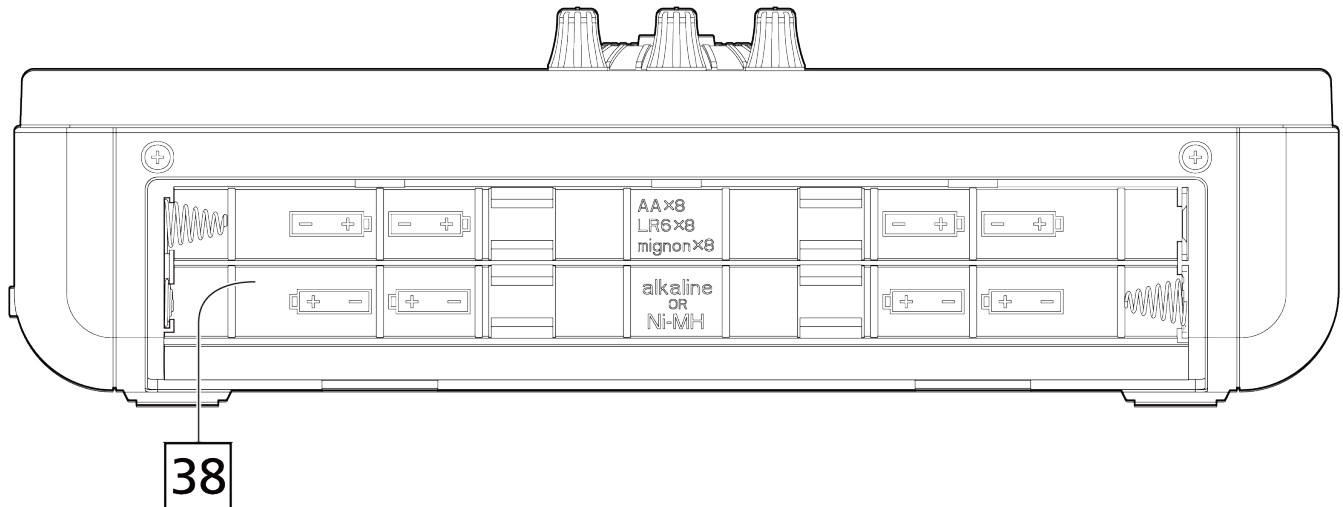
36 DIGITAL OUT Jack

Connect to the digital input terminal of another audio product. The system outputs a signal with a 44.1 kHz sample rate.

37 DIGITAL IN Jack

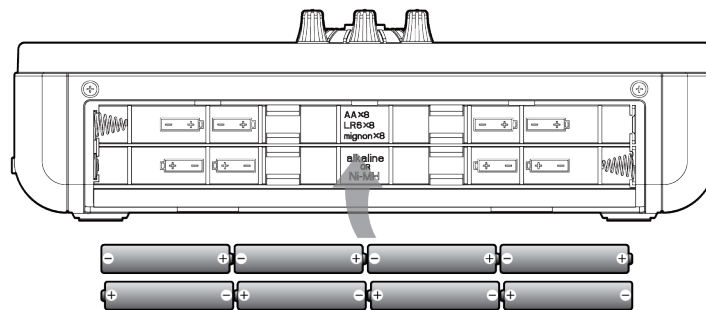
Connect the digital output of another audio product to this terminal.

■ Back Panel



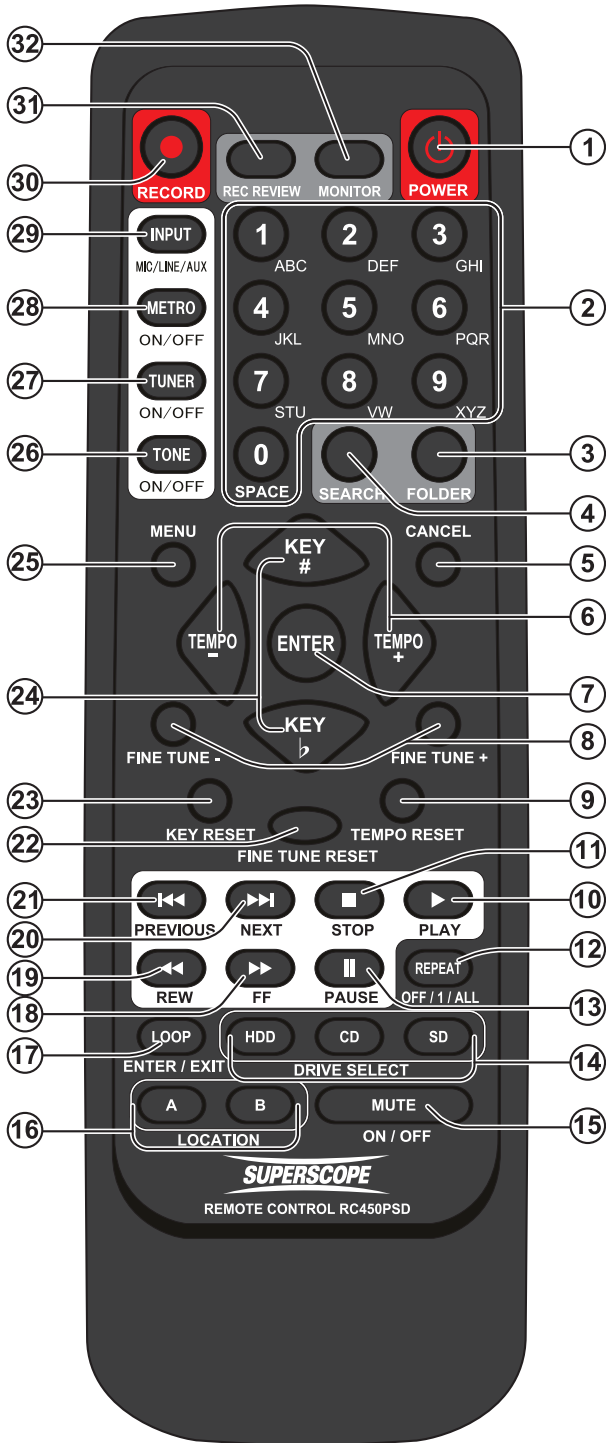
38 Battery Compartment

Insert a Ni-MH rechargeable battery or eight alkaline size AA batteries here. Please refer to [Using Batteries](#).



When inserting batteries always be mindful of polarity (+/-).

Remote Control



① **STANDBY / POWER**

Press to turn power ON or OFF.

✘ During battery operation, this button can only be used to power the unit off. The AC adapter must be connected to power the unit on with the remote control.

② **Alphanumeric Keypad**

When editing folder names, playlist names, or file information, use the alphanumeric keypad to enter text. It is possible to select track number during CD play.

③ **FOLDER**

Press to select a new folder. The place that is deeper than the second hierarchy cannot access it.

④ **SEARCH**

Press to access the [Search function](#).

⑤ **CANCEL**

When editing folder names, playlist names, or file information, use this button to delete a character. Also used to undo changes to Menu settings.

⑥ **TEMPO**

Press to increase or decrease playback speed without affecting pitch.

⑦ **ENTER**

Press to enter selected menus or confirm setting changes.

⑧ **FINE TUNE**

Press to increase or decrease playback pitch without affecting playback speed. Fine Tune control is adjustable +/-50 cents (100 cents = 1 semitone).

⑨ **TEMPO RESET**

Press to reset Tempo control to normal speed.

⑩ **PLAY**

Press to play the currently selected track.

⑪ STOP ■

Press to stop playback.

⑫ REPEAT

Press to change [repeat mode](#). Options include: Off, All, 1, (Single, 1), (Single, All), and Single.

⑬ PAUSE ||

Press to pause playback.

⑭ DRIVE SELECT

Pressing the HDD, CD or SD buttons will display the contents of the selected drive.

✗ The Internal Memory is used with the SD button.

⑮ MUTE

Press to mute the internal speaker and Line Out. This will not affect the headphones or Digital Out.

⑯ LOCATION

- A. LOCATION A – In Loop mode, press to set location A.
- B. LOCATION B – In Loop mode, press to set location B.

⑰ LOOP ENTER/EXIT

Press to enter and exit Loop mode.

⑱ FF ►► (Fast Forward)

Press and hold to initiate an audible forward search of the playing track.

⑲ REW ◀◀ (Rewind)

Press and hold to initiate an audible reverse search of the playing track.

⑳ NEXT ►►

Press to advance to the next available track.

㉑ PREVIOUS ◀◀

Press to return to the beginning of the selected track. Press within the first second of playback to return to the previous track.

㉒ FINE TUNE RESET

Press to reset Fine Tune control to normal pitch.

㉓ KEY RESET

Press to reset Key control to normal pitch.

㉔ KEY

Press to change the playback key in semitones. Press 'b' to lower the key. Press '#' to raise the key. Key is adjustable +/- one octave.

㉕ MENU

Press to view Menu options.

㉖ TONE ON/OFF

Press to sound the 440 Hz tuning tone. The frequency of this tone is adjustable between 410 Hz and 470 Hz. Press this button a second time to return to the main screen.

㉗ TUNER ON/OFF

Press to access the chromatic tuner. Press this button a second time to return to the main screen.

㉘ METRO ON/OFF

Press to turn the metronome ON and to enter the metronome screen. Press this button a second time to stop the metronome and return to the main screen.

㉙ INPUT MIC/LINE/AUX

Press to change the Input Source. Options include: Input MUTE, Internal MIC, External MIC, LINE, INST, Internal MIC (L ch) + INST, External MIC (L ch) + INST, LINE (L ch) + INST, AUX, and DIGITAL.

㉚ RECORD

Press to enter Record Pause mode. Press this button a second time to begin recording. During recording, press this button to increment tracks. When using [One Touch Recording](#), recording begins after this button is pressed one time.

㉛ RECORD REVIEW

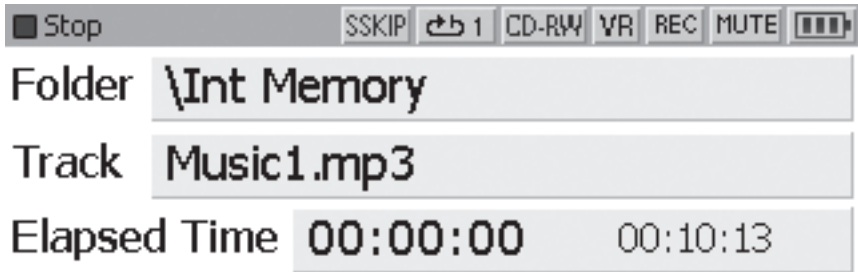
In Record mode, press to stop recording and automatically play back the recently recorded file.

㉜ MONITOR

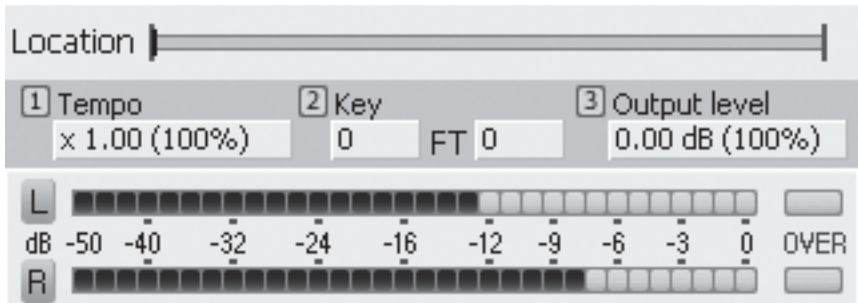
Press to toggle the monitor source between Playback Signal and Recording Signal. When Playback Signal is selected, the input signals, e.g., External MIC, INST, etc. will not be heard.

LCD Display

PLAY / STOP Mode



Character Color:
The character color changes
by media for easy visual
identification as follows:
Int Memory: White
CD/CD-R/CD-RW: Orange
USBHDD: Green



Ⓐ Icons



① Status Icons

| | |
|--|--------------------------|
| | Indicates STOP |
| | Indicates PLAY |
| | Indicates PLAYBACK PAUSE |
| | Indicates RECORD |
| | Indicates RECORD PAUSE |

② Silent Skip Icons

| | |
|--|--------------------|
| | Silent Skip is ON |
| | Silent Skip is OFF |

③ Repeat Icons

| | |
|--|--|
| | Play back current track once, then stop at start of current track (Single, 1) |
| | Play back and repeat current track (Repeat 1) |
| | Play back all tracks once, then stop at start of the first track (Single, All) |

LCD Display

| | |
|--|---|
| | Play back and repeat all tracks (Repeat All) |
| | Play back current track once, then stop at start of the next track (Single) |
| | No indication when Repeat Mode is OFF |

④ CD, CD-R, CD-RW Icons

| | |
|--|-------------------------------|
| | Indicates a CD is inserted |
| | Indicates a CD-R is inserted |
| | Indicates a CD-RW is inserted |

⑤ Voice Reduction Icons

| | |
|--|---------------------|
| | Indicates VR is ON |
| | Indicates VR is OFF |

⑥ Monitor Icons

| | |
|--|-----------------------------------|
| | Playback audio is being monitored |
| | Record audio is being monitored |

⑦ Mute Icons

| | |
|--|--------------------------------|
| | Indicates MUTE is ON |
| | No indication when MUTE is OFF |

⑧ AC/Battery Icons

| | |
|--|---|
| | Indicates the battery level is full |
| | Indicates the battery level is less than full capacity |
| | Indicates the battery level is low |
| | Indicates the battery level is almost empty (needs to be charged or replaced) |
| | Indicates the AC Adapter is connected |

PLAY / STOP Mode

Ⓑ File Information

Folder \Int Memory

Track Music1.mp3

| | |
|--------|-----------------------------|
| Folder | Displays the current folder |
| Track | Displays the active track |

PLAY / STOP Mode

© Playback Data

Elapsed Time 00:00:00 00:10:13

| | |
|--------------|---|
| Elapsed Time | Displays the elapsed and remaining time for the current track |
|--------------|---|

PLAY / STOP Mode

④ Location



Indicating Location

| | |
|---|---|
| ① | Displays the current position on the time line. |
| ② | Displays the position of location A on the time line. |
| ③ | Displays the position of location B on the time line. |

PLAY / STOP Mode

⑤ Tempo, key, Output Level

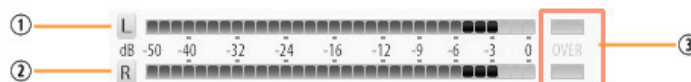
| | | |
|--------------------------|-----------------|----------------------------------|
| ① Tempo x 1.00 (100%) | ② Key 0 FT 0 | ③ Output level 0.00 dB (100%) |
|--------------------------|-----------------|----------------------------------|

Assignment of FUNCTION ADJUST knobs

| | |
|---|--|
| ① | When the Play/Stop mode screen is active, use FUNCTION ADJUST #1 to adjust Tempo. |
| ② | When the Play/Stop mode screen is active, use FUNCTION ADJUST #2 to adjust Key. |
| ③ | When the Play/Stop mode screen is active, use FUNCTION ADJUST #3 to adjust Output Level. |

PLAY / STOP Mode

⑥ VU Meters



Level meter indication

| | |
|---|---|
| ① | Displays the sound level of the left channel in decibels (dB). |
| ② | Displays the sound level of the right channel in decibels (dB). |
| ③ | When sound level is beyond 0dB, "OVER" turns on. |

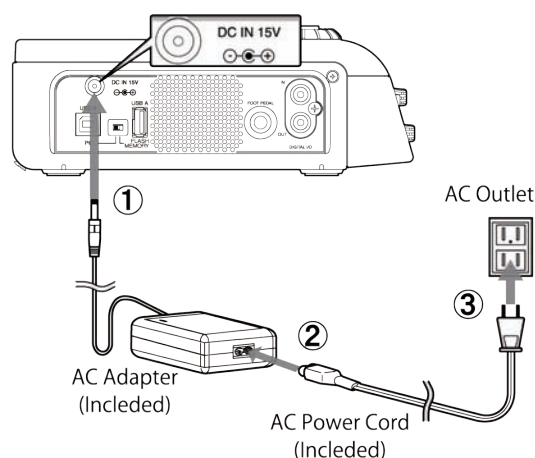
Powering On

PSD400 series recorders work with AC power or AA size batteries.

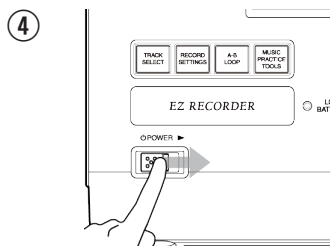
Before using batteries, please refer to [Using Batteries](#).

- ✘ It is not possible to power the unit ON with the remote controller when using battery power.
- ✘ Burning CDs with battery power is not recommended. Please connect AC power before burning a CD.

Using the AC Adapter



- ① Connect the AC Adapter to the DC Jack.
- ② Connect the AC Cord to the Input of the AC Adapter.
- ③ Connect the AC Plug to AC power source.
- ④ Slide the POWER switch to power on.



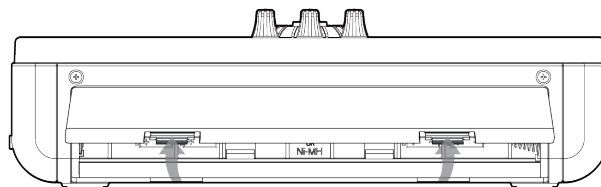
Using Batteries

Compatible Batteries

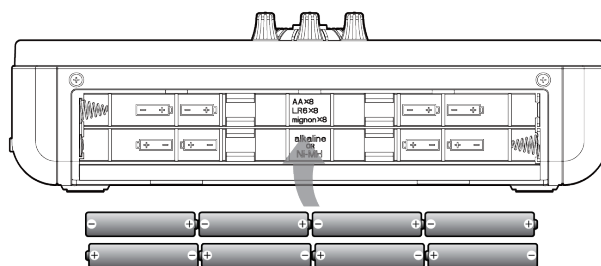
PSD400 series recorders work with alkaline batteries and rechargeable Ni-MH batteries.

- ✘ Manganese batteries are not recommended due to their low capacity.

1. Remove the battery cover on the back of the recorder.

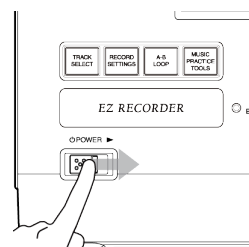


2. Insert eight alkaline AA size or Ni-MH batteries (fully charged).



When inserting batteries always be mindful of polarity (+/-).

3. Close the battery cover.
4. Slide the POWER switch to power on.



When inserting batteries always be mindful of polarity (+/-).

- ✘ During battery operation, an icon is displayed in the top right corner of the display showing battery power. See [AC/Battery Icons](#).

Battery Life

| Battery Type | ATA | LCD | Phantom | Battery Life (hours) |
|---------------------------------|-----|-------------|---------|----------------------|
| Fully charged 2,700mAh Ni-MH | ON | Full bright | OFF | 4.8 |
| | | | ON | 4.4 |
| | | Dimmer | OFF | 5.9 |
| | | | ON | 4.9 |
| AA size Alkaline | ON | Full bright | OFF | 2.5 |
| | | | ON | 2.4 |
| | | Dimmer | OFF | 3.2 |
| | | | ON | 2.7 |

Conditions: 77 degrees Fahrenheit.

Volume controller: Minimum position.

Mode: Recording MP3-Stereo-128kbps.

AC Power and Battery Tips

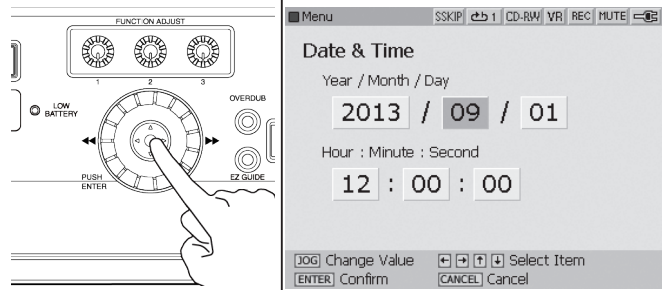
- When the AC adapter is connected while batteries are inserted, AC power will have priority over the battery power supply.
- It can be helpful to use batteries and the AC power supply together. If the AC power supply is removed unexpectedly, recording or playback will continue without interruption using battery power.
- Do not mix new and old batteries or battery types (Alkaline or Ni-MH).
- When the unit is not in use for a long period of time, please remove batteries to prevent battery leakage.

Setting Date and Time

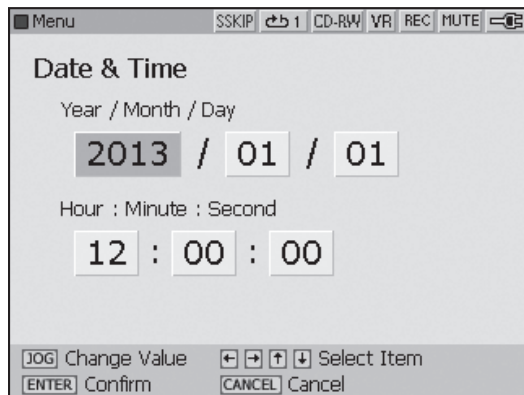
New recordings are given a default track title comprised of the current date and time, e.g., 2013-01-01 (12h00m00s).wav. Follow these steps to ensure that the date and time is accurate.

1. Press the MENU button.
2. Use the joystick or jog wheel to highlight Maintenance. Press ENTER.
3. Use the joystick or jog wheel to highlight Set Time/Date. Press ENTER.

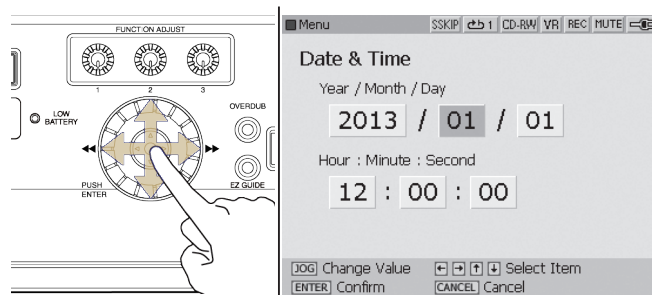
6. Press ENTER to confirm new settings.



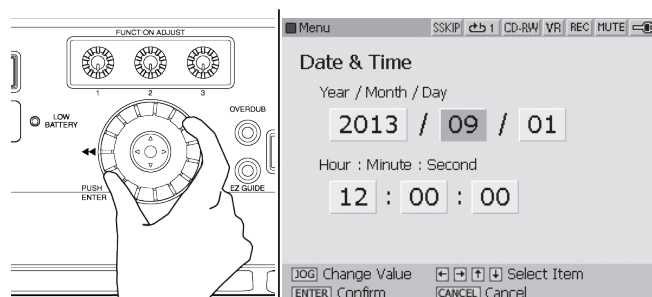
The following screen should appear:



4. Move the joystick right, left, up, or down to select Year, Month, Day, Hour, Minute, or Second.



5. Change Time and Date values by turning the jog wheel.



The Internal Memory

Upon Powering Up, the unit will create a file database on the Internal Memory. During this process, the unit scans the Internal Memory for audio files (WAV, MP3) and ID3 tag information (Artist, Title, Album, etc.). The time to create this database will vary based on the contents of the Internal Memory:

A. Maintaining a Large Number of Audio Files on the Internal Memory

The amount of audio files and folders you choose to store on the Internal Memory will directly affect the amount of time it takes to create a file database. Superscope recommends that you limit the number of files and folders on the Internal Memory.

B. Maintaining a Large Number of Non-Audio Files on the Internal Memory

The unit **must scan all files** before proceeding, so storing non-audio files on the Internal Memory is not recommended. Any number of additional files on the Internal Memory (e.g., jpg, mov, pdf, etc) will slow down database creation.

C. Storing Large Audio Files on the Internal Memory

When an audio file is detected on the Internal Memory, the unit will open the audio file and begin searching for content information, e.g. Title, Artist, Album, etc. The unit must search the entire file in case this information is stored at the end of the file. Large audio files therefore require more time during database creation.

- ✘ The unit will recognize a maximum 99 files for each folder. If you attempt to record more than 99 files in a folder, a new folder will be created automatically.

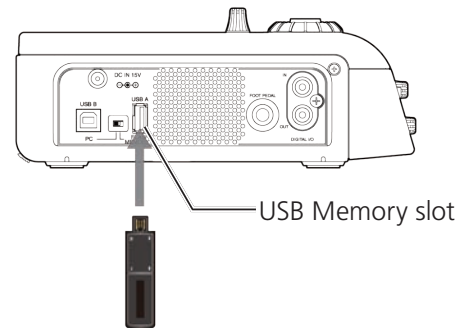
File and Folder Limits

| | |
|-------------------------|-----|
| Files Per Folder | 99 |
| Single File Size | 2GB |

- ✘ When the above limits are exceeded during recording, a new folder is created automatically and recording continues. Note: During the transition time, audio may be lost.

Inserting a USB Memory

Insert a USB Memory on the left panel of the recorder.

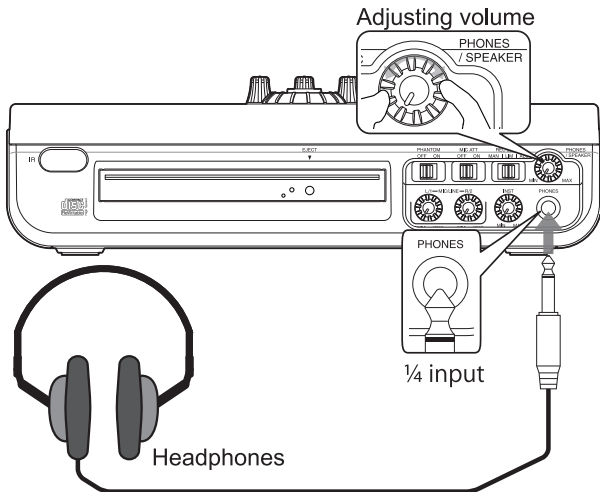


- ✘ Do not remove the USB Memory during recording, playback, or editing. It is recommended that you remove the USB Memory only after switching off power to avoid any risk of lost or damaged data.

Setting Up Speakers

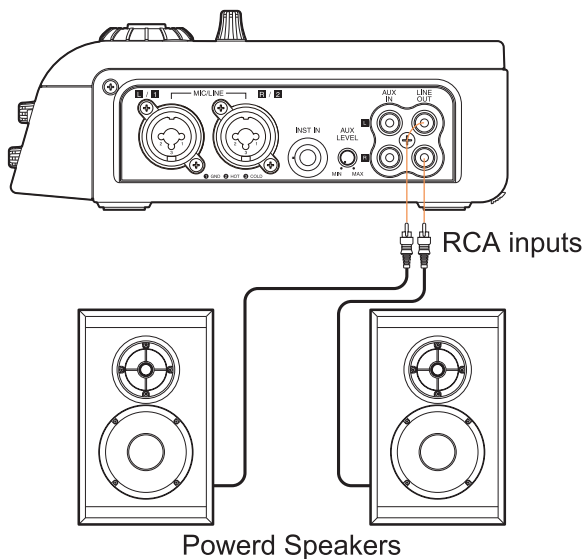
Using Headphones or the Built-In Speaker

When using headphones or the built-in speaker, regulate volume by turning the PHONES/SPEAKER level knob on the front panel. The internal speaker will be muted when headphones are connected.



External Speakers

When using a powered speaker system, (speakers with built-in amplifiers), please connect the speaker's LINE INPUT to the LINE OUT terminal on the right side panel. The left channel is the white terminal and the right channel is the red terminal. Use the volume control on the powered speakers to adjust level.



Setting Up Microphones, Instruments and Other Sound Sources

The PSD400 series is designed to record microphones, musical instruments (guitars and keyboards), line level equipment and digital equipment (preamps, mixers, etc.). Please refer to the procedure that describes your particular recording set-up.

Microphones

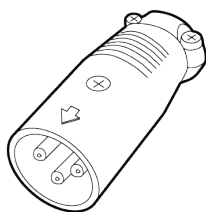
Balanced Connections

Balanced signals require three separate connections (HOT, COLD, GND):

- ❶ GND refers to the grounding wire.
- ❷ HOT refers to the original audio signal.
- ❸ The COLD signal is the original signal with opposite phase.

Using balanced connections like the XLR plug (male) will help to eliminate noise, especially when running long cable lengths.

XLR Plug



Unbalanced Connections

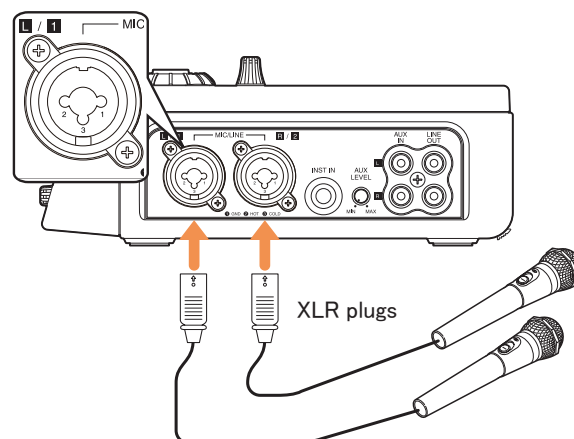
Unbalanced signals only use two connections and are therefore more susceptible to noise than balanced connections.



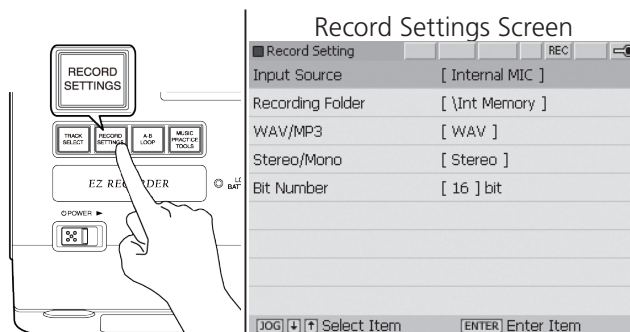
Unbalanced 1/4" Plug

External Microphones

1. Insert microphones into the MIC/LINE input jacks on the side panel. Both XLR type and 1/4" standard plug types can be used.

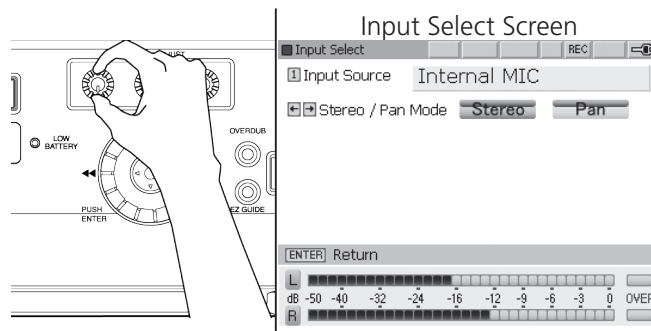


2. Push the RECORD SETTINGS button to open the Record Settings Screen. Turn the jog wheel or toggle the joystick to select Input Source and Push Enter.

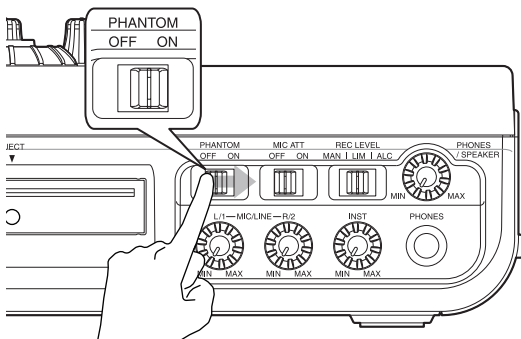


Turn the jog wheel or toggle joystick to select Input Source and Push Enter.

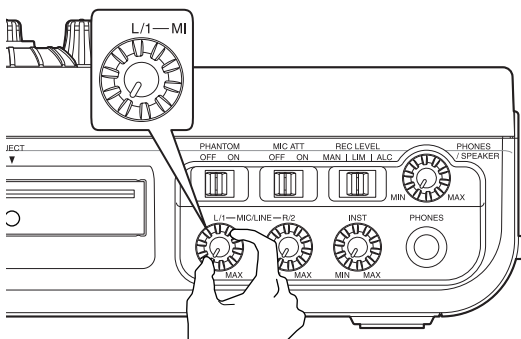
3. The Input Select Screen is displayed. Turn function knob #1 to select External Mic and then press the Record Settings button to exit the screen.



When using microphones requiring 48 V phantom power, move the PHANTOM switch to the ON position. Consult your microphone's owner's manual for power requirement specifications.



Adjust the **18** MIC / LINE L & R Level Controls to obtain a suitable recording level. See Setting Levels, below.



✖ When using the AUX input, control input level with the **28** AUX LEVEL controller on the right side panel. When using the INST input, control input level with the **19** Instrument level controller.

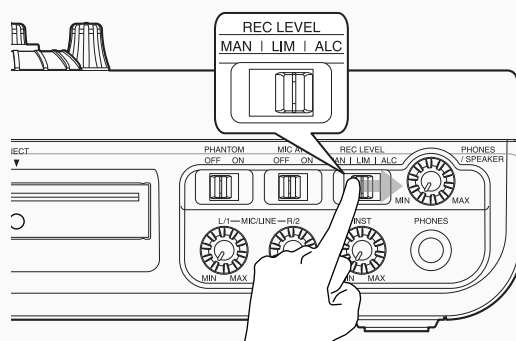
Setting Levels

As you sing or play your instrument, turn the L/1 and R/2 input-level control knobs clockwise while observing the display VU meters.



When your performance is at its loudest, the VU meter should approach 0 dB without lighting OVER.

If the meter consistently lights red, adjust the input-level control knobs counter clockwise to reduce the level and avoid distortion. Switching the **23** REC LEVEL switch to the LIM (Limiter) setting can protect the recording from distortion caused by transient peaks.



To disengage the L/1 and R/2 input-level control knobs and set the recording level automatically, adjust the **23** REC LEVEL switch to ALC.

If your mics have higher than normal output, try switching the **22** MIC ATT switch to ON.

STEREO/PAN Mode

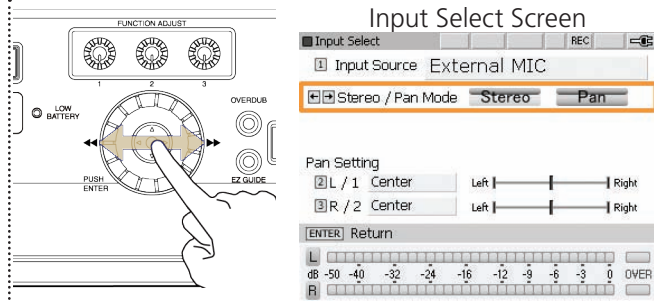
From the Input Select screen, move the joystick right or left to select Stereo Mode or Pan Mode (Stereo mode is the default setting).

Stereo Mode

Left channel inputs (L) are routed to the left channel of the recording. Right channel inputs (R) are routed to the right channel of the recording.

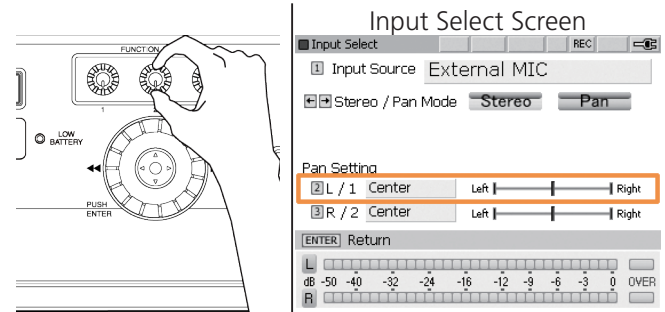
Pan Mode

Input signals can be routed to any position along the (L/R) stereo spectrum.



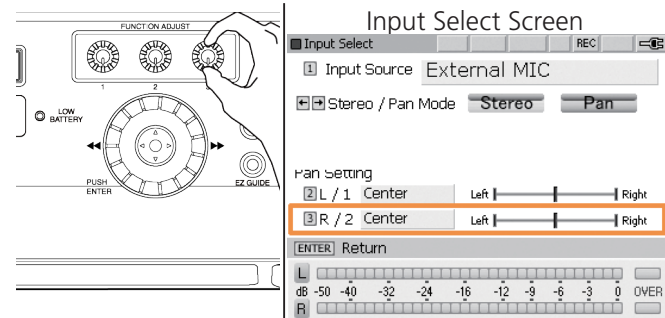
Pan Setting – L/1

Turn FUNCTION ADJUST #2 (4B) to adjust the Pan Setting for input L/1 (the left microphone). Adjustments are made in 1% increments between Left 100% - Center - Right 100%. The initial setting is Center.



Pan Setting – R/2

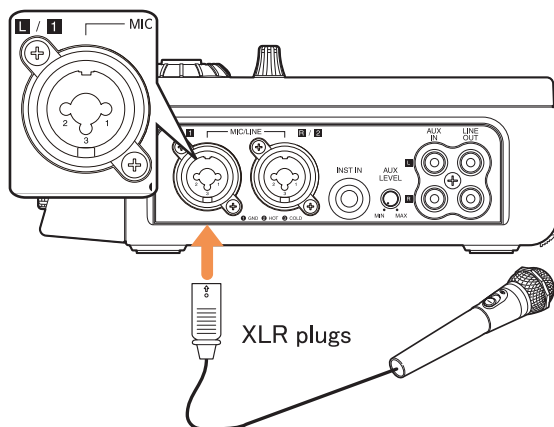
Turn FUNCTION ADJUST #3 (4C) to adjust the Pan Setting for input R/2 (the right microphone). Adjustments are made in 1% increments between Left 100% - Center - Right 100%. The initial setting is Center.



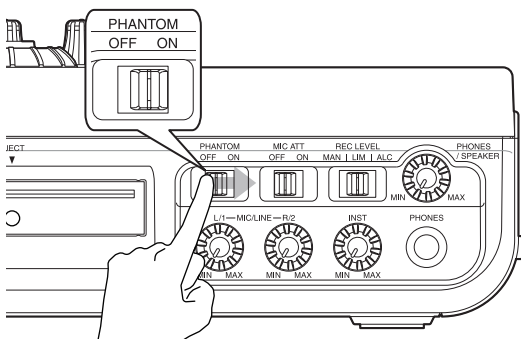
Recording a Solo Performance

Follow the instructions below when recording a voice or instrument with a single microphone:

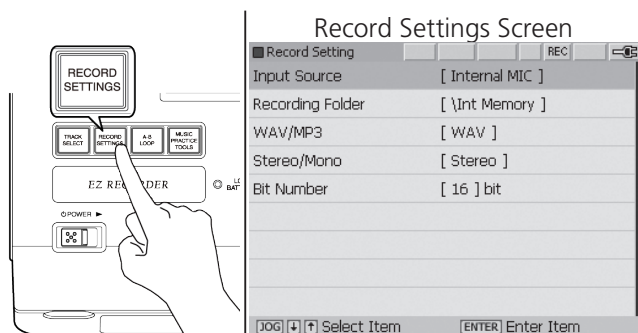
1. Insert a microphone into the MIC/LINE input (L/1) on the side panel. Both XLR type and 1/4 "standard plug types can be used.



When using a microphone that requires 48 V phantom power, move the PHANTOM switch to the ON position.

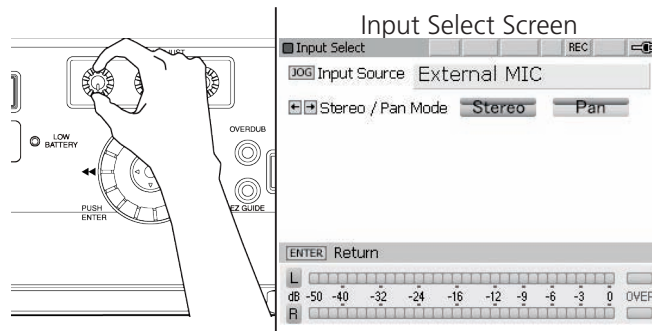


2. Push the RECORD SETTINGS button to open the Record Settings Screen. Turn the jog wheel or toggle the joystick to select Input Source and Push Enter.

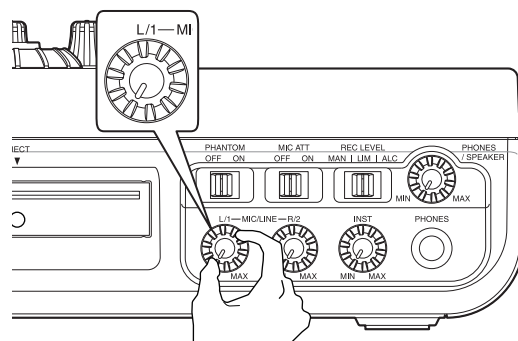


Turn the jog wheel or toggle joystick to select Input Source and Push ENTER.

3. The Input Select Screen is displayed. Turn function knob #1 to select External Mic and then press the Record Settings button to exit the screen.

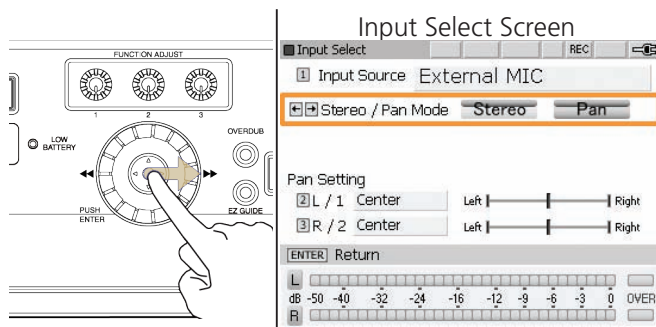


4. Adjust the **18** MIC / LINE level control (L/1) to obtain a suitable recording level. See [Setting Levels](#).

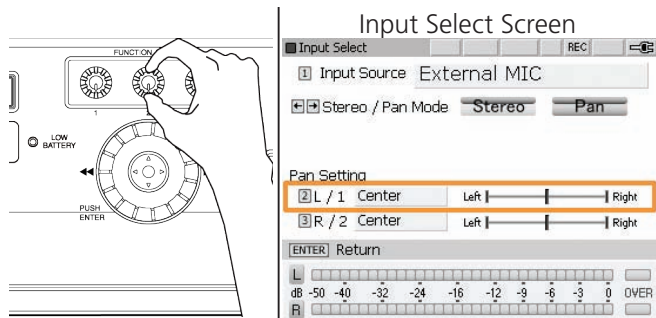


5. When the setting up Pan mode, press the RECORDING SETTINGS button once again. The Input Select screen is displayed. Or while displaying the screen in Fig.3. And operate the following Fig.6 and Fig7.

- From the Input Select Screen, move the joystick to the right to select Pan Mode.



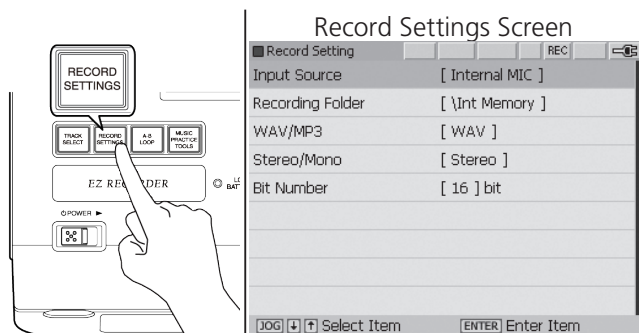
- Pan Setting – L/1 Selecting Pan Mode will “center” the stereo position of the microphone connected to Input (L/1). When recording a solo performance, it is most common to place the soloist in the “center” of the stereo spectrum. To alter the stereo positioning for Input (L/1), turn FUNCTION ADJUST #2 (4B).



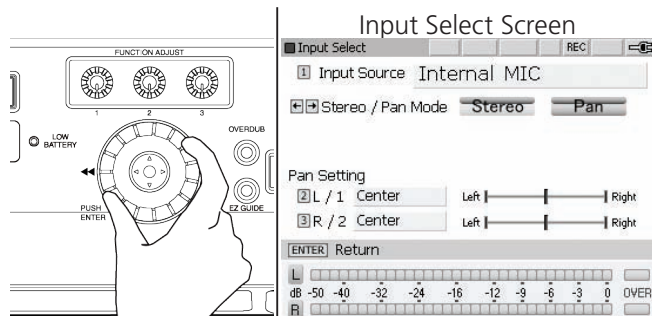
Internal Built-in Microphones

The recorder has two built-in microphones for stereo recording. When using the built-in microphones, please refer to the following procedures.

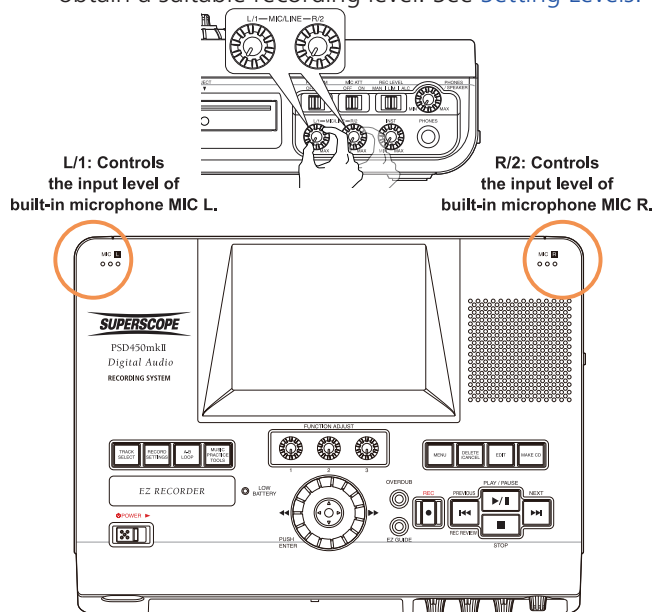
- Push the RECORD SETTINGS button to display the Input Source options.



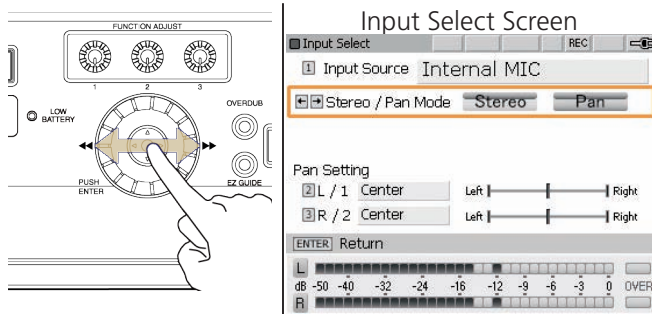
- Turn the jog wheel or joystick to select “Input Source” and then press ENTER button. The Input Select screen is displayed.



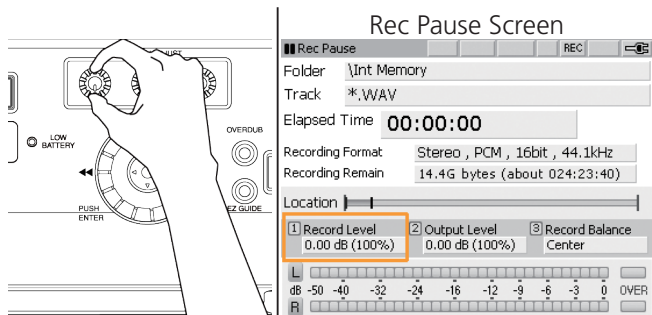
- Adjust the **18 MIC / LINE L & R Level Controls** to obtain a suitable recording level. See [Setting Levels](#).



- Stereo mode is the default setting. If required, move the joystick right or left to select Stereo Mode or Pan Mode (Stereo mode is the default setting).



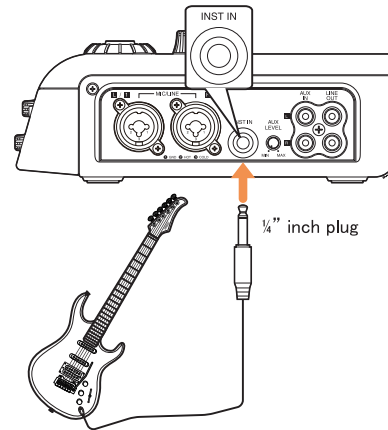
- Set Record Level - For most applications, the Record Level should be set to the default value of 0 dB. The Record Level is displayed on the Track Select REC/PAUSE screen when the REC button is pushed. Record Level is no longer on the Input Select screen. Show the Rec Pause screen with the placement of the Record Level field which is adjusted by FUNCTION ADJUST #1 (4A).



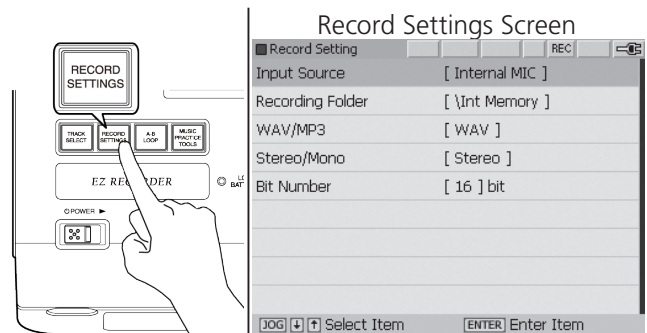
✘ When using the built-in microphones, the built-in speaker is muted to prevent feedback. To prevent the built-in microphones from picking up the sound of buttons on the top panel, operate the recorder with the RC450PSD remote control.

Connecting Musical Instruments

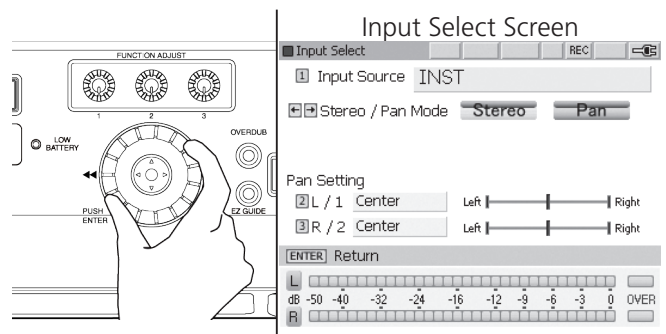
- Please insert the plug from your instrument cable into the [27] INST IN jack on the right side panel.



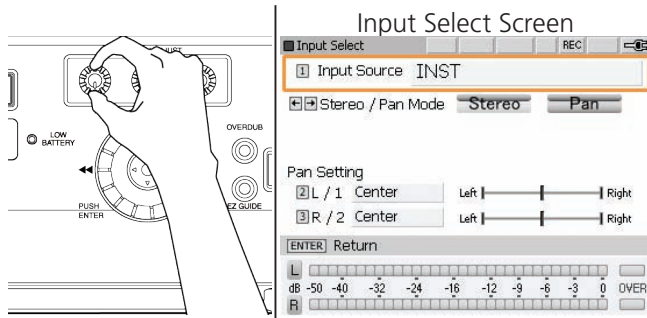
- Press the RECORD SETTINGS button to open the Record Setting screen.



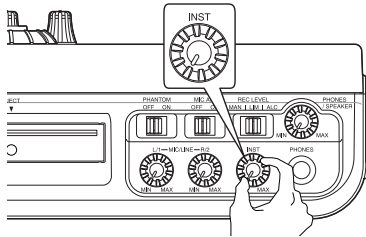
- Turn the jog wheel or joystick to select "Input Source" and then press ENTER button. The Input Select screen is displayed.



- Turn the FUNCTION ADJUST #1 to select INST and then press the RECORD SETTINGS button to exit the screen.



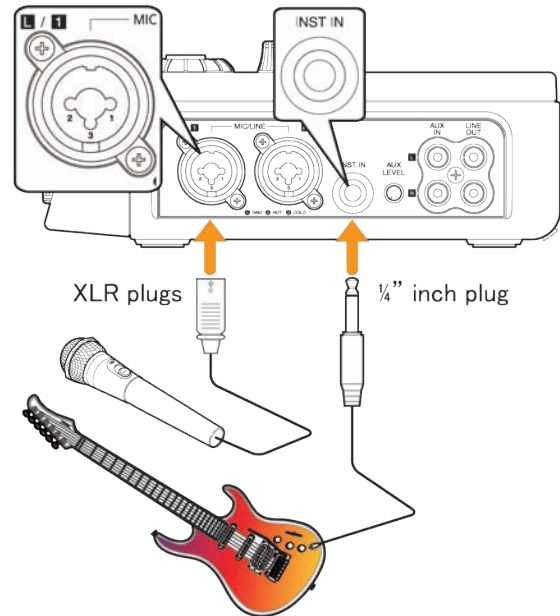
- Adjust the [19] INST knob to obtain a suitable recording level.



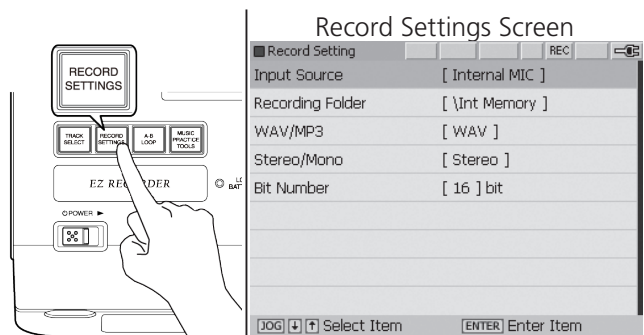
See [Setting Levels](#).

Recording a Microphone and a Musical Instrument at the Same Time

- Please insert the plug from your instrument cable into the [27] INST IN Jack on the side panel. Insert the microphone plug into [25] MIC/LINE jack L1. In addition, please switch the [21] PHANTOM switch on the front panel ON when connecting a condenser microphone.

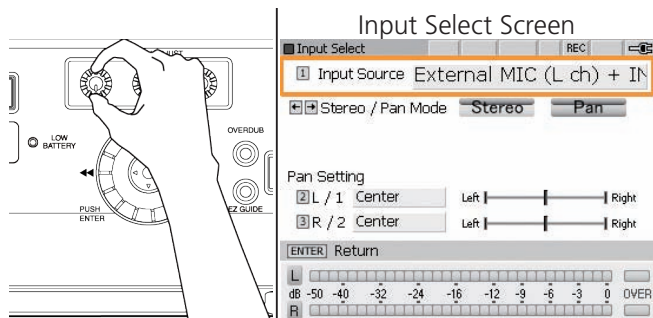


- Push the RECORD SETTINGS button to open the Record Settings Screen. Turn the jog wheel or toggle the joystick to select Input Source and Push ENTER.

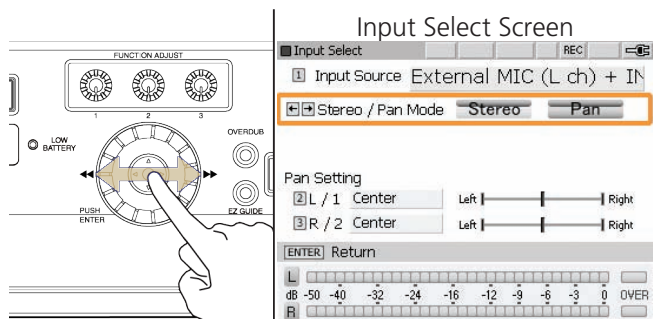


3. The Input Select Screen is displayed. Turn FUNCTION ADJUST #1 (4A) to select External Mic (L ch) + INST and then press the RECORD SETTINGS button to exit the screen.

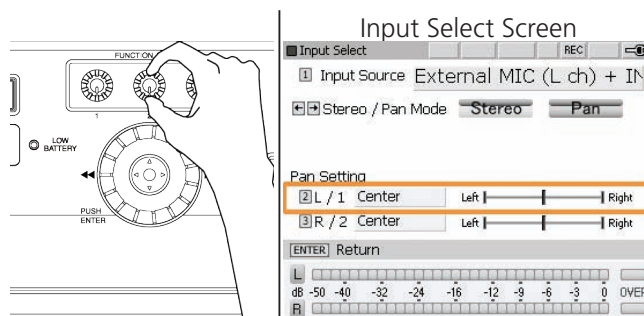
✘ When connecting an instrument along with a line level device such as an electronic piano, please choose LINE (L ch) + INST.



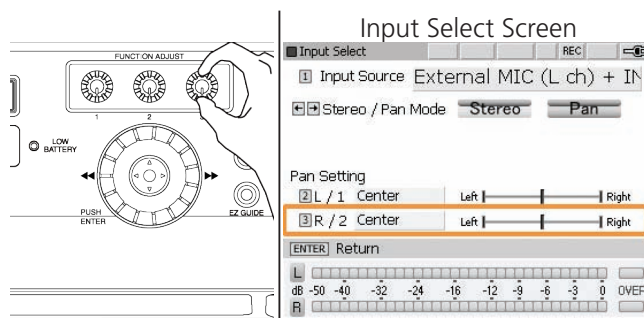
4. When the setting up Pan mode, press the RECORDING SETTINGS button once again. The Input Select screen is displayed. Or while displaying the screen in Fig.3. And operate the following Fig.6 and Fig7.
5. Move the joystick right or left to select Stereo Mode or Pan Mode (Stereo mode is the default setting).



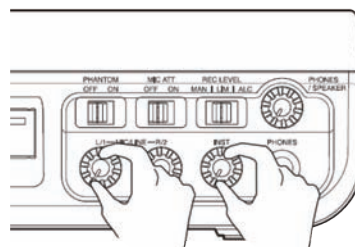
6. If Pan Mode is selected, turn FUNCTION ADJUST #2 (4B) to adjust the Pan Setting for input L/1 (the left microphone). Adjustments are made in 1% increments between Left 100% - Center - Right 100%. The initial setting is Center.



7. Turn FUNCTION ADJUST #3 (4C) to adjust the Pan Setting for the INST input. Adjustments are made in 1% increments between Left 100% - Center - Right 100%. The initial setting is Center.

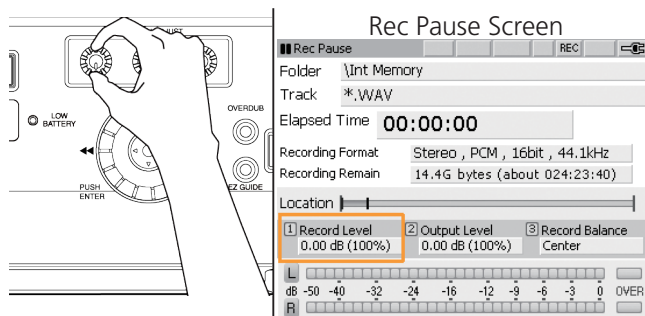


8. Turn the [18] MIC/LINE input level knob (L/1) and the [19] INST knob to obtain a proper level and balance between the microphone and the instrument. Please refer to Setting Levels.



✘ After the recording is completed, the MIC/ INST balance cannot be changed.

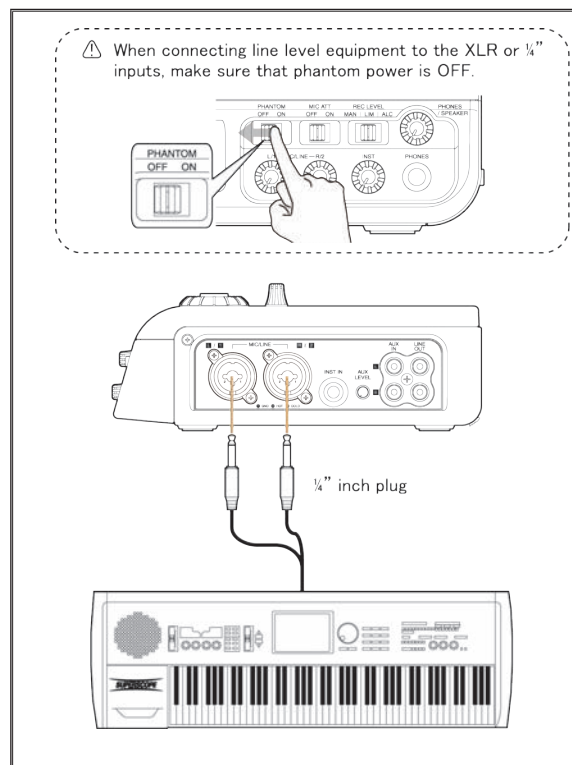
- Set Record Level - For most applications, the Record Level should be set to the default value of 0.00 dB. Turn FUNCTION ADJUST #1 (4A) to adjust Record Level. Press FUNCTION ADJUST #1 (4A) to return Record Level to 0.00 dB.



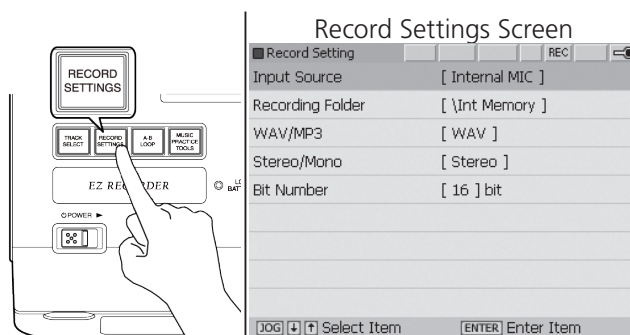
Line Level Sources

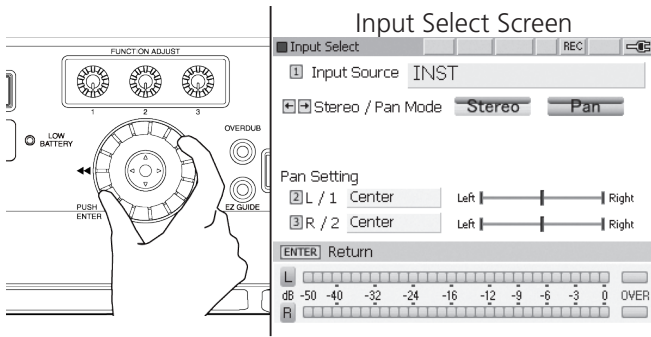
Use the following procedure when connecting line level equipment (keyboards, mixers, CD players, etc.) to the XLR or 1/4" balanced inputs.

- Connect line level audio equipment such as mixers or keyboards to the MIC/LINE Jacks on the right side panel.

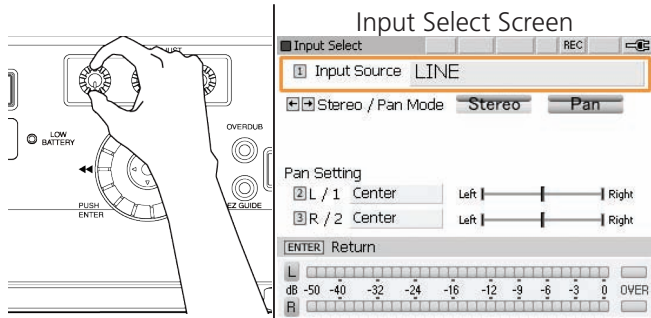


- Push the RECCOR SETTINGS button to open the Record Settings Screen. Turn the jog wheel or toggle the joystick to select Input Source and Push ENTER.

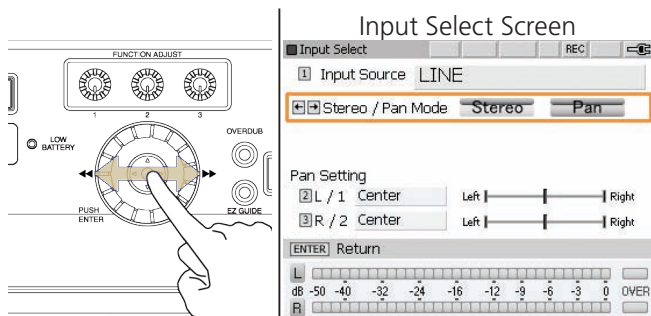




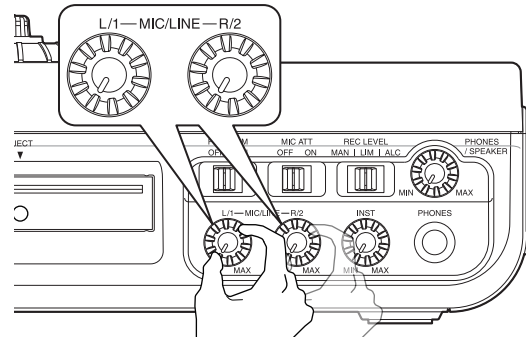
3. The Input Select Screen is displayed. Turn FUNCTION ADJUST #1 to select Line and then press the RECORD SETTINGS button to exit the screen.



4. When the setting up Pan mode, press the RECORDING SETTINGS button once again. The Input Select screen is displayed. Or while displaying the screen in Fig.3. And operate the following Fig.6 and Fig7.
5. Move the joystick right or left to select Stereo Mode or Pan Mode (Stereo mode is the default setting). For adjustment of Pan Setting see [STEREO/PAN Mode](#).



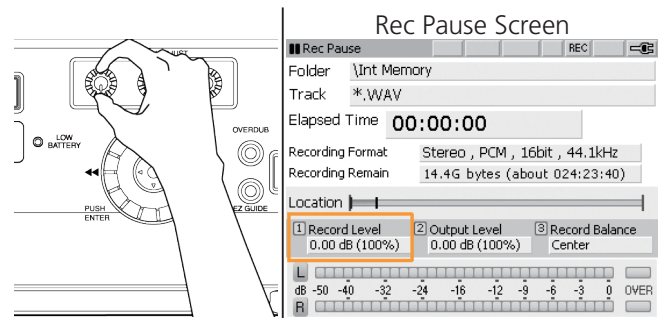
6. Adjust the **18** MIC / LINE L & R level controls to obtain a suitable recording level. See [Setting Levels](#).



L/1: Controls the input level for LINE L/1.

R/2: Controls the input level for LINE R/2.

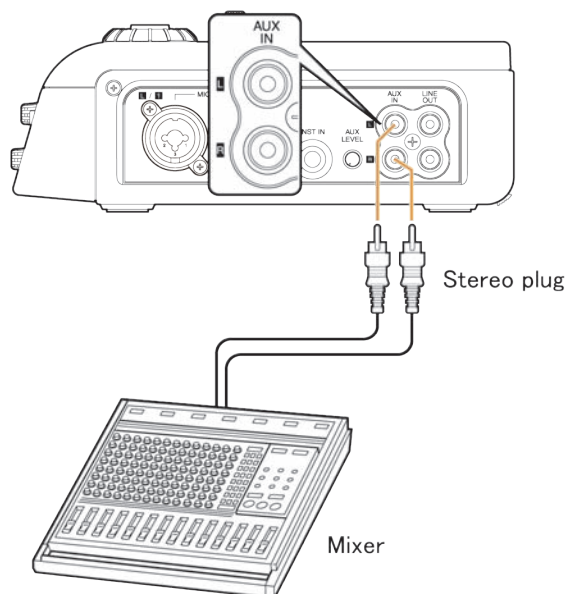
7. Set Record Level - For most applications, the Record Level should be set to the default value of 0 dB. Turn FUNCTION ADJUST #1 (4A) to adjust Record Level. Press FUNCTION ADJUST #1 (4A) to return Record Level to 0 dB.



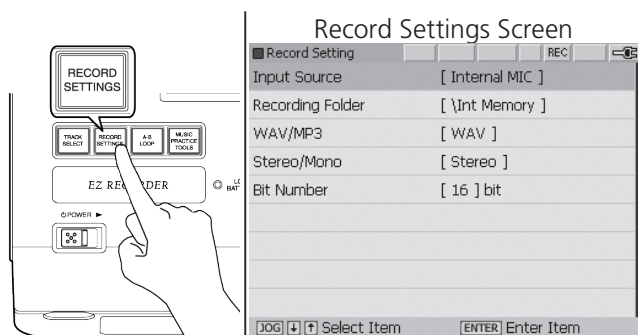
AUX

Use the following procedure when connecting line level equipment (keyboards, mixers, CD players, etc.) to the RCA unbalanced inputs.

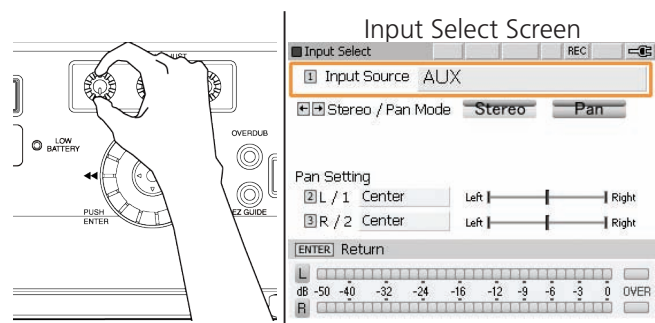
1. Connect line level audio equipment such as mixers or keyboards to the AUX IN Jack on the right side panel.



2. Push the RECORD SETTINGS button to open the Record Settings Screen. Turn the jog wheel or toggle the joystick to select Input Source and Push ENTER.

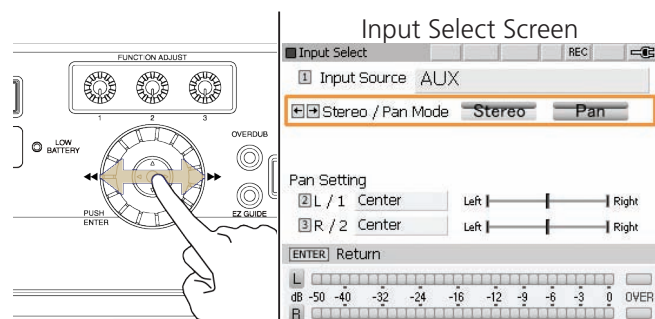


3. Turn the jog wheel to select AUX and then press the RECORD SETTINGS button to exit the screen.



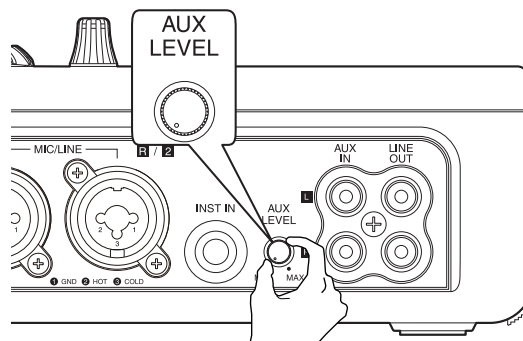
4. When the setting up Pan mode, press the RECORDING SETTINGS button once again. The Input Select screen is displayed. Or while displaying the screen in Fig.3. And operate the following Fig.6 and Fig.7.

5. Move the joystick right or left to select Stereo Mode or Pan Mode (Stereo mode is the default setting).

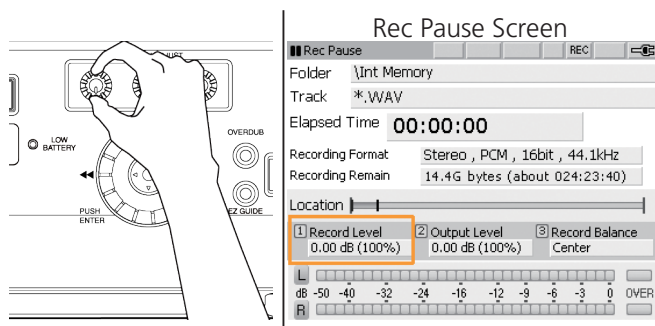


✖ For adjustment of Pan Setting see [STEREO/ PAN Mode](#).

6. Adjust the **AUX LEVEL** control to obtain a suitable recording level. See [Setting Levels](#).



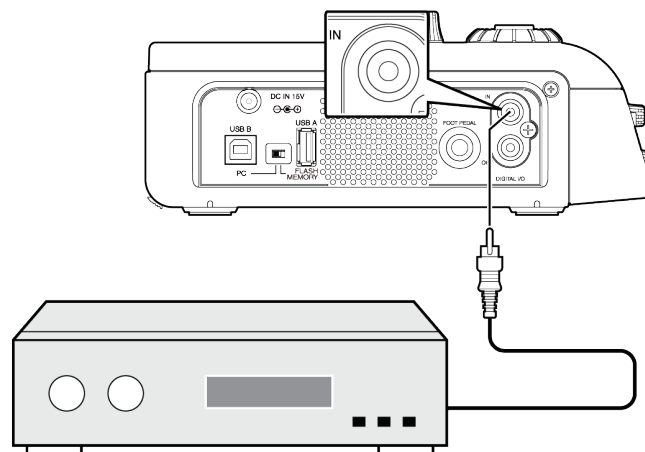
- Set Record Level - For most applications, the Record Level should be set to the default value of 0.00 dB. Turn FUNCTION ADJUST #1 (4A) to adjust Record Level. Press FUNCTION ADJUST #1 (4A) to return Record Level to 0.00 dB.



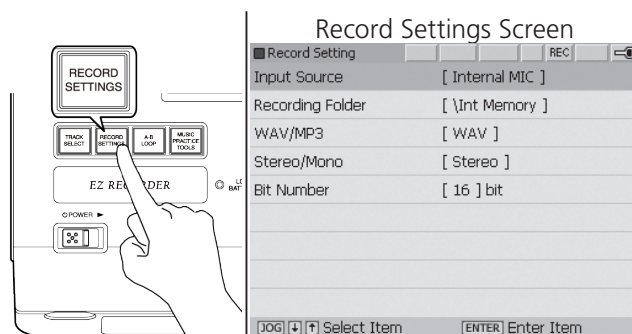
Digital Connection

Use the following procedure when connecting equipment with digital outputs (keyboards, mixers, CD players, etc.).

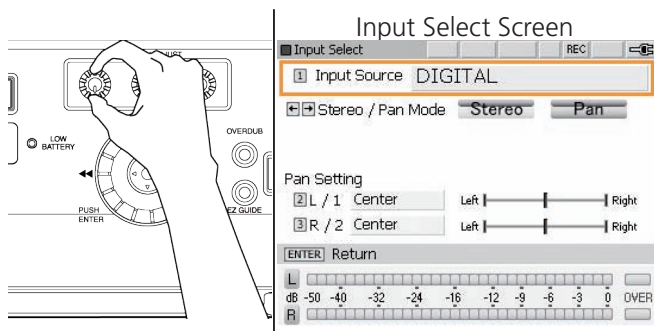
- Connect digital equipment such as mixers or effects processors to the DIGITAL IN on the left side panel.



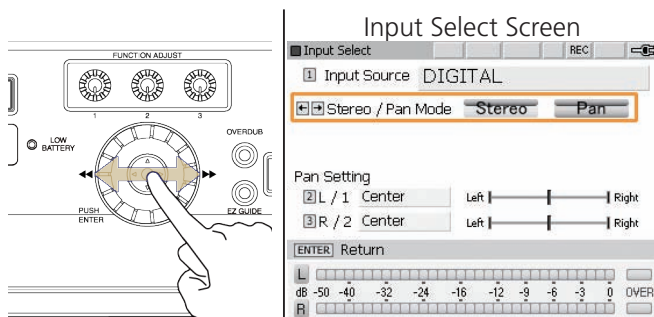
- Push the RECOR SETTINGS button to open the Record Settings Screen. Turn the jog wheel or toggle the joystick to select Input Source and Push ENTER.



- Turn the jog wheel to select DIGITAL and then press the RECORD SETTINGS button to exit the screen.

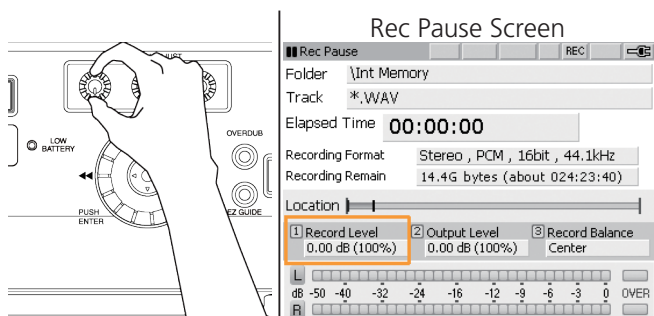


- When the setting up Pan mode, press the RECORDING SETTINGS button once again. The Input Select screen is displayed. Or while displaying the screen in Fig.3. And operate the following Fig.6 and Fig.7.
- Move the joystick right or left to select Stereo Mode or Pan Mode (Stereo mode is the default setting).



✘ For adjustment of pan settings, see [STEREO/ PAN Mode](#).

- Set Record Level - For most applications, the Record Level should be set to the default value of 0 dB. Turn FUNCTION ADJUST #1 (4A) to adjust Record Level. Press FUNCTION ADJUST #1 (4A) to return Record Level to 0 dB.

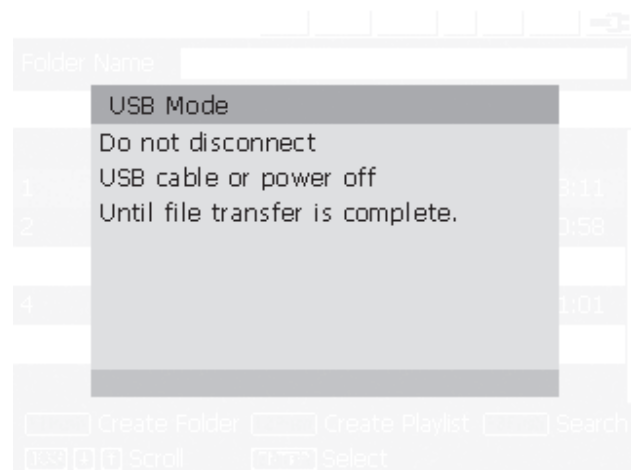


Computer Connection

By connecting your recorder to a PC or Mac, you can transfer music to and from a computer for editing or data backup. When in USB mode, your computer will be able to access the files and folders on the Internal Memory.

- Confirm that the recorder is in Stop Mode and the Main Screen is active before entering USB mode.

USB Mode Screen



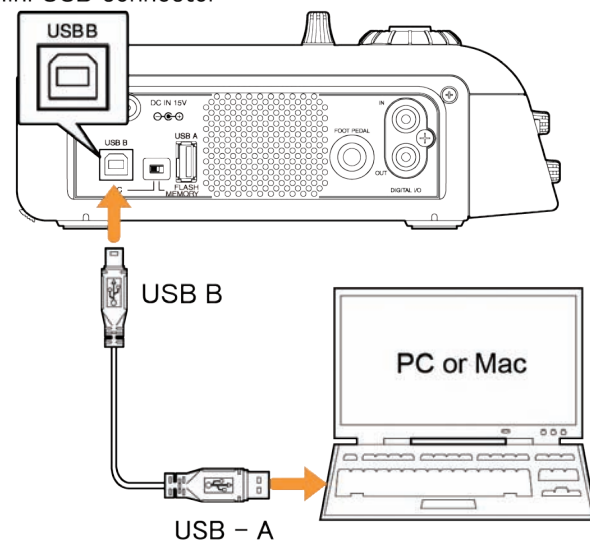
✘ When in USB Mode, all other features will be inactive.

- Use the included USB cable to connect the recorder to your computer.

✘ Do not connect to a computer before powering on the recorder.

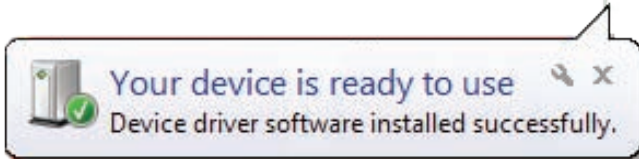
✘ By connecting your recorder to a PC or Mac, slide the switch to "PC" and then connect the USB B plug into the USB connector B.

Mini USB connector

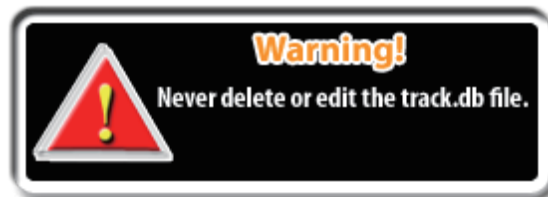




3. The recorder should be recognized as an external drive without having to install a new driver.



4. Locate the PSD450mkII in your computer's directory. Copy, move, and delete files using your computer's operating system.
- ✘ When your recorder is connected to a computer, the file "track.db" and a folder named "PSD450mkII" will appear in your recorder's file directory. If this file or folder is edited or deleted, you may lose access to your audio files and settings.

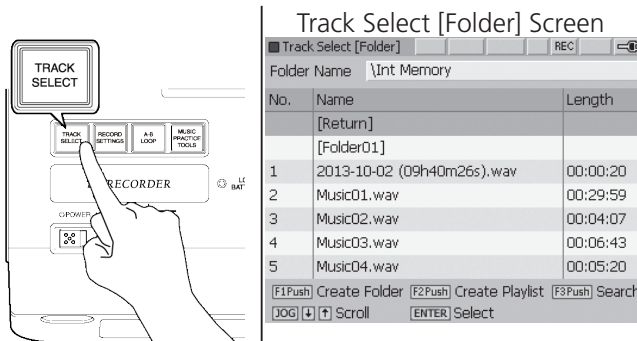


Working with Files and Folders

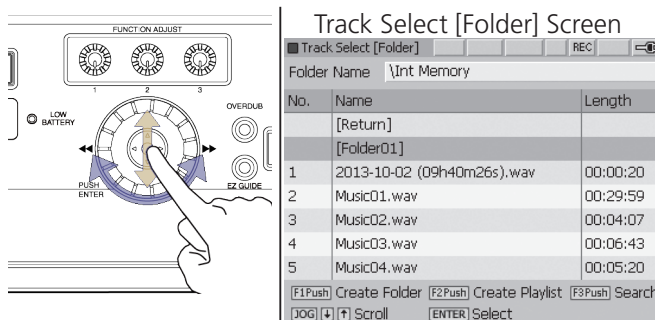
This unit offers several methods for locating a track for playback, editing, or for use as accompaniment when overdubbing.

Searching Folders

1. Press the TRACK SELECT button to view all files, folders, and playlists on the unit.

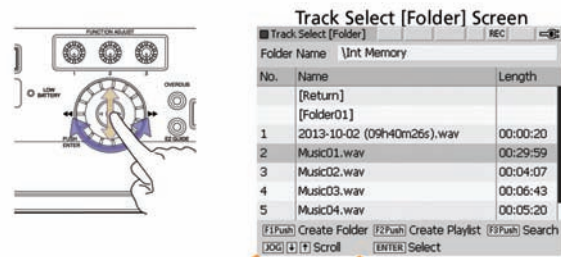


2. All newly recorded files will appear in the main folder. Turn the jog wheel or move the joystick up or down to highlight tracks or subfolders. Sub folders will appear in brackets, e.g., [sub folder 1]. To search the contents of a sub folder, either turn the jog wheel or move the joystick up or down to highlight a sub folder.

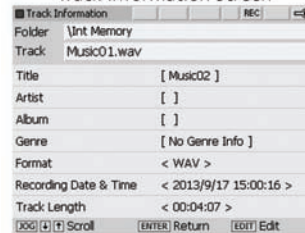


3. Press ENTER to view the contents of the selected folder.

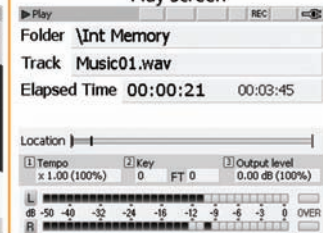
✘ When a track is highlighted in the Track Select Screen, push ENTER to view or edit track information. Press the PLAY/PAUSE button (8C) to begin playback.



Track Information Screen

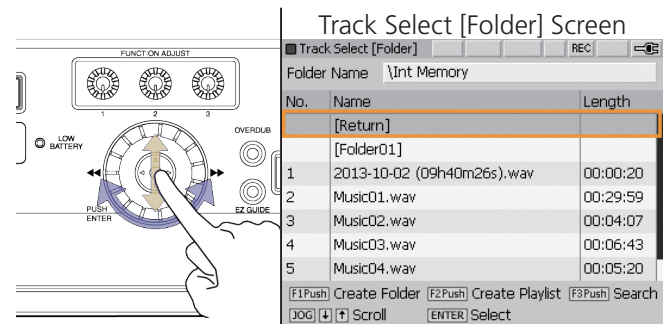


Play Screen

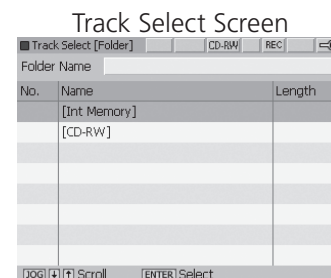


Search a USB Device, Internal Memory or CD

To search the contents of a USB device or CD, select [Return] on the Track Select [Folder] screen and press ENTER.



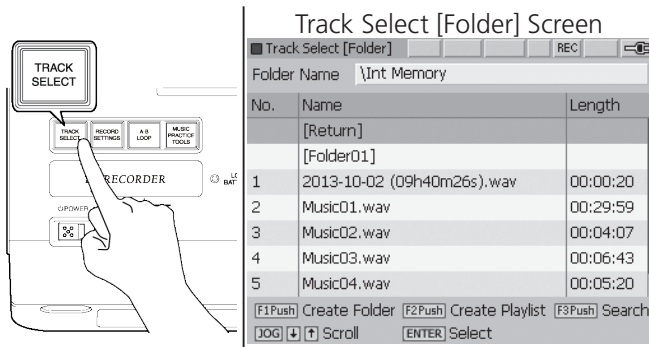
Select a device and press ENTER.



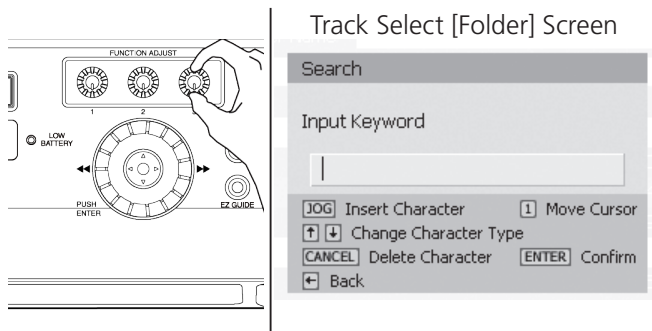
The contents of the storage device will now be displayed.

Using the [Search] Feature

1. Press the TRACK SELECT Key to open the Track Select [Folder] screen.



2. Press the FUNCTION ADJUST #3 (4C) key, and then the [Search] option is displayed.

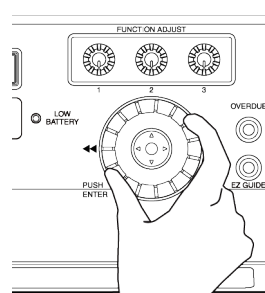


3. Use the [Text Input Method](#) below to type the file name or part of the file name you are searching for.

Text Input Method

Enter Characters

Turn the jog wheel to enter characters.

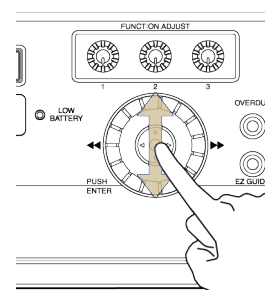


Textbox

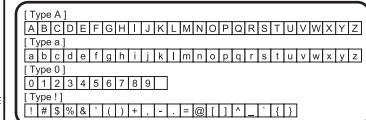


Change Character Type

Move the joystick up or down to change character types. The four different character groups are shown below.

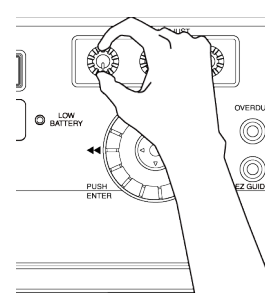


Characters



Move the Cursor

Use FUNCTION ADJUST # 1 (4A) to move the cursor to a new character.



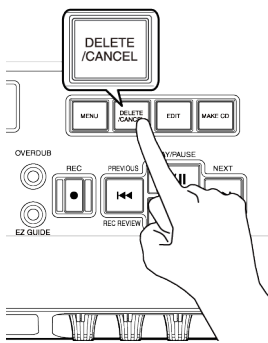
Textbox



Cursor

Delete a Character

Press the DELETE/CANCEL button to delete a character.



① Move the Cursor

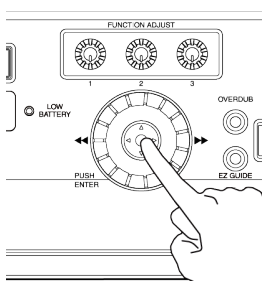
A|

② Press the CANCEL button to delete a character

|

Confirm Entry

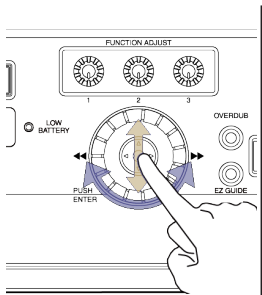
When you are finished entering text, press the joystick to ENTER. When the search is complete, the search results will be displayed.



Textbox

Music01 |

Move the joystick up or down or turn the jog wheel to select a track from the Search Result [Folder] screen.



Search Result [Folder] Screen

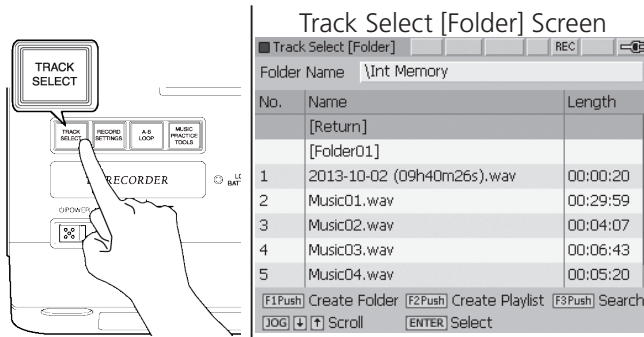
| Search Result [Folder] | | |
|-------------------------|-------------|----------|
| Folder Name \Int Memory | | |
| No. | Name | Length |
| | [Return] | |
| 1 | Music01.wav | 00:04:07 |
| | | |
| | | |
| | | |
| | | |

JOG [↑] [↓] Scroll [ENTER] Select

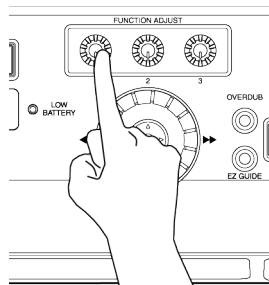
Create a Folder

Use the following steps to create a new folder for organizing files.

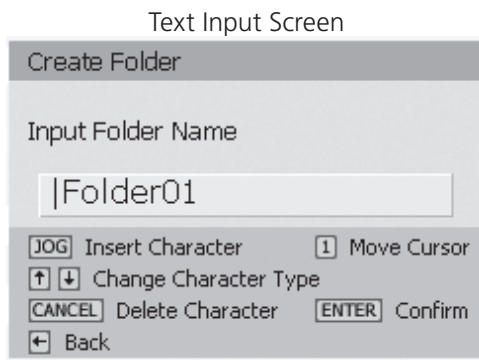
Press the TRACK SELECT button to open the Track Select [Folder] screen.



1. Press FUNCTION ADJUST #1 (4A) key to create a folder.
Create Folder screen is open and a provisional folder name is displayed.



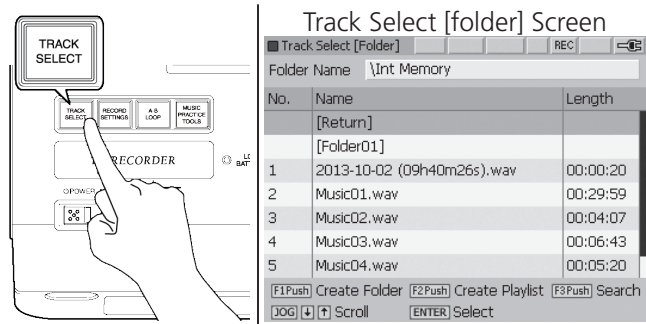
2. When you use the provisional folder name, press ENTER.
Use the Text Input Method to rename the folder name.



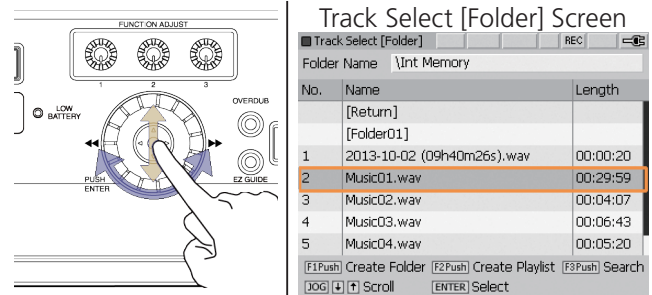
Rename

Use the following steps to rename folders or tracks. The recorder will not allow you to use the same name as another file or folder in the same location.

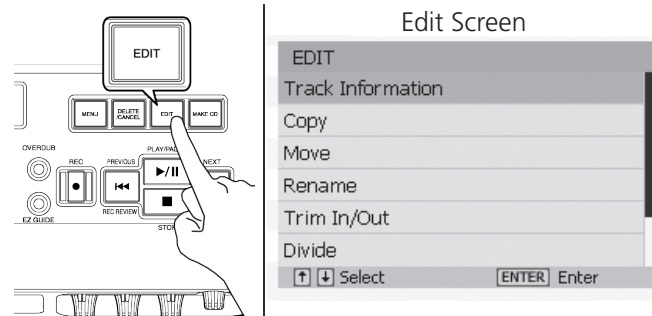
1. Press the TRACK SELECT button to open the Track Select [Folder] screen.



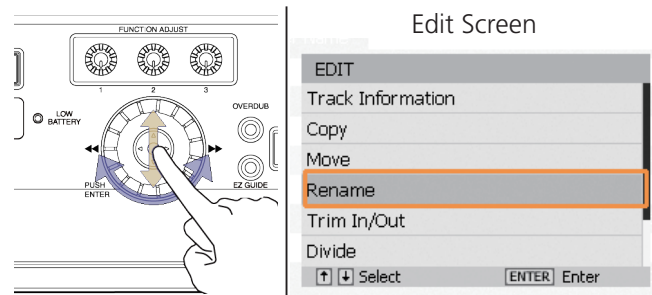
2. Turn the jog wheel or move the joystick up or down to highlight the folder or file you wish to rename.



3. Press the EDIT button.



4. Turn the jog wheel or move the joystick up or down to highlight Rename. Press ENTER.

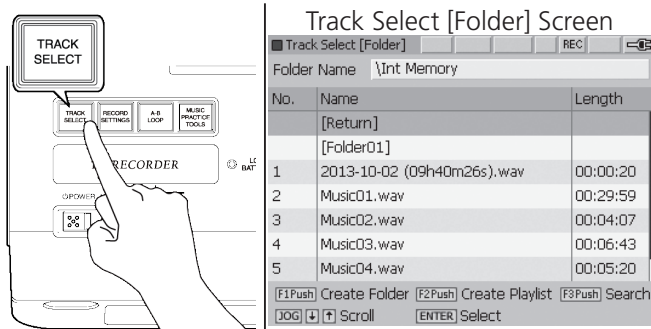


5. Enter the name of the new folder by using the [Text Input Method](#).

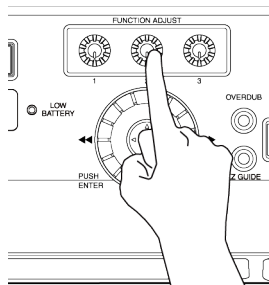
Create a Playlist

Use the following steps to create a playlist (M3U file format).

1. Press the TRACK SELECT button to open the Track Select [Folder] screen.

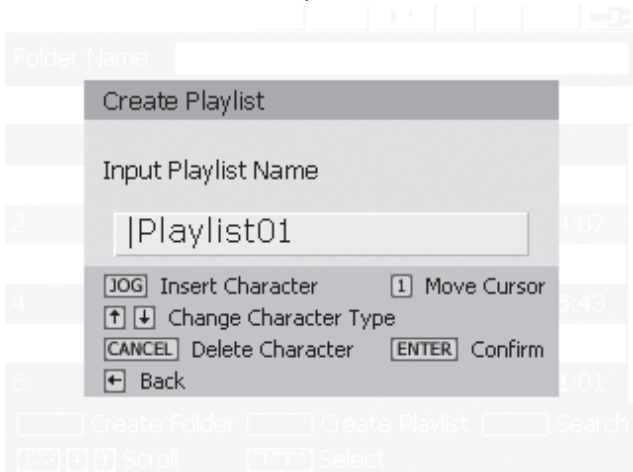


2. Press FUNCTION ADJUST #2 (4B) key to create a playlist.
Playlist screen is open and a provisional playlist name is displayed.



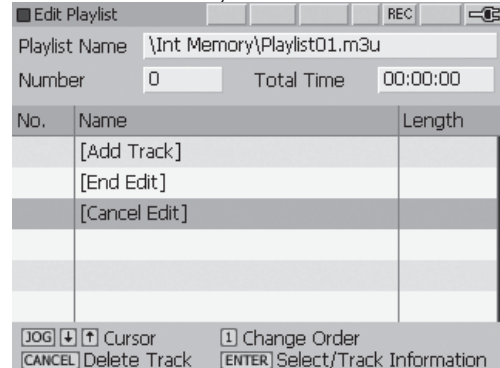
3. When you use the provisional playlist name, press ENTER.
Use the Text Input Method to rename the playlist name.

Text Input Screen

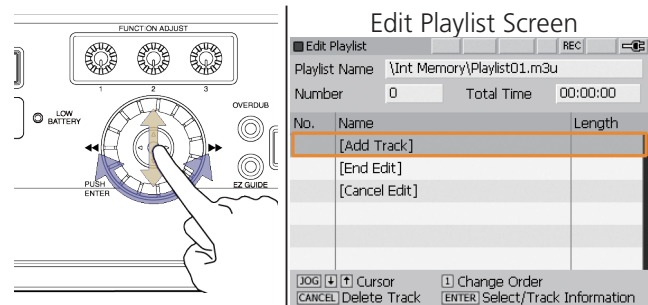


4. When you have finished naming your new playlist and pressed ENTER to confirm the new title, the Edit Playlist screen will appear.

Edit Playlist Screen

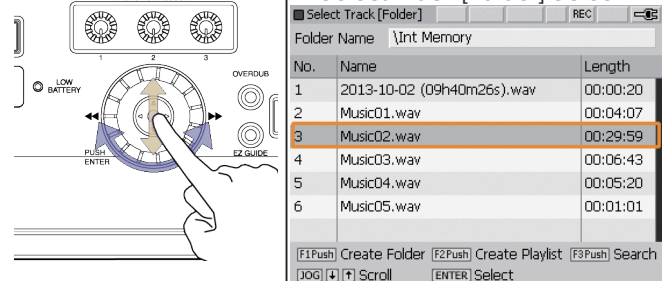


5. Turn the jog wheel or move the joystick up or down to highlight [Add Track]. Press ENTER.



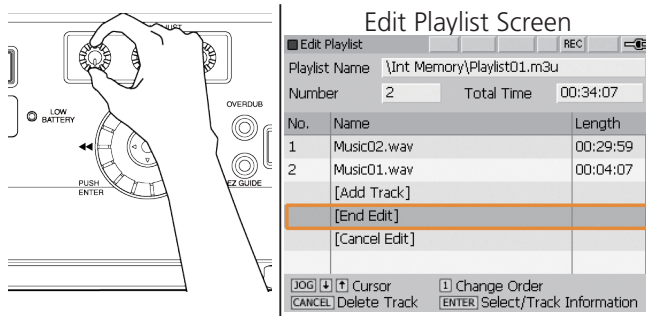
6. The Select Track [Folder] screen will appear. Turn the jog wheel or move the joystick up or down to highlight a track. Press ENTER to add the selected track to the playlist.

Select Track [Folder] Screen

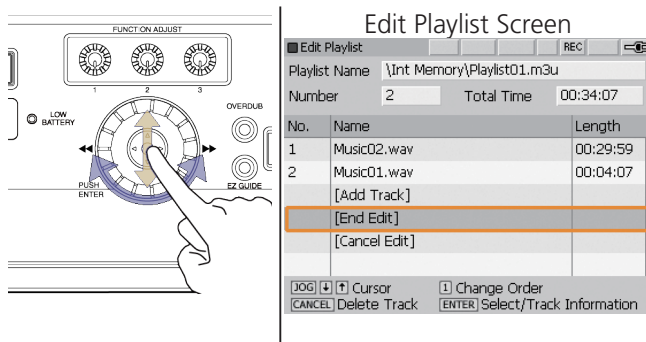


Change Track Order

- Highlight a track and turn FUNCTION ADJUST #1 (4A) to change the order of tracks in a playlist. Highlight a track and press the DELETE/CANCEL button to remove the track from the playlist.



- When you have finished adding tracks to the playlist, turn the jog wheel to highlight [End Edit]. Press ENTER to save the new playlist and exit.



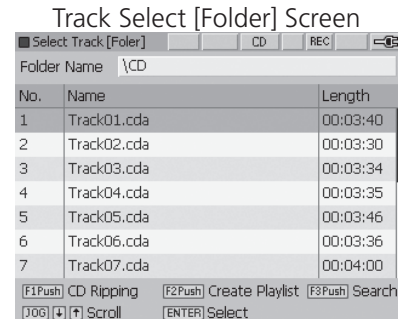
Create a CD Playlist

Use the following steps to create a CD Playlist (M3U file format) in the Internal Memory.

- Insert a CD.

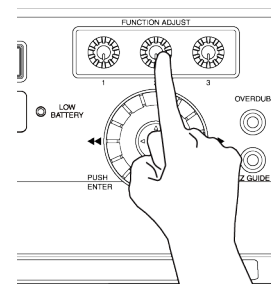
Track Select [Folder] screen will appear automatically.

You can open the Track Select [Folder] screen by pressing the TRACK SELECT button.



- Press FUNCTION ADJUST #2 (4B) key to create a playlist.

The Playlist screen is opened and a provisional playlist name is displayed.



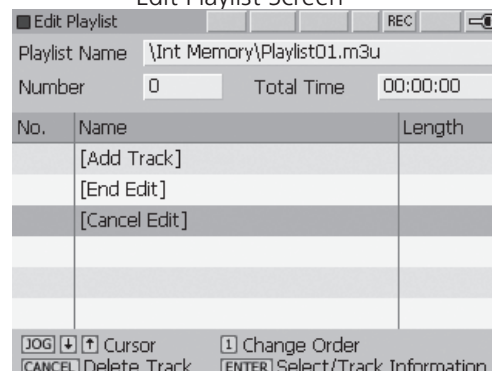
- Press ENTER to use the provisional playlist name. Use the Text Input Method to rename the playlist.

Text Input Screen

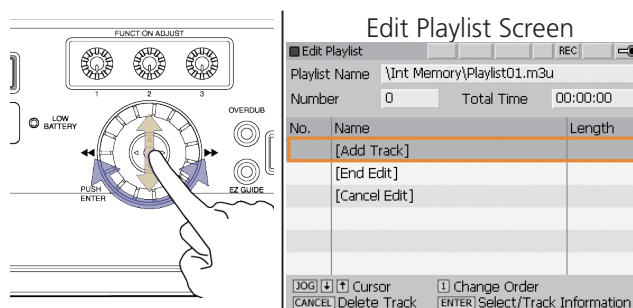


- When you have finished naming your new playlist and pressed ENTER to confirm the new title, the Edit Playlist screen will appear.

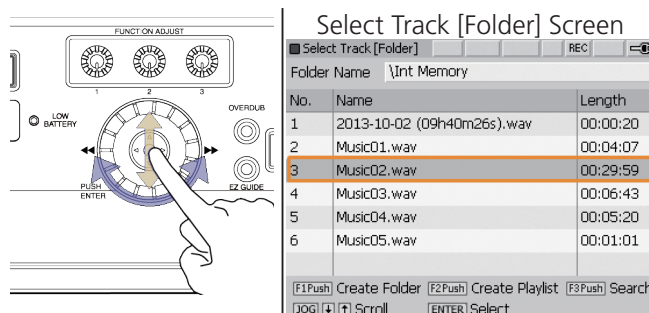
Edit Playlist Screen



- Turn the jog wheel or move the joystick up or down to highlight [Add Track]. Press ENTER.



- The Select Track [Folder] screen will appear. Turn the jog wheel or move the joystick up or down to highlight a track. Press ENTER to add the selected track to the playlist.



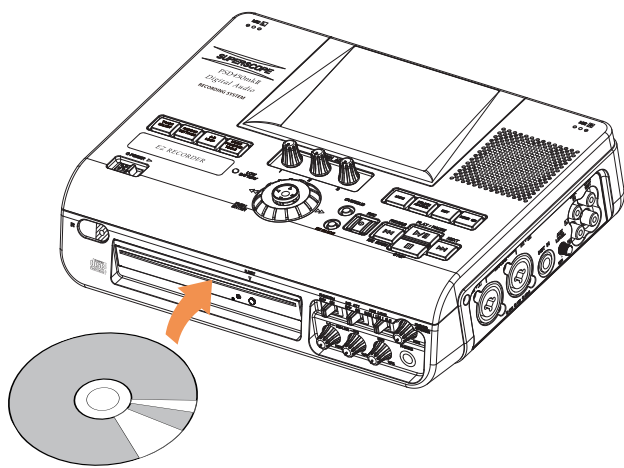
- ✗ The CD Playlist is created in a new folder in the CD Playlist folder in the Internal Memory. When you play a CD Playlist, you will find it in the CD Playlist folder in the Internal Memory. Press the PLAY key to play.
- ✗ The CD Playlist is erased when the CD is ejected or the unit is turned off.

CD Ripping

Follow these instruction to “rip” the digital audio from CD audio tracks to WAV files on the Internal Memory. Press the DELETE/CANCEL button during CD ripping to end the procedure.

Ripping an entire Audio CD

1. Insert the CD you wish to rip into the CD-R/RW drive.



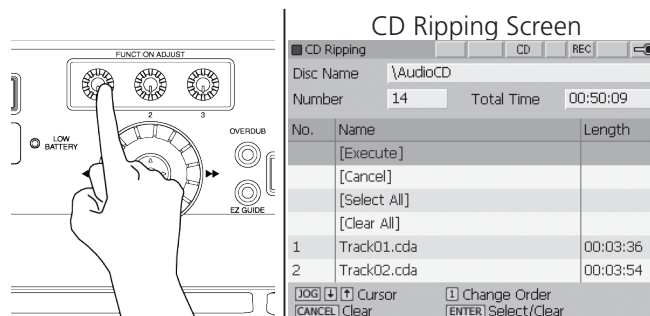
2. When a CD audio disc is inserted, the contents of the disc are displayed automatically .

Track Select [Folder] Screen

| Track Select [Folder] | | |
|--|-------------|----------|
| Folder Name \CD | | |
| No. | Name | Length |
| | [Return] | |
| 1 | Track01.cda | 00:14:03 |
| 2 | Track02.cda | 00:10:22 |
| 3 | Track03.cda | 00:05:20 |
| 4 | Track04.cda | 00:03:58 |
| 5 | Track05.cda | 00:05:40 |
| 6 | Track06.cda | 00:05:27 |
| [F1Push] CD Ripping [F2Push] Create Playlist [F3Push] Search [JOG] [↓] [↑] Scroll [ENTER] Select | | |

3. If you have exited the Track Select [Folder]\CD screen, see [How to Select \[CD\]](#) to display the CD contents again. Turn the jog wheel or move the joystick up or down to highlight a track.

4. Press FUNCTION ADJUST #1 (4A), all CD tracks are selected. To rip the entire CD, simply turn the jog wheel or move the joystick up or down to highlight [Execute]. Press ENTER.



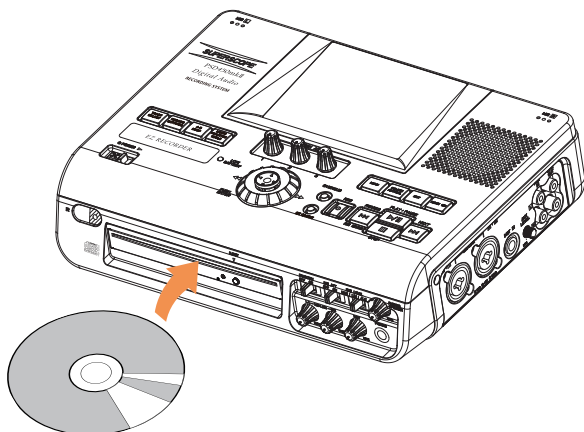
5. The CD tracks will be ripped to a folder in the main directory of the Internal Memory. The name of the folder will be the current time and date, e.g., [2013-08-12 (13h57m25s)].

Track Select [Folder] Screen

| Track Select [Folder] | | |
|---|--------------------------|----------|
| Folder Name \Int Memory | | |
| No. | Name | Length |
| | [Return] | |
| | [2013-08-12 (13h57m25s)] | |
| 1 | Music1.mp3 | 00:10:13 |
| 2 | Music2.wav | 00:04:07 |
| 3 | Music3.wav | 00:10:10 |
| 4 | Music4.wav | 00:01:49 |
| 5 | Music5.wav | 00:05:25 |
| [F1Push] Create Folder [F2Push] Create Playlist [F3Push] Search [JOG] [↓] [↑] Scroll [ENTER] Select | | |

Ripping Selected Tracks from an Audio CD

1. Insert the CD you wish to rip into the CD-R/RW drive.



2. When a CD audio disc is inserted, the contents of the disc are displayed automatically. If you have exited the Track Select [Folder]\CD screen, see [How to Select \[CD\]](#) to display the CD contents again. Turn the jog wheel or move the joystick up or down to highlight a track.

Track Select [Folder] Screen

| Track Select [Folder] Screen | | |
|--|-------------|----------|
| Folder Name \CD | | |
| No. | Name | Length |
| | [Return] | |
| 1 | Track01.cda | 00:14:03 |
| 2 | Track02.cda | 00:10:22 |
| 3 | Track03.cda | 00:05:20 |
| 4 | Track04.cda | 00:03:58 |
| 5 | Track05.cda | 00:05:40 |
| 6 | Track06.cda | 00:05:27 |
| F1Push CD Ripping F2Push Create Playlist F3Push Search JOG [Up] [Down] Scroll ENTER Select | | |

3. Press FUNCTION ADJUST #1 (4A), all CD tracks are selected. If you intend to rip most of the tracks on the CD, turn the jog wheel or move the joystick up or down to select the tracks you do not wish to rip.

CD Ripping Screen

| CD Ripping | | |
|--|--------------|---------------------|
| Disc Name \AudioCD | | |
| Number | 14 | Total Time 00:50:09 |
| No. | Name | Length |
| | [Execute] | |
| | [Cancel] | |
| | [Select All] | |
| | [Clear All] | |
| 1 | Track01.cda | 00:03:36 |
| 2 | Track02.cda | 00:03:54 |
| JOG [Up] [Down] Cursor [1] Change Order CANCEL Clear ENTER Select/Clear | | |

Press ENTER to remove a track from the list of ripped tracks.

CD Ripping Screen

| CD Ripping | | |
|--|--------------|---------------------|
| Disc Name \AudioCD | | |
| Number | 13 | Total Time 00:46:33 |
| No. | Name | Length |
| | [Execute] | |
| | [Cancel] | |
| | [Select All] | |
| | [Clear All] | |
| 1 | Track01.cda | 00:03:36 |
| 2 | Track02.cda | 00:03:54 |
| JOG [Up] [Down] Cursor [1] Change Order CANCEL Clear ENTER Select/Clear | | |

If you only intend to rip a small number of tracks from the CD, turn the jog wheel or move the joystick up or down to highlight [Clear All].

CD Ripping Screen

| CD Ripping | | |
|--|--------------|---------------------|
| Disc Name \AudioCD | | |
| Number | 14 | Total Time 00:50:09 |
| No. | Name | Length |
| | [Cancel] | |
| | [Select All] | |
| | [Clear All] | |
| 1 | Track01.cda | 00:03:36 |
| 2 | Track02.cda | 00:03:54 |
| 3 | Track03.cda | 00:03:13 |
| JOG [Up] [Down] Cursor [1] Change Order CANCEL Clear ENTER Select/Clear | | |

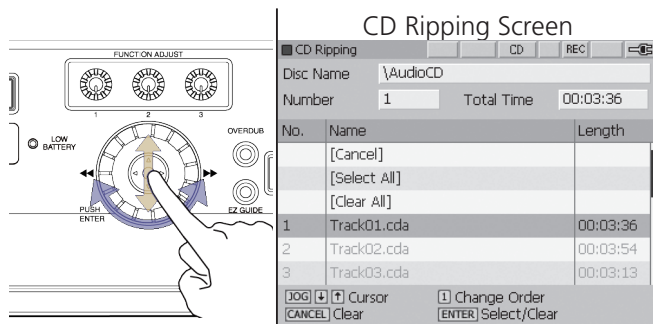
Press ENTER. All tracks will appear in grey.

CD Ripping Screen

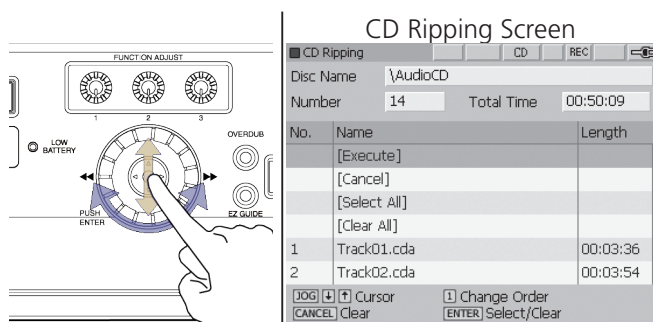
| CD Ripping | | |
|--|--------------|---------------------|
| Disc Name \AudioCD | | |
| Number | 0 | Total Time 00:00:00 |
| No. | Name | Length |
| | [Cancel] | |
| | [Select All] | |
| | [Clear All] | |
| 1 | Track01.cda | 00:03:36 |
| 2 | Track02.cda | 00:03:54 |
| 3 | Track03.cda | 00:03:13 |
| JOG [Up] [Down] Cursor [1] Change Order CANCEL Clear ENTER Select/Clear | | |

CD Ripping

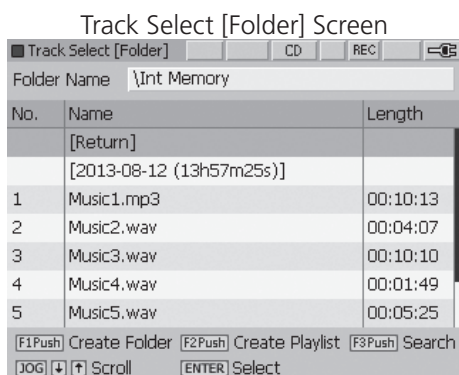
Turn the jog wheel or move the joystick up or down to highlight the tracks you wish to rip. Press ENTER.



- When you have selected your tracks for ripping, turn the jog wheel or move the joystick up or down to highlight [Execute]. Press ENTER.

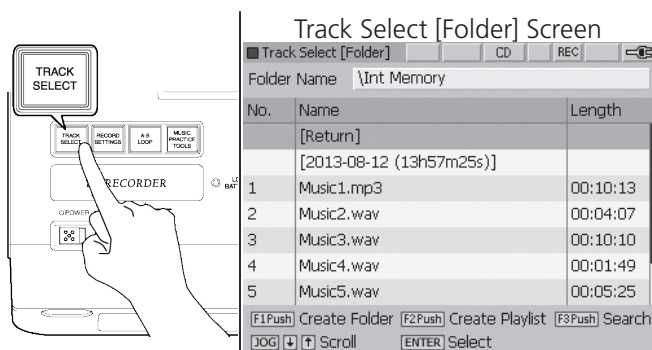


- The CD tracks will be ripped to a folder in the main directory of the Internal Memory. The name of the folder will be the current time and date, e.g., [2013-08-12 (13h57m25s)].

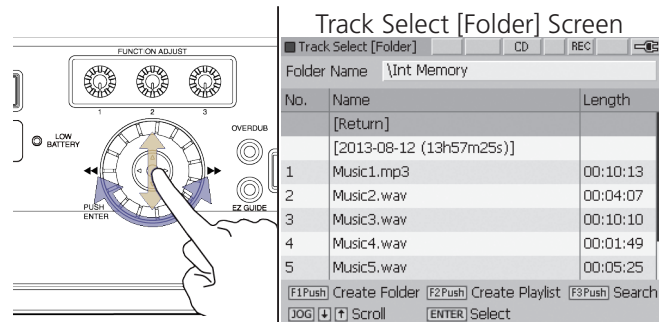


How to Select [CD / CD-R / CD-RW]

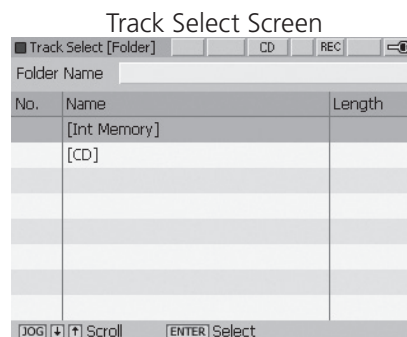
- Press the TRACK SELECT button. The recorder will show the previously accessed folder.



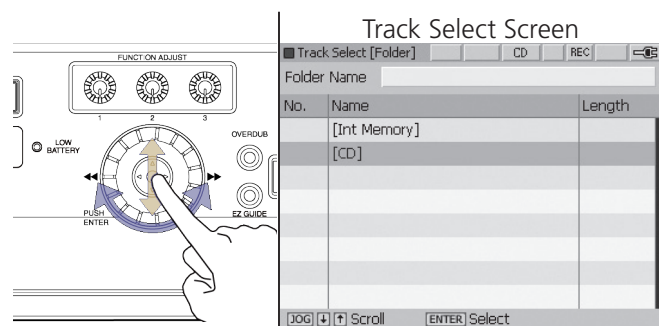
- Turn the jog wheel or move the joystick up or down to highlight [Return] and press ENTER.



- The Device Select Screen is shown.



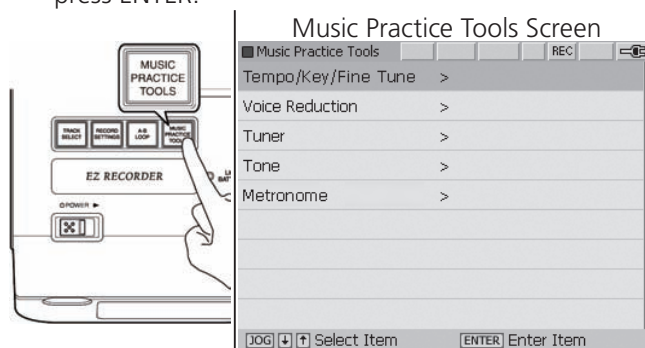
- Turn the jog wheel or move the joystick up or down to highlight [CD]. Press ENTER to open the the CD track folder.



Music Practice

Music Practice Tools

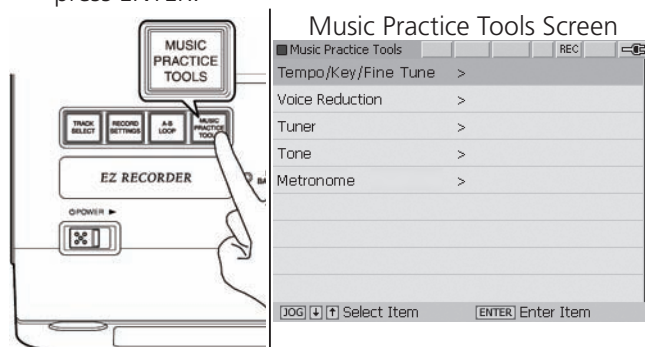
1. Press the MUSIC PRACTICE TOOLS button. Select tools by using the jog wheel or the joystick, and press ENTER.



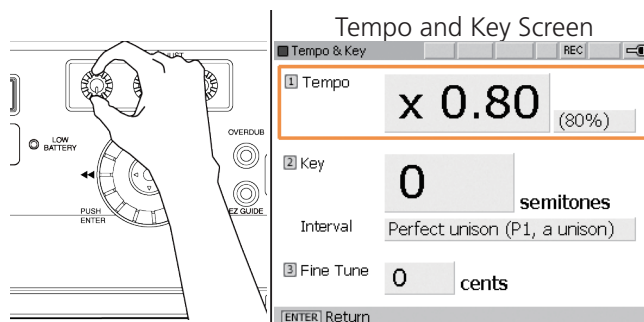
Tempo/Key/Fine Tuner and Voice Reduction can be set while paused. Effects can easily be checked during playback. Refer to PLAY for playback details.

Adjusting Tempo, Key, and Fine Tune Tempo

1. Push the MUSIC PRACTICE TOOLS button during playback or while paused. Select Tempo/Key/Fine Tune by using the jog wheel or the joystick, and press ENTER.

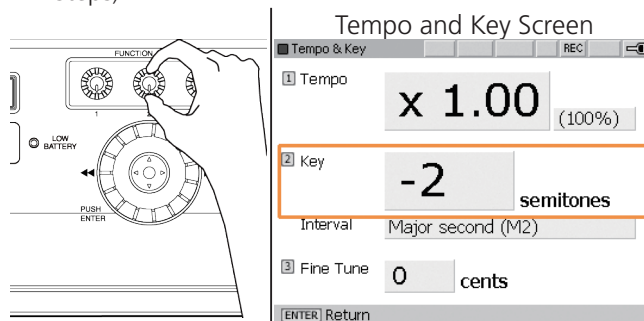


2. Turn FUNCTION ADJUST #1 (4A) to adjust Tempo (playback speed). Press FUNCTION ADJUST #1 (4A) to reset Tempo to normal speed. The tempo control function can modify a track's tempo (playback speed) between -75% and +50% (1% intervals) without affecting playback pitch.



Key

1. Turn FUNCTION ADJUST #2 (4B) to modify playback Key in semitones. Push FUNCTION ADJUST #2 (4B) to reset Key to normal playback (no Key adjustment). The Key adjustment range is +/-12 semitones (half steps).



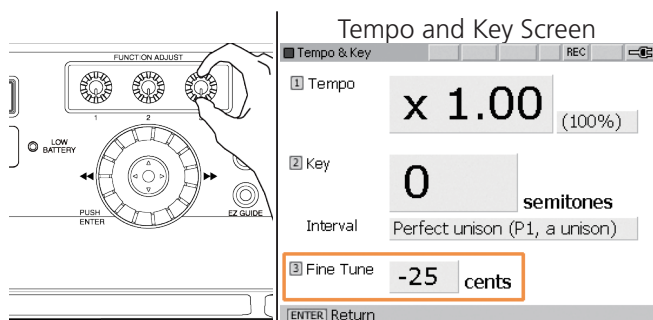
Interval Indication

The Interval indication displays the interval for the corresponding Key change in semitones.

| Semitones | Interval |
|-----------|-------------------------------|
| [0] | Perfect unison (P1, a unison) |
| [-1/+1] | Minor second (m2) |
| [-2/+2] | Major second (M2) |
| [-3/+3] | Minor third (m3) |
| [-4/+4] | Major third (M3) |
| [-5/+5] | Perfect fourth (P4) |
| [-6/+6] | Tritone (TT) |
| [-7/+7] | Perfect fifth (P5) |
| [-8/+8] | Minor sixth (m6) |
| [-9/+9] | Major sixth (M6) |
| [-10/+10] | Minor seventh (m7) |
| [-11/+11] | Major seventh (M7) |
| [-12/+12] | Perfect octave (P8) |

Fine Tune

Turn FUNCTION ADJUST #3 (4C) to fine tune playback pitch +/-50 cents. Push FUNCTION ADJUST #3 (4C) to reset FINE TUNE to normal pitch.

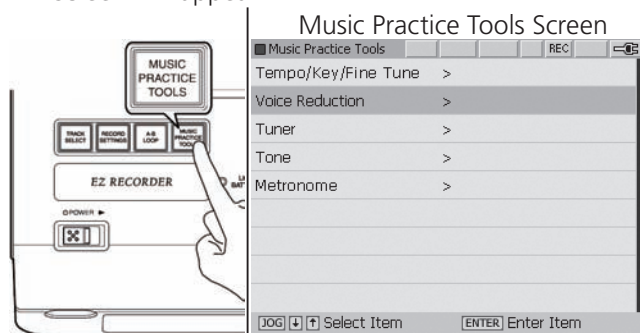


- ✘ When you exit the Tempo/Key screen, all settings are stored along with the selected file. Press the MUSIC PRACTICE TOOLS button to exit.

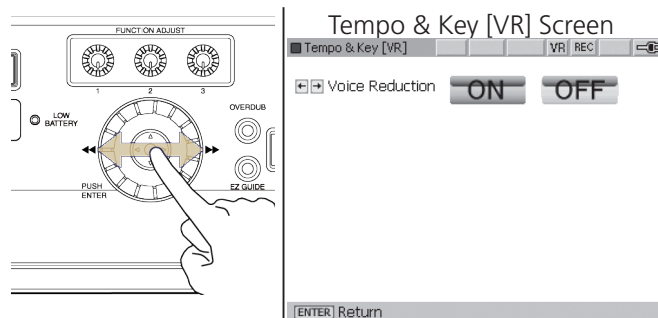
Voice Reduction

The voice reduction function is used to reduce the lead vocal performance in stereo recordings. Use this feature in conjunction with the Overdub feature to create your own karaoke-style recordings.

1. Push the MUSIC PRACTICE TOOLS button. Select Voice Reduction by using the jog wheel or the joystick, and press ENTER. The Voice Reduction screen will appear.



2. Move the joystick to the right or left to select Voice Reduction ON. A VR icon will be displayed at the top of the screen.



3. When a file is played, the level of the main vocal will be reduced.

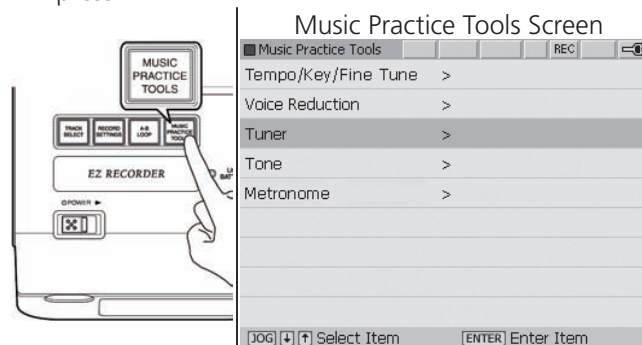
- ✘ The Vocal Reduction feature uses a technique called Center Channel Cancellation to reduce vocals in stereo recordings. For this feature to be effective, the main vocal performance must be positioned in the center of the stereo field (equal level in the right and left channel). Vocal Reduction will not work with vocals that are panned to the right or left channel. Press the MUSIC PRACTICE TOOLS button to exit.

How to Use the Tuner

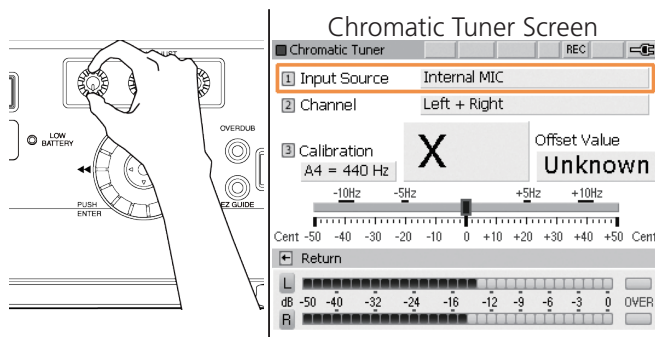
The PSD400 series provides two options for tuning instruments: a chromatic tuner (range = A0 ~ C8) and a tone generator (default = 440 Hz).

Using the Chromatic Tuner

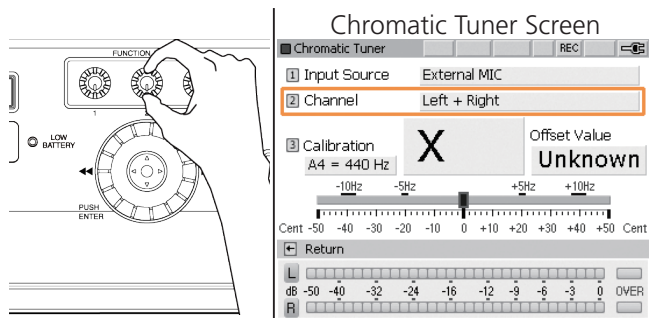
1. Push the MUSIC PRACTICE TOOLS button. Select Tuner by using the jog wheel or the joystick and press ENTER.



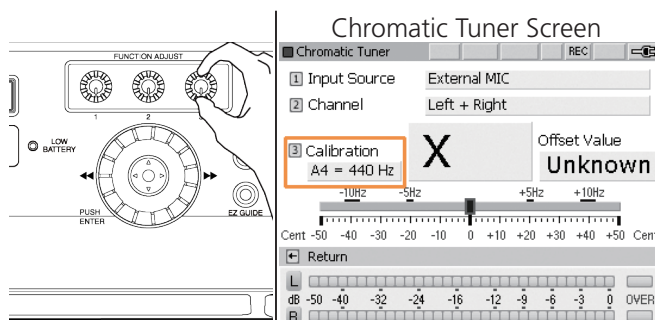
- Turn the FUNCTION ADJUST #1 (4A) to select the Input Source.



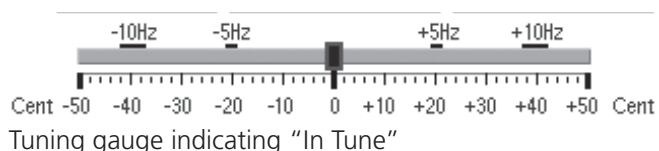
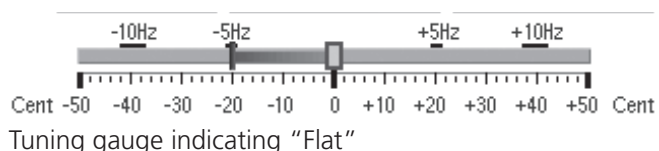
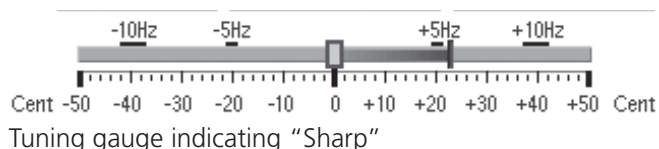
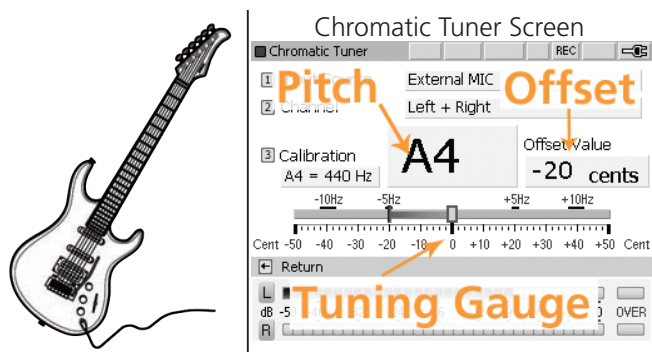
- Turn FUNCTION ADJUST #2 (4B) to select the Input Channel. Specifying an Input Channel improves tuning accuracy by preventing interference from other channels. For example, if you are using one microphone connected to Input L/1, select Input Source: External MIC, Channel: Left.



- By default, the chromatic tuner is calibrated to A4 = 440 Hz. The tuner can be calibrated to any frequency between 410 Hz and 470 Hz by turning FUNCTION ADJUST #3 (4C). Press FUNCTION ADJUST #3 to return to the default setting of A4=440Hz.

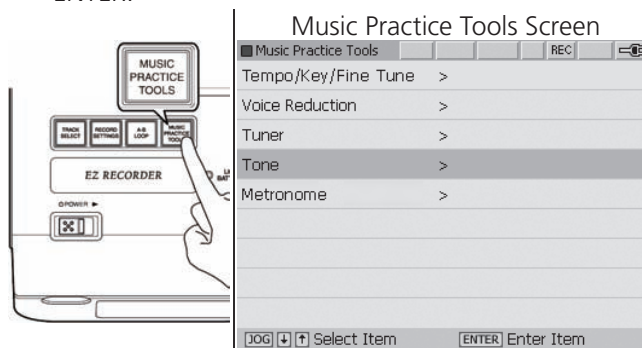


- As you play a note on your instrument, the closest musical pitch will be displayed along with an Offset Value showing how flat or sharp the note is (+/- 50 cents). Tune your instrument until the tuning gauge is centered and the Offset Value displays "In Tune".

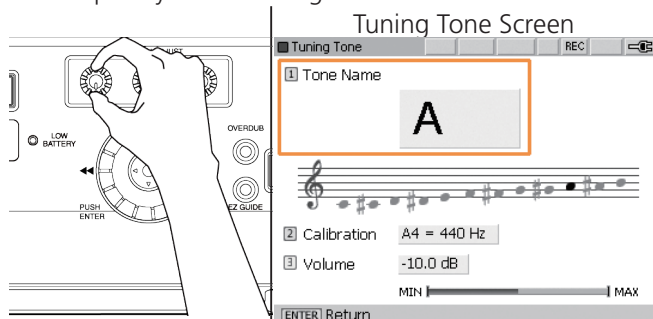


Using the Tuning Tone

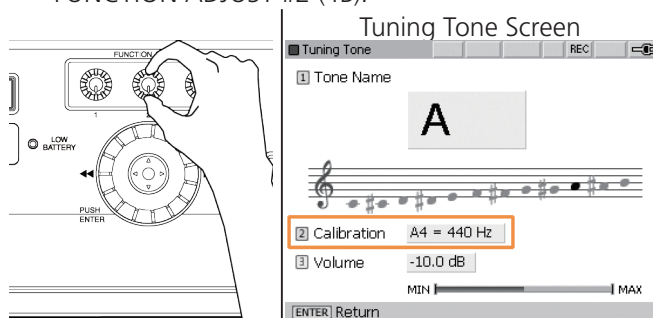
- Push the MUSIC PRACTICE TOOLS button. Select Tone by using the jog wheel or the joystick and press ENTER.



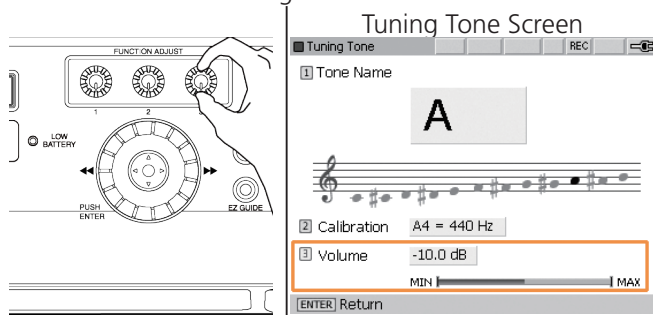
- Turn the FUNCTION ADJUST #1 (4A) to select the frequency of the tone generator.



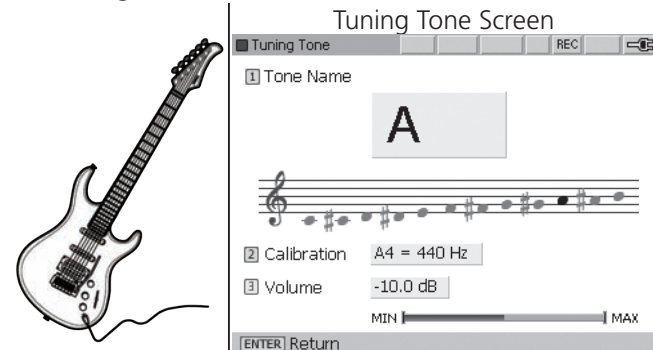
- By default, the tone generator is calibrated to A4 = 440 Hz. The tuner can be calibrated to any frequency between 410 Hz and 470 Hz by turning FUNCTION ADJUST #2 (4B).



- Turn FUNCTION ADJUST #3 (4C) to adjust the volume of the tone generator.



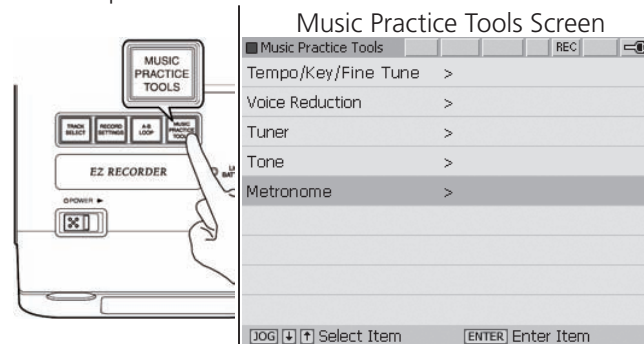
- All notes are displayed in concert pitch. Tune your instrument to match Tone Name displayed on the Tuning Tone screen. Press the corresponding function adjust knob (1, 2 or 3) to return to default settings for each function.



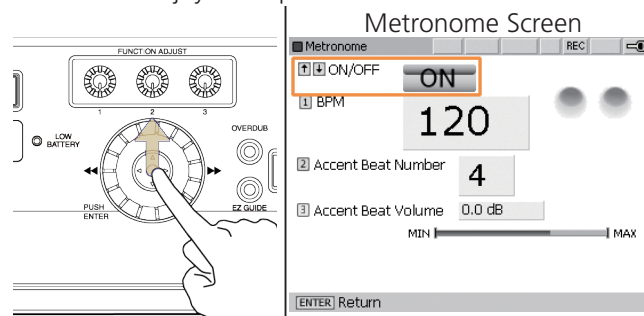
Using the Metronome

The metronome signal can be heard through the line outputs, headphones or built-in speaker.

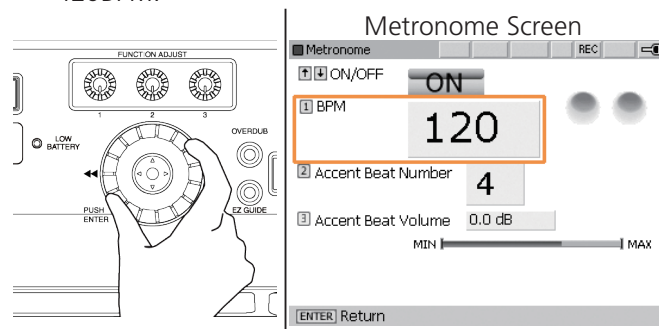
- Push the MUSIC PRACTICE TOOLS button. Select Metronome by using the jog wheel or the joystick and press ENTER.



- Move the joystick up to turn the metronome ON.



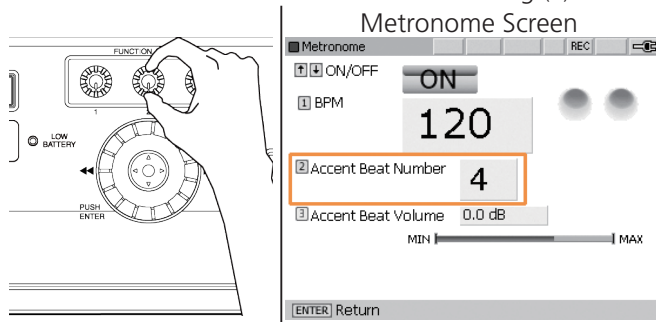
- Turn the FUNCTION ADJUST #1 (4A) to adjust tempo. Tempo can be set between 35BPM and 120BPM.



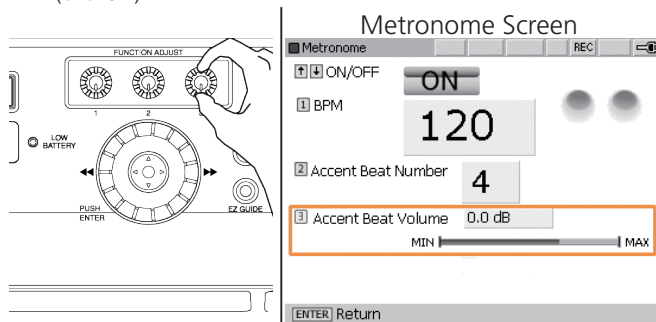
Adjusting Accent Beat and Accent Beat Volume

By designating a particular beat to play louder than other beats, the metronome is able to imply different rhythmic meters. For instance, setting the Accent Beat Number to 3 will cause every third beat to sound louder than the other two. At moderate tempos, this will create a waltz feel. Adjusting the Accent Beat Volume will determine how much louder the Accent Beat will sound over the non-accented beats.

1. Turn FUNCTION ADJUST #2 (4B) to set an Accent Beat Number. Select beat 1-9 or '0' for no accent beat. Press FUNCTION ADJUST #2 (4B) to return the Accent Beat Number to the default setting (4).



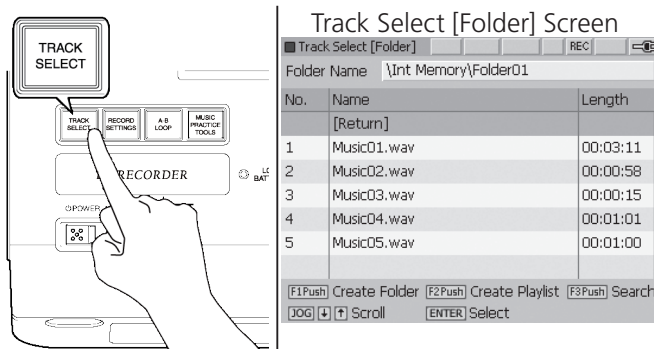
2. Turn FUNCTION ADJUST #3 (4C) to set the volume of the accent beat. Press FUNCTION ADJUST #3 (4C) to return the Accent Beat Volume to the default setting (0.0 dB).



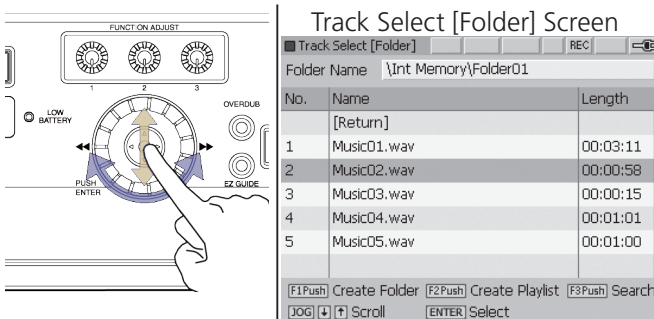
Play

The PSD450mkII can play CD audio or WAV or MP3 files located on the Internal Memory, USB storage device, or CD.

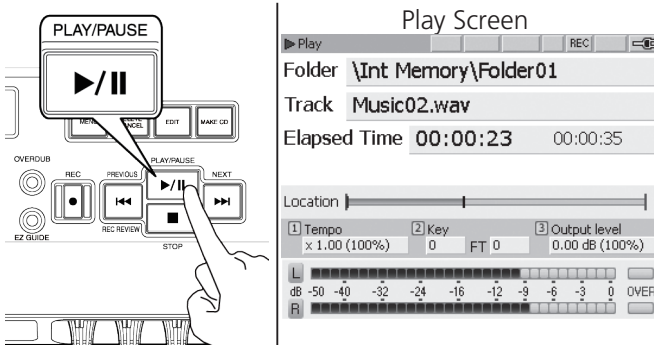
1. Power the unit on (see [Set Up](#)).
2. Press the TRACK SELECT button to open the Track Select [Folder] screen. The contents of the Internal Memory will be displayed. To search the contents of a different device, see [Search a USB Device or CD](#).



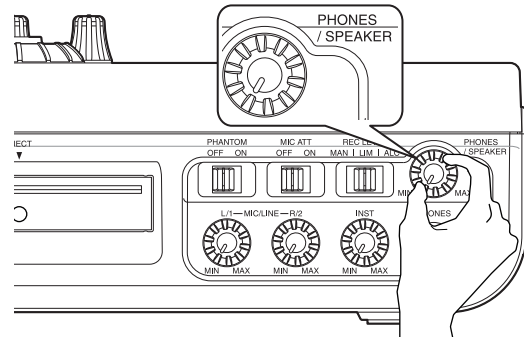
3. Turn the jog wheel or move the joystick up or down to highlight track for playback.



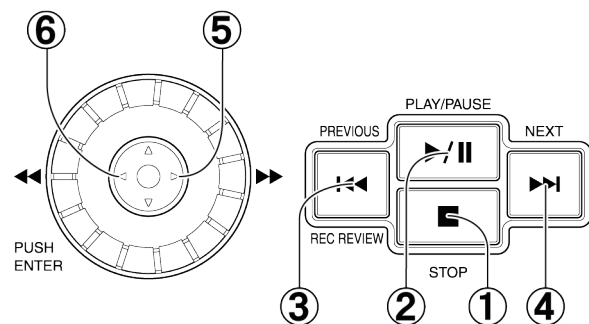
4. Press the PLAY/PAUSE button (8C) to play the selected track.



5. Turn the [24](#) PHONES/SPEAKER knob to adjust the volume of the speaker or headphones.



Playback Operation



| Button | Function |
|--------------|---|
| ① STOP | Press to stop playback. Playback location returns to the beginning of the track. |
| ② PLAY/PAUSE | <ul style="list-style-type: none"> From Stop Mode, press to begin playback. From Pause Mode, press to resume playback from the pause location. From Play Mode, press to pause playback. |
| ③ PREVIOUS | Press during playback to return to the start of the track. Press the PREVIOUS button within the first one second of playback to return to the start of the previous track. Press during Stop Mode to return to the start of the previous track. |

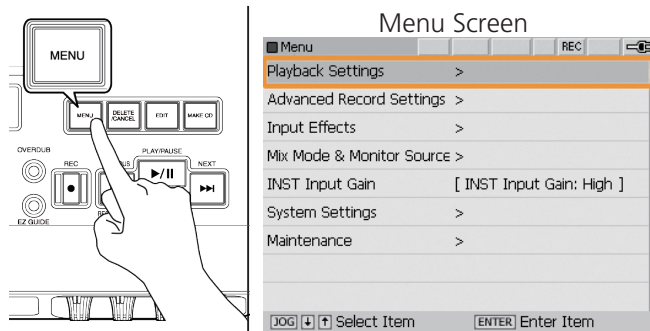
| | |
|-----------------------|---|
| ④ NEXT | Press to begin playback at the beginning of the next track. |
| ⑤ Fast Forward | Hold the joystick to the right to begin audible high-speed searching. |
| ⑥ Fast Rewind | Hold the joystick to the left to begin audible high-speed backward searching. |

Playback Modes

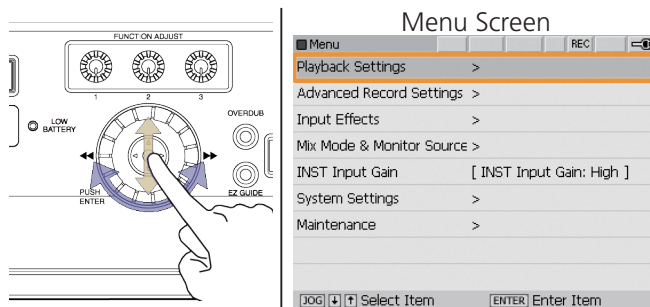
In Normal operation, playback continues to the next track as soon as the current track is finished playing.

The PSD400 series contains several alternative playback modes to accommodate a variety of situations. Follow these steps to select a new playback (repeat) mode.

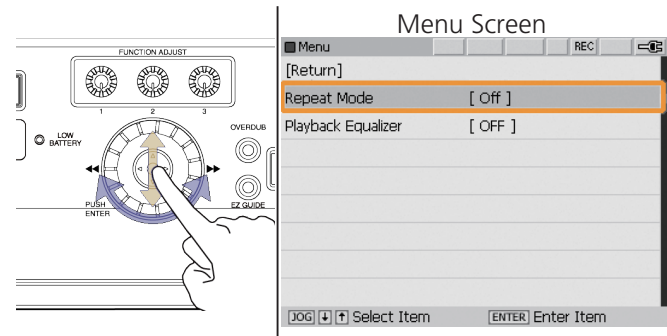
1. Press the MENU button to open the Menu screen.



2. Use the jog wheel or joystick to highlight Playback Settings and then press ENTER.



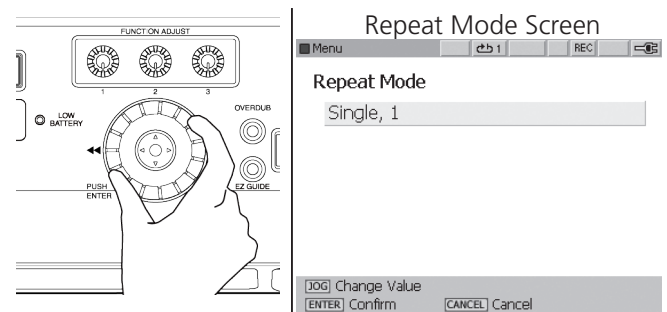
3. Use the jog wheel or joystick to highlight "Repeat Mode" and then press ENTER.



Repeat Modes

| | |
|--------------------|--|
| OFF | Normal operation. When a track is finished playing, playback continues to the next track. |
| All | All songs in a given folder play repeatedly. |
| 1 | The current track will play repeatedly. |
| Single, 1 | The current track plays once before playback stops at the beginning of the current track. |
| Single, All | All songs in a given folder play once before playback stops at the beginning of the first track. |
| Single | The current track plays once before playback stops at the beginning of next track. |

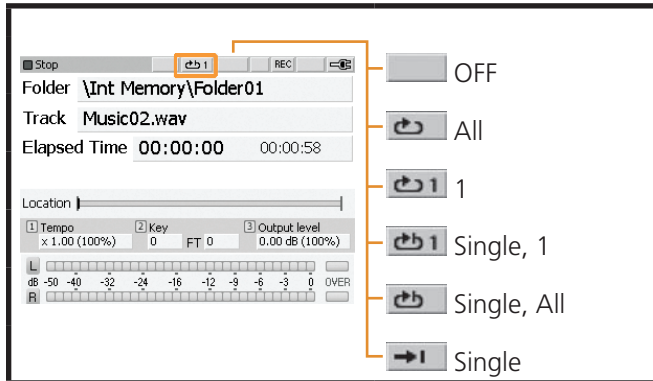
4. Select a Repeat Mode by turning the jog wheel. Press ENTER to confirm the selection.



To cancel the setting, press the DELETE/CANCEL button.

- Press the MENU button to exit.

The following Repeat icons will be displayed when the corresponding Repeat Mode is selected:

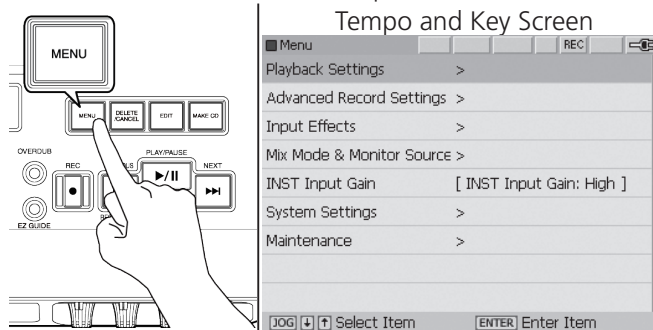


Equalizer Settings

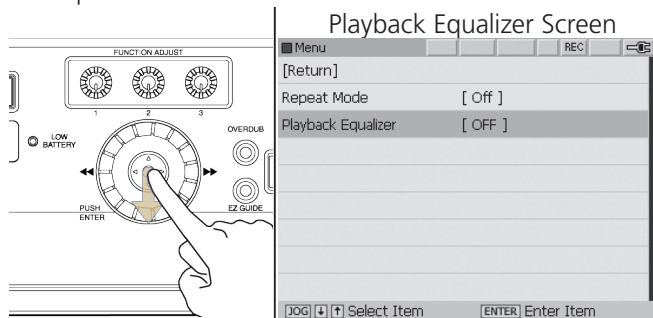
The unit offers two independent 3-band parametric equalizers (EQ); one equalizer affects input signals (microphones, instruments, etc.) while the other equalizer affects file playback. Follow these steps to adjust the playback equalizer (Note: When you exit this screen, all settings will be stored with the selected file):

Playback Equalizer

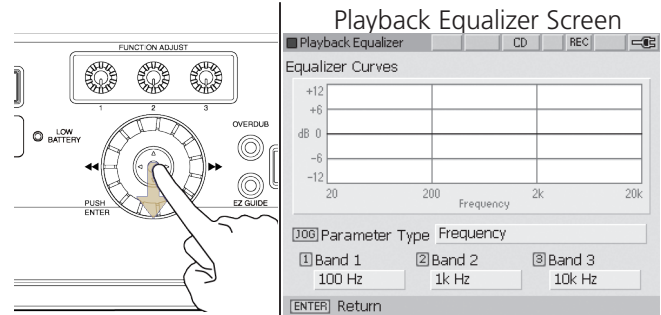
- Press the MENU button to open the Menu screen.



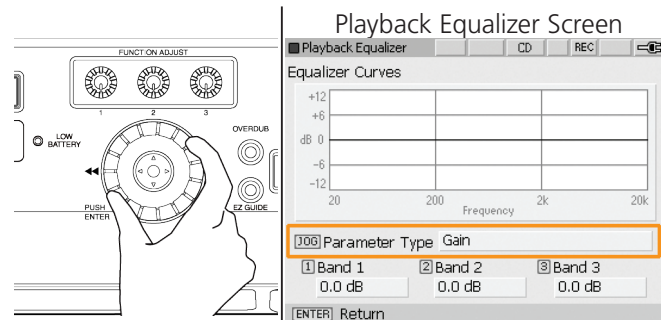
- Select Playback Settings and then select Playback Equalizer.



- Press joystick down to open Playback Equalizer screen.

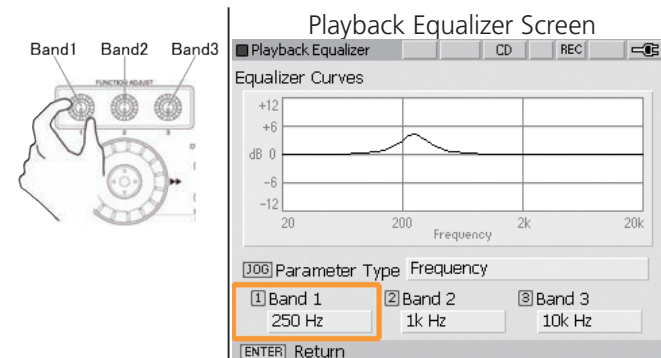


- Parameter Type:** Turn the jog wheel to select the parameter to be adjusted: Frequency, Gain, or Bandwidth.



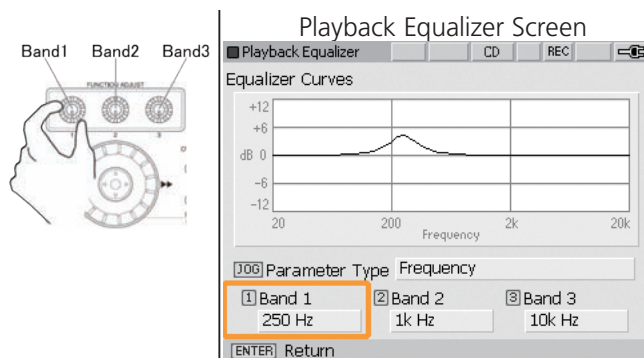
Frequency

When Parameter Type is set for Frequency, turn the FUNCTION ADJUST controller (1, 2 or 3) to select any frequency between 20 Hz and 20 kHz for each band. Pressing the FUNCTION ADJUST knobs will return all settings to default values.



Gain

When Parameter Type is set for Gain, turn the FUNCTION ADJUST controller (1, 2 or 3) to determine the gain for each Band. Gain can be adjusted +/- 12dB. Pressing the FUNCTION ADJUST knobs will return all settings to default values.



Bandwidth

When Parameter Type is set for Bandwidth, turn the FUNCTION ADJUST controller to set the bandwidth for each band. Turn right to widen the frequency band. Turn left to narrow the frequency band. Pressing the FUNCTION ADJUST knobs will return all settings to default values.

A-B Loop (Repeat Playback)

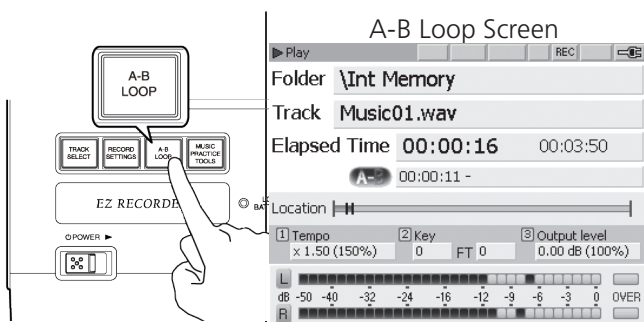
Use the A-B Loop function to play a section of audio repeatedly.

The A-B LOOP button can be used as follows:

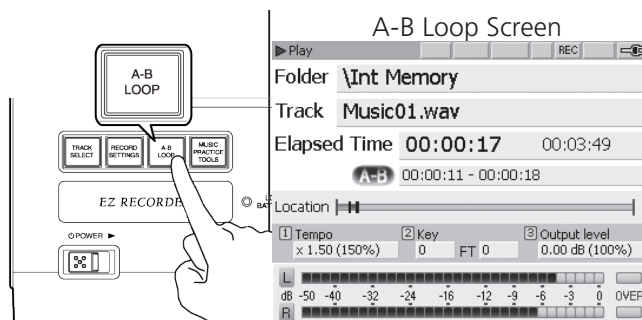
1. Press the A-B LOOP button during playback quickly.
2. Press and hold the A-B LOOP button for 3 seconds or longer with the Loop/A&B Setting screen, the setting of the A-B repeat playback point is possible in detail.

Press the A-B LOOP button during playback

1. Press the A-B Loop button [2-C] to set the start point of the loop during playback. 'A- 00:00:11 -' will appear on the screen.



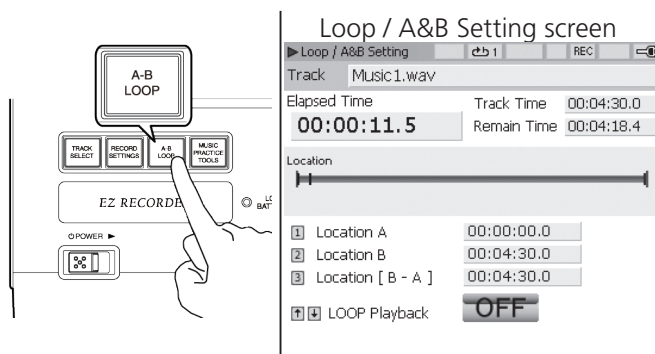
2. Press the A-B Loop button [2-C] to set the end point of the loop. 'A-B 00:00:11 - 00:00:18' will appear and playback will begin looping between the start and end markers automatically.



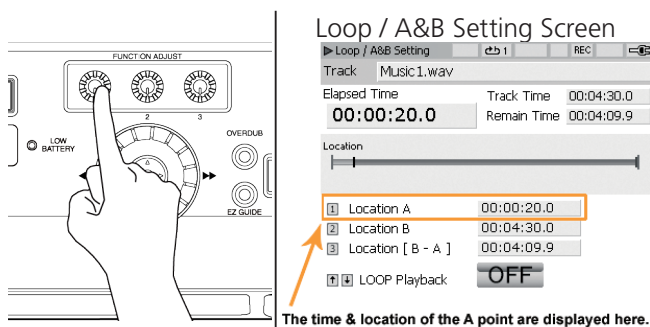
Press and hold the A-B LOOP button for 3 seconds or longer.

1. Press and hold the A-B LOOP button for 3 seconds or longer during playback to change the Loop Setting menu. The A-B loop can be set in greater detail on this screen.

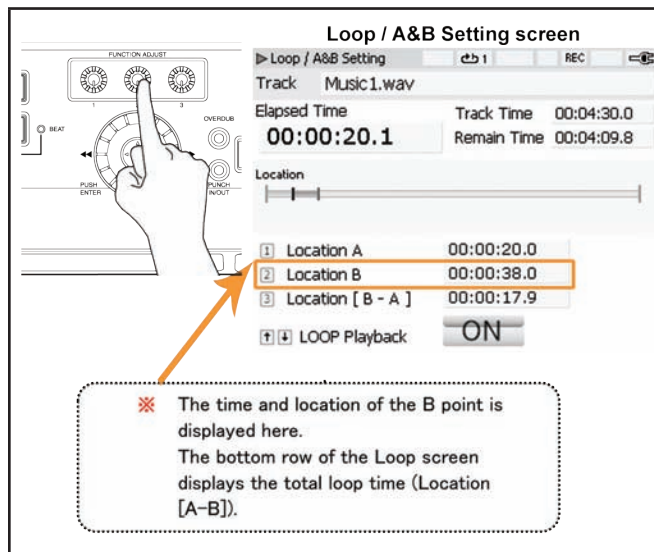
✗ The function below is also used when determining In/Out points for Overdub.



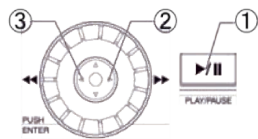
2. When you hear the point at which the loop should begin, press FUNCTION ADJUST #1 (4A).



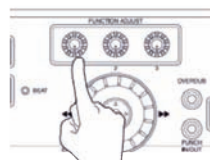
- When you hear the point at which the loop should end, press FUNCTION ADJUST #2 (4B). When the B point is set, LOOP Playback begins automatically.



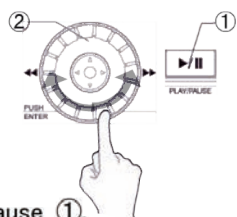
Use the following controls during Loop Mode to locate A and B points.



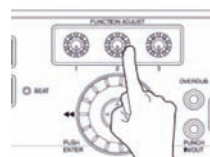
Play ①, ② forward search
③ backward search



Press to set A point



Pause ①,
② Rotate the jog wheel
for fast advance/rewind
during Pause Mode

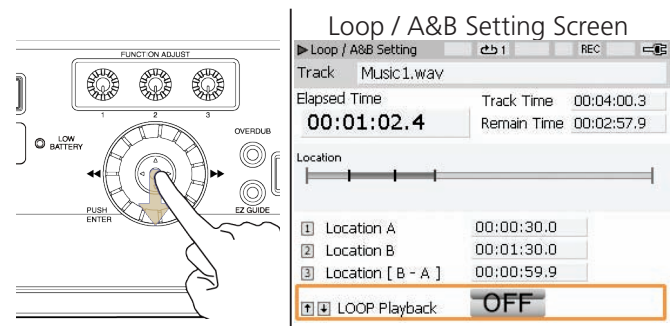


Press to set B point

- To fine adjust the A point, turn FUNCTION ADJUST#1 (4A). To fine adjust the B point, turn FUNCTION ADJUST #2 (4B). Turn FUNCTION ADJUST #3 (4C) to reposition the A and B point at the same time.

The A and B points for each track are stored with the file, so the next time you access the selected track, the same loop points should appear.

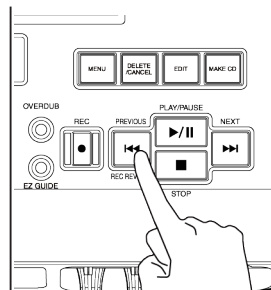
Moving the joystick down will switch to normal playback (LOOP Playback OFF). Moving the joystick up will resume A-B Repeat playback (LOOP Playback ON).



Delete a Loop Point

- Push and hold FUNCTION ADJUST #1 (4A) to reset the A point the beginning of the track (0:00).
- Push and hold FUNCTION ADJUST #2 (4B) to reset the B point to the end of the track.
- Push and hold FUNCTION ADJUST #3 (4C) to reset both the A and the B point.

During Loop playback, press the PREVIOUS button to return to the beginning of the loop.



■ Editing

※ See the Appendix section for a list of all file, folder or playlist [Edit Menu Options](#).

Export a File

The Export feature allows you to:

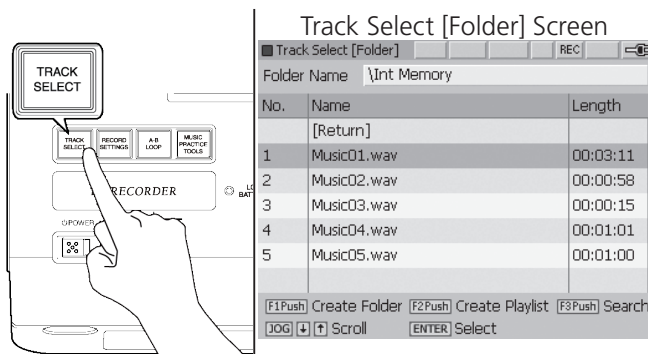
1. Create a new file with different Tempo, Key, or Fine Tune settings.
2. Create a new file in a different format (i.e., an MP3 version of a WAV file).

The new file will always be exported to the same folder as the original.

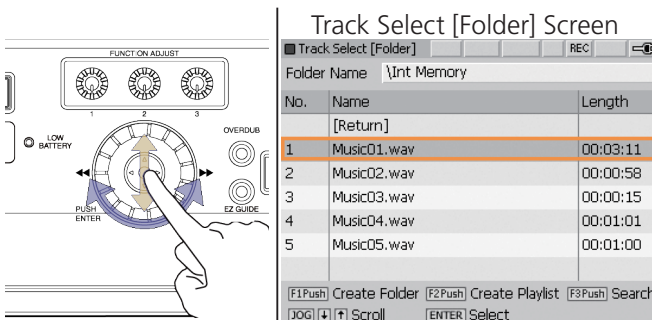
Creating a File with a New Tempo or Key

When Tempo, Key, or Fine Tune settings are altered, the new values are stored with the file. To change Tempo, Key and Fine Tune settings, see [Adjusting Key, Tempo and Fine Tune](#). Once you have altered these settings, follow these steps to create a new file:

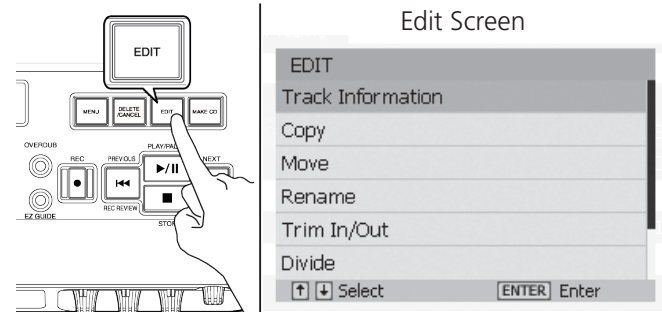
1. Press the TRACK SELECT button to open the Track Select [Folder] screen.



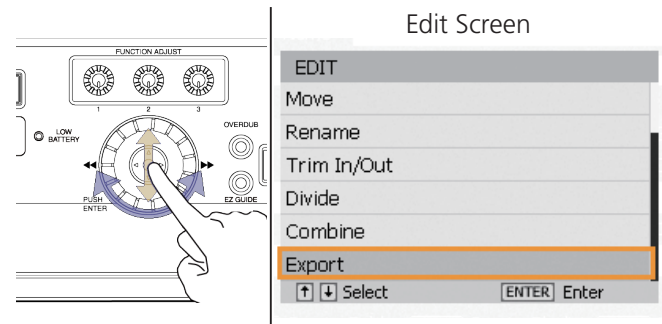
2. Turn the jog wheel or move the joystick up or down to highlight the track you wish to export.



3. Press the EDIT button.

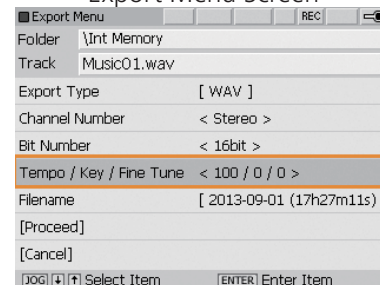


4. Turn the jog wheel or move the joystick up or down to highlight Export. Press ENTER.



5. Confirm the Tempo, Key, and Fine Tune settings.

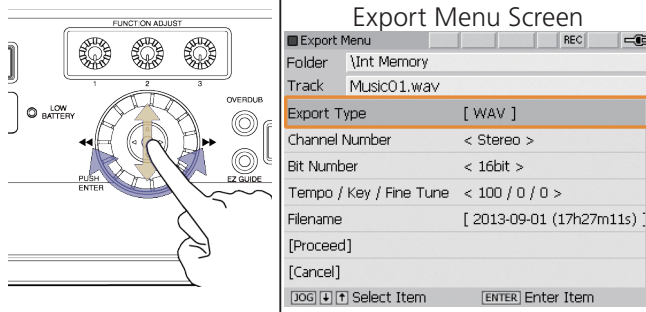
Export Menu Screen



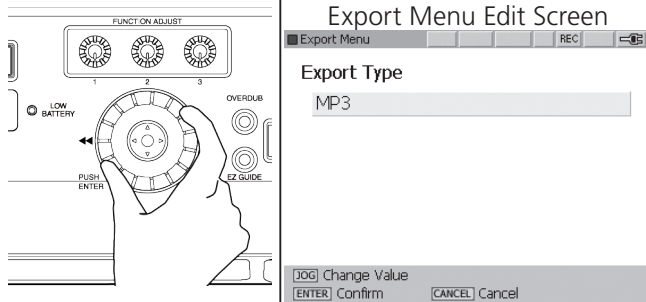
If the displayed values are correct, proceed to [Naming the Exported File](#). If not, turn the jog wheel or move the joystick down to select [Cancel]. See [Adjusting Tempo, Key and Fine Tune](#).

Changing File Format

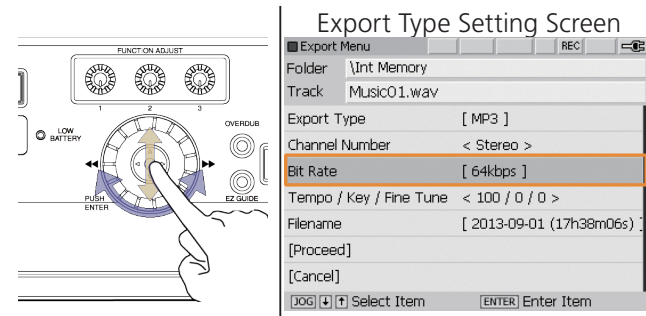
1. Turn the jog wheel or move the joystick up or down to highlight Export Type. The default setting is [WAV]. To export the selected file as MP3, press ENTER.



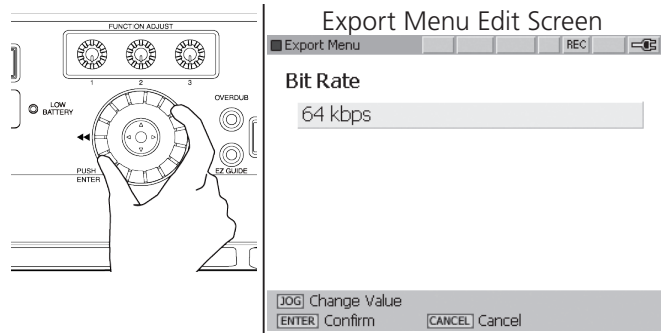
2. Turn the jog wheel to select MP3. Press ENTER to confirm the change.



3. The Export Menu will be displayed. Turn the jog wheel or move the joystick up or down to select Bit Rate. Press ENTER.

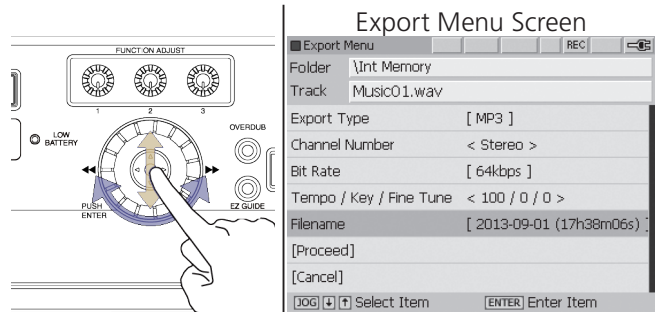


4. Turn the jog wheel to select a bit rate. Press ENTER to confirm the setting. Options include 64, 80, 96, 112, 128, 160, 192, 224, 256 or 320 kbps for stereo files. When exporting mono files, options include 32, 40, 48, 56, 64, 80, 96, 112, 128 or 160 kbps.



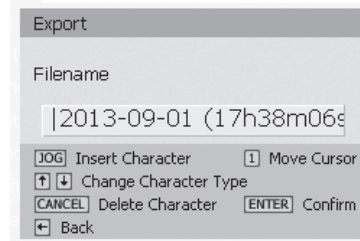
Naming the Exported File

1. Turn the jog wheel or move the joystick up or down to select Filename. Press ENTER.

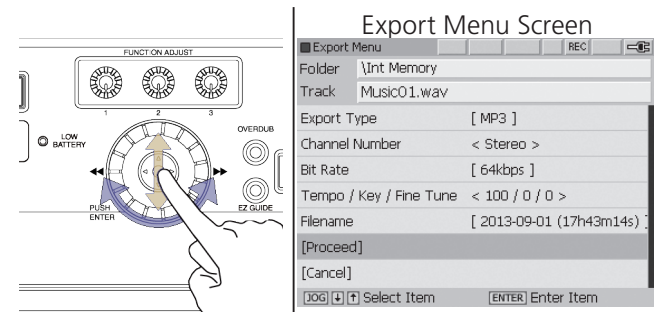


2. Enter the name of the new file by using the [Text Input Method](#).

Text Input Screen



3. When you have finished naming the new file and pressed ENTER to confirm the new title, the Export Menu screen will appear. Turn the jog wheel to select [Proceed]. Press ENTER to begin exporting.

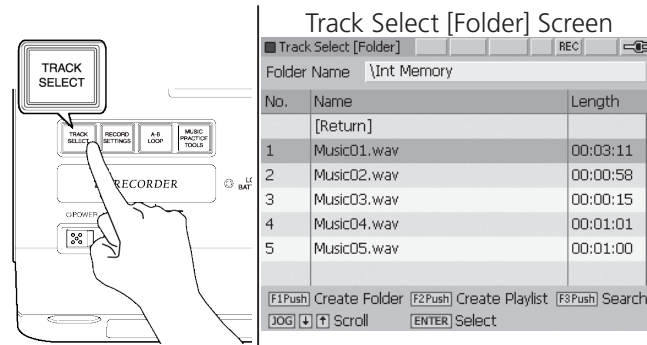


✗ A progress bar is displayed during the Export procedure. Do not power off until the procedure is complete. If power is interrupted during Export, the exported file will be lost.

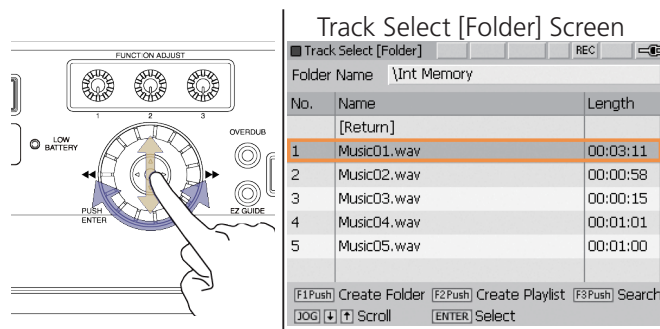
Move a Track

Use this feature to move a folder or file to another location, either a new folder or a different drive: Internal Memory or USBHDD.

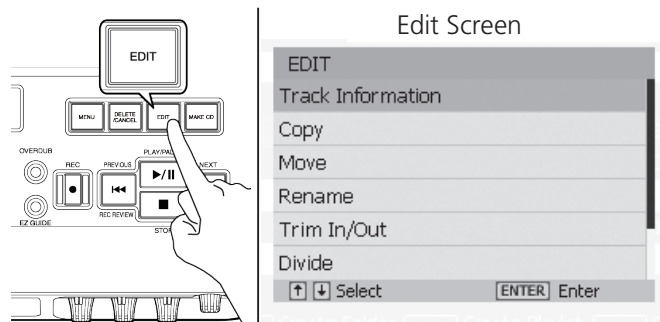
1. Press the TRACK SELECT button to open the Track Select [Folder] screen.



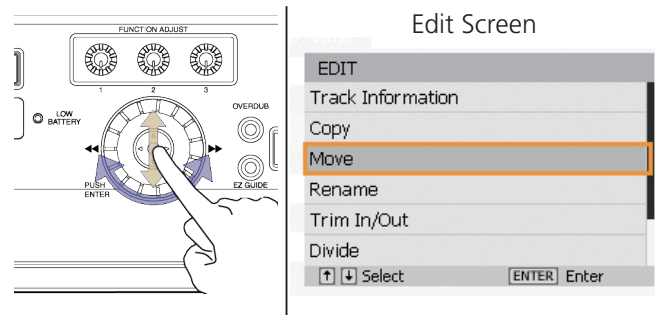
2. Turn the jog wheel or move the joystick up or down to highlight the folder or file you wish to move.



3. Push the EDIT button to open the Edit menu screen.

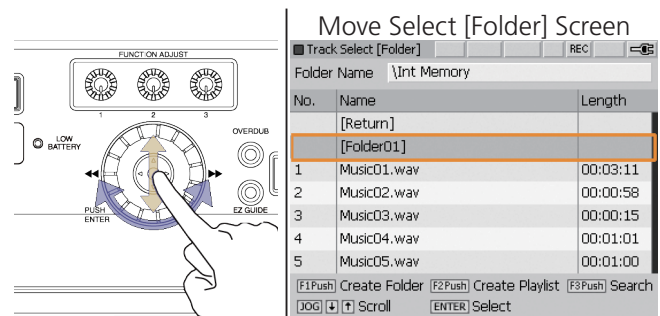


4. Turn the jog wheel or move the joystick up or down to highlight Move. Press ENTER.



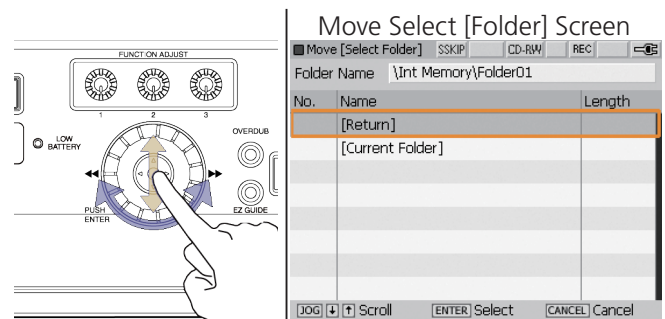
5. The Move screen will open with the question Move Selected File? Use the jog wheel or move the joystick up or down to highlight Yes. Push ENTER with the joystick to confirm the selection.

6. Turn the jog wheel or move the joystick up or down to select the folder you wish to move the selected item to. Once you have highlighted the new location, press ENTER.



7. Turn the jog wheel or move the joystick up or down to highlight [Current Folder]. Press ENTER.

8. The Move screen will open with the question Move 1 file? Move the joystick to the left to highlight OK. Push ENTER to confirm and move the file.



9. To move a file to the USBHDD, start by following steps 1 through 5. After selecting Yes on the Move screen, the Int Memory folder will be shown. Turn the jog wheel or move the joystick up or down to highlight [Return]. Push ENTER.

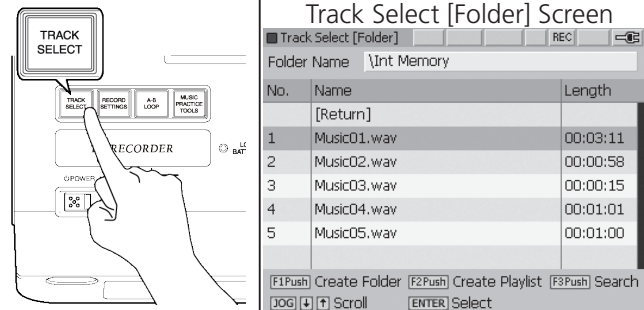
10. The Device Select Screen will be shown. Turn the jog wheel or move the joystick up or down to highlight [USBHDD] . Push ENTER.
11. The USBHDD folder will be shown. Turn the jog wheel or move the joystick up or down to highlight [Current Folder]. Press ENTER.
12. The Move screen will open with the question Move 1 file? Move the joystick to the left to highlight OK. Push ENTER to confirm and move the file to the USBHDD.

✘ A progress bar is displayed during the Move procedure. Do not power off until the procedure is complete. If power is interrupted during the Move operation, the file you are moving may be lost.

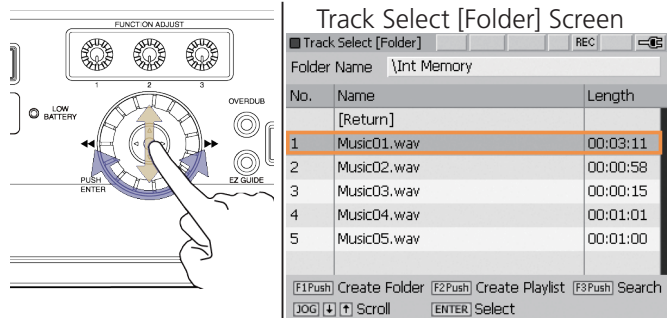
Copy a Track

Use this feature to copy a folder or file to another location, either a new folder or a different drive: Internal Memory or USBHDD.

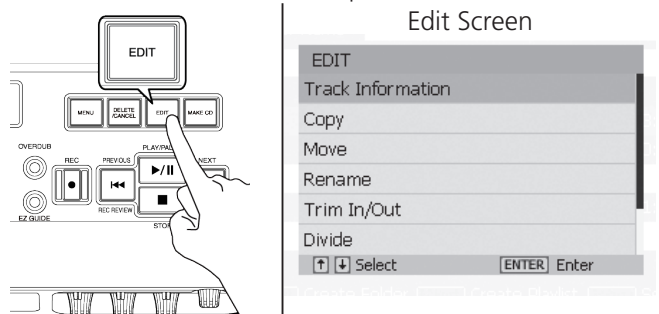
1. Press the TRACK SELECT button to open the Track Select [Folder] screen.



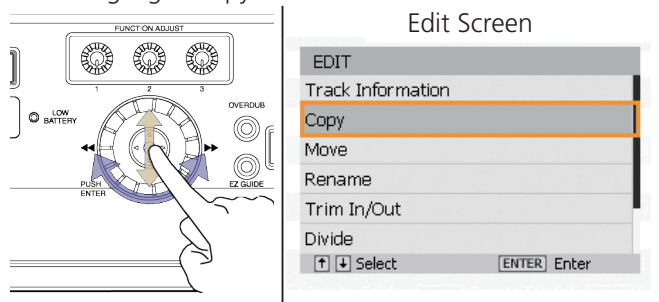
2. Turn the jog wheel or move the joystick up or down to highlight the folder or file you wish to copy.



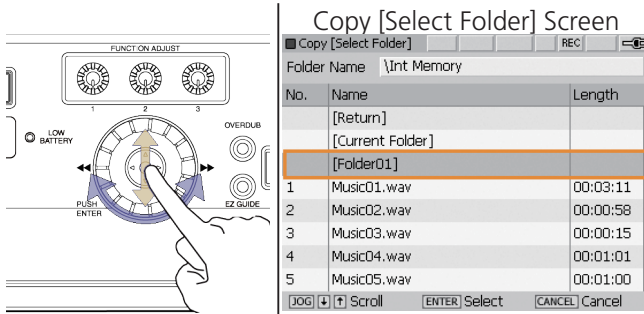
3. Push the EDIT button to open the Edit menu screen.



4. Turn the jog wheel or move the joystick up or down to highlight Copy. Press ENTER.

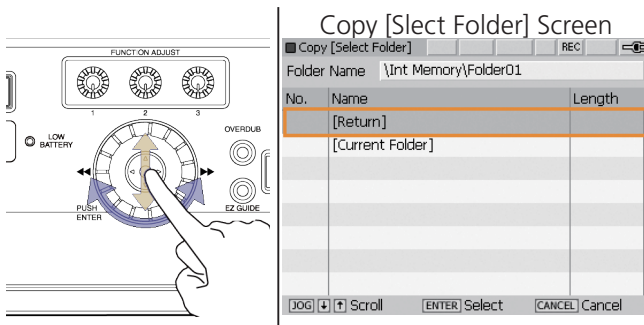


5. The Copy screen will open with the question Copy Selected File? Use the jog wheel or move the joystick up or down to highlight Yes. Push ENTER with the joystick to confirm the selection.
6. Turn the jog wheel or move the joystick up or down to select the folder you wish to copy the selected item to. Once you have highlighted the new location, press ENTER.



7. Turn the jog wheel or move the joystick up or down to highlight [Current Folder]. Press ENTER.
8. The Copy screen will open with the question Copy 1 file? Move the joystick to the left to highlight OK. Push ENTER to confirm and copy the file.

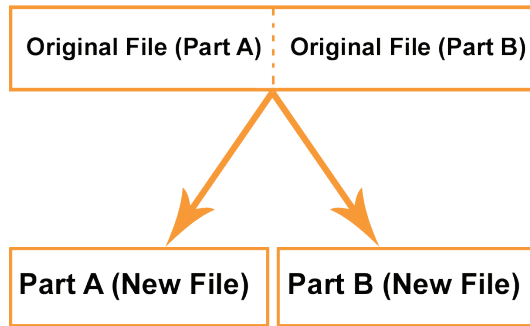
✘ A progress bar is displayed during the Copy procedure. Do not power off until the procedure is complete. If power is interrupted during the Copy operation, data may be lost.



9. To copy a file to the USBHDD, start by following steps 1 through 5. After selecting Yes on the Copy screen, the Int Memory folder will be shown. Turn the jog wheel or move the joystick up or down to highlight [Return]. Push ENTER.
10. The Device Select Screen will be shown. Turn the jog wheel or move the joystick up or down to highlight [USBHDD] . Push ENTER.
11. The USBHDD folder will be shown. Turn the jog wheel or move the joystick up or down to highlight [Current Folder]. Press ENTER.

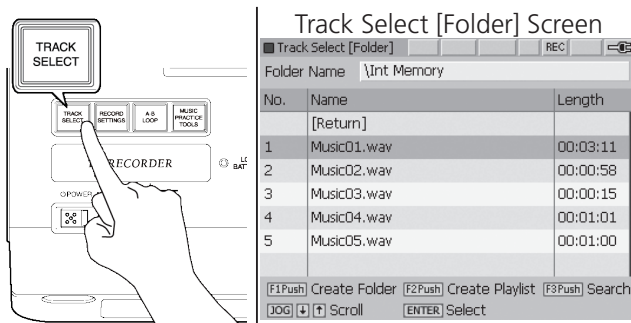
Divide a Track

Use this feature to divide a track into two separate tracks.

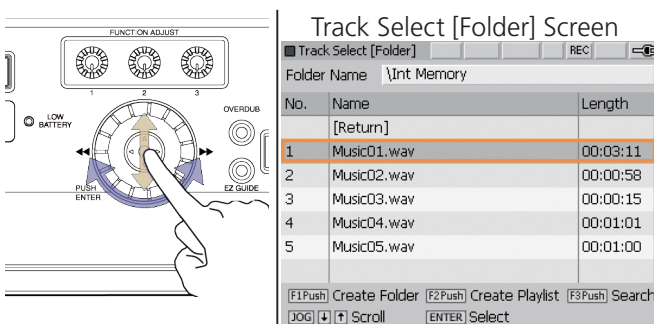


✘ This feature works with WAV files only. If you wish to divide an MP3 file, convert the file to WAV format first before using the Divide feature (see [Export](#)). Each new file must be more than 4 seconds.

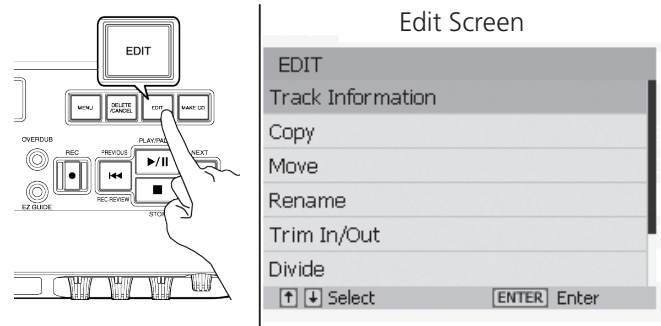
1. Press the TRACK SELECT button to open the Track Select [Folder] screen.



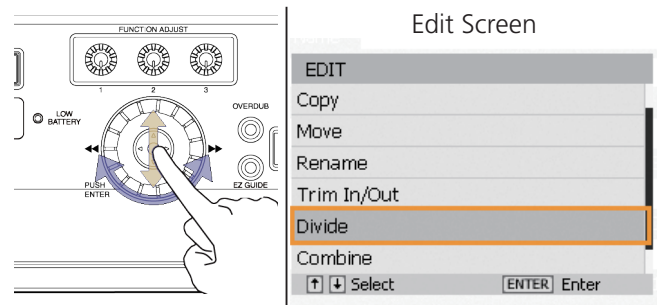
2. Turn the jog wheel or move the joystick up or down to highlight the folder or file you wish to divide.



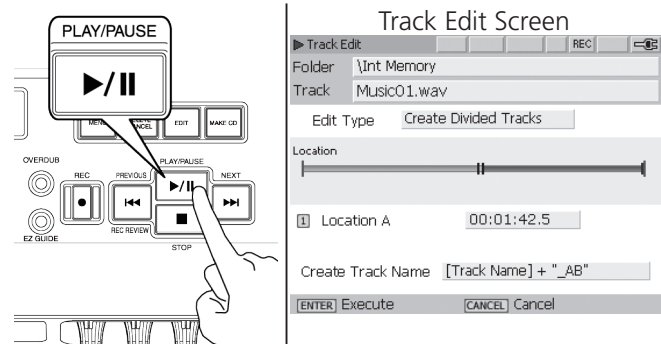
3. Push the EDIT button to open the Edit menu screen.



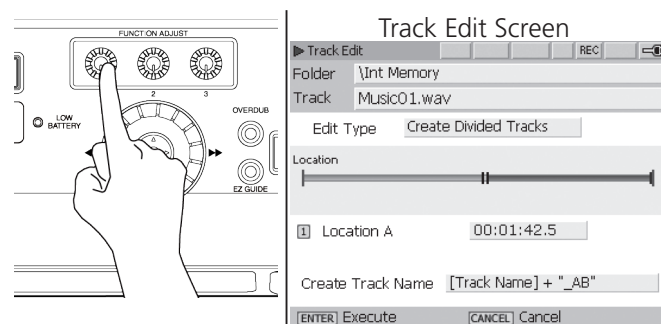
4. Turn the jog wheel or move the joystick up or down to highlight Divide. Press ENTER.



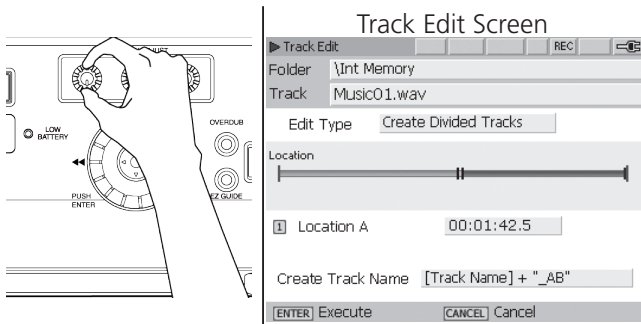
5. The Divide screen will be displayed. Press the PLAY/ PAUSE button [8C] to begin playback.



6. When you hear the point at which you want to divide the track, press FUNCTION ADJUST #1 (4A). Playback will loop the 4 seconds before the Divide point.



7. You can fine-adjust the divide point by turning FUNCTION ADJUST #1 (4A).



8. Press ENTER to divide the track.

The two new files will be placed in the same folder as the original track.

The new files will be named according to the following format:

Original file = 'Track01. wav'

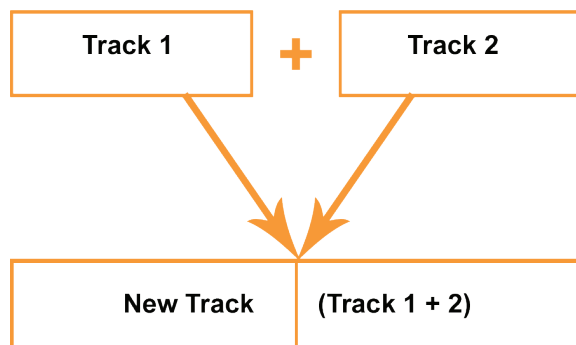
Part A (before Divide point) = 'Track01_A.wav'

Part B (after Divide point) = 'Track01_B.wav'

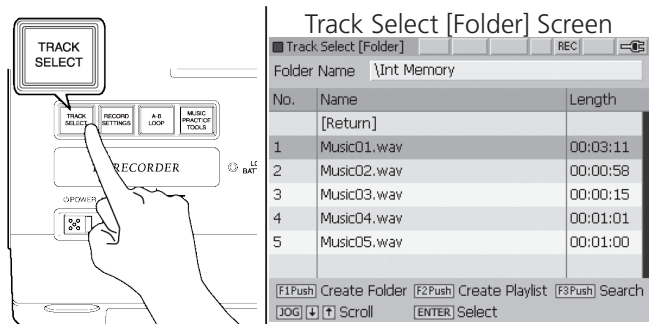
✖ A progress bar is displayed during the Divide procedure. Do not power off until the procedure is complete. If power is interrupted during the Divide operation, the new files may be lost.

Combine a Track

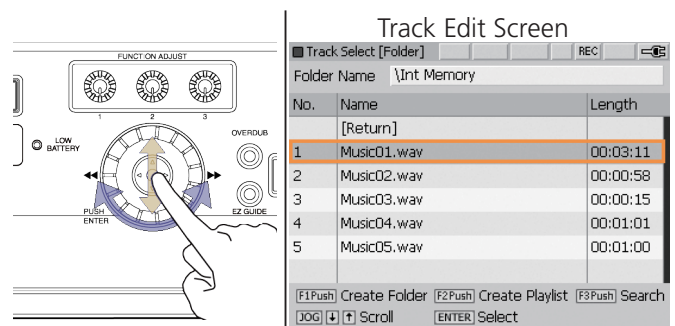
Follow these steps to combine two audio files into one file.



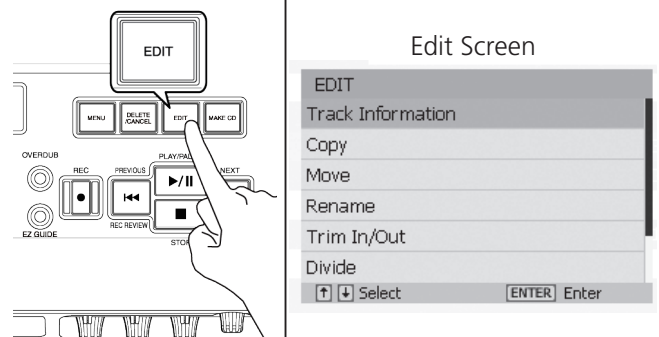
1. Press the TRACK SELECT button to open the Track Select [Folder] screen.



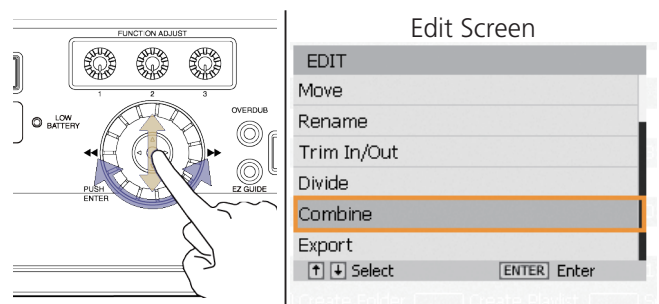
2. Turn the jog wheel or move the joystick up or down to highlight the file you wish to combine (this track will become the first part of the combined file).



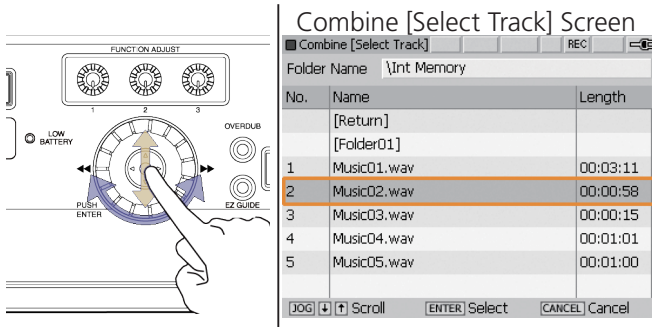
3. Push the EDIT button to open the Edit menu screen.



4. Turn the jog wheel or move the joystick up or down to highlight Combine. Press ENTER.



- The Combine [Select Track] screen will be displayed. Turn the jog wheel or move the joystick up or down to highlight the file you wish to combine (this track will become the second part of the combined file). Press ENTER.



The new file will be placed in the same folder as track 1 (the first track selected during the Combine procedure). The new file will be named according to the following format:

Part A (first file selected) = 'TrackA.wav'

Part B (second file selected) = 'TrackB.wav'

Combined file = 'TrackA_001.wav'

A progress bar is displayed during the Combine procedure.

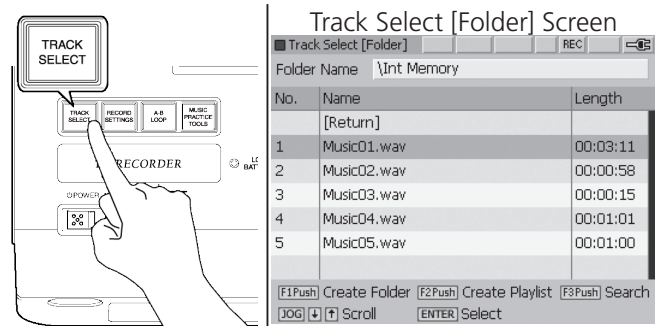
❌ Do not power off until the procedure is complete. If power is interrupted during the Combine operation, the new file may be lost.

Trim In / Out

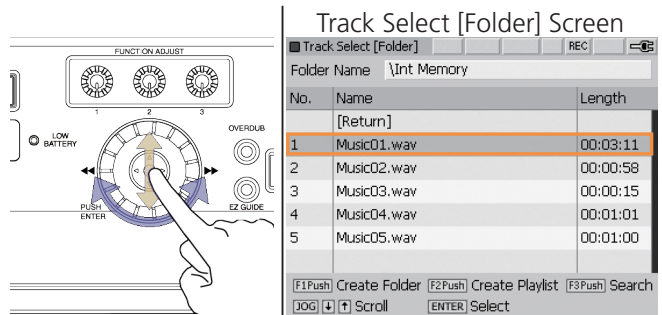
Use this feature to remove unnecessary audio at the beginning or end of track.

❌ This feature works with WAV files only. If you wish to trim an MP3 file, convert the file to WAV format first before using the Trim feature (see [Export](#)). Each new file must be more than 4 seconds.

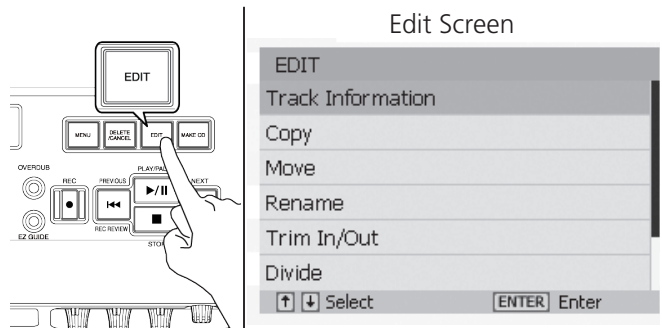
- Press the TRACK SELECT button to open the Track Select [Folder] screen.



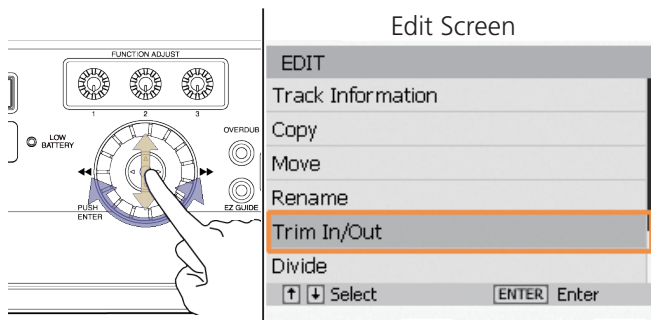
- Turn the jog wheel or move the joystick up or down to highlight the file you wish to trim.



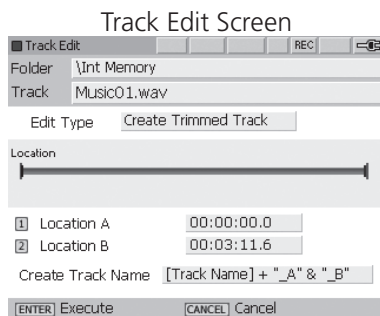
- Push the EDIT button to open the Edit menu screen.



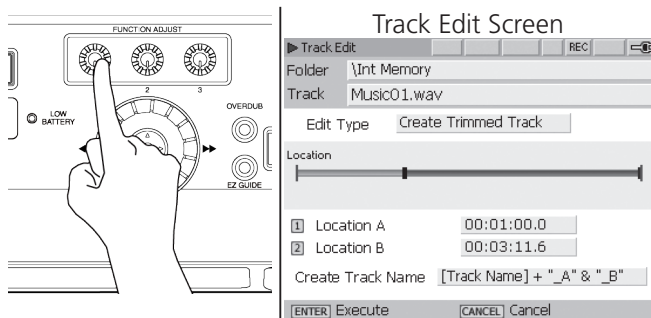
- Turn the jog wheel or move the joystick up or down to highlight Trim In/Out. Press ENTER.



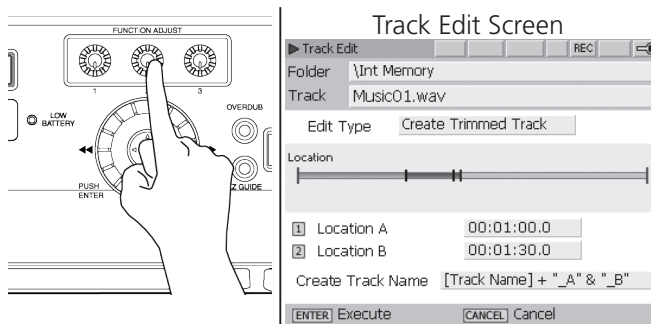
- The Trim In/Out screen will be displayed. Press the PLAY/PAUSE button [8C] to begin playback.



- When you hear the point at which you want to trim, press FUNCTION ADJUST #1 (4A). Playback will loop the 4 seconds after the Trim point. Audio from the beginning of the track to this point will be removed.



- Press FUNCTION ADJUST #2 (4B) to switch playback to the second trim point. Audio from this point to the end of the track will be removed. Playback will loop the 4 seconds before the Trim point.



- You can fine-adjust the first Trim point by turning FUNCTION ADJUST #1 (4A). Fine-adjust the second Trim point by turning FUNCTION ADJUST #2 (4B).

- Press ENTER to trim the track.

The new file will be placed in the same folder as the original track. The new file will be named according to the following format:

Original file = 'TrackA.wav'

Trimmed file = 'TrackA_AB.wav'

A progress bar is displayed during the Trim procedure.

❗ Do not power off until the procedure is complete. If power is interrupted during the Trim operation, the new file may be lost.

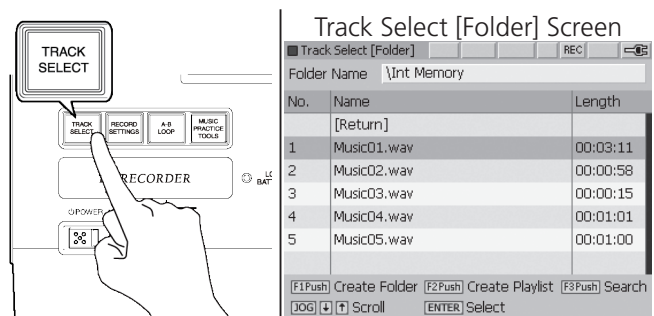
Edit Track Information

Whenever a file is selected in the Track Select screen or the Normal screen, simply press ENTER to view Track Information.

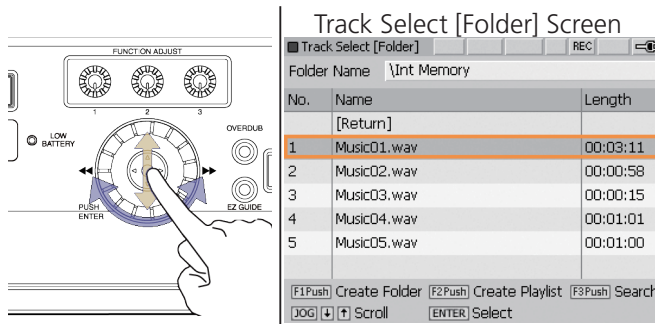
The following information is stored with each file: Title, Artist, Album, Genre, Format, Recording Date & Time, Track Length, Channel Number, Sampling Rate, and Bit Number/Bit Rate.

Follow these steps to edit a track's Title, Artist, Album, and Genre information:

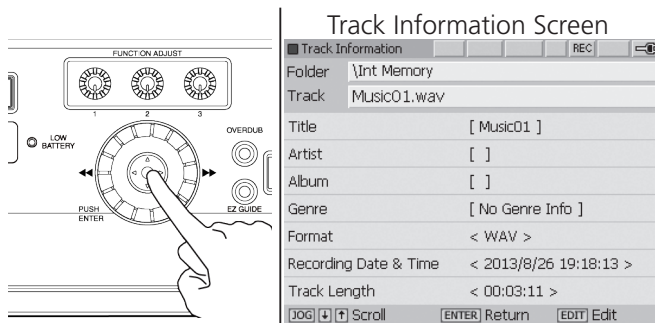
- Press the TRACK SELECT button to open the Track Select [Folder] screen.



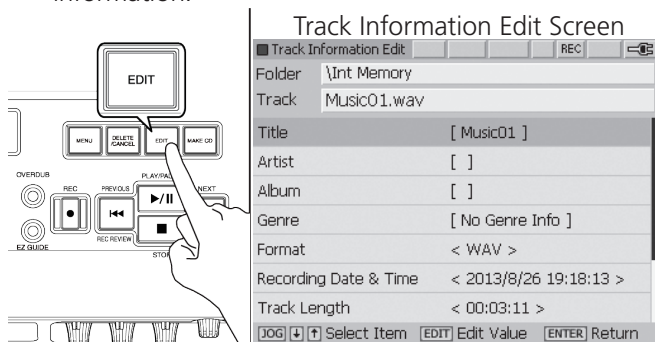
- Turn the jog wheel or move the joystick up or down to highlight the file you wish to edit.



- Press ENTER to view the file's track information.

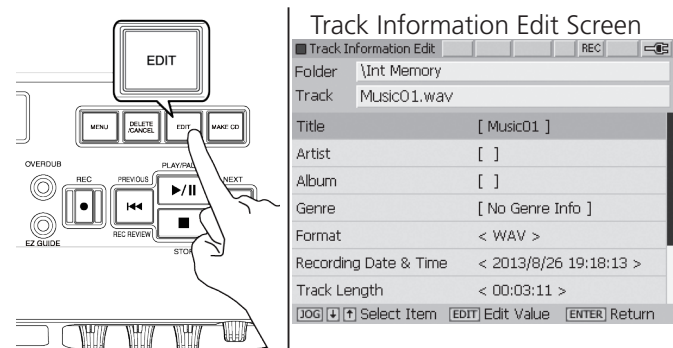


- Press the EDIT button to begin editing track information.

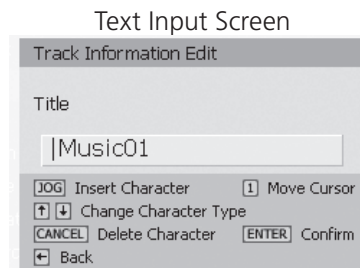


Title/Artist/Album

- From the Track Information Edit screen, turn the jog wheel or move the joystick up or down to highlight Title. Press the EDIT button to change the title.



- Enter the new title by using the [Text Input Method](#).

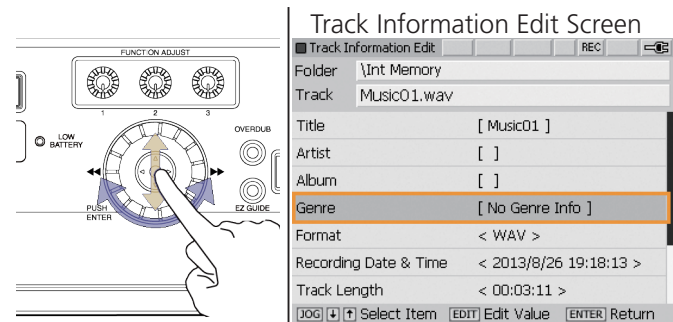


- When you have finished editing text and pressed ENTER to confirm the new title, the Track Information Edit screen will appear. Turn the jog wheel to highlight Artist or Album.

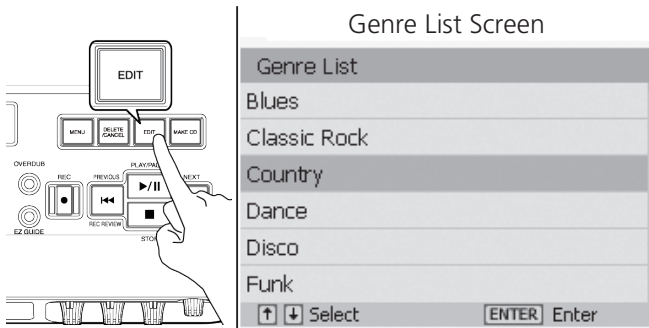
- Press the EDIT button. Enter the new Artist or Album information by using the [Text Input Method](#).

Genre

- From the Track Information Edit screen, turn the jog wheel or move the joystick up or down to highlight Genre.

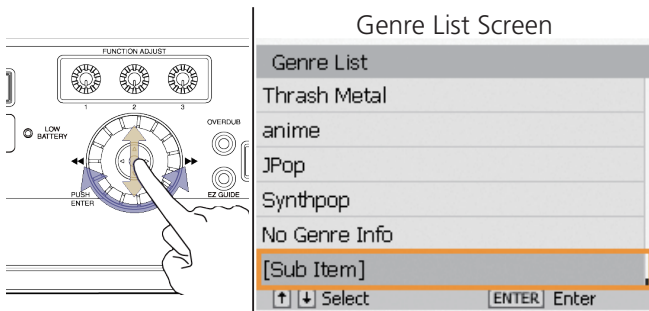


- Press the EDIT button.

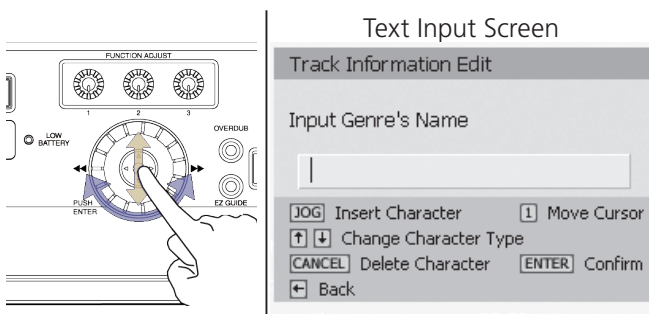


Turn the jog wheel or move the joystick up or down to highlight a genre from the list. Press ENTER to select a genre.

- ✗ If the genre is not listed, turn the jog wheel or move the joystick up or down to highlight [Sub Item].



Press ENTER. Enter the new genre by using the [Text Input Method](#). Repeat steps 1-3. The new genre will now appear as an option.



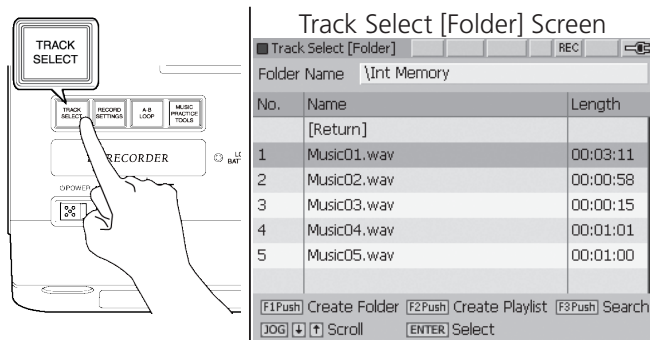
24>16bit Convert

This option only appears for 24-bit WAV files. Select this option to make 24-bit files playable on this recorder. See [Auto Convert](#).

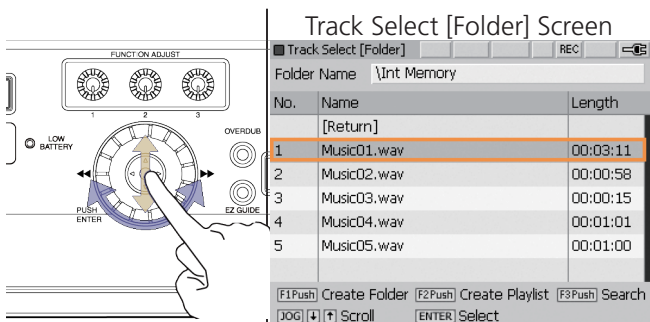
Delete/Cancel

Delete

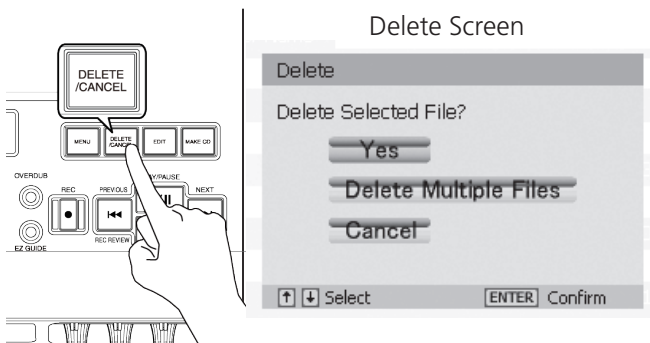
1. Press the TRACK SELECT button to open the Track Select [Folder] screen.



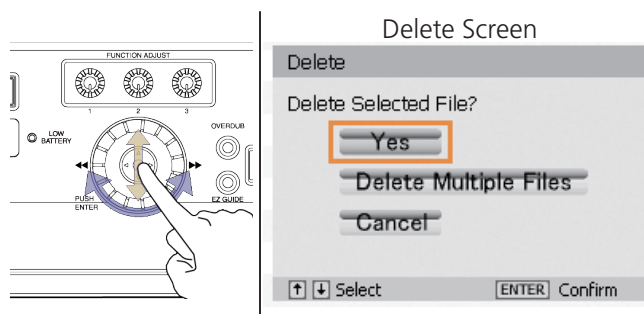
2. Turn the jog wheel or move the joystick up or down to highlight the folder or file you wish to delete.



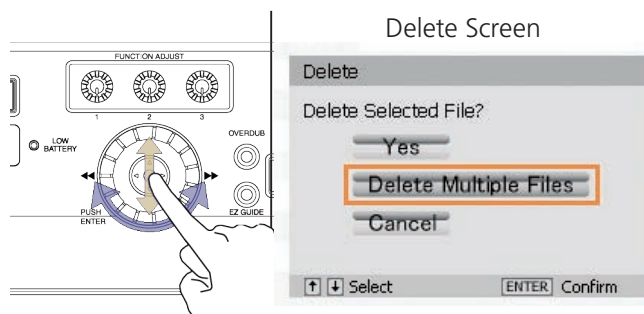
3. Press DELETE/CANCEL button to open the Delete menu screen.



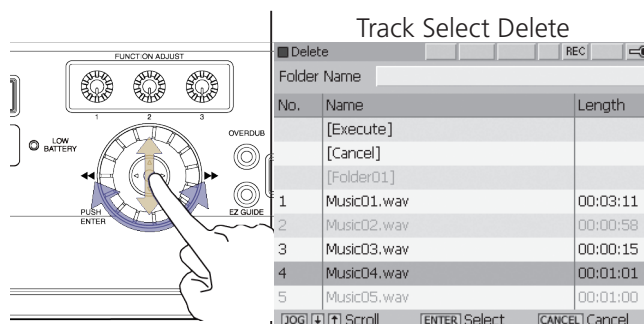
4. To delete the selected file, move the joystick to select "Yes" and then press ENTER.



5. To delete the selected file and others, move the joystick to select "Delete Multiple Files" and then press ENTER.

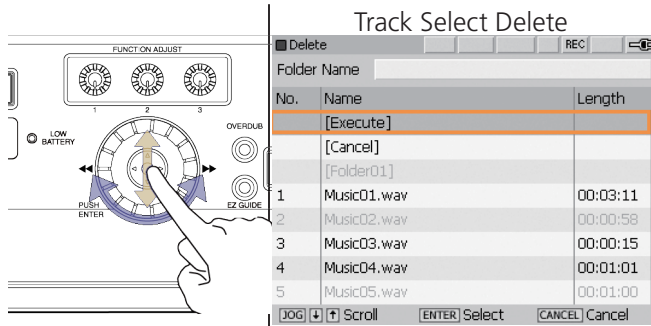


6. Turn the jog wheel or move the joystick up/ down and press ENTER to highlight a file that you want to delete.



7. Repeat step 6 to select the files to be deleted.

8. Move the joystick to select "Execute".



9. Press ENTER to open the Delete menu screen.
10. Move the joystick to select "OK" and press ENTER to delete the files.

Cancel

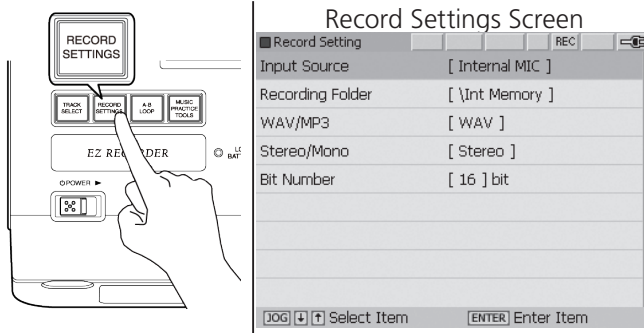
Press to cancel settings and delete characters when editing titles and file information.

Recording

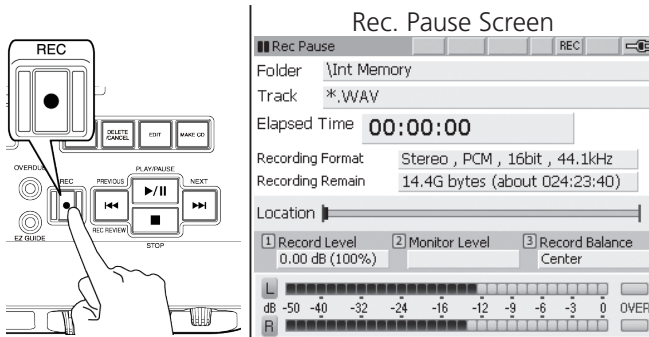
Recording to the Internal Memory

Internal Memory is the default recording destination.

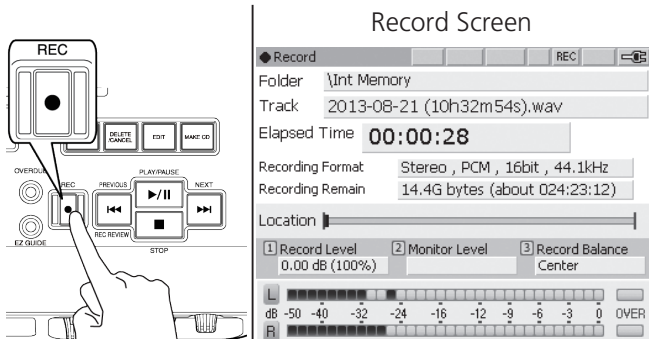
1. Press the RECORDING SETTINGS button to confirm Recording Settings. When the selected menu is not changed, skip the next step. To change the selected menu, refer to Recording Settings Menu.



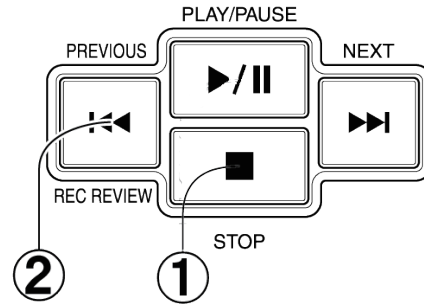
2. Press the Record button once to enter Record Pause mode. The Record button will flash and the VU meters at the bottom of the display will respond to your input signal(s).



3. Press the Record button again to start recording. The Record button will stay lit during recording.



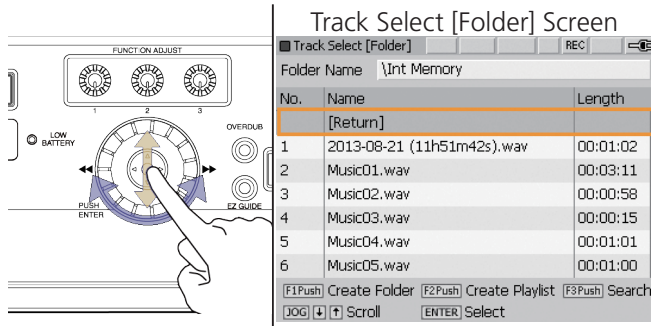
4. Finish recording.



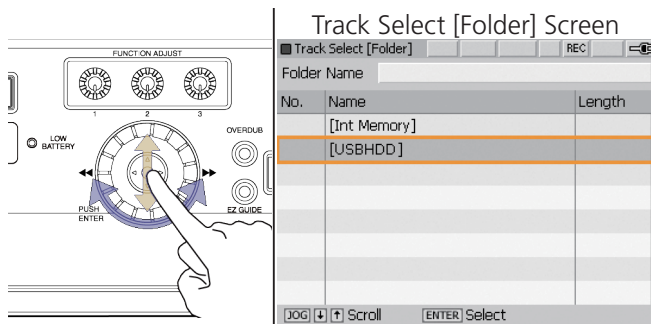
- ① Press the STOP button when you are finished recording, or
- ② Press the REC REVIEW button to stop the recording and playback the recording immediately.

Recording to a USB Memory

1. Insert USB Flash Drive.
2. Press Record Settings and confirm that [USBHDD] is shown as your recording folder. If it is not shown, highlight Recording Folder and press Enter. Highlight Return and press Enter until USBHDD appears as a folder option.



3. Turn the jog wheel or move the joystick up or down to Select [USBHDD] and press ENTER.

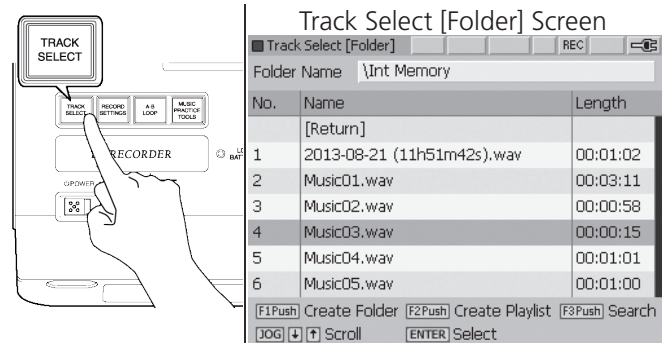


The remaining steps are identical to Recording to the Internal Memory (see above).

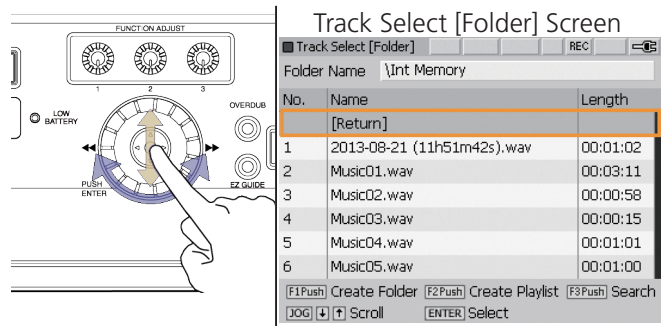
- ❌ To record to the Int Memory and the USBHDD at the same time, turn on **Int Memory + USBHDD Recording** in the Record Settings menu. Select [USBHDD] as the recording folder in order for this feature to work.

Recording Direct to CD

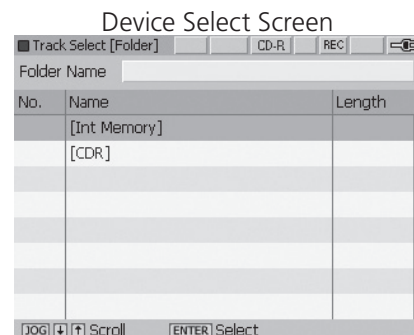
1. Press the TRACK SELECT button. Insert a recordable disc into the CDR drive, wait 10 seconds for the disc to be recognized. Press Record Settings, highlight Record Folder and press Enter.



2. Turn the jog wheel or move the joystick up or down to highlight [Return].

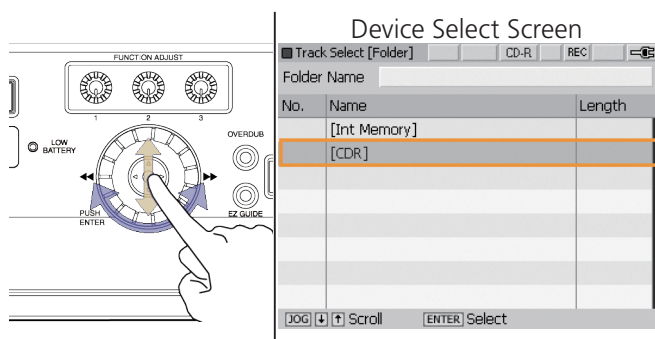


3. Repeat this step until the following screen appears:



Recording

- Turn the jog wheel or move the joystick up or down to highlight [CDR]. Press ENTER.



✘ Direct to CD recording is not recommended when using internal microphones. The recorder's built-in mics are sensitive to the sound of the CD drive.

The remaining steps are identical to Recording to the Internal Memory (see above).

Track Increment

During recording, you can increment tracks by:

- pressing the Record button (seamless track increment when recording to the Internal Memory or USB.*)
- pressing the PLAY/PAUSE button (recording is paused).

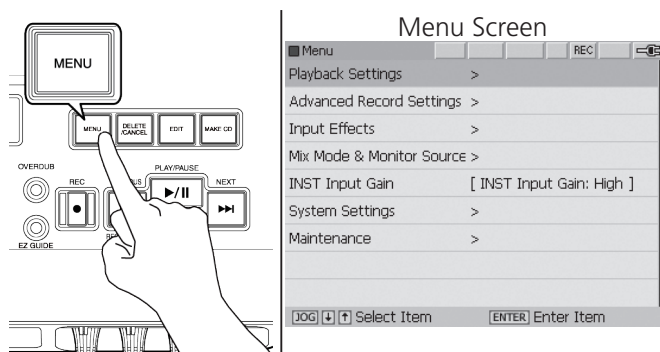
When a recording is paused, press the PLAY/PAUSE button again to continue recording on a new track.

* There is no seamless track increment when recording direct to CD. The recorder must enter RECORD/PAUSE mode.

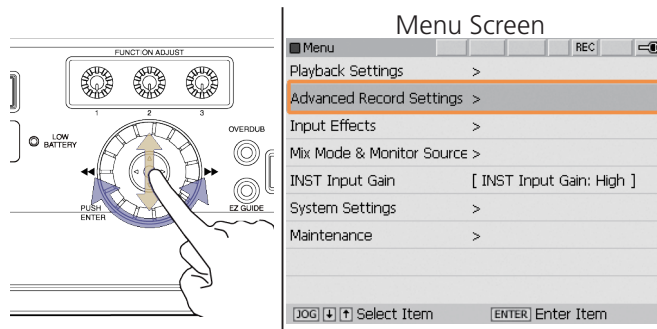
Advanced Record Settings Menu

To access the Advanced Record Settings menu:

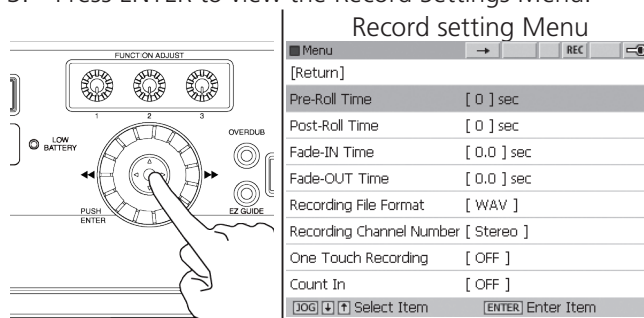
- Press the MENU button.



- From the menu screen, turn the jog wheel or move the joystick down to select Advanced Record Settings.



- Press ENTER to view the Record Settings Menu.



To change Record Setting:

- Move the joystick up or down or turn the jog wheel to highlight options on the Record Settings screen.
- Press ENTER to select the setting you wish to edit.
- Turn the jog wheel to change the value.
- Press ENTER to confirm or CANCEL to cancel the change.

Silent Skip Recording

Silent Skip pauses recording when audio has a silent part for a few seconds. Silent Skip resumes recording when the sound signal reappears.

Note: A new file is added each time the unit resumes recording.

Silent Skip menu selections are as follows:

- Sets this function On/Off.
- Sets the silent time detector.
(0, 1, 2, 3, 4, 5 seconds)
- Sets the Threshold level of the silent part.
(-60 dB to -20 dB)

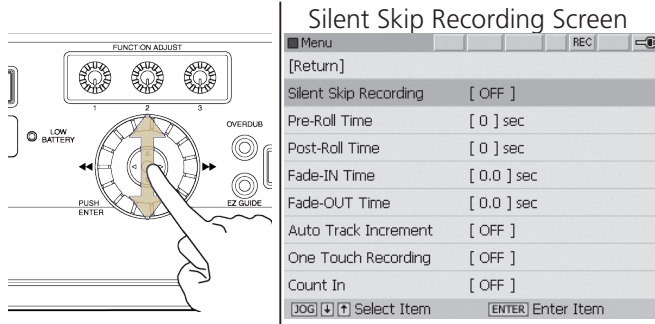
The initial settings are as follows:

Silent Skip Recording: Off
Silent time detector: 3 seconds
Threshold level: -40 dB

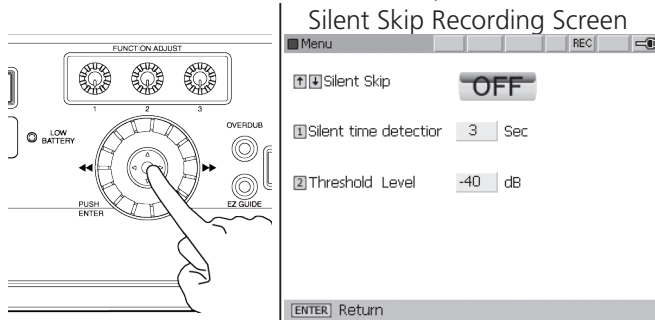
- ✘ Recording is continued at least for 4 seconds when the silent part is detected within 4 seconds after recording. Silent Skip is activated after recording. Silent Skip is unavailable for the following functions:
Count In, Fade In/Out, Auto Track Increment.

To access the Advanced Record Settings menu:

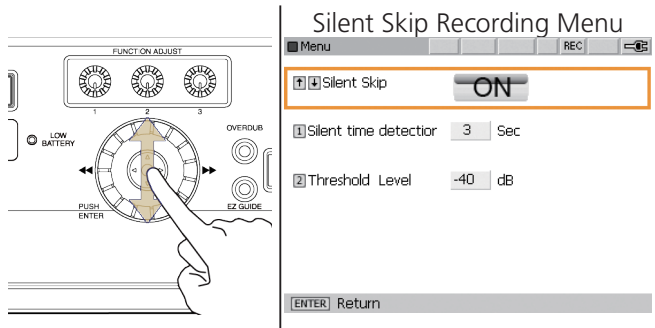
- From Advanced Record Settings, turn the jog wheel or move the joystick down to select Silent Skip.



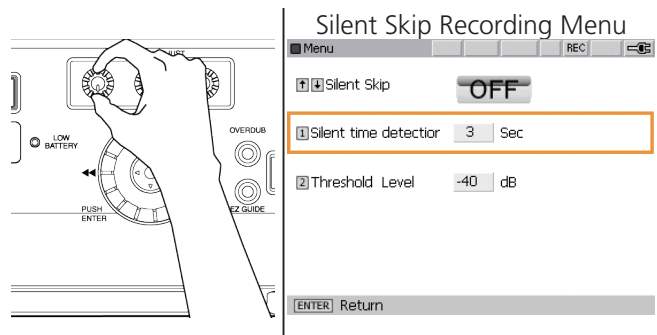
- Press ENTER to view the Silent Skip Menu.



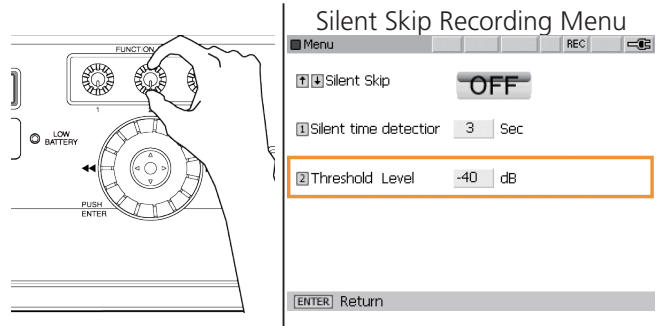
- Move the joystick up or down to select Silent Skip ON or OFF.



Turn the FUNCTION ADJUST #1 to set Silent time detector.



Turn the FUNCTION ADJUST #2 to set Threshold Level.



- Press ENTER to complete settings.

Pre-Roll Time/ Post-Roll Time

During Overdub, it is often helpful to add a time gap between the moment the Record button is pressed and the moment that recording begins (Pre-Roll Time). This added time allows the user to listen to or play along with the accompaniment track before recording. This allows for smooth transitions between original recorded material and new material added through an overdub.

Adding a Post-Roll Time during Overdub will allow the accompaniment track to play for an additional amount of time after the user is finished recording new material. Pre-Roll Time and Post-Roll Time can be adjusted between 0 seconds and 10 seconds in 1 second intervals. The default setting for Pre-Roll Time and Post-Roll Time is [0] seconds.

Fade In / Out

When a Fade-IN Time is selected, the Record Level will gradually increase from a mute condition to full Record Level, from the beginning of the recording to the time specified.

The range for Fade-IN Time is 0.0 (OFF) ~ 10.0 seconds, adjustable in increments of 0.5 seconds. The default setting is 0.0 (OFF) seconds.

When a Fade-OUT Time is selected, the Record Level will gradually decrease from full Record Level to a mute condition. The fade begins the moment the recording is stopped.

The range for Fade-OUT Time is 0.0 (OFF) ~ 10.0 seconds, adjustable in increments of 0.5 seconds. The default setting is 0.0 (OFF) seconds.

- ✘ To fade out manually, gradually turn **FUNCTION ADJUST #1 (4A) (Record Level)** counter-clockwise before stopping a recording.
Make sure ALC is set to OFF.

Auto Track Increment

Increment tracks at pre-set time intervals. Options include: OFF, 1 minute, 5 minutes, 10 minutes, 15 minutes or 30 minutes. The default setting is OFF. This feature does not work when recording direct to CD.

One Touch Recording

The PSD400 series has the ability to bypass Record Pause Mode and simply begin recording after the user presses the Record button once. The default setting for One Touch Recording is [OFF].

Count In

During Overdub, when a Count In value is selected, the metronome will play the specified number of beats before recording begins. You can select up to 16 beats for a Count In. To record using Count In, follow the normal steps (see [Recording](#)). When you press the Record button to begin recording, the metronome will begin automatically before recording begins. To adjust metronome settings, see [Using the Metronome](#).

Auto Convert

Your Superscope PSD400 series recorder is designed to be a "music practice recording system." Your recorder is therefore capable of performing a number of different audio manipulations concurrently, i.e., simultaneous Tempo, Key, and Fine Tune adjustment; Voice Reduction; Parametric EQ; etc..

To allow for this level of real time processing, it is necessary for playback to be CD quality (16bit/44.1 kHz). When higher-than-CD quality (24bit) recordings are made, a CD quality (16bit) version of the file should be created for playback on the PSD400 series recorder. The original 24bit recording will be unaffected and available for transfer to a computer for editing or playback. 24bit recordings appear in grey type in the Track Select [Folder] screen.

To create a 16bit playback file automatically, select Auto Convert [ON]. The default value is Auto Convert [OFF].

CD Pre-Gap Setting

To add a time gap between tracks on an audio CD, adjust this setting between 0 to 5 seconds. The default value is 0 seconds.

Int Memory + USB HDD

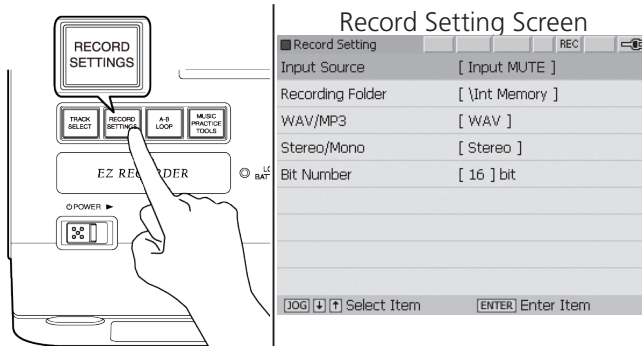
Turn on this feature to simultaneously record to an Internal Memory and the USB HDD. The primary recording destination must be [USBHDD]. When this feature is on, the unit will record to the USB Flash Drive and make a duplicate copy of the file in the root directory of the Internal Memory.

Input Effects

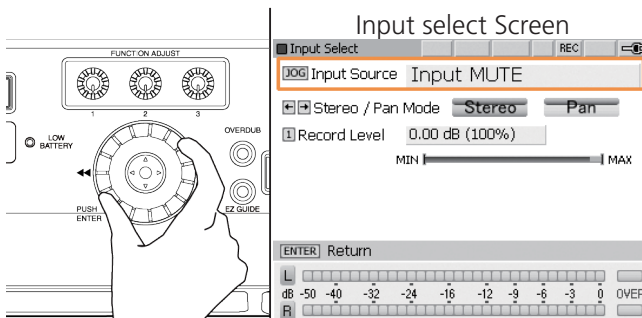
Reverb and Delay effects can be added to input signals and then recorded. It is not possible to add an effect to an existing recording. Follow these steps to apply an effect to your selected input.

Selecting an Input Signal

1. Press the RECORD SETTINGS button to open the Input Select screen.

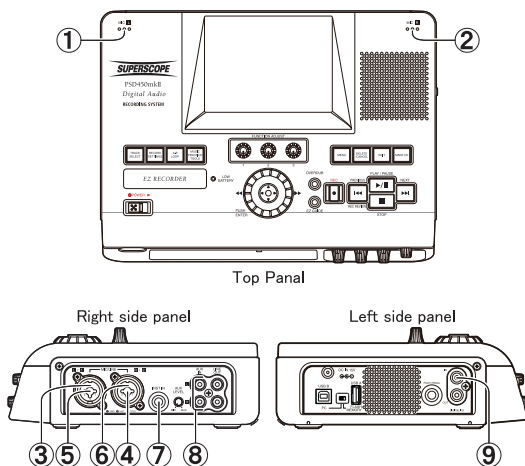


2. Select a input source and press ENTER and then turn the jog wheel to select an input configuration from the options below.



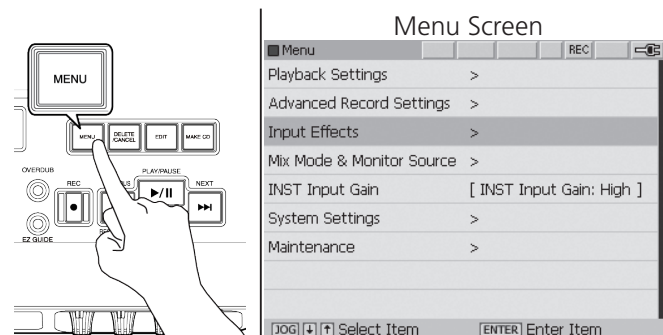
Available Input Sources

Please refer to the chart on the following page.

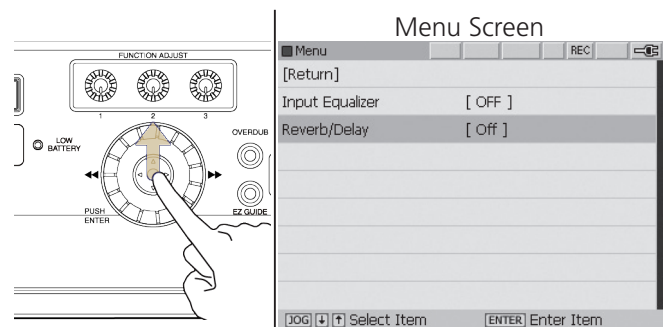


| Input | Description |
|-----------------------------------|---|
| Input Mute | Input signal is muted. |
| Internal MIC | Selects the built-in microphones ① ②. |
| External MIC | Select this setting when external microphones are connected to the XLR/1/4" inputs ③ ④. |
| LINE | Select this setting when LINE level signals are connected to the XLR/1/4" inputs ⑤ ⑥. |
| INST | Selects the INST input ⑦. |
| Internal MIC (L ch) + INST | Select the Left internal microphone ① + the INST input ⑦. |
| External MIC (L ch) + INST | Selects the Left external microphone input ③ + the INST input ⑦. |
| LINE (L ch) + INST | Selects the Left LINE input ⑤ + the INST input ⑦. |
| AUX | Selects the AUX inputs ⑧. |
| DIGITAL | Selects the DIGITAL Inputs ⑨. |

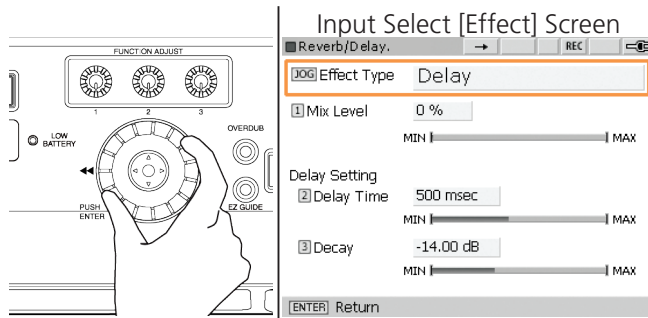
3. Press the MENU button, and select Input Effect by using the jog wheel or the joystick and press ENTER.



4. Select Reverb/Delay by using the jog wheel or the joystick and press ENTER.



- Turn the jog wheel to select the effect type from the table below. The default setting is OFF.



Effect Type Settings

| Effect | Description |
|--------|--|
| OFF | No effect. |
| Room | Adds ambience similar to that of a small to medium sized room. |
| Hall | Adds ambience similar to that of a large hall. |
| Plate | Imitates the sound of a plate reverb unit. |
| Delay | Adds discrete echoes to the sound source. |

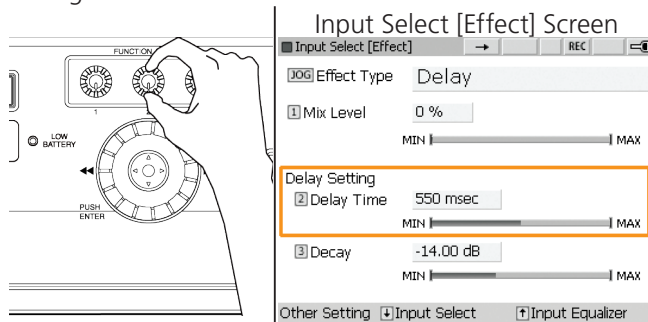
- If Room, Hall, or Plate is selected as the Effect Type, the only parameter to adjust is the Mix Level. The Mix Level setting controls the balance between direct signal (0%) and processed signal (100%).
- If Delay is selected as the Effect Type, the following additional parameters should be adjusted:

① Delay Time

Delay Time sets the amount of time delay between repeats.

Delay Time can be adjusted between 0 msec and 1000 msec in 1 msec intervals. The default setting is 500 msec.

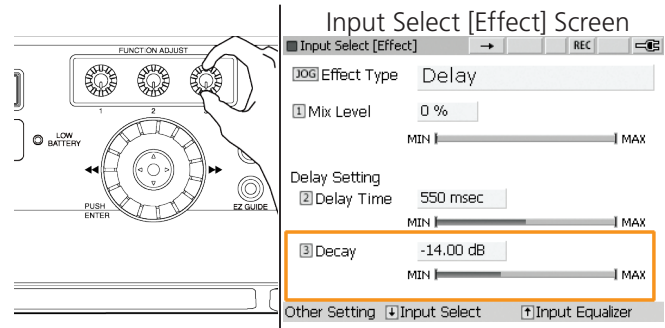
Turn FUNCTION ADJUST # 2 (4B) to adjust Delay Time. Press FUNCTION ADJUST # 2 (4B) to return to the default setting.



② Decay

Decay sets the amount of attenuation for each successive repeat. The greater the attenuation, the quicker the echoes will fade away. Decay can be adjusted between -20.00 and -3.00 dB in 0.25 dB steps.

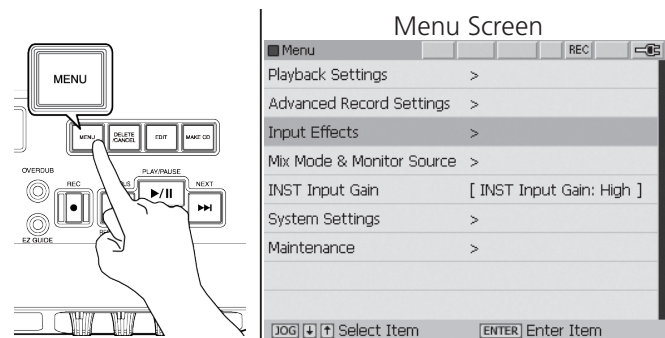
The default is setting is -14.00 dB. Turn FUNCTION ADJUST # 3 to adjust Decay. Press FUNCTION ADJUST # 3 to return to the default setting.



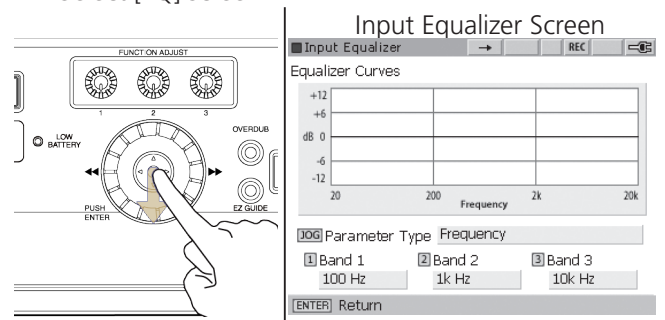
Input Equalizer

Follow these steps to adjust the input equalizer:

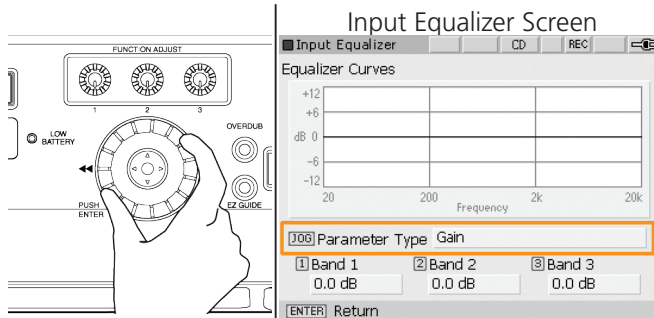
- Press the MENU button and select Input Effect by using the jog wheel or the joystick. Press ENTER.



- Select Input Equalizer by using the jog wheel or the joystick. Press ENTER.
- Press the joystick down one time to open the Input Select [EQ] screen.

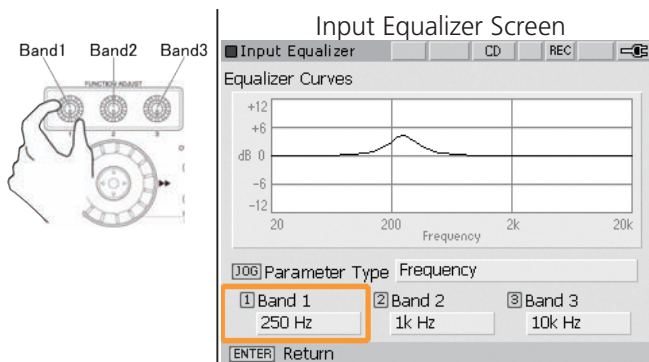


- Repeat the remaining steps under Equalizer Settings: Playback Equalizer.
- Parameter Type:** Turn the jog wheel to select the parameter to be adjusted: Frequency, Gain, or Bandwidth.



Frequency

When Parameter Type is set for Frequency, turn the FUNCTION ADJUST controller to select any frequency between 20 Hz and 20 kHz for each band. Pressing the FUNCTION ADJUST knobs will return all settings to default values.

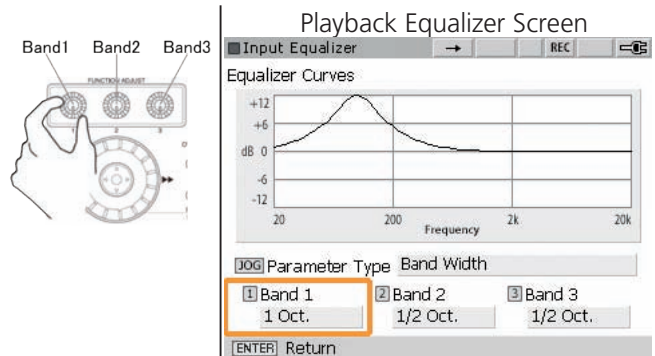


Gain

When Parameter Type is set for Gain, turn the FUNCTION ADJUST controller to determine the gain for each Band. Gain can be adjusted +/- 12 dB. Pressing the FUNCTION ADJUST knobs will return all settings to default values.

Bandwidth

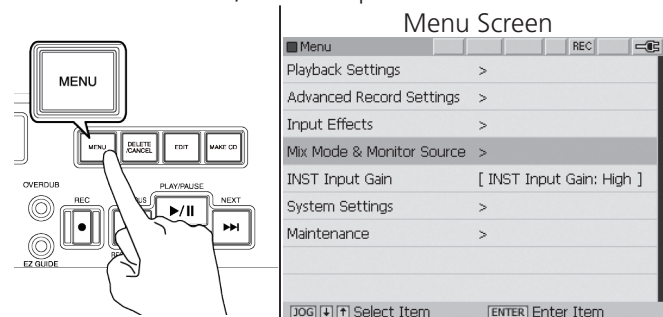
When Parameter Type is set for Bandwidth, turn the FUNCTION ADJUST controller to set the bandwidth for each band. Turn right to widen the frequency band. Turn left to narrow the frequency band. Pressing the FUNCTION ADJUST knobs will return all settings to default values.



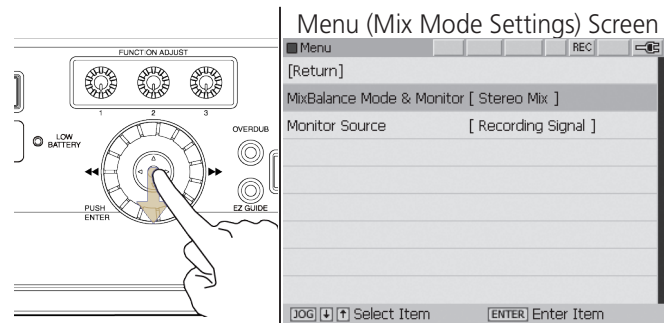
Playback Balance and Level

This unit offers a great deal of flexibility when determining Playback Balance. Follow these steps to alter the Balance and Level of any file during playback.

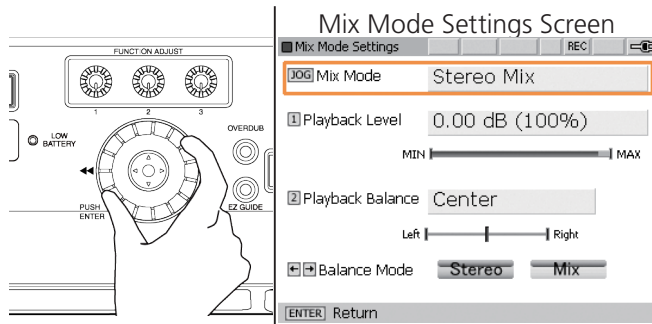
- Press the MENU button and select Mix Mode & Monitor Source, and then press ENTER.



- Press the joystick down one time to open the Mix Mode & Monitor Source screen.

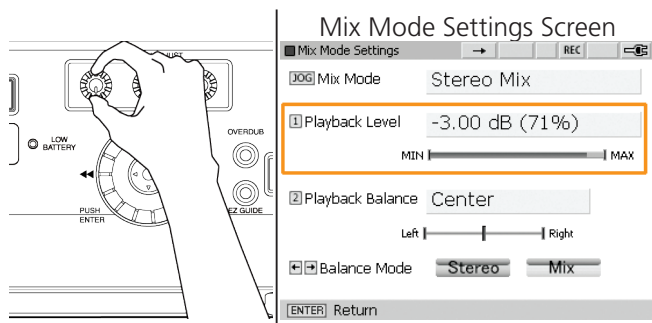


- Turn the jog wheel to select Mix Mode. The Mix Mode settings are explained in the chart below.

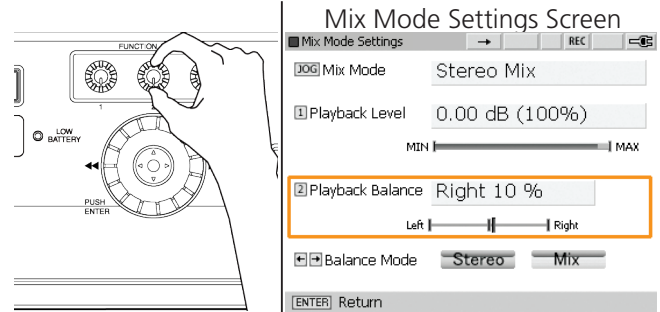


| Mix Mode | Output Mix |
|---|---|
| Stereo Mix (Normal operation) | Left channel [input signal (left) + playback signal (left)] Right channel [input signal (right) + playback signal (right)] |
| L ch – Mix | Left channel [input signal (left) + playback signal (left)] |
| R ch – Mix | Right channel [input signals (right) + playback signal (right)] |
| Mono - Mix | Left channel [input signal (left) + playback signal (left + right)] Right channel [input signals (right) + playback signal (left + right)] |
| Split | Left channel [playback signal (left + right)] Right channel [input signal (left + right)] |

- Playback Level. Turn FUNCTION ADJUST # 1 (4A) to adjust Playback Level. Playback Level can be adjusted between MUTE -90 dB (0%) and +6.0 dB (200%) in 0.25 dB increments. The default setting is 0.0 dB (100%).



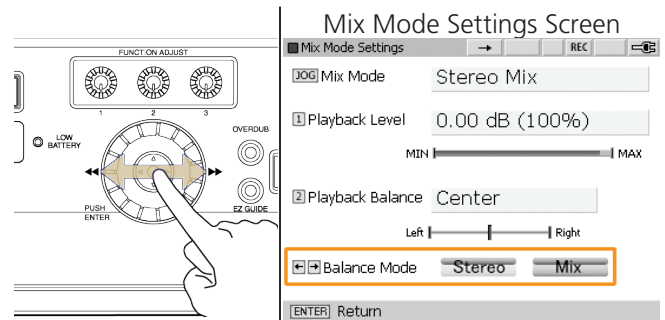
- Playback Balance. Playback Balance can be adjusted in 1% increments between Left 100% ~ Center ~ Right 100% by turning FUNCTION ADJUST #2 (4B). The default setting is Center. For a description of Playback Balance behavior, see Balance Mode below.



- Balance Mode. In normal operation (Stereo), a Playback Balance setting of Left 100% will completely mute the Right channel. Likewise, a Playback Balance setting of Right 100% will mute the Left channel.

When transcribing an instrument that is solidly in one channel (Right or Left), it can be useful to move the desired audio into both channels, rather than muting the opposing channel, i.e., silencing one speaker or one side of a pair of headphones.

This Balance Mode is referred to as Mix. In Balance Mode: Mix, a Playback Balance setting of Left 100% will place the Left channel content in both the Left and Right output channels (both sides of your headphones/ L&R speakers) Move the joystick left or right to select Stereo or Mix. The default setting is Stereo.

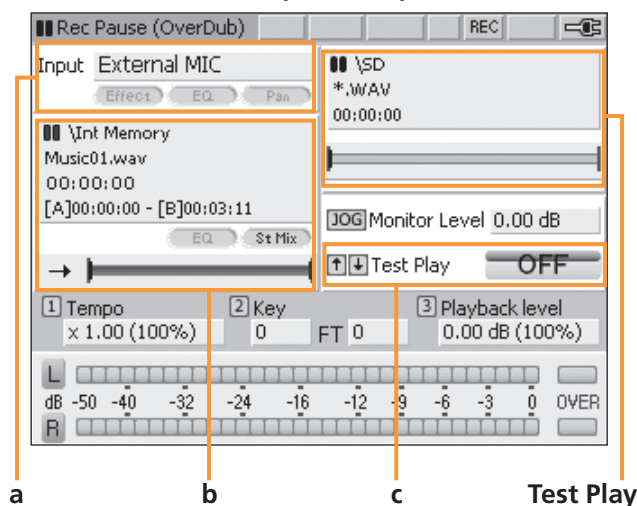


- Monitor Source
About Monitor Source, refer to page 90.

Overdub

The Overdub feature allows the user to layer audio over a pre-existing recording (sound on sound). When the OVERDUB button is pressed, the recorder enters REC Pause Mode (Overdub).

Rec Pause (OverDub) Screen



- a. Input Source
- b. Accompaniment Track
- c. Destination Folder, Name of New Track

In REC Pause Mode (Overdub), pressing the Record button (blinking red) or the PLAY/PAUSE button (blinking green) will mix the selected input signal (see [Set Up](#)) with the currently selected track.

- ✘ The accompaniment track may be located on the Internal Memory, USB or CD. Using CD accompaniment is not recommended when using the built-in microphones, because the sound of the CD drive may be picked up by the recorder's internal microphones.

If you have not adjusted the loop points for the selected accompaniment track, then you may layer audio until the accompaniment track finishes playing or until you stop the recording. When the recording is stopped early (before the accompaniment track finishes playing), the length of the newly recorded file will equal the elapsed time at the moment the recording was stopped.

- ✘ To adjust the level of the accompaniment file, see [Mix Mode & Monitor Source](#). (MUNU -> MixMode & Monitor Source -> Mix Balance Mode & Monitor)

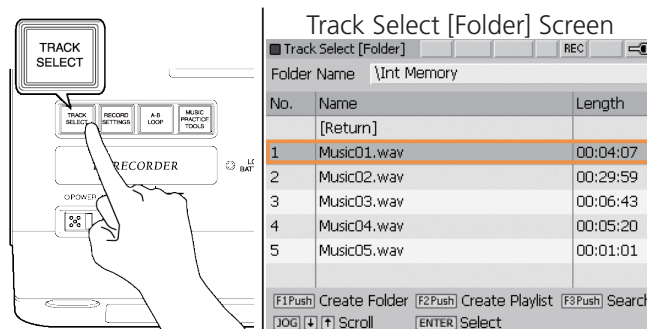
By adjusting loop points before using the Overdub feature, you are able to utilize the recorder's additional Overdub modes:

Overdubbing for Composition (Layering sections of a Track)

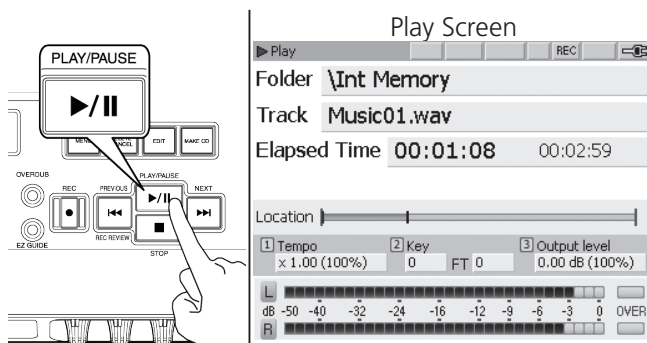
In this mode, you will identify a section of audio, then record additional audio over that section. The end result is a file identical to the original accompaniment file in length, but with an added layer of audio within the section you have outlined.

- ✘ When this mode is selected, playback level will automatically be reset to maintain consistent accompaniment level throughout the recording. See [Playback Balance and Level](#).
- ✘ This mode is not available when using CD audio as accompaniment.

1. Press the TRACK SELECT button to select a track to record over.

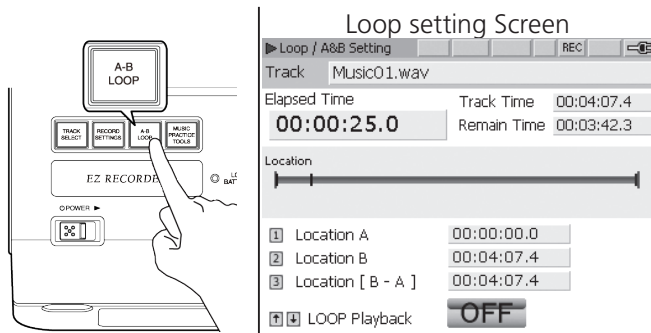


2. If you have already set your Overdub (loop) points, proceed to step 7. If not, press the PLAY/PAUSE button to listen to the track.

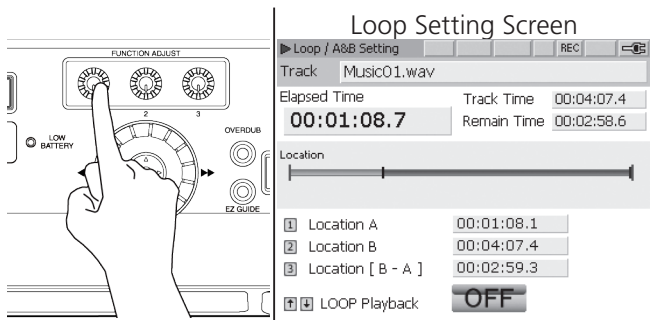


Recording

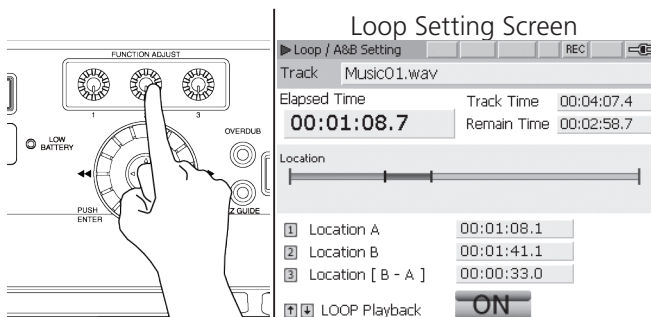
- Press and hold the A-B LOOP button for three seconds during playback to view the LOOP setting menu.



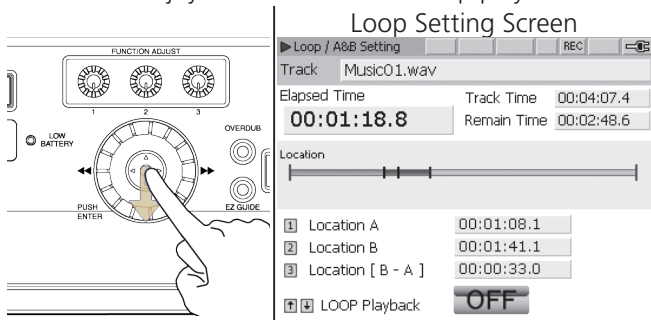
- Press FUNCTION ADJUST #1 (4A) during playback to set Overdub point A. This is the point in the track you wish to begin layering audio.



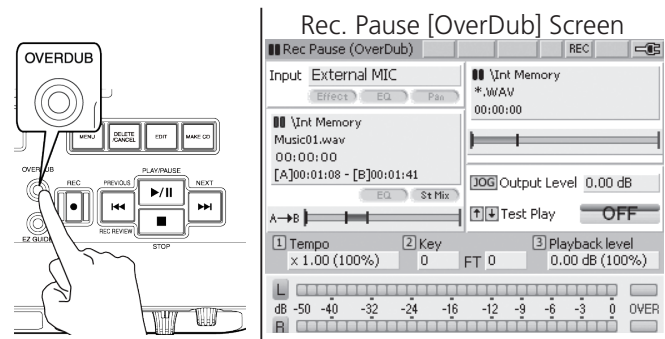
- Press FUNCTION ADJUST #2 (4B) during playback to set Overdub point B. This is the point at which you will finish layering audio. Loop Playback will start at point A automatically.



- Move the joystick down to turn Loop playback OFF.

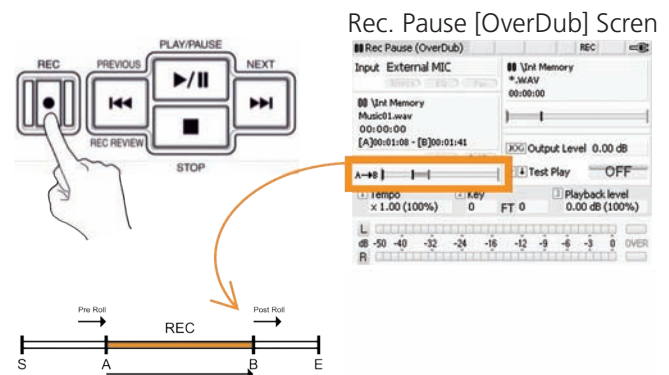


- Press the **[6]** OVERDUB button to enter REC Pause Mode (Overdub).

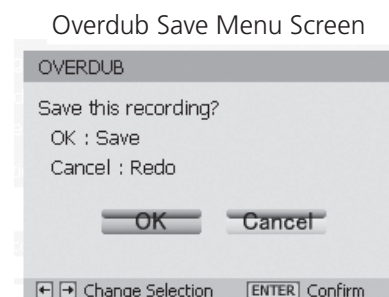


- Adjust the REC Level knobs so that the Record Level (left and right channels) does not exceed 0 dB as indicated on the Level meters. (see [Setting Levels](#)).

- Press the REC button (8A) or PLAY/PAUSE button (8C) to start overdubbing. If a Pre-Roll Time is set in the Record Settings menu (see [Pre-Roll Time/ Post Roll Time](#)), playback will begin a number of seconds before Overdub point A, as determined by the Pre-Roll Time.



- The accompaniment track will stop at the end of point B or the Post-Roll Time (see [Pre-Roll Time / Post Roll Time](#)). The Save menu will appear.

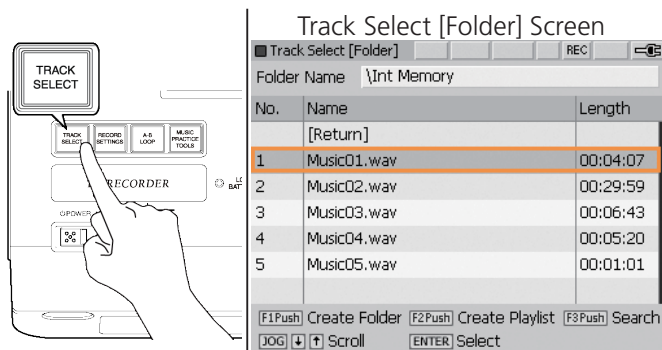


- Select OK and the new file (executed overdub) will be saved. Select Cancel and the file will not be saved. When Cancel is selected, the recorder will re-enter REC Pause Mode (Overdub) (step 7) allowing the user to redo the Overdub recording.

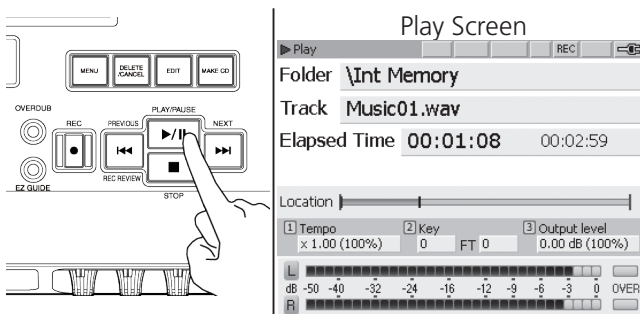
Overdubbing for Practice (Recording over a Loop)

In this mode, you will identify a section of audio, then record additional audio over that section until the STOP button is pressed. Unlike Mode A (Layering Sections of a Track), the length of the resulting file in this mode is determined by how long you choose to record over the repeating loop.

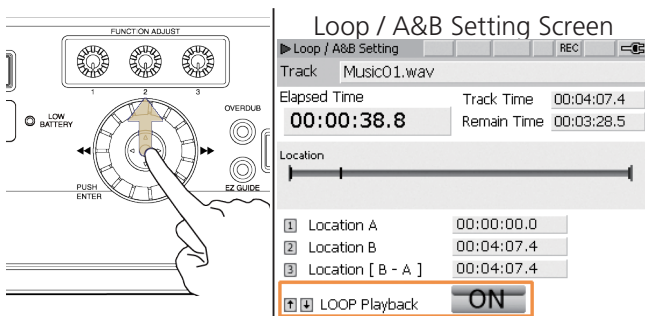
1. Select a track to record over by pressing the TRACK SELECT button.



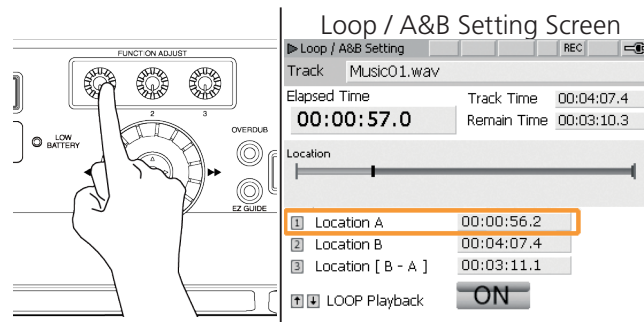
2. Press the PLAY/PAUSE button to listen to the track.



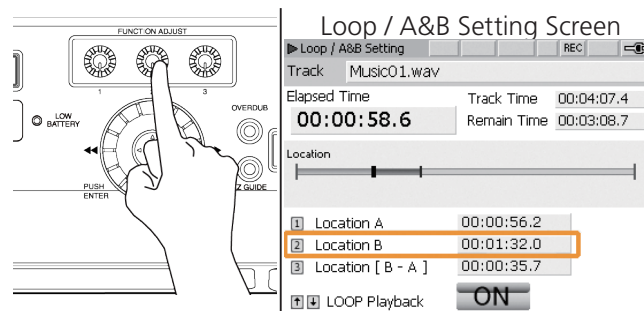
3. Press the A-B LOOP button during playback to view the LOOP setting menu. If you have already set your Overdub points, simply move the joystick up to turn Loop playback ON, and proceed to step 6.



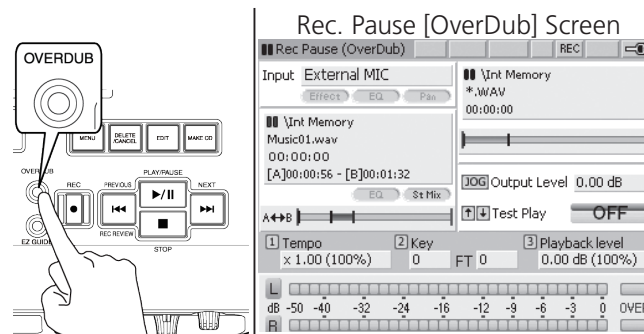
4. Press **FUNCTION ADJUST #1 (4A)** during playback to set the beginning of your accompaniment loop (point A).



5. Press **FUNCTION ADJUST #2 (4B)** during playback to set the end of your accompaniment loop (point B). Loop Playback will start at point A automatically.

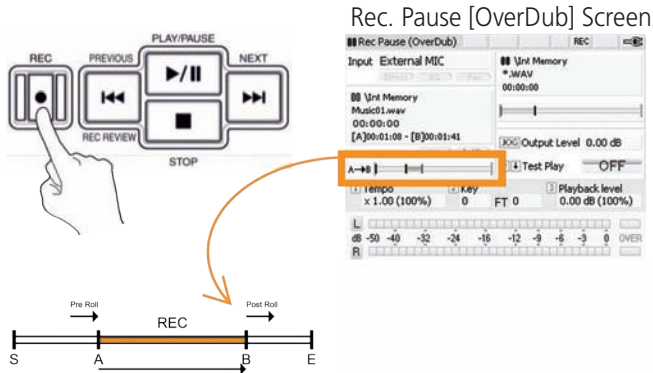


6. Press the OVERDUB button (6) to enter REC Pause Mode (Overdub).

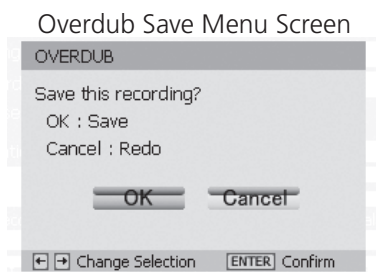


- Adjust the REC Level knobs so that the Record Level (left and right channels) does not exceed 0 dB as indicated on the Level meters. (see [Setting Levels](#)).

- Press the REC button (8A) or PLAY/PAUSE button (8C) to start overdubbing. If a Pre-Roll Time is set in the Record Settings menu (see [Pre-Roll Time](#)), playback will begin a number of seconds before Overdub point A, as determined by the Pre-Roll Time.



- Press the STOP button when you are finished recording. The Save menu will appear.



- Select OK and the new file (executed overdub) will be saved. Select Cancel and the file will not be saved. When Cancel is selected, the recorder will re-enter REC Pause Mode (Overdub) (step #6) allowing the user to redo the Overdub recording.

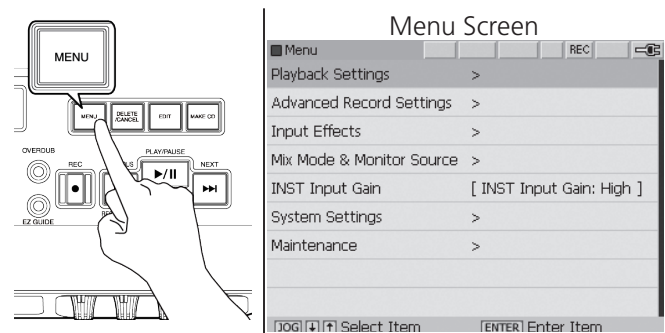
✘ To adjust Playback Level for the accompaniment file, turn FUNCTION ADJUST #2 (4B) when the main Overdub screen is visible.

Monitor Source

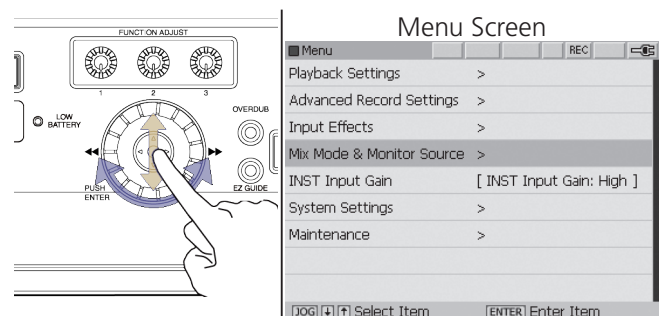
When Overdubbing, it is helpful to specify a Monitor Source. Selecting 'Recording Signal' as the Monitor Source will allow you to hear both the accompaniment file and the input signals (microphones, instruments, etc.) in the headphones and built-in speaker as you record.

When 'Playback Signal' is selected as the Monitor Source, the input signals will not be heard in the headphones or built-in speaker. This allows you to hear the accompaniment track without hearing your own voice or instrument during recording.

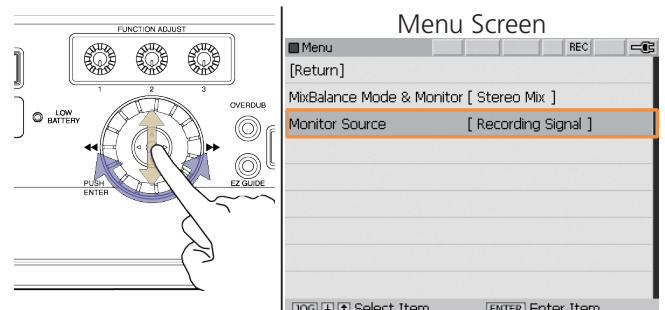
- Press the MENU button.



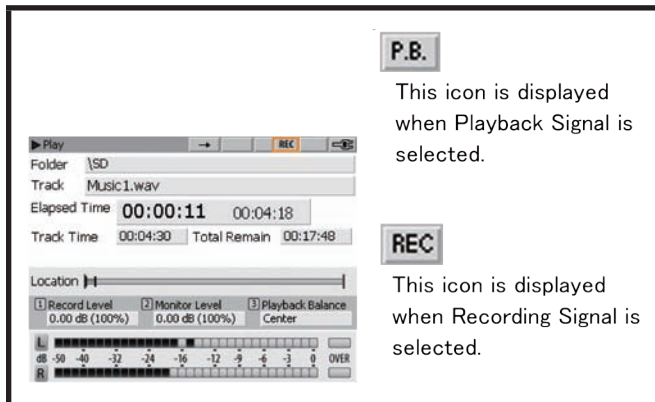
- Move the joystick up or down or turn the jog wheel to select Playback Settings. Press ENTER.



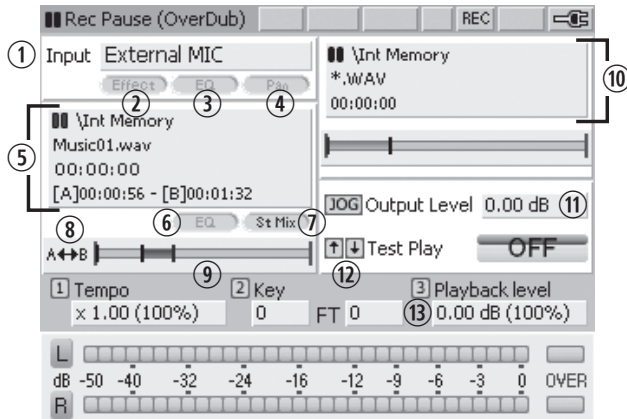
- Move the joystick up or down or turn the jog wheel to select Monitor Source. Press ENTER.



- Turn the jog wheel to select Recording Signal or Playback Signal. Press ENTER. Press the CANCEL button to cancel changes.



OverDub Screen



① Input Source is displayed

② Effect (Reverb/Delay) Icon

| | |
|-----|--------------------------|
| LIT | Reverb/Delay is set. |
| OFF | Reverb/Delay is not set. |

③ Input Equalizer Icon

| | |
|-----|----------------------------|
| LIT | Input equalizer is set. |
| OFF | No Input equalizer is set. |

④ Pan Icon

| | |
|-----|--------------------|
| LIT | Pan Mode is set |
| OFF | Stereo Mode is set |

⑤ Accompaniment track is displayed.
Displays the folder of the accompaniment track.
Displays the accompaniment track.
Displays elapsed time.
Displays the A + B Loop Points.

⑥ Playback Equalizer Icon

| | |
|-----|-------------------------------|
| LIT | Playback equalizer is set. |
| OFF | No Playback equalizer is set. |

⑦ Mix Mode Icon

| | |
|--------------|------------------------------|
| StMix | Mix mode is set Stereo Mix |
| SPLT | Mix mode is set Split |
| L ch Mix | Mix mode is set L ch Mix |
| R ch Mix | Mix mode is set R ch Mix |
| Monaural Mix | Mix mode is set Monaural Mix |

⑧ Loop Mode icon

| | |
|-----|---------------------------|
| → | No location is set. |
| A→B | Loop playback is set OFF. |
| A↔B | Loop playback is set ON. |

⑨ Playback Location

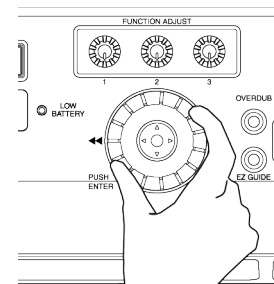
Displays the current position on the time line.
Displays the position of location A and B on the time line when Loop playback is set.

⑩ Recording Folder

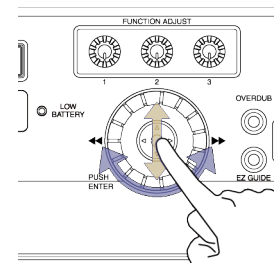
Displays the recording folder
Displays the recording track name
Displays the recording time

⑪ Output Level;

Adjust by using the jog wheel (5-B)



⑫ Test Play ON/OFF



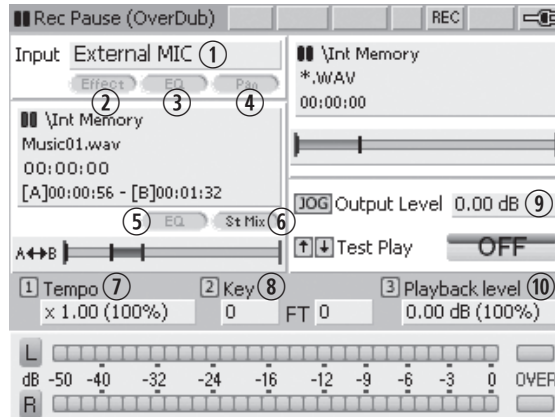
Move the joystick (5-A) up or down to turn on Test Play, The accompaniment track will be played. Adjust the volume level of the accompaniment track and the input signal to record the overdub.

Adjust Tempo (function adjust #1), Key (function adjust #2) and the accompaniment track playback level (function adjust #3).

Confirm the level balance of the accompaniment track and the input signal and turn test play OFF.

OverDub Screen and Audio Signal

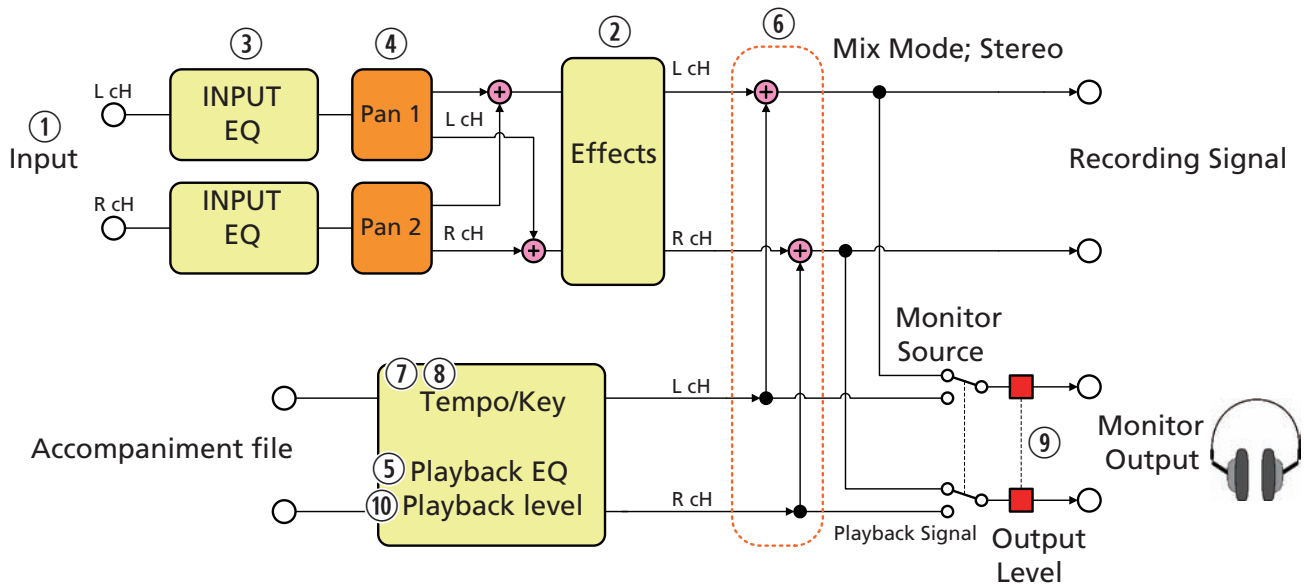
The following block diagrams show the audio signal path when OverDubbing.



Mix Mode Settings changes the signal connections as enclosed by dotted lines in the shown below. The numbers shown on the screen correspond to the numbers in the block diagram.

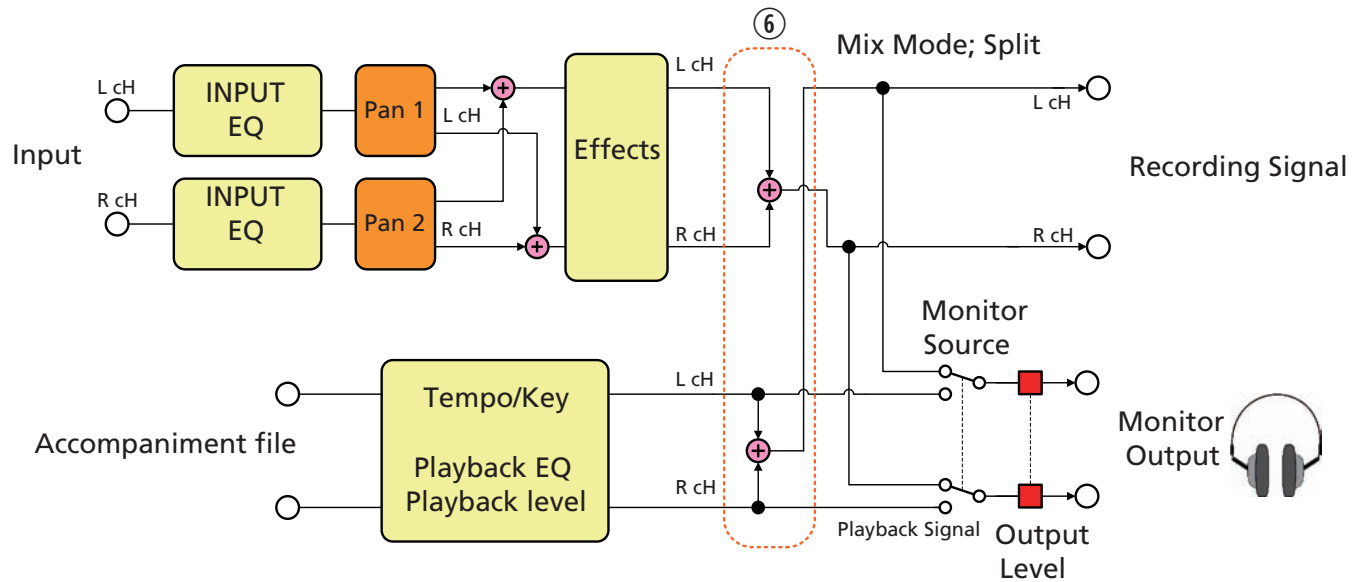
Mix Mode: Stereo

The stereo signal of the accompaniment file and the input source are mixed and recorded.



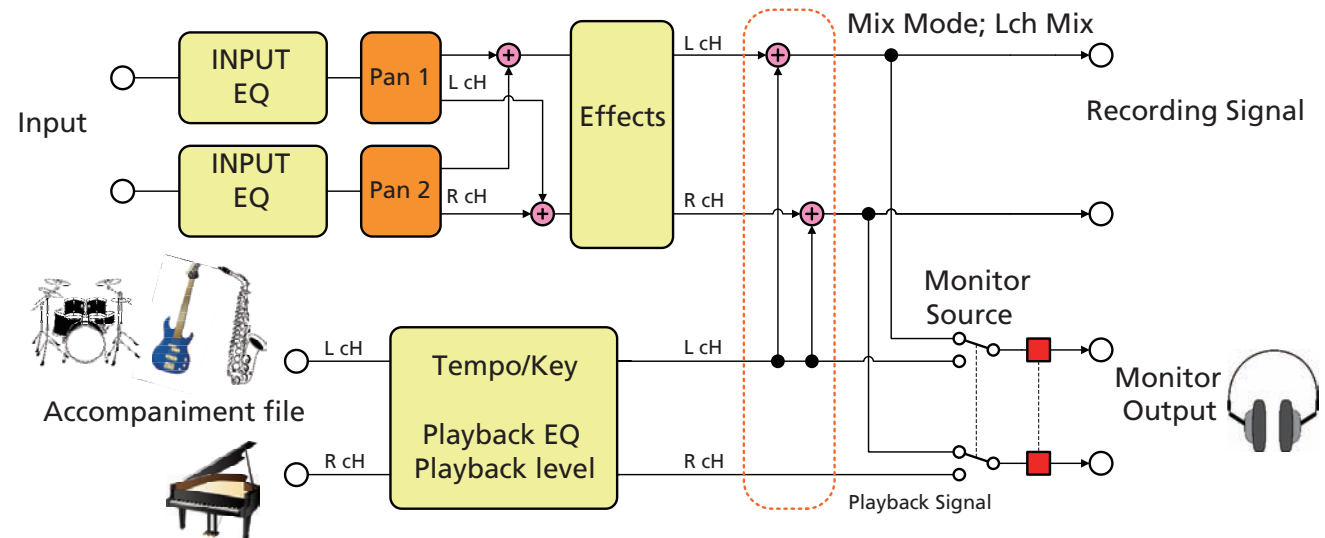
Mix Mode: Split

The signal of the accompaniment file is recorded on the L ch, and the mixed signal of the input source is recorded on the R ch.



Mix Mode: L ch. Mix

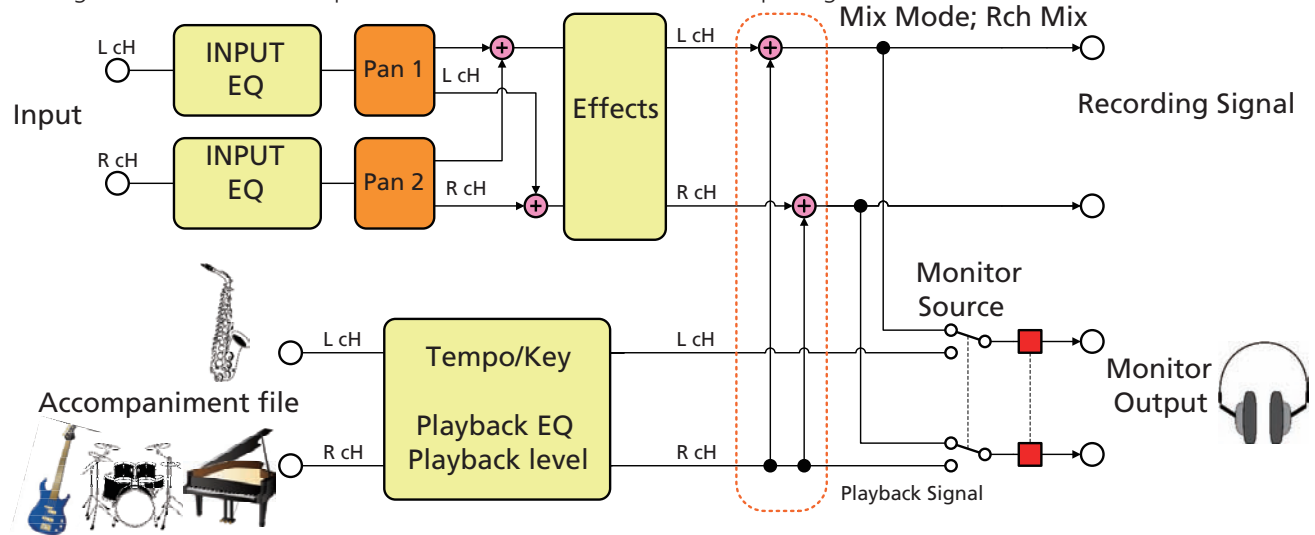
The signal of the L ch accompaniment file is mixed with the L+R input signal and recorded.



Recording

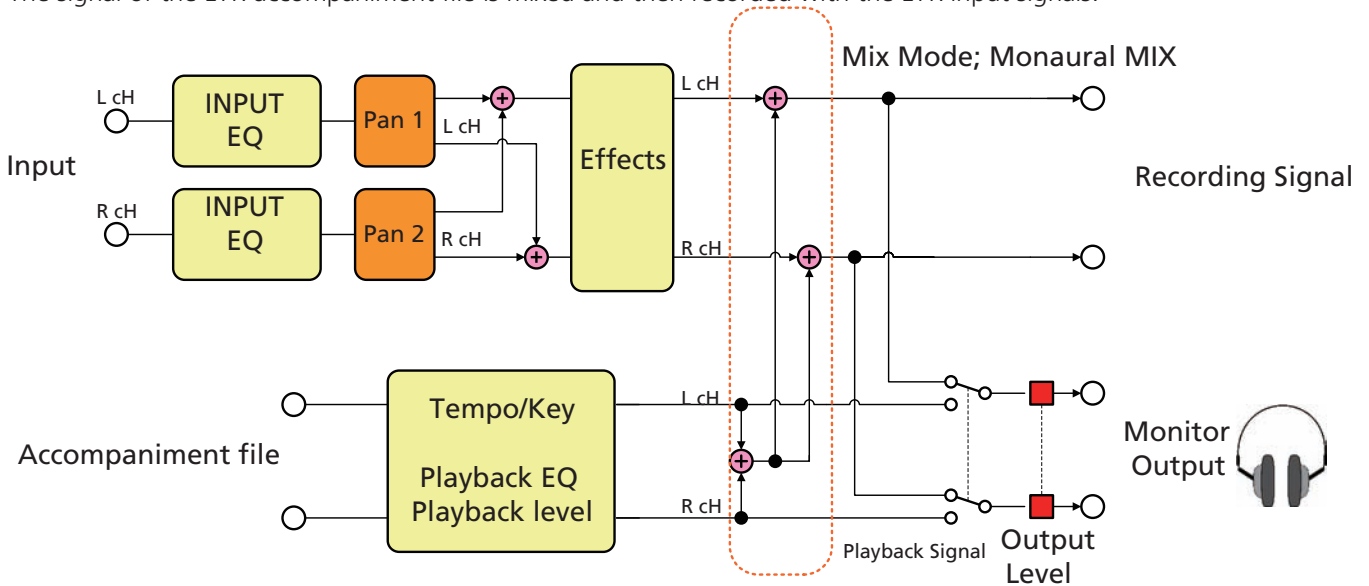
Mix Mode: R ch. Mix

The signal of the R ch accompaniment file is mixed with the L+R input signal and recorded.



Mix Mode: Monaural Mix

The signal of the L+R accompaniment file is mixed and then recorded with the L+R input signals.

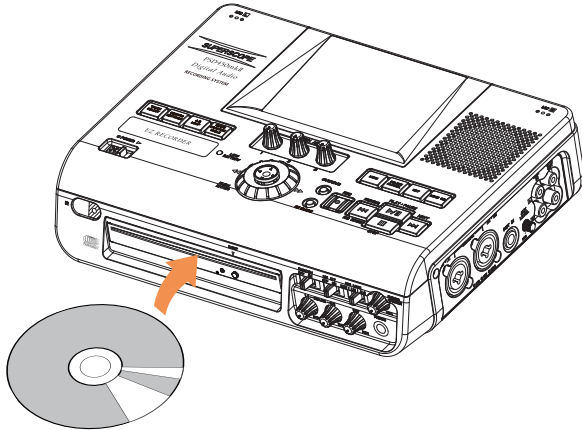


CD Burning

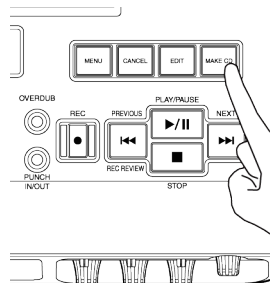
Creating an Audio CD

Follow these steps to create an audio CD using WAV or MP3 files stored on the Internal Memory, USB storage.

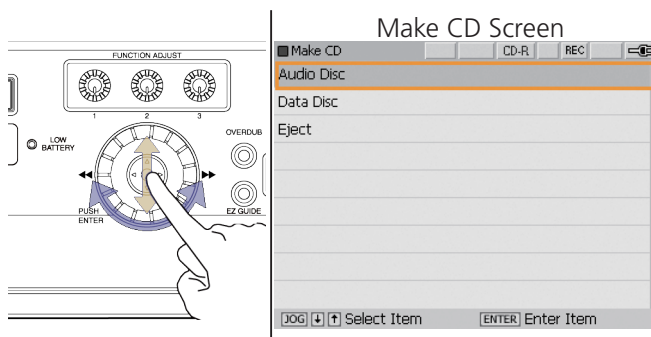
1. Insert a blank or unfinalized CD-R/RW into the CD-R/RW drive.



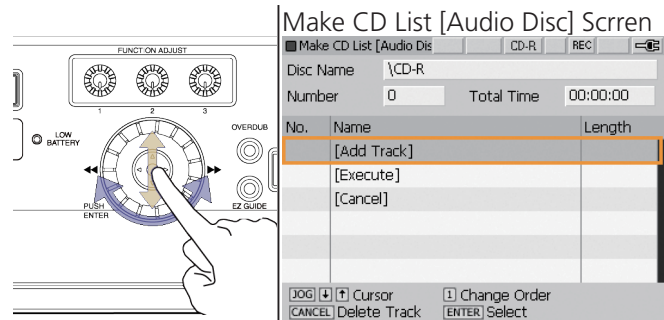
2. Press the MAKE CD button.



3. Turn the jog wheel or move the joystick up or down to highlight Audio Disc. Press ENTER.

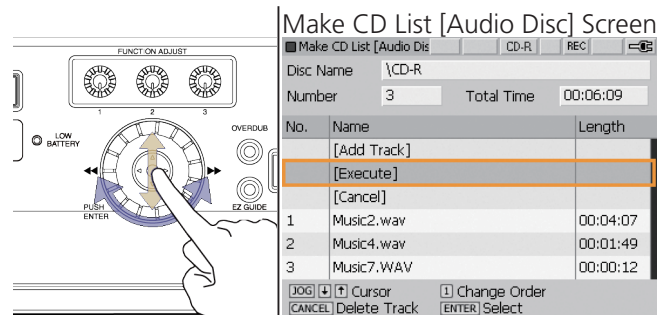


4. The Make CD List [Audio Disc] screen will appear. Turn the jog wheel or move the joystick up or down to highlight [Add Track]. Press ENTER.



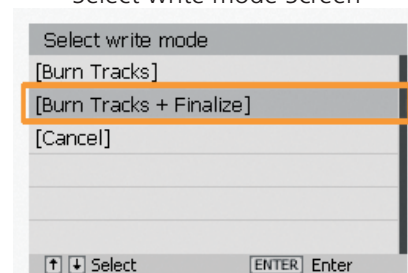
5. Use the **Track Select method** to select a track. Push ENTER to add the track to the CD list. Repeat until all desired tracks have been added.

6. When you have finished adding tracks, use the jog wheel or joy stick to select [Execute] on the Make CD List [Audio Disc] screen. Press ENTER.

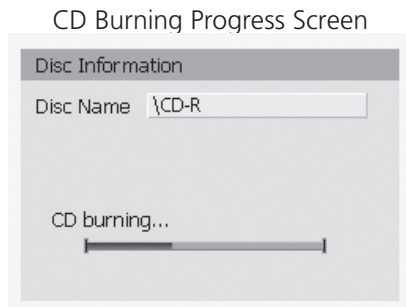


7. **Select Write Mode** - If you wish to add more tracks or finalize at a later time, select [Burn Tracks]. If you wish to create a finalized disc that is playable in other CD players, select [Burn Tracks + Finalize]. Press ENTER.

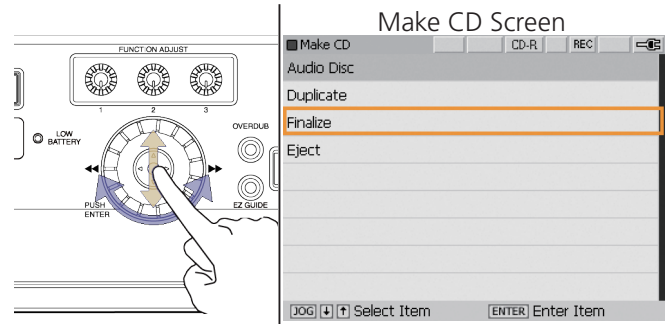
Select write mode Screen



- When burning is finished, the CD will be ejected automatically.



- Turn the jog wheel or move the joystick up or down to highlight Finalize. Press ENTER.

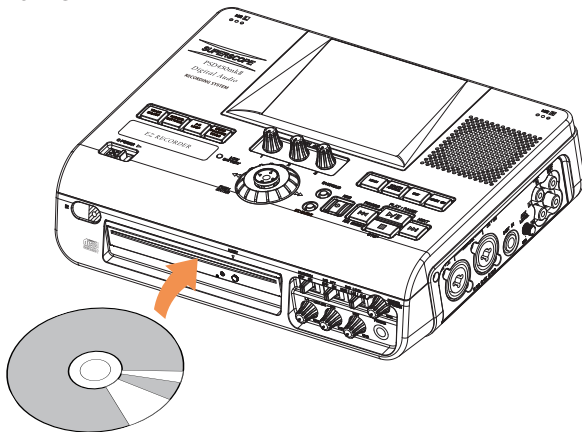


Finalizing a CD

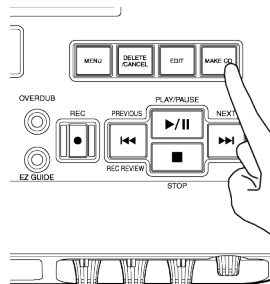
Note: Prior to burning MP3 files to disc, the Export procedure will activate.

The finalization process writes the table of contents (TOC) to a compact disc, making the CD readable in standard CD players. Follow these instructions to finalize an audio CD:

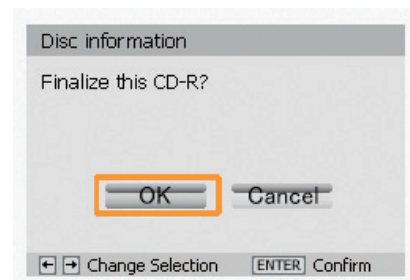
- Insert an unfinalized CD-R/RW into the CD-R/RW drive.



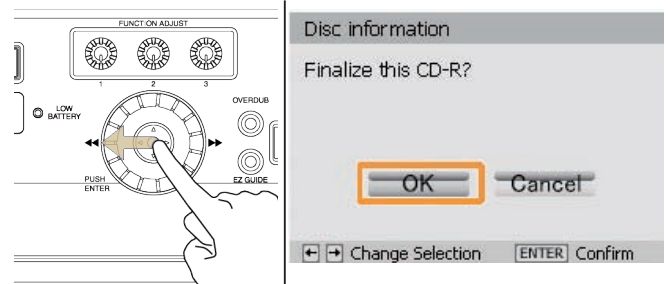
- Press the Make CD button.



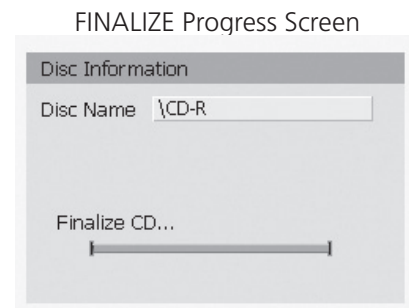
- The following screen will appear:



- Move the joystick left to select OK. Press ENTER.



- When you select OK, the following screen will appear:

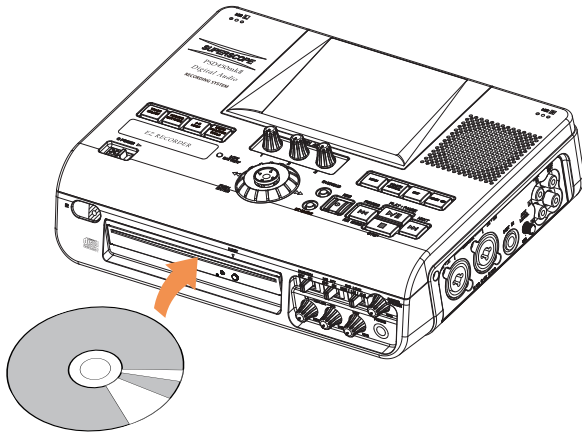


When finalization is complete, status will return to the Main Screen.

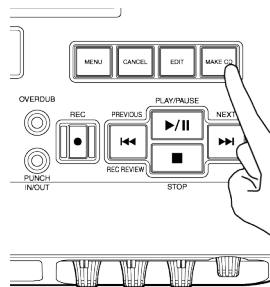
Creating a Data CD

Follow these instructions to store WAV or MP3 files on CD media. Data CDs will not play on standard CD audio players. Use data CDs to transfer WAV or MP3 files (recorded on the PSD450mkII) to a computer.

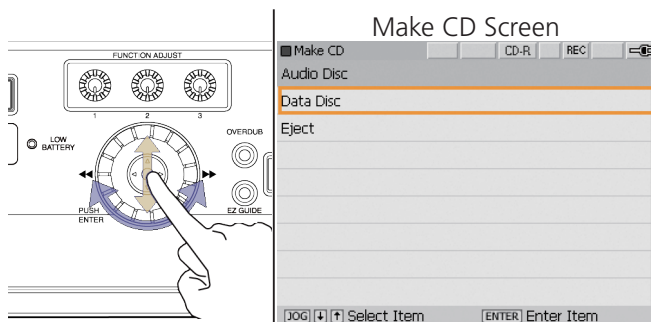
1. Insert a blank CD-R/RW into the CD-R/RW drive.



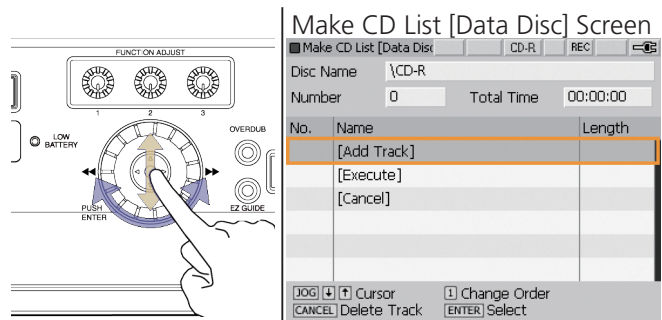
2. Press the MAKE CD button.



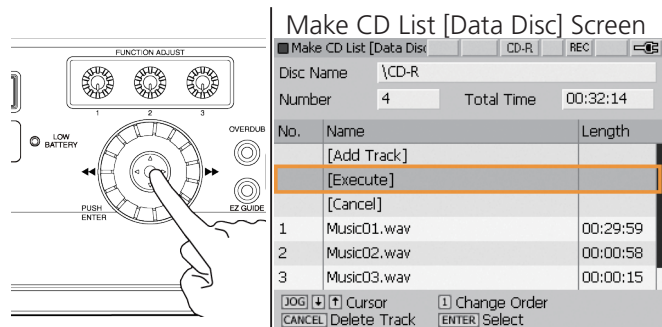
3. Turn the jog wheel or move the joystick up or down to highlight Data Disc. Press ENTER.



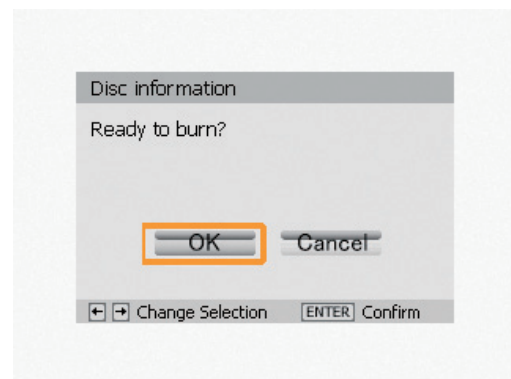
4. The Make CD List [Data Disc] screen will appear. Turn the jog wheel or move the joystick up or down to highlight [Add Track]. Press ENTER.



5. Use the [Track Select Method](#) to select a track. Push ENTER to add the track to the CD list. Repeat until all desired tracks have been added.
6. When you have finished adding tracks, use the jog wheel or joystick to select [Execute] on the Make CD List [Data Disc] screen. Press ENTER.

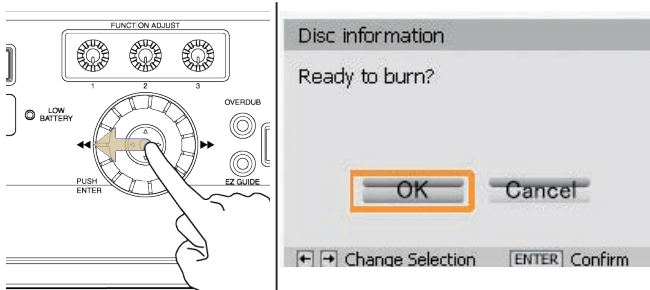


7. The following screen will appear:

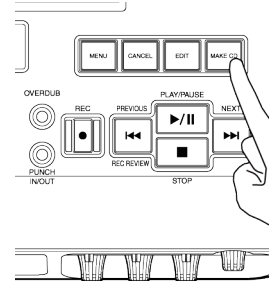


Recording

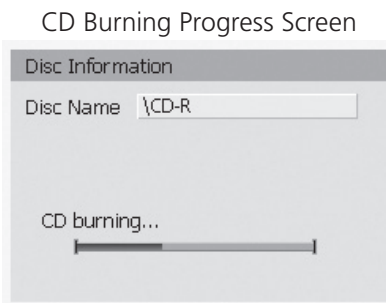
8. Move the joystick left to select OK. Press ENTER.



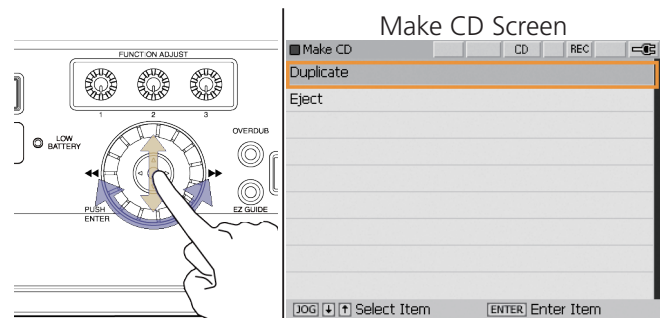
2. Press the MAKE CD button.



9. When burning is finished, the CD will be ejected automatically.



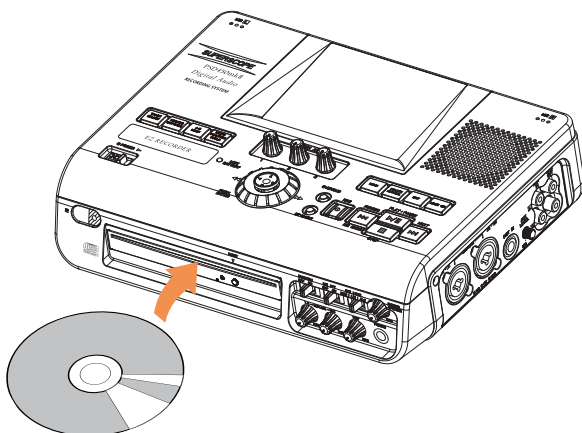
3. Turn the jog wheel or move the joystick up or down to highlight Duplicate. Press ENTER.



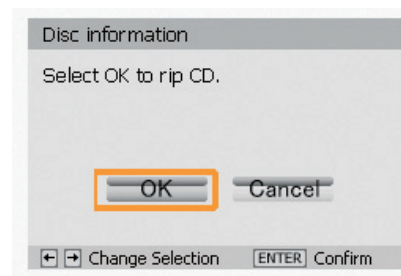
CD Duplication

Any audio or data CD can be copied by using the Duplicate feature. Follow these instructions to copy the contents of a CD to the Internal Memory and then to a blank CD-R/RW:

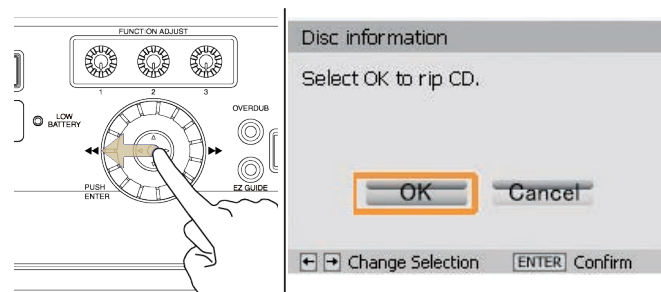
1. Insert the CD to be duplicated into the CD-R/RW drive.



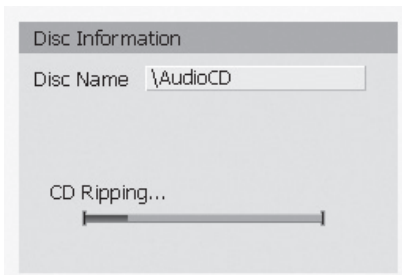
4. The following screen will appear:



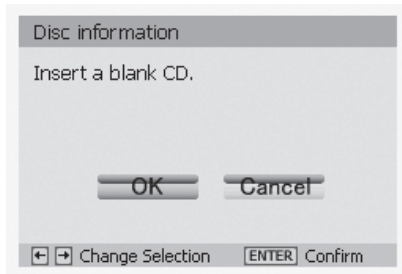
5. Move the joystick left to select OK. Press ENTER.



- When ripping is finished, the CD will be ejected automatically.



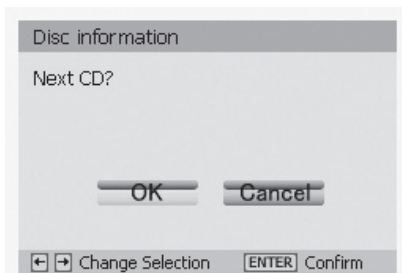
- When CD ripping is complete, the following screen will appear:



- Insert a blank CD. When a blank CD is detected, the recorder will begin burning the ripped WAV files to CD.

✘ If a finalized CD-RW is detected, you will be prompted to erase the disc before burning.

- When burning is finished, the CD will be ejected automatically. The following screen will appear:



- To make another copy, insert a blank CD and burning will begin automatically. To end duplication, select Cancel.

Erasing a CD-RW

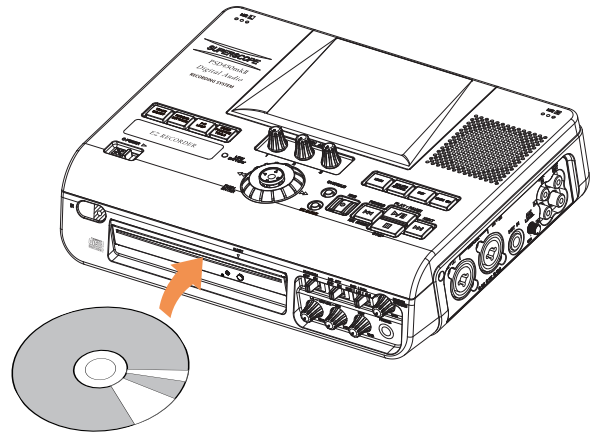
When a CD-RW with audio tracks is detected in the CD-R/RW drive, three additional options will appear in the Make CD menu: Unfinalize (finalized CD-RW only), Erase Last, and Erase All.

✘ It is not possible to erase or unfinalize a CD-R disc.

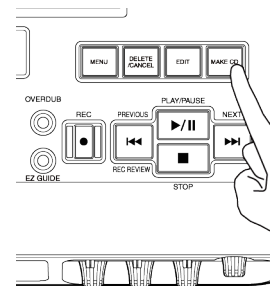
Unfinalize a CD-RW

To add more tracks to a finalized CD-RW, the disc must be unfinalized first. Follow these instructions to unfinalize a CD-RW:

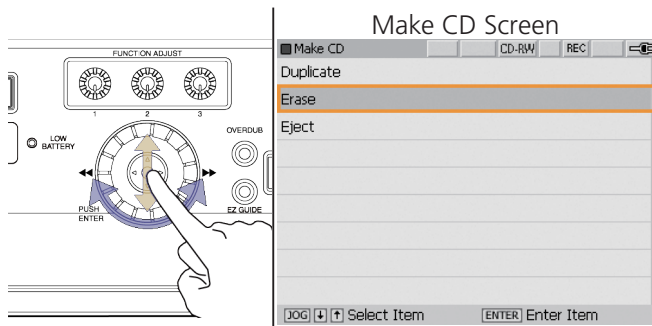
- Insert a finalized CD-RW into the CD-R/RW drive.



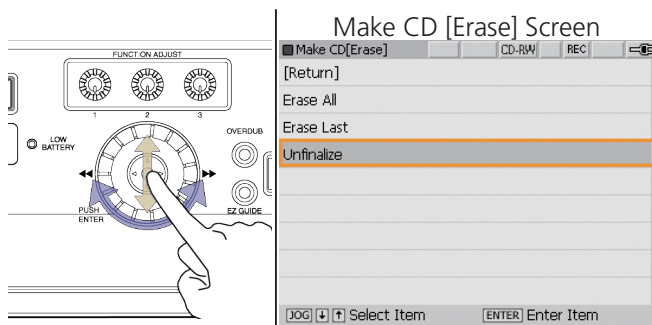
- Press the MAKE CD button.



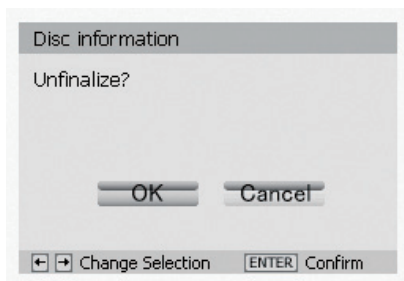
- Turn the jog wheel or move the joystick up or down to highlight Erase. Press ENTER.



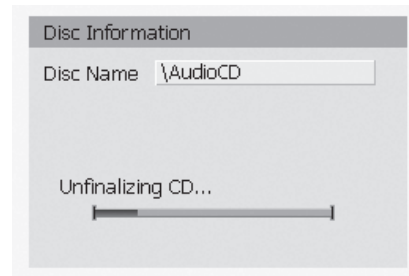
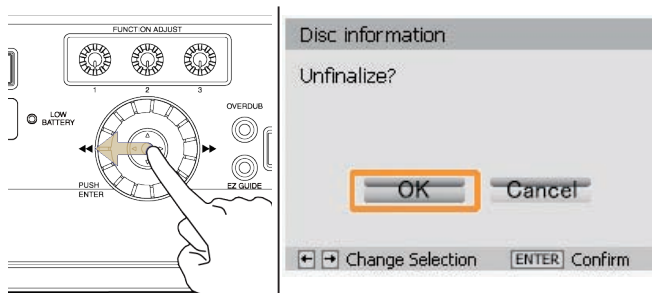
- Turn the jog wheel or move the joystick up or down to highlight Unfinalize. Press ENTER.



- The following screen will appear:



- Move the joystick left to select OK. Press ENTER.

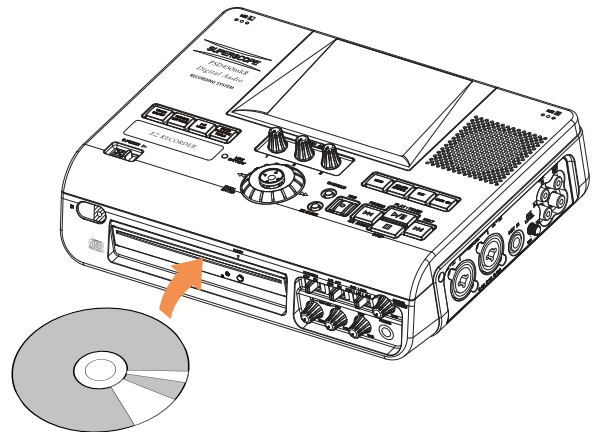


- When Unfinalize is complete, status will return to the Make CD menu.

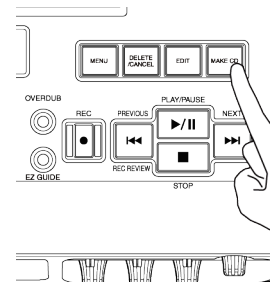
Erase Last

Follow these instructions to erase the last track on a CD-RW audio disc. The Erase Last option will not appear when a data disc is detected.

- Insert a CD-RW with audio tracks into the CD-R/RW drive.

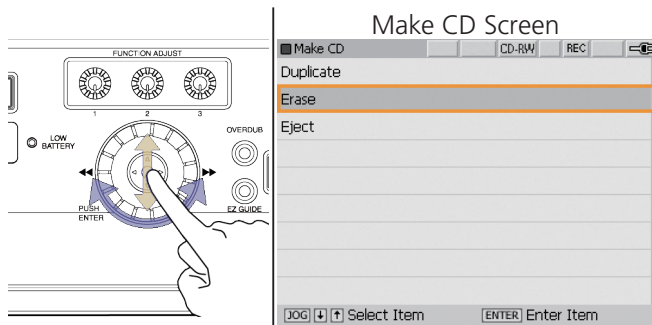


- Press the MAKE CD button.

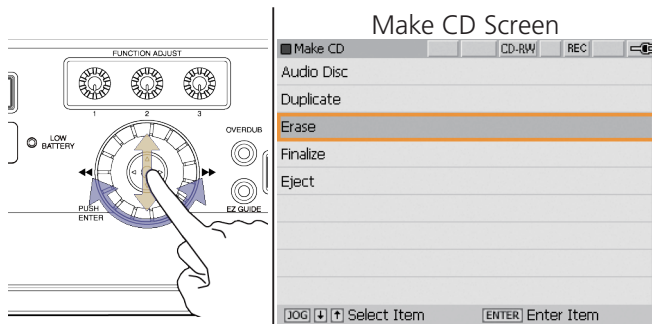


- Turn the jog wheel or move the joystick up or down to highlight Erase. Press ENTER.

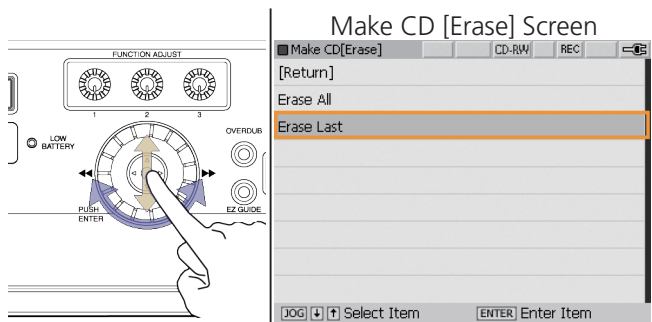
Finalized CD-RW Menu



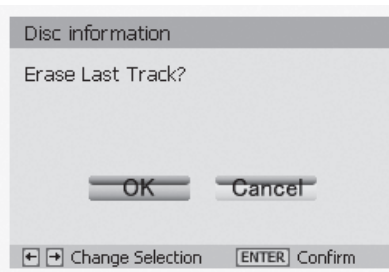
Unfinalized CD-RW Menu



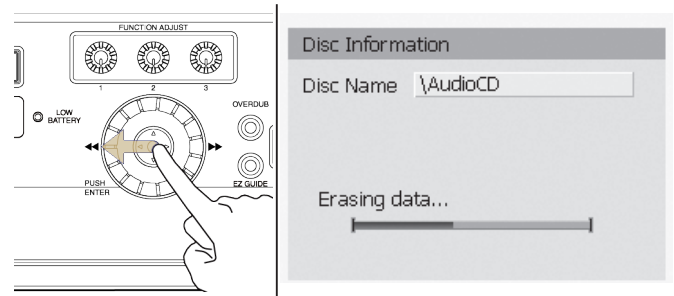
- Turn the jog wheel or move the joystick up or down to highlight Erase Last. Press ENTER.



- The following screen will appear:



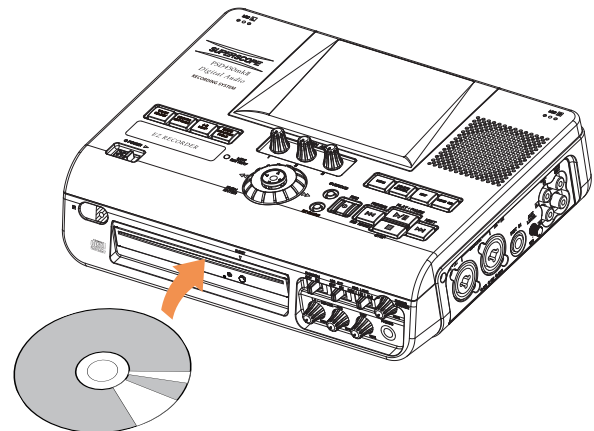
- Move the joystick left to select OK. Press ENTER.



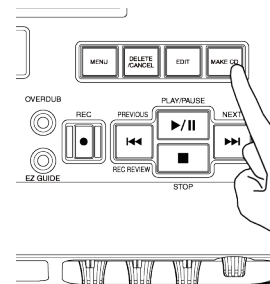
Erase All

Follow these instructions to erase the contents of a CD-RW audio or data disc:

- Insert a CD-RW with audio tracks into the CD-R/RW drive.

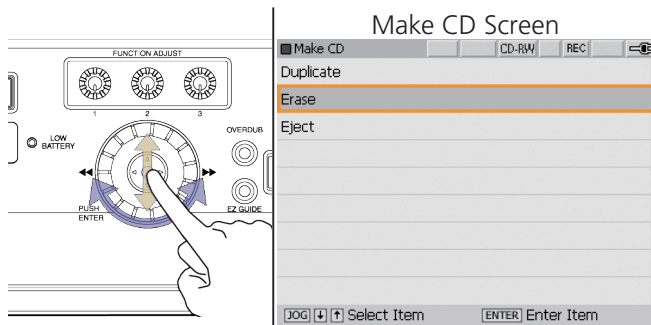


- Press the Make CD button.

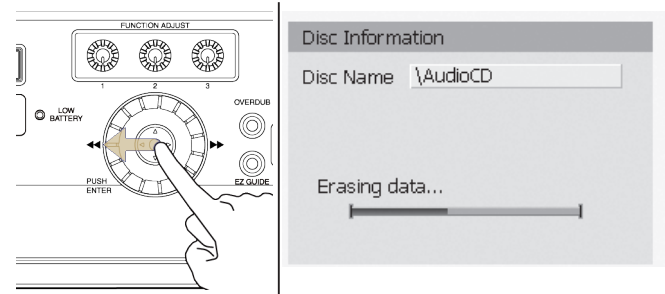


- Turn the jog wheel or move the joystick up or down to highlight Erase. Press ENTER.

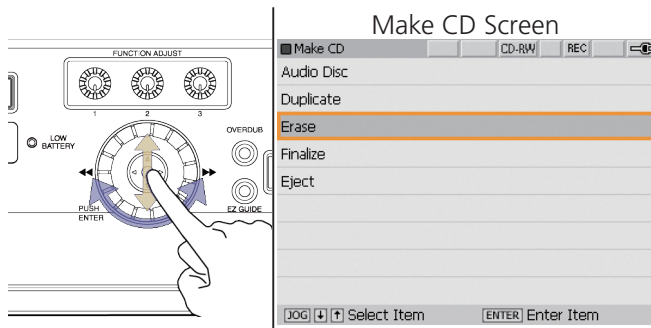
Finalized CD-RW Menu



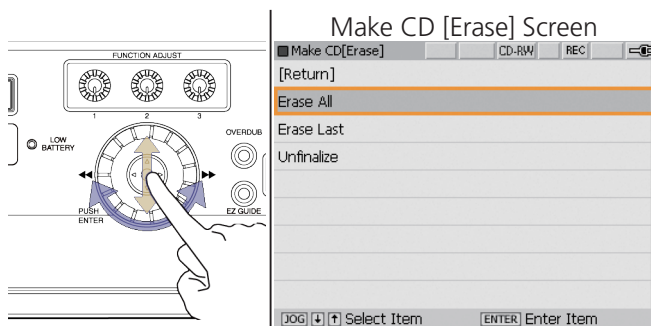
- Move the joystick left to select OK. Press ENTER.



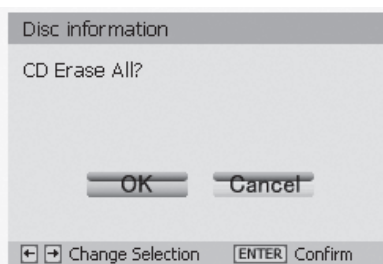
Unfinalized CD-RW Menu



- Turn the jog wheel or move the joystick up or down to highlight Erase All. Press ENTER.



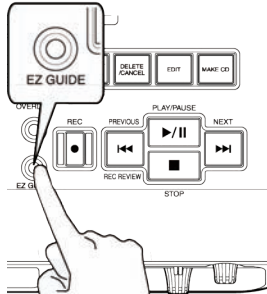
- The following screen will appear:



EZ Guide

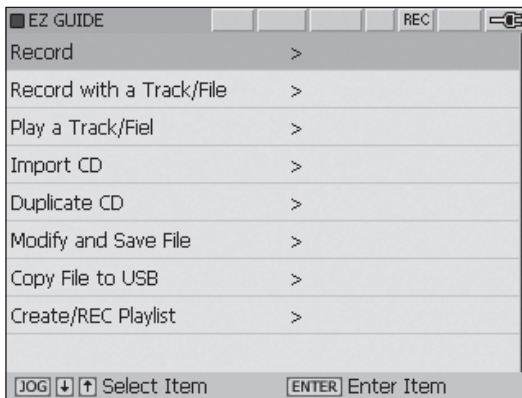
In EZ Guide, you can operate this unit by pressing the buttons according to the on-screen instructions.

1. Press the EZ GUIDE button [7].



2. Turn the jog wheel [5-B] or move the joystick [5-A] up or down to select an item and press ENTER [5-A].

EZ Guide Menu Screen

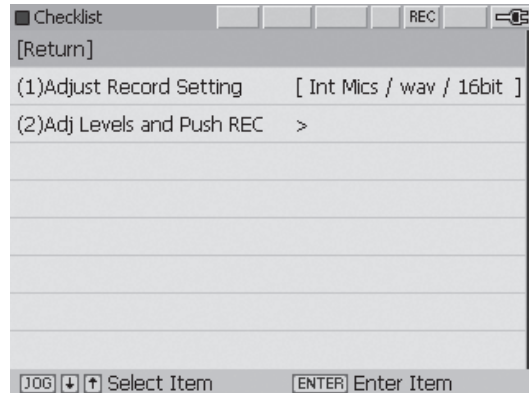


EZ Guide provides guides to the following items.

- ① Record
- ② Record with a Track/File
- ③ Play a Track/File
- ④ Import CD
- ⑤ Duplicate CD
- ⑥ Modify and Save File
- ⑦ Copy File to USB
- ⑧ Create/REC Playlist

Record

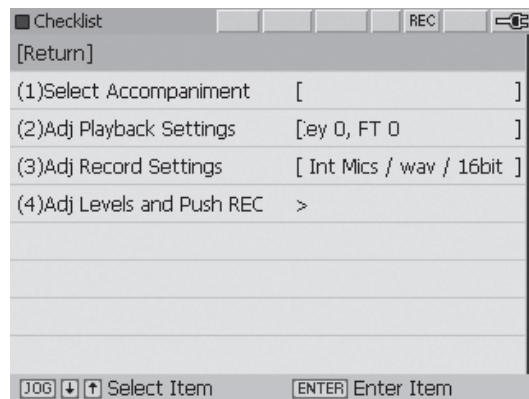
This guide is for recording. Configure according to the procedure that is shown.



1. Highlight [RETURN] and press ENTER [5A] to return to EZ Guide.
2. Adjust the recording level and push the REC button (8A) to start recording.

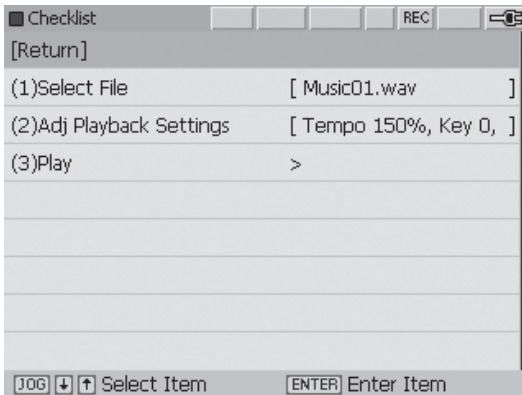
Record with a Track/File

This guide is for overdubbing. Set and select the items according to the procedure that is shown.



1. Select an accompaniment track.
2. Adjust the playback settings (Tempo and Key).
Note: Changes to WAV/MP3 and Bit Rate must be made in the record setting menu prior to entering this EZ Guide feature.
3. Adjust the input source and recording folder.
4. Adjust the recording level and push the REC button (8A) to start recording.

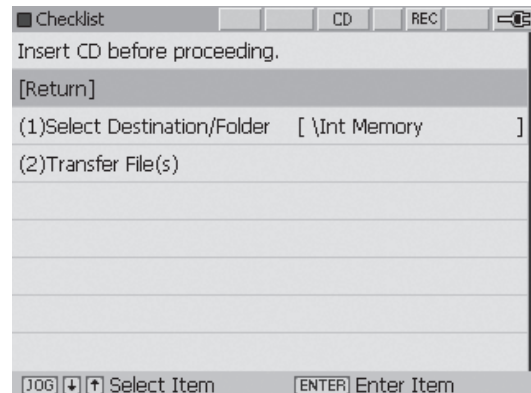
Play a Track/File



1. Select the file to be played.
2. Adjust the playback settings (Tempo and Key).
3. Select Play.

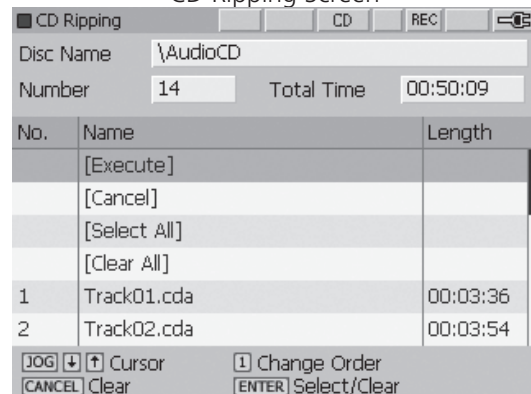
Import CD

This guide is for importing a CD. Configure according to the procedures that are shown below.



1. Select the destination folder for the imported tracks. (INT Memory or USBHDD Only).
2. Select Transfer Files

CD Ripping Screen



The contents of the CD will appear in the CD RIPPING window and all tracks will be highlighted. This indicates all tracks on the CD will be imported.

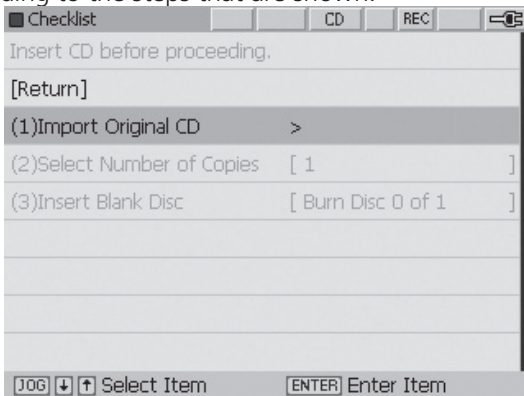
To remove selected tracks from the import, highlight the track to remove and press the joystick down. Repeat to remove additional tracks from the import.

Select [Execute] and press the joystick down. The selected tracks will be imported to the destination folder previously selected,

Note: You cannot change the order of the tracks of a CD Import.

Duplicate CD

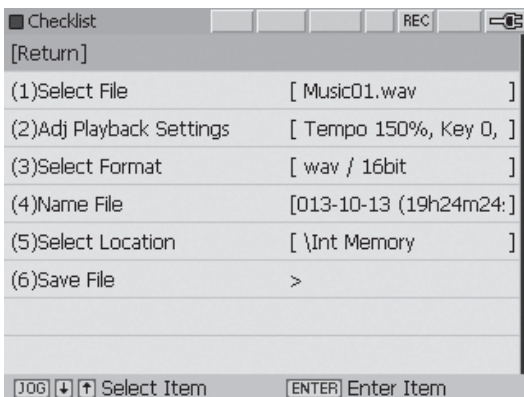
This guide is for duplicating a CD. Configure settings according to the steps that are shown.



1. Insert the CD to be duplicated and then press ENTER to start ripping the CD.
2. After ripping the CD, select the number of copies.
3. Insert the blank disc.

Modify and Save File

This guide is for modifying and saving a file that has a set Key Tempo, File format and/or File name in the Internal Memory or USB memory. Configure settings according to the procedures that are shown.



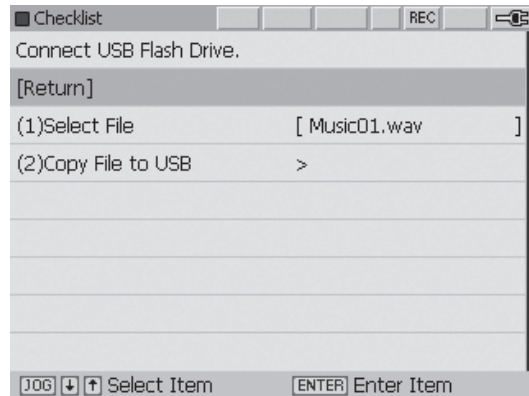
1. Select the file to be modified.
2. Adjust the playback settings (Tempo and Key) for modification.
3. Select the format for modification.
4. Select the file to be renamed.
5. Select the location to save the modified file.
CD-R cannot be selected.

6. Save the file.

Copy File to USB

This guide is for copying a file from the Internal Memory to USB memory. Configure items according to the "Procedure."

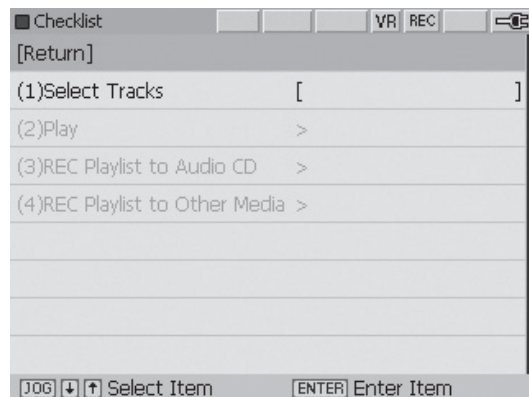
Note: CD transfer to USB is not possible.



1. Select the file to be copied from the Internal Memory.
2. Select Copy File to USB.

Create/REC Playlist

This guide is for creating a playlist for playing or recording, recording files stored as a playlist for CD, or moving the files to other folders.

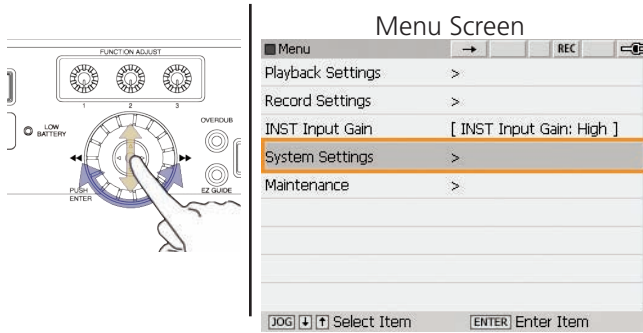


1. Select the files for the Playlist and Playlist Name.
2. Highlight PLAY to play playlist.
3. Insert blank CDR or CD-RW and highlight REC Playlist to Audio CD. Press ENTER to record the playlist files to a blank CDR or CD-RW. You can choose either Record or Record + Finalize.
4. Select Record Playlist to Other Media to record the playlist to a USB Flash Drive or Internal Memory.

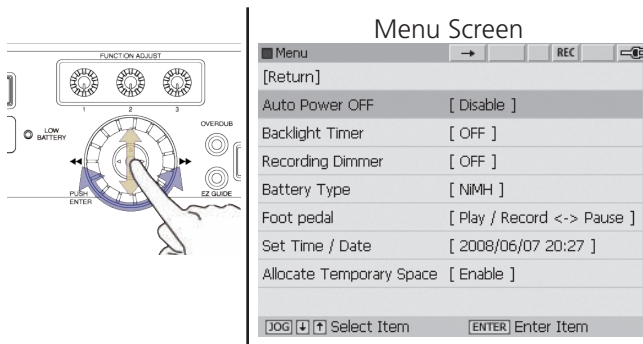
System Settings

Follow these steps to adjust System Settings:

1. Press the MENU button to display the menu screen.
2. Turn the jog wheel or move the joystick up or down to highlight System Settings. Press ENTER.



3. From the System Settings menu, turn the jog wheel or move the joystick up or down to highlight a menu setting. Press ENTER.



4. Turn the jog wheel to change settings. Press ENTER.

Auto Power Off

Turn this feature on to conserve power when the recorder is not in use. When Auto Power OFF is enabled, the recorder will power off automatically after 15 minutes of inactivity. This includes the use of all top panel buttons and knobs, and the remote control. This feature is disabled during recording and playback. The default setting is [Disable].

Backlight Timer

This feature saves power by automatically dimming the LCD backlight after a period of inactivity. This includes the use of all top panel buttons and knobs, and the remote control. Settings include OFF, 2 seconds, 5 seconds, 10 seconds, and 20 seconds. The default setting is OFF.

Recording Dimmer

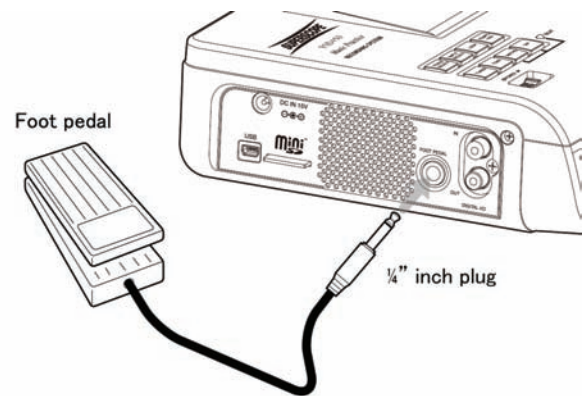
When this feature is OFF (default setting), the LCD backlight will not dim during recording regardless of the Backlight Timer setting. This will save power by allowing the backlight to dim during recording.

Battery Type

Setting Battery Type allows for greater accuracy with the battery life gauge. Available options include alkaline batteries (default setting) and nickel metal hydride (Ni-MH).

Foot Pedal

An optional foot pedal can be connected to the Foot Pedal input on the Left panel.



The following table describes the functions of the foot pedal:

| Foot Pedal Setting | Performance |
|---------------------------------|---|
| Play/REC <-> Pause | <p>During playback, press the foot pedal to toggle between Play and Pause mode.</p> <p>During Recording, press the foot pedal to toggle between Record and Record Pause mode.</p> |
| Play <-> Recall | <p>During playback, press the foot pedal once to mark a recall point.</p> <p>When the foot pedal is pressed a second time, playback will return to the recall point.</p> |
| Play <-> Rewind | <p>During playback, press the foot pedal to toggle between play and Rewind.</p> |

The default setting is "Play/REC <-> Pause".

Appendix

Main Menu (1 of 2)

| Sub Menu | Menu Item | Settings | Default Settings |
|--------------------------|---|---------------------------------------|------------------|
| Playback Setting | Repeat Mode | OFF | OFF |
| | | All | |
| | | 1 | |
| | | Single, 1 | |
| | | Single, All | |
| | | Single | |
| Advanced Record Settings | Playback Equalizer | OFF | OFF |
| | | ON | |
| | Silent Skip Recording | ON | OFF |
| | | OFF | |
| | | Silent time detector 0 ~ 5 sec | 3 |
| | | Theshold | |
| | | -20 dB ~ -60 dB | -40 dB |
| | | 1 dB step | |
| | Pre-Roll Time | OFF, 1 ~ 10 sec (Increment: 1 sec) | 0 sec |
| | Post-Roll Time | OFF, 1 ~ 10 sec (Increment: 1 sec) | 0 sec |
| | Fade-IN Time | 0 ~ 10 sec (Increment: 1 sec) | 0 sec |
| | Fade-OUT Time | 0 ~ 10 sec (Increment: 1 sec) | 0 sec |
| | Auto Track Increment (+/- 2 seconds) | OFF | OFF |
| | | OFF | |
| | | 1 min. | |
| | | 5 min. | |
| | | 10 min. | |
| | | 15 min. | |
| | | 30 min. | |
| | One Touch Recording | ON | ON |
| | | OFF | |
| | Count In | OFF, 1 ~ 16 beat Increment: 1 beat | OFF |
| | Auto Convert | ON | OFF |
| | | OFF | |
| | CD-PreGap Settings | 0 Seconds | 0 Seconds |
| | | 1 Second | |
| | | 2 Seconds | |
| | | 3 Seconds | |
| | | 4 Seconds | |
| | | 5 Seconds | |
| | USBHDD+Int Memory REC | ON | OFF |
| | | OFF | |

Appendix

| Sub Menu | Menu Item | Settings | Default Settings |
|---------------------------|----------------------------|------------------|------------------|
| Input Effects | Input Equalizer | OFF | OFF |
| | | Effective | |
| | Reverb/Delay | OFF | OFF |
| | | Room Reverb | |
| | | Hall Reverb | |
| | | Plate Reverb | |
| Mix Mode & Monitor Source | Mix Balance Mode & Monitor | Delay | Stereo Mix |
| | | Stereo Mix | |
| | | Split | |
| | | L ch Mix | |
| | | R ch Mix | |
| | | Monaural Mix | |
| | Monitor Source | Recording Signal | Recording Signal |
| | | Playback Signal | |

Main Menu (2 of 2)

| Sub Menu | Menu Item | Settings | Default Settings | Note |
|-------------------------|------------------------|-----------------------|-----------------------|---|
| Inst Input Gain Setting | Inst Input Gain | High | High | Sets the sensitivity for the INST input. |
| | | Low | | |
| System Settings | Auto Power OFF | Disable | Enable | Powers the unit off after 15 minutes of no activity. |
| | | Enable | | |
| | Backlight Timer | OFF | OFF | Dims the LCD backlight after the selected period of inactivity. |
| | | 2 sec | | |
| | | 5 sec | | |
| | | 10 sec | | |
| | | 20 sec | | |
| | Recording Dimmer | ON | ON | Turn ON to maintain LCD backlight during recording regardless of Backlight Timer setting. |
| | | OFF | | |
| | Battery Type | NiMH | NiMH | For accurate battery gauge read out, select Battery Type. |
| | | Allaline | | |
| | Foot Pedal | Play/Record <-> Pause | Play/Record <-> Pause | Select Foot Pedal function. |
| | | Play <-> Pause | | |
| | | Play <-> Rewind | | |
| Maintenance | Set Time/Date | Year/Month/Day | — | Time/Date determines file name for new recordings. See Setting Date and Time. |
| | | Hour: Minute: Second | | |
| | System Information | — | — | Displays Model, Software Version, HDD capacity (PSD450 only) and SD capacity. |
| | Format Internal Memory | — | — | ✖ All the data currently on the SD card will be deleted. |
| | Restore Defaults | — | — | Returns all menu settings to factory default values. |

Recording Settings Menu

| Sub Menu | Menu Item | Settings | Default Setting |
|------------------|--------------------------|----------------------------|-----------------|
| Input Select | Input Source | Input Mute | Internal MIC |
| | | Input Mute | |
| | | Internal MIC | |
| | | External Mic | |
| | | LINE | |
| | | INST | |
| | | Internal Mic (L ch) + INST | |
| | | External MIC (L ch) + INST | |
| | | LINE (L ch) + INST | |
| | | AUX | |
| | | DIGITAL | |
| Recording Folder | Device select | Int Memory | Int Memory |
| | | CD-R/CD-RW | |
| | | USBHDD | |
| WAV/MP2 | Recording File Format | WAV | WAV |
| | | MP3 | |
| Stereo/Mono | Recording Channel Number | Stereo | Stereo |
| | | Monaural | |
| Bit Rate | Recording File Bit Rate | 32 bps | 192 bps |
| | | 40 bps | |
| | | 48 bps | |
| | | 56 bps | |
| | | 64 bps | |
| | | 80 bps | |
| | | 96 bps | |
| | | 112 bps | |
| | | 128 bps | |
| | | 160 bps | |
| | | 192 bps | |
| | | 224 bps | |
| | | 256 bps | |
| | | 320 bps | |

Edit Menu Options

| Selected Item | | | | |
|-------------------|--------------------|-------------------|---------------|--------|
| 16bit WAV file | 24bit WAV file | MP3 file | Playlist | Folder |
| Track Information | Track Information | Track Information | Copy | Copy |
| Copy | Copy | Copy | Move | Move |
| Move | Move | Move | Rename | Rename |
| Rename | Rename | Rename | Delete | Delete |
| Delete | Delete | Delete | Edit Playlist | |
| Trim In/Out | 24 > 16bit Convert | Export | | |
| Divide | | | | |
| Combine | | | | |
| Export | | | | |

Music Practice Tools Menu

| Sub Menu | Menu Item | Settings | Default Setting |
|-----------------|--------------------|--|-----------------|
| Tempo & Key | Tempo | x[-0.75 ~ 1.50] (-75 ~ 150%) Increment: 0.01(1%) | X 1.00 (100%) |
| | Key | [-12.0 ~ +12.0] semitones Increment: 1 semitone | 0 semitones |
| | Fine Tune | [-50 ~ +50] cent Increment: 1 cent | 0 cents |
| | Calibration | A4: [430 ~ 460] Hz Increment: 1 Hz | 440 Hz |
| Voice Reduction | Voice Reduction | ON / OFF | OFF |
| Chromatic Tuner | Input Source | Input Mute | Input Mute |
| | | Internal MIC | |
| | | External MIC | |
| | | LINE | |
| | | INST | |
| | | Internal MIC (L ch) + INST | |
| | | External MIC (L ch) + INST | |
| | | LINE (L ch) + INST | |
| | | AUX | |
| | | DIGITAL | |
| | Channel Select | Left + Right | Left + Right |
| | | Left | |
| | | Right | |
| | Calibration | [410 ~ 470] Hz Increment: 1 Hz | 440 Hz |
| Tuning Tone | Tone Name | C, C#, D, D#, E, F, F#, G, G#, A, A#, B | A |
| | Calibration | [410 ~ 470] Hz Increment: 1 Hz | 440 Hz |
| | Volume | [-20 ~ 0] dB Increment: 0.5 dB | -10.0 dB |
| Metronome | ON / OFF | ON | OFF |
| | | OFF | |
| | BPM | [35 ~ 250] BPM Increment: 1 BPM | 120 BPM |
| | Accent Beat Number | [0 (OFF) ~ 9] Increment: 1 | 4 |
| | Normal Beat Volume | [MUTE, -20.0 ~ 0.0] dB Increment: 0.5 dB | -12.0 dB |
| | Accent Beat Volume | [MUTE, -20.0 ~ 10.0] dB Increment: 0.5 dB | 0.0 dB |

Continuous Recording Time with Battery Operation

The following estimates show minimum battery life.

| Battery Type | LCD | Phantom | Battery Life (hours) |
|----------------------------------|-------------|---------|----------------------|
| Fully charged 2,700 mAh Ni-MH | Full bright | OFF | 5.2 |
| | | ON | 4.7 |
| | Dimmer | OFF | 6.2 |
| | | ON | 5.4 |
| AA size Alkaline | Full bright | OFF | 2.6 |
| | | ON | 2.5 |
| | Dimmer | OFF | 3.6 |
| | | ON | 3.0 |

Conditions: 77 degrees Fahrenheit.

Volume controller: Minimum position.

Mode: Recording MP3-Stereo-128kbps.

Internal Memory Times

The table below shows estimated record times.

| Estimated Record Times | | Internal Memory Continuous Recording |
|------------------------|----------|--------------------------------------|
| WAV 44.1 KHz | 16bit | 1 hr 34 min |
| | 24bit | 1 hr 02 min |
| MP3 Stereo | 64 Kbps | 34 hr 43 min |
| | 80 Kbps | 27 hr 46 min |
| | 128 Kbps | 17 hr 21 min |
| | 160 Kbps | 13 hr 53 min |
| | 256 Kbps | 8 hr 40 min |
| | 320 Kbps | 6 hr 56 min |
| MP3 Mono | 32 Kbps | 69 hr 26 min |
| | 40 Kbps | 55 hr 33 min |
| | 64 Kbps | 34 hr 43 min |
| | 80 Kbps | 27 hr 46 min |
| | 128 Kbps | 17 hr 21 min |
| | 160 Kbps | 13 hr 53 min |

Pop-Up Messages

| Category | Message | Description |
|------------------------|---|---|
| Create Playlist | "Edit Playlist" "File write error." | Playlist cannot be written if media is full. |
| CD | "Disc Information" "CD EJECT" | A disc is ejected. |
| | "Disc Information" "Now Loading..." | MAKE CD button is pressed and the loaded disc is still being read. |
| | "Disc Information" "CD No Disc." "Please insert CD." | MAKE CD button is pressed and no disc is inserted. |
| | "Disc Information" "CD Error." "Unknown Disc." | MAKE CD button is pressed and the loaded disc is of an unknown format. |
| | "Warning" "This folder contains the maximum number of files." "Please select a different folder." | Record button is pressed and there is already the maximum number of files in the selected folder. |
| | "Warning" "This Overdub mode is not possible with CDA files." "Reset loop markers or" "Use EDIT>CD RIPPING to create WAV version." | OVERDUB button is pressed and the selected track is from an Audio CD. |
| | "Warning" "This disc is not Audio Disc." | Recording to CD and a data disc is loaded. |
| | "Warning" "This disc is not recordable." | Recording to CD and the loaded disc is not recordable. |
| | "Warning" "This disc has max tracks." | Recording to CD and the loaded disc has the maximum number of tracks. |
| | "Disc Information" "Please wait..." | RecPause during Recording to CD. |
| | "Check AC Adapter" "Please connect AC Adapter." | AddTrack/MakeCD when AC Adapter is disconnected. |
| CD Ripping | EDIT base: new: "Ripping Track..." | During CD Ripping. |
| | EDIT "Terminate Now?" | DELETE/CANCEL button is pressed during CD Ripping. |
| MakeCD | "Ready to burn?" | When [Execute] is selected on Make CD screen. |
| | "CD burning..." | During CD writing. |
| | "Disc Information" "Disc write error." | When Disc write error occurs. |
| AddTrack | "Disc Information" "This disc has max tracks." | When the CD Burn List has the maximum number of tracks. |
| | "CD burning..." | During CD writing. |
| | "Convert file..." | During converting WAV 24bit to WAV 16bit. |
| | "Disc Information" "Disc write error." | When Disc write error occurs. |
| | "Finalize CD..." | During Finalize CD. |

Pop-Up Messages (continued)

| | | |
|-------------------|--|--|
| Duplicate | "CD Ripping..." | During CD Ripping. |
| | "Terminate Now?" | DELETE/CANCEL button is pressed during CD Ripping. |
| | "Disc Information" "File write error." | When Disc write error occurs. |
| | "Disc Information" "The disc is not supported." | When disc is not supported. Ex: multisession disc |
| | "Disc Information" "File read error." | When Disc write error occurs. |
| | "Disc Information" "Now Loading..." | During checking a loaded disc. |
| | "Insert a blank CD." | Insert a blank CD for creating duplicate. |
| | "CD Erase All?" | A loaded disc is CD-RW and not a blank disc. |
| | "Erasing data..." | During erasing data. |
| Erase CD | "CD Erase All?" | Confirm CD erase. |
| | "Erasing data..." | During erasing data. |
| Erase Last | "Erase Last Track?" | When [Erase CD] is selected on Erase screen. |
| | "Unfinalizing CD..." | When a loaded disc is Finalized CD-RW. |
| | "Erasing data..." | During erasing data. |
| Finalize | "Finalize this CD-R?" | When [Finalize] is selected. |
| | "Finalize this CD-RW?" | When [Finalize] is selected. |
| | "Finalize CD..." | During finalizing CD. |
| Unfinalize | "Unfinalize?" | When [Unfinalize] is selected. |
| | "Unfinalizing CD..." | During unfinalizing CD. |

■ Specifications

General

Number of Recording Channels..... 2 (stereo)
Recording / Playback Formats WAV, MP3, CD-DA
 16bit/24bit Recording Format: linear PCM WAV 44.1KHz
 (extension WAV)
 MP3 Stereo 64, 80, 128, 160, 256, 320 Kbps
 MP3 Mono 32, 40, 64, 80, 128, 160 Kbps
A / D Conversion..... 24bit Σ - Δ conversion
D / A Conversion..... 24bit Σ - Δ conversion
Sampling Rate..... 44.1 KHz
Maximum Recording File Size..... 2 GB
Display .. High-resolution 3.5-inch TFT LCD Color Display
Power Requirements
 15 VDC 1.6A Center Pin Positive
 AC 100 - 240 V 50/60 Hz Power Supply
 Battery 8 X "AA" Alkaline or Ni-MH
Dimensions..... 10.5(W) 3.3(H) 7.8(D) in
 269 (W) 81 (H) 202 (D) mm
Weight 4.6 lb / 2.1 Kg without Batteries
Operating Temperature..... 5°C to 35°C
 (41°F to 95°F)
Internal Speaker..... 3.5 cm X 1
Internal Microphones Electret Condenser X 2
Phantom Power Supply..... 48 V 10 mA max
USB..USB 2.0 High speed / Mass Storage Class Operation

Audio

Analog to Digital Converter 24 Bit Resolution
Digital to Analog Converter 24 Bit Resolution
Overall Frequency Response..20 Hz to 20 KHz +/- 1 dB
Line Output Level 2.2 Vrms, 300 Ω
Headphone Output Level..... 30m W, 32 Ω , 10% THD
Speaker Output Level..... 2 W, 8 Ω , 10% THD
Digital Output Level 0.5 Vp-p, 75 Ω Load

Input/Outputs

Mic / Line Inputs

Mic Level

Input Sensitivity..... 1.2 mV, 12 K Ω
THD 0.18%
S/N..... 60 dB A-WTD
Max. Input Level 75 mV RMS (Mic. ATT OFF)
 375 mV RMS (Mic. ATT ON)

Line Level

Input Sensitivity..... 500 mV, 12 K Ω
THD 0.01%
S/N..... 92 dB A-WTD
Max. Input Level 4.0 V

Instrument Input

High Gain

Input Sensitivity..... 10 mV, 1 M Ω
THD 0.03%
S/N..... 72 dB A-WTD
Max. Input Level 670 mV

Low Gain

Input Sensitivity..... 500 mV, 22 K Ω
THD 0.01%
S/N..... 92 dB A-WTD
Max. Input Level 3,500 mV

AUX Input

Input Sensitivity..... 500 mV, 22 K Ω
THD 0.01%
S/N..... 92 dB A-WTD
Max. Input Level There is no limit.

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■ One Year Limited Warranty

Your Superscope PSD450mkII is warranted against manufacturer defects in material and workmanship for one year parts and labor.

Non-transferable Warranty:

This warranty may be enforced only by the original purchaser.

The following are not covered under warranty:

1. Damage, deterioration, malfunction or failure to meet performance specifications resulting from
 - accident, acts of nature, misuse, abuse, neglect or unauthorized product modification.
 - improper installation, removal or maintenance, or failure to follow supplied instructions.
 - repair or attempted repair by a non-Superscope authorized agent.
 - any shipment (claims must be presented to the carrier).
 - any cause other than a defect of manufacturing.
2. Cleaning, check-ups with no fault found.
3. Any product on which the serial number has been defaced, modified, or removed.
4. Accessories, including but not limited to, cables and adaptors.
5. Product purchased outside of the United States, its possessions or territories.

The following are covered under warranty:

All labor and material expenses for items covered by the warranty.

To Obtain Service:

1. If your unit needs service contact Superscope at (630)232-8900. A service representative will advise you of how to obtain service. Please do not return the unit directly to Superscope Technologies, unless specified by our service representative.
2. You must pay any shipping charges if it is necessary to ship the product for service. If the necessary repairs are covered by the warranty, we will pay return shipping charges to your location anywhere in the United States.
3. Whenever warranty service is required, you must present the original dated sales receipt, or other proof of purchase.

Limitation of Implied Warranties:

All implied warranties, including warranties of merchantability and fitness for a particular purpose, are limited in duration to the length of this warranty.

Exclusion of Damages:

Liability for any defective product is limited to repair or replacement of the product at Superscope's option.

Superscope shall not be liable for damage to other products caused by any defects in Superscope products, damages based on inconvenience or loss of use of the product, or any other damages, whether incidental, consequential, or otherwise.

Some States do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

How State Law Relates to the Warranty:

This warranty gives you specific legal rights, and you may have other rights which may vary from State to State.

This warranty is enforceable only in the United States and its possessions or territories.

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