

TASCAM[®]

TEAC PROFESSIONAL

D01082620B

MD-02

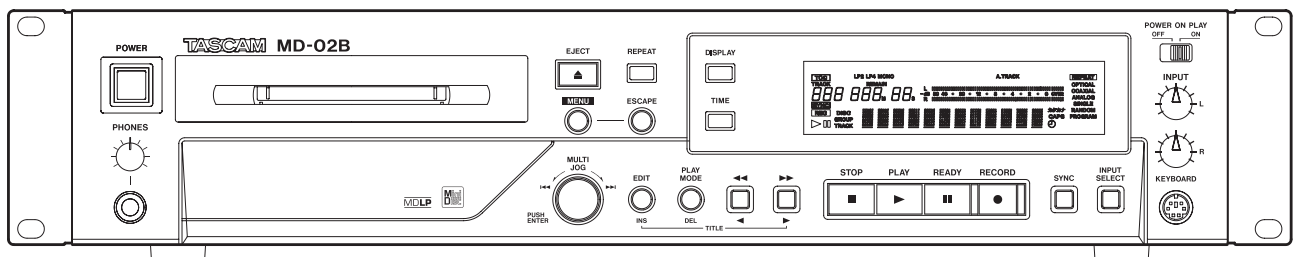
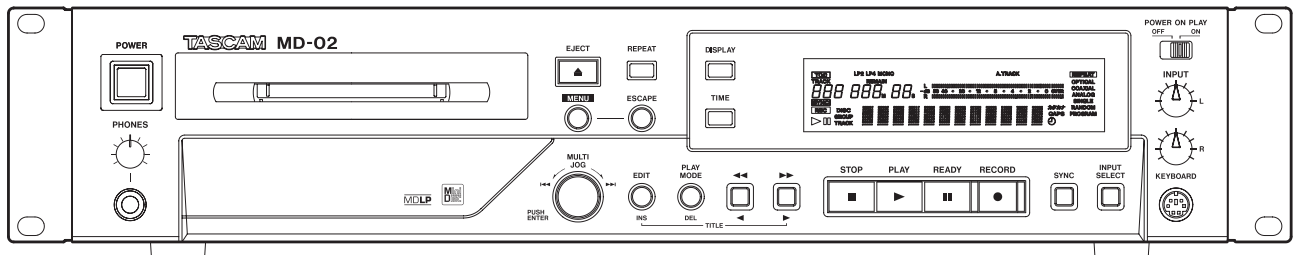
MD-02B

MiniDisc Deck

OWNER'S MANUAL



MDLP



IMPORTANT SAFETY PRECAUTIONS



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



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



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

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

Model number _____

Serial number _____

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

For U.S.A.

TO THE USER

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CAUTION

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

CE Marking Information

- a) Applicable electromagnetic environment: E4
- b) Peak inrush current: 5.5 A

In North America use only on 120V supply.

产品有毒有害物质或元素的名称及含量

机种: MD-02 / MD-02B		有毒有害物质或元素					
品名	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr6+)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)	
1 CHASSIS部份	○	○	○	○	○	○	
2 FRONT PANEL部份	○	○	○	○	○	○	
3 螺丝部份	○	○	○	○	○	○	
4 线材部份	○	○	○	○	○	○	
5 PCB Assy部份	×	○	○	○	○	○	
6 MD DRIVE部份	×	○	○	○	○	○	
7 电源部份	○	○	○	○	○	○	
8 附属品部份	×	○	○	○	○	○	
9 LABEL部份	○	○	○	○	○	○	
10 包装部份	○	○	○	○	○	○	

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

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

IMPORTANT SAFETY INSTRUCTIONS

- 1 Read these instructions.
 - 2 Keep these instructions.
 - 3 Heed all warnings.
 - 4 Follow all instructions.
 - 5 Do not use this apparatus near water.
 - 6 Clean only with dry cloth.
 - 7 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
 - 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
 - 9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
 - 10 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
 - 11 Only use attachments/accessories specified by the manufacturer.
 - 12 Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- Do not expose this apparatus to drips or splashes.
 - Do not place any objects filled with liquids, such as vases, on the apparatus.
 - Do not install this apparatus in a confined space such as a book case or similar unit.
 - The apparatus draws nominal non-operating power from the AC outlet with its POWER or STANDBY/ON switch not in the ON position.
 - The apparatus should be located close enough to the AC outlet so that you can easily grasp the power cord plug at any time.
 - The mains plug is used as the disconnect device, the disconnect device shall remain readily operable.
 - Products with Class I construction are equipped with a power supply cord that has a 3-prong grounding plug. The cord of such a product must be plugged into an AC outlet that has a protective grounding connection.
 - If the product uses batteries (including a battery pack or installed batteries), they should not be exposed to sunshine, fire or excessive heat.
 - CAUTION for products that use replaceable lithium batteries: there is danger of explosion if a battery is replaced with an incorrect type of battery. Replace only with the same or equivalent type.
 - Caution should be taken when using earphones or headphones with the product because excessive sound pressure (volume) from earphones or headphones can cause hearing loss.
 - If you are experiencing problems with this product, contact TEAC for a service referral. Do not use the product until it has been repaired.



- 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.

Safety Information

CAUTIONS ABOUT BATTERIES

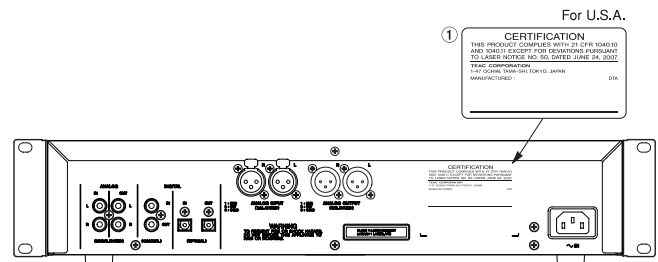
This product uses batteries. Misuse of batteries could cause a leak, rupture or other trouble. Always abide by the following precautions when using batteries.

- Never recharge non-rechargeable batteries. The batteries could rupture or leak, causing fire or injury.
- When installing batteries, pay attention to the polarity indications (plus/minus (+/-) orientation), and install them correctly in the battery compartment as indicated. Putting them in backward could make the batteries rupture or leak, causing fire, injury or stains around them.
- When you store or dispose batteries, isolate their terminals with insulation tape or something like that to prevent them from contacting other batteries or metallic objects.
- When throwing used batteries away, follow the disposal instructions indicated on the batteries and the local disposal laws.
- Do not use batteries other than those specified. Do not mix and use new and old batteries or different types of batteries together. The batteries could rupture or leak, causing fire, injury or stains around them.
- Do not carry or store batteries together with small metal objects. The batteries could short, causing leak, rupture or other trouble.
- Do not heat or disassemble batteries. Do not put them in fire or water. Batteries could rupture or leak, causing fire, injury or stains around them.
- If the battery fluid leaks, wipe away any fluid on the battery case before inserting new batteries. If the battery fluid gets in an eye, it could cause loss of eyesight. If fluid does enter an eye, wash it out thoroughly with clean water without rubbing the eye and then consult a doctor immediately. If the fluid gets on a person's body or clothing, it could cause skin injuries or burns. If this should happen, wash it off with clean water and then consult a doctor immediately.
- The unit power should be off when you install and replace batteries.
- Remove the batteries if you do not plan to use the unit for a long time. Batteries could rupture or leak, causing fire, injury or stains around them. If the battery fluid leaks, wipe away any fluid on the battery compartment before inserting new batteries.
- Do not disassemble a battery. The acid inside the battery could harm skin or clothing.

CAUTIONS ABOUT LASER RADIATION

This product has been designed and manufactured according to FDA regulations "title 21, CFR, chapter 1, subchapter J, based on the Radiation Control for Health and Safety Act of 1968," and is classified as a class 1 laser product. There is no hazardous invisible laser radiation during operation because invisible laser radiation emitted inside of this product is completely confined in the protective housings.

The label required in this regulation is shown at ①.



Cautions:

- DO NOT REMOVE THE PROTECTIVE HOUSING USING A SCREWDRIVER.
- USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
- IF THIS PRODUCT DEVELOPS TROUBLE, CONTACT YOUR NEAREST QUALIFIED SERVICE PERSONNEL, AND DO NOT USE THE PRODUCT IN ITS DAMAGED STATE.
- CLASS 1M INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.

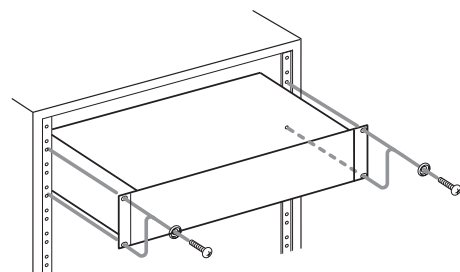
Optical pickup

Type	: KMS-260E
Manufacturer	: SONY Corporation
Laser output	: 4.55 mW
Wavelength	: 785 ±20 nm

RACK-MOUNTING THE UNIT

If you are mounting the unit in a rack, leave 1U of space above it and 4 inch (10 cm) or more of space at the rear.

Use the rack-mounting kit to mount the unit in a standard 19-inch equipment rack, as shown below. Remove the feet of the unit before mounting.



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1 – Introduction

Thank you very much for purchasing a TASCAM MD-02/MD-02B MiniDisc deck. Please read this manual thoroughly before using the unit so that you understand correct operating procedures and can use its functions fully. We hope that you enjoy using this unit for many years.

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

Main features

- Compatible with ST (stereo), MONO, LP2 and LP4 formats and can record and play discs with multiple modes
- Track editing functions include ERASE, DIVIDE, COMBINE, MOVE and TITLE
- Multiple tracks can be grouped and played back together in group playback mode
- Automatic track creation functions (LEVEL/TIME/OFF)
- New tracks can be started during recording by pressing the **RECORD** key
- Sync recording function allows recording to start in response to input signals (-41 dB analog/-61 dB digital)
- Input signals can be monitored without inserting an MD disc
- Digital volume control of inputs (-∞, -48 to +12 dB)
- Fade-in/fade-out recording function (1–10 seconds in 1 second steps)
- All track, program (32 tracks maximum) and random playback modes
- Single track repeat, all track repeat, program repeat and random repeat playback modes
- Power on play function can automatically start playback when power is turned ON
- Switch between display of track elapsed time and track remaining time during playback
- Switch between display of track elapsed time and disc remaining time during recording
- RCA analog unbalanced input and output jacks
- XLR analog balanced input and output jacks (MD-02B only)
- Coaxial and optical digital input and output jacks
- Built-in sampling rate converter converts 32 and 48 kHz digital signals into 44.1 kHz
- Remote control and title input possible with a PS/2 keyboard
- Wireless remote control included as a standard accessory

- 2U rack-mount size

Included items

This product includes the following items.

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

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

- Main unit1
- A Power cord1
- Wireless remote control unit (RC-MD02)1
- AAA batteries for the remote control unit2
- A rack-mounting screw kit1
- A warranty card1
- Owner's manual (this manual)1

NOTE

The batteries are not supplied for Taiwan.

Conventions used in this manual

In this manual, we use the following conventions:

- “MiniDisc” is abbreviated as “MD.”
- Keys, jacks and other parts on the main unit and external devices are indicated like this: **KEY**
- Messages on the unit’s display are shown with quotation marks like this: “Message”
- When the character display area shows information about discs and tracks this is called the “information display” mode.
- Additional information is provided as necessary as tips, notes and cautions.

TIP

These are tips about how to use the unit.

NOTE

These provide additional explanations and describe special cases.

CAUTION

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

1 – Introduction

Intellectual property rights

- TASCAM is a registered trademark of TEAC Corporation.
- US and foreign patents licensed from Dolby Laboratories Licensing Corporation.
- Other company names, product names and logos in this document are the trademarks or registered trademarks of their respective owners.

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

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

Precautions for placement and use

- The guaranteed operating temperature range of this product is 5° - 35° C (41° - 95° F).
- Install this unit so that it is level.
- In order to promote the emission of heat, do not place anything on top of this product.
- Do not place this product on top of a powered amplifier or other equipment that emits heat.

Beware of condensation

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

Cleaning the unit

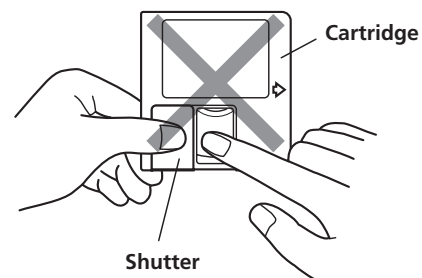
Wipe the unit with a soft dry cloth to clean it. Do not use any benzene, paint thinner, alcohol or other chemical agents. Doing so could damage the surface of the unit or cause fading.

Handling of MDs

The MD itself is mounted inside a cartridge. Soiling or warping of the cartridge could cause malfunction.

To ensure continued enjoyment of the contents of an MD, please observe the following precautions.

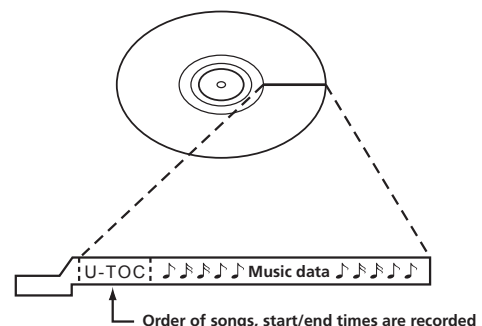
- After use, always return an MD to its case.
- Do not open the shutter and touch the disc inside. Moreover, forcing the shutter open could break the MD.
- Keep discs out of direct sunlight and places of high heat and humidity.
- Wipe dirt and grime from the cartridge surface with a dry cloth.
- When applying labels to an MD, apply them correctly to the indicated locations. Loose or raised labels could cause an MD to become stuck in the unit.
- Do not layer labels on top of other labels.



About the User Table of Contents (U-TOC)

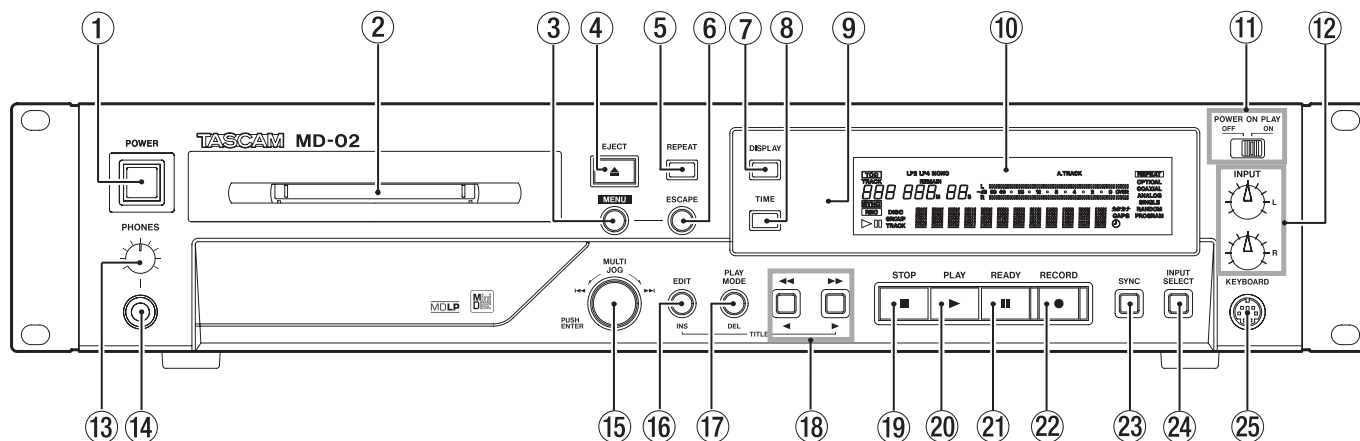
Recorded tracks on a recordable MD can be edited.

Information about recorded tracks, including their starting and ending addresses and titles, is recorded in something called the User Table of Contents (U-TOC). This is overwritten when the disc is edited.



2 – Names and Functions of Parts

Front panel



- ① **POWER switch**
Turns the power ON and OFF.

CAUTION

Minimize the volume of connected devices before turning the power ON. Failure to do so could cause sudden loud noises, resulting in hearing damage, for example.

- ② **MD slot**
Insert MD discs for recording or playback here.
Insert in the direction of the arrow with the label side up.
- ③ **MENU key**
Press to turn the menu mode ON and OFF (see “4 – Menu Operation” on page 16).
- ④ **EJECT key**
Press to eject MD discs.
- ⑤ **REPEAT key**
Press to change the repeat playback mode (see “Repeat playback” on page 19).
The repeat mode setting is retained even when the power is turned OFF.

NOTE

- If the unit is in single repeat mode when the STOP key is pressed, the mode changes to all repeat.
 - If the unit is in single repeat mode when the power is turned OFF, the mode changes to all repeat when the power is turned ON again.
- ⑥ **ESCAPE key**
When in menu mode, press this key to return to the previous menu (see “4–Menu Operation” on page 16).
- ⑦ **DISPLAY key**
When stopped, press this key to show the current disc title on the display. During playback and playback standby, press this key to show the current track title

(see “Changing the time and character information display” on page 20).

During input, press this key to cycle through character types: lower case letters, upper case letters and katakana (see “Title input method” on page 26).

- ⑧ **TIME key**
Press this key to change the time mode shown on the display (see “Changing the time and character information display” on page 20).
During playback: track elapsed time, track remaining time
During recording: recording elapsed time, disc remaining time
The time mode setting is retained even when the power is turned OFF.
- ⑨ **Remote sensor**
When using the included wireless remote control (RC-MD02), point it toward this sensor.
- ⑩ **Display**
This shows information about discs, tracks, deck operation mode, menus and other items (see “Display” on page 11).
- ⑪ **POWER ON PLAY switch**
Use to turn power on play on and off. When set to ON, playback will begin automatically when the power is turned on if a disc is loaded (see “Using power on play” on page 19).
- ⑫ **INPUT (L, R) knobs**
Use to adjust the analog input levels (see “Adjusting the recording level” on page 23). Independent adjustment of both left and right signals is possible.
- ⑬ **PHONES level knob**
Use to adjust the headphones output level.

2 – Names and Functions of Parts

CAUTION

Before connecting headphones, minimize the volume with the PHONES level knob. Failure to do so could cause sudden loud noises, resulting in hearing damage, for example.

⑭ PHONES jack

This is a standard headphones jack for connecting stereo headphones. Use an adapter to connect headphones that have mini-plug jacks.

⑮ MULTI JOG dial (ENTER key)

Turn to use as the MULTI JOG dial and push to use as an ENTER key.

MULTI JOG dial functions:

In program mode, use to select tracks to add.

In menu mode, use to select menu items and values.

In title input mode, use to select characters to input.

In editing mode, use to select editing menu items.

In all other modes use the dial to skip through tracks.

ENTER key functions:

In program mode, use to confirm the selected track.

In menu mode, use to confirm menu item selections and menu settings.

In title input mode, use to confirm characters for input.

In editing mode, use to confirm editing menu item selections.

⑯ EDIT/INS key

Use to turn the editing mode ON and OFF (see “7—MD Editing” on page 26).

In title input mode, press this key to insert a space at the location of the cursor (see “Title input method” on page 26).

⑰ PLAY MODE/DEL key

Press to cycle through the playback modes: Continue, Program and Random (see “Playback modes” on page 18). The playback mode is retained even when the power is turned OFF.

In title input mode, press to erase the character at the current position (see “Title input method” on page 26).

⑱ ◀▶/▶▶ keys

During playback or when paused, press the ◀▶ key to search backward and press the ▶▶ key to search forward.

When in group playback mode, use to select groups if groups are set and playback is stopped (see “Group playback” on page 21).

In title input mode, use to move the cursor (see “Title input method” on page 26).

⑲ STOP key

Press to stop recording or playback.

When stopped in program playback mode, press to erase the entire program (see “Play selected tracks in desired order (program playback)” on page 19).

In title input mode, press to cancel the input of characters and exit title input mode (see “Title input method” on page 26).

⑳ PLAY key

When stopped or in playback standby, press to start playback.

When in recording standby, press to start recording.

㉑ READY key

When stopped or during playback, press to start playback standby.

When recording, press to start recording standby.

㉒ RECORD key

Press this key when a recordable MD is loaded and the unit is stopped to put the unit in recording standby. When in recording standby, you can monitor the input signal.

When recording, press this key to start a new track with the next higher track number (increment) (see “Creating new tracks (incrementing track numbers)” on page 23).

When no disc is loaded, press this key to monitor the input signal, which is output from the headphones and rear panel output jacks (see “Monitoring the input signal” on page 22).

㉓ SYNC key

Press to turn sync recording ON and OFF (see “Sync recording” on page 25).

㉔ INPUT SELECT key

Press to cycle through input signal (input jack) options for recording: OPTICAL, COAXIAL, ANALOG (lit) and ANALOG (blinking, MD-02B only) (see “Selecting the input signal” on page 22).

OPTICAL: optical jack digital input

COAXIAL: coaxial jack digital input

ANALOG (lit): RCA unbalanced jack analog input

ANALOG (blinking): XLR balanced jack analog input (MD-02B only)

㉕ KEYBOARD connector

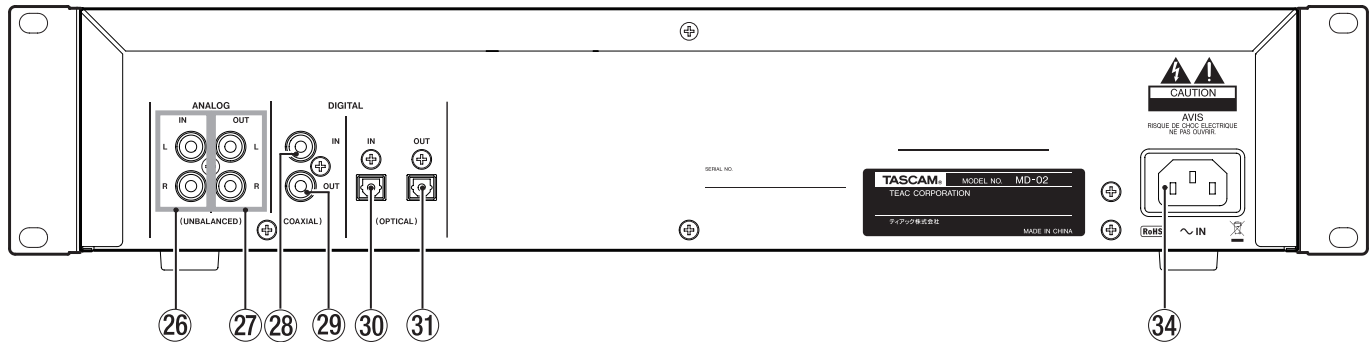
Connect an IBM PC-compatible PS/2 interface keyboard.

The default setting is set for JP keyboards. Since US keyboards have a different layout from Japanese-language keyboards, use the menu to change the setting when using a US keyboard (see “Setting the keyboard type” on page 31).

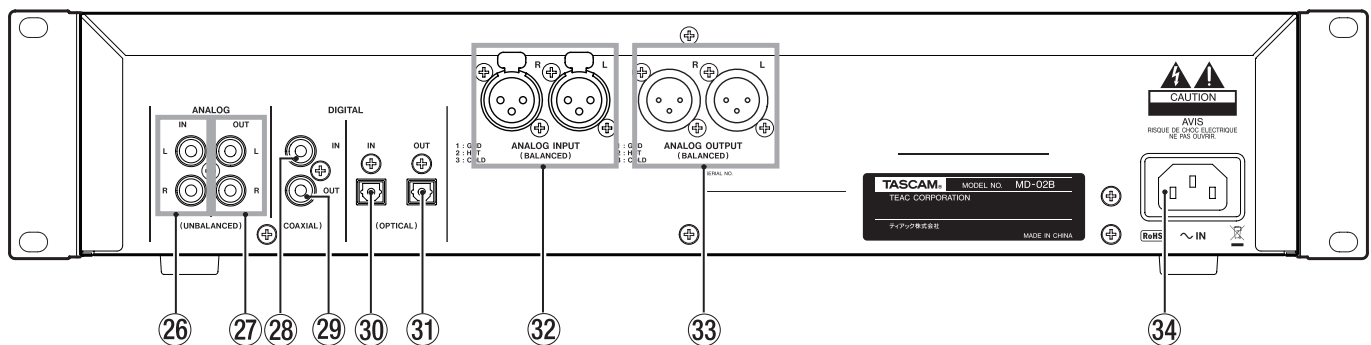
2 – Names and Functions of Parts

Rear panel

MD-02



MD-02B



②⑥ ANALOG IN L/R (UNBALANCED)

These analog line input jacks (RCA pin jacks) have a nominal input level of -10 dBV.

②⑦ ANALOG OUT L/R (UNBALANCED)

These analog line output jacks (RCA pin jacks) have a nominal output level of -10 dBV.

These output the selected input signal during recording, when in recording standby and when monitoring.

②⑧ DIGITAL IN (COAXIAL)

This coaxial digital input jack conforms to IEC60958-3 (S/PDIF).

Since this deck has a sampling rate converter, in addition to 44.1 KHz signals, 32 and 48 KHz digital signals can also be input.

②⑨ DIGITAL OUT (COAXIAL)

This coaxial digital output jack conforms to IEC60958-3 (S/PDIF).

This outputs the selected input signal during recording, when in recording standby and when monitoring. When a digital input is selected, that digital input is output unchanged.

③① DIGITAL IN (OPTICAL)

This optical digital input jack conforms to IEC60958-3 (S/PDIF). Since this deck has a sampling rate converter, in addition to 44.1 kHz signals, 32 and 48 kHz digital signals can also be input.

③① DIGITAL OUT (OPTICAL)

This optical digital output jack conforms to IEC60958-3 (S/PDIF).

This outputs the selected input signal during recording, when in recording standby and when monitoring. When a digital input is selected, that digital input is output unchanged.

③② ANALOG INPUT (BALANCED) (MD-02B only)

These analog input jacks (balanced XLR) have a nominal input level of $+4$ dBu.

(1: GND, 2: HOT, 3: COLD)

③③ ANALOG OUTPUT (BALANCED) (MD-02B only)

These analog output jacks (balanced XLR) have a nominal output level of $+4$ dBu.

(1: GND, 2: HOT, 3: COLD)

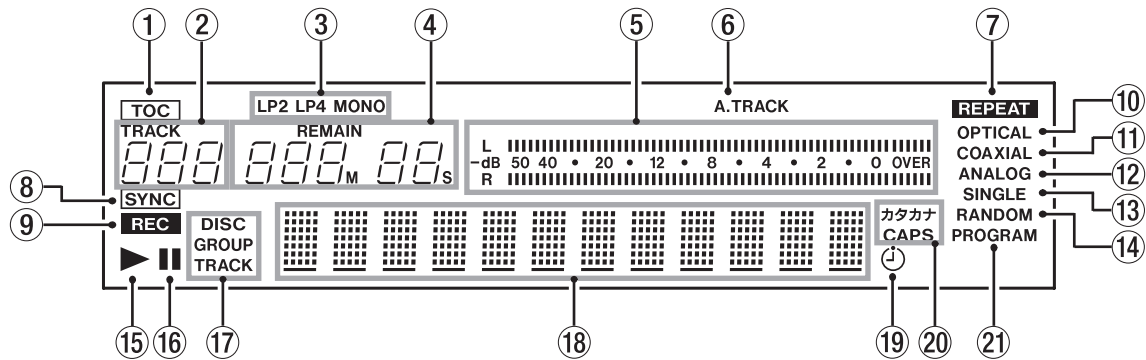
These output the selected input signal during recording, when in recording standby and when monitoring.

③④ ~ IN connector

Connect the included power cord.

2 – Names and Functions of Parts

Display



- ① **TOC**
This appears when the most recent U-TOC information has not yet been recorded to the disc and blinks during U-TOC recording.
- ② **Track number display area**
The track number that is selected or being played is shown.
- ③ **MD record mode indicators (LP2, LP4, MONO)**
These show the recording mode. No indicator appears when in stereo mode. During playback, the record mode used for the MD being played back is shown.
- ④ **Counter display area**
The elapsed time or remaining time is shown. The REMAIN indicator appears when the remaining time is shown. The counter shows minutes (3 digits) and seconds (2 digits).
- ⑤ **Level meters**
These show the playback level or record input level.
- ⑥ **A.TRACK**
This indicator appears when the auto track function is ON.

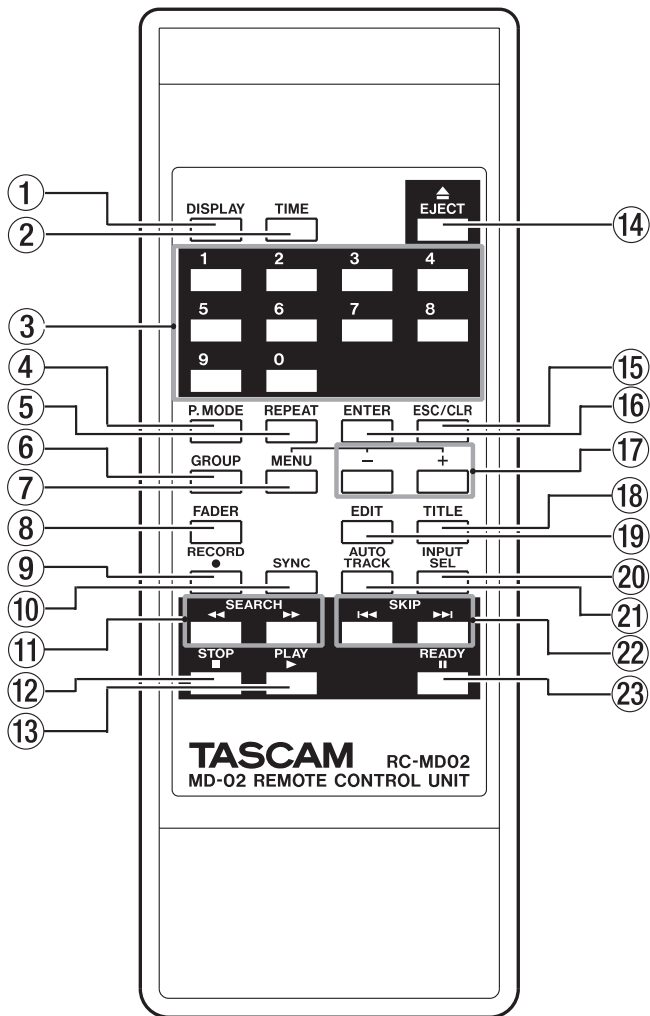
When recording or in recording standby, this blinks if the auto track function is set to “Time” (causing the unit to automatically create new tracks at set intervals of time when recording).
- ⑦ **REPEAT**
This indicator appears when the repeat playback mode is ON.
- ⑧ **SYNC**
This indicator appears when the sync recording mode is ON.
- ⑨ **REC**
This indicator appears when recording or in recording standby.
- ⑩ **OPTICAL**
This indicator appears when the input source is set to OPTICAL (digital).
- ⑪ **COAXIAL**
This indicator appears when the input source is set to COAXIAL (digital).
- ⑫ **ANALOG**
This indicator appears when the input source is set to UNBALANCED (analog), and blinks when set to BALANCED (analog, MD-02B only)
- ⑬ **SINGLE**
This indicator appears when in single repeat mode.
- ⑭ **RANDOM**
This indicator appears when set to random playback mode.
- ⑮ **▶**
This indicator appears during playback and when recording.
- ⑯ **||**
This indicator appears when in record or playback standby (paused).
- ⑰ **DISC, GROUP, TRACK indicators**
The “DISC” indicator appears when a disc is loaded, but playback is stopped.

The “GROUP” indicator appears when group mode is ON.

The “TRACK” indicator appears during playback or in playback standby.
- ⑱ **Character display area**
This area shows disc and track information, menus, messages operation status and other information.
- ⑲ **⏻**
This indicator appears when the power-on play function is ON and blinks when the power-on play function is ON, but no disc is loaded.
- ⑳ **カタカナ, CAPS**
During title input, the “katakana” or “CAPS” indicator appears when one of these character modes is in use. Nothing appears when lower case letters are in use.
- ㉑ **PROGRAM**
This indicator appears when set to program playback mode.

2 – Names and Functions of Parts

Remote control unit



① DISPLAY

When the unit is stopped, press to show the current disc title on the display. During playback or when in playback standby, press this to show the current track title (see “Changing the time and character information display” on page 20).

During title input, press to change the character type.

② TIME

Press to change the time mode shown on the display (see “Changing the time and character information display” on page 20).

The time mode setting is retained even when the power is turned OFF.

③ Number keys

Use to input track numbers.

④ P.MODE

Press to cycle through the playback modes: Continue, Program and Random (see “Playback modes” on page 18).

The playback mode is retained even when the power is turned OFF.

⑤ REPEAT

Press to change the repeat playback mode (see “Repeat playback” on page 19).

The repeat mode setting is retained even when the power is turned OFF.

NOTE

- If the unit is in single repeat mode when the STOP key is pressed, the mode changes to all repeat.
- If the unit is in single repeat mode when the power is turned OFF, the mode changes to all repeat when the power is turned ON again.

⑥ GROUP

Press to turn group playback mode ON and OFF (see “Group playback” on page 21).

⑦ MENU

Press to turn menu mode ON and OFF (see “4–Menu Operation” on page 16).

⑧ FADER

Press when in recording standby to start fade-in record. When recording, press to fade-out the recording (see “Fade-in and fade-out recording” on page 24).

⑨ RECORD

When a recordable MD disc is loaded and playback is stopped, press to begin recording standby. The input signal can be monitored during recording standby.

When recording, press this key to start a new track with the next higher track number (increment) (see “Creating new tracks (incrementing track numbers)” on page 23).

When no disc is loaded, press this key to monitor the input signal, which is output from the headphones and rear panel output jacks (see “Monitoring the input signal” on page 22).

⑩ SYNC

Press to turn sync recording ON and OFF (see “Sync recording” on page 25).

⑪ SEARCH ◀◀/▶▶

During playback or when paused, press the ◀◀ key to search backward and press the ▶▶ key to search forward.

When in group playback mode, use to select groups if groups are set and playback is stopped (see “Group playback” on page 21).

In title input mode, use to move the cursor (see “Title input method” on page 26).

⑫ STOP

Press to stop recording or playback.

When stopped in program playback mode, press to erase the entire program (see “Play selected tracks in desired order (program playback)” on page 19).

2 – Names and Functions of Parts

In title input mode, press to cancel the input of characters and exit title input mode (see “Title input method” on page 26).

⑬ PLAY

When stopped or in playback standby, press to start playback.

When in recording standby, press to start recording.

⑭ EJECT

Press to eject the MD disc.

⑮ ESC/CLR

In menu mode, press this key to return to the previous menu level (see “4–Menu Operation” on page 16).

When inputting a track number, press this key to clear the track number.

During program input, the track of the currently selected program number is removed from the program.

In title input mode, the character at the cursor position is erased.

⑯ ENTER

In program mode, press to confirm the selected track.

In menu mode, press to confirm menu items and settings.

In title input mode, press to confirm input characters.

In editing mode, press to confirm editing menu items.

⑰ -/+

When in menu mode, use to select menu items and set values (see “4–Menu Operation” on page 16).

⑱ TITLE

Press to turn title input mode ON and OFF (see “7 – MD Editing” on page 26).

⑲ EDIT

Press to turn editing mode ON and OFF (see “7 – MD Editing” on page 26).

⑳ INPUT SEL

Press to cycle through input signal (input jack) options for recording: OPTICAL, COAXIAL, ANALOG (lit) and ANALOG (blinking, MD-02B only) (see “Selecting the input signal” on page 22).

OPTICAL: optical jack digital input

COAXIAL: coaxial jack digital input

ANALOG (lit): RCA unbalanced jack analog input

ANALOG (blinking): XLR balanced jack analog input (MD-02B only)

㉑ AUTO TRACK

Press to turn the auto track function ON and OFF (see “Creating new tracks (incrementing track numbers)” on page 23).

㉒ SKIP ◀◀/▶▶

In program mode, use to select tracks to add to the program.

In menu mode, use to select menu items and values.

In title input mode, use to select characters to input.

In editing mode, used to select editing menu items.

Use to skip tracks at all other times.

㉓ READY

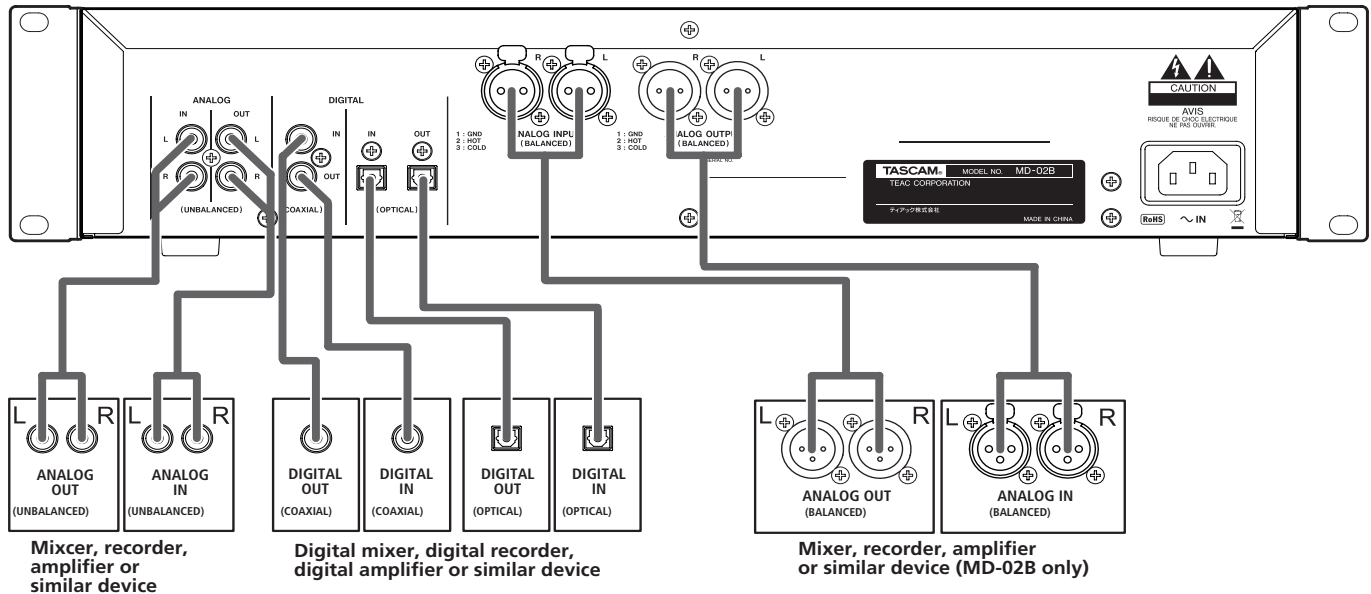
When stopped or during playback, press to start playback standby.

When recording, press this key to resume recording standby.

3 – Preparations

When connecting external equipment, please read their operation manuals beforehand and connect them correctly. Turn the power on last.

Audio connections



■ Connections with analog audio equipment

Stereo amplifiers, mixers, recorders and other analog devices can be connected to this unit's analog line input and output jacks.

NOTE

- Cables are not included with this unit.
- Do not bundle RCA cables with power cords or speaker cables. Doing so could cause reduced audio quality or noise.

■ Connections with digital audio equipment

Stereo amplifiers, mixers, recorders and other digital devices can be connected to this unit's digital input and output jacks.

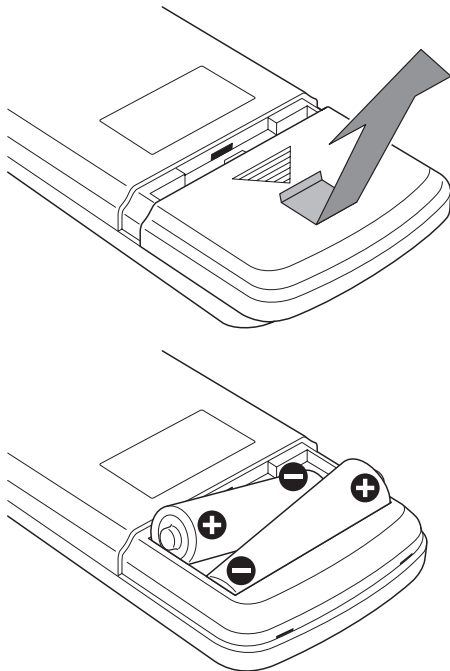
NOTE

This unit has a sampling rate converter, so 32 and 48 kHz signals, which differ from the standard MD sampling rate of 44.1 kHz, can also be recorded digitally.

3 – Preparations

Preparing the remote control

Installing the batteries



1. Open the cover on the back.
2. Paying attention to the +/- orientation, insert two AAA batteries.
3. Close the cover.

When to change the batteries

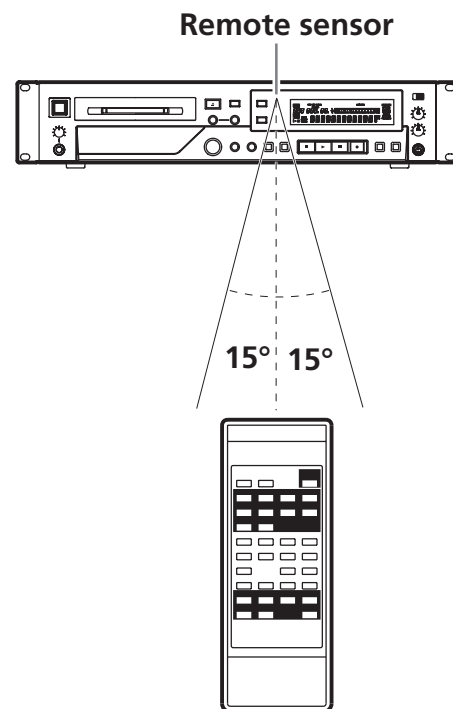
If the distance that operation is effective becomes shorter or pressing the keys does not have any effect, replace both batteries with new ones at the same time.

Cautions about the use of batteries

Misuse of a battery could cause it to leak, rupture or otherwise be damaged. Please read the precautions on the batteries and on page 4 of this manual.

Cautions about the use of the remote control

- When using other equipment that can be controlled by infrared signals, the remote control for this unit could operate them accidentally.
- Use the remote control within the following range.



Operation distance

Directly in front: Within 7 meters

15° left or right: Within 7 meters

Setting remote control operation

When using more than one of these units at the same time, in order to prevent misoperation when using a remote control, you can use a menu setting to prevent a unit from responding to the remote control, with the exception of some keys.

1. Press the **MENU** key on the main unit or on the remote control.
2. Use the **MULTI JOG** dial on the main unit or the +/- keys on the remote control to select “IR REMOTE?”
3. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.
4. Use the **MULTI JOG** dial on the main unit or the +/- keys on the remote control to select “Disable.”
5. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.

NOTE

- The **MENU**, **-**, **+**, **ENTER** and **ESC/CLR** keys on the remote control always function.
- If you select “Enable” in step 4 of the above procedures, you will be able to operate the main unit by the remote control again.

4 – Menu Operation

Various settings for this unit can be made by using menu items shown on the display. In this section, we explain the unit's menu structure and basic menu operations.

Menu structure

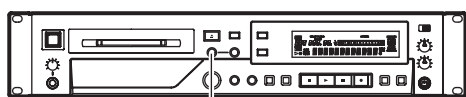
Menu item	Function	Options	Reference	Page
		(The underlined value is the default setting)		
REC MODE?	Set record mode	<u>ST</u> /MONO/LP2/LP4	"Setting the recording mode"	22
A_TRK?	Set auto track mode	<u>OFF</u> /Level/Time	"Creating new tracks (incrementing track numbers)"	23
A_TRK TIME?	Set auto track operation time	1–10 minutes in 1 minute units, <u>5 minutes</u>	"Creating new tracks (incrementing track numbers)"	23
REC VOLUME?	Adjust the input level	–∞, –48 to +12 dB, <u>0 dB</u>	"Adjusting the recording level"	23
FADE IN?	Fade-in operation time	1–10 seconds in one second units, <u>3 seconds</u>	"Fade-in and fade-out recording"	24
FADE OUT?	Fade-out operation time	1–10 seconds in one second units, <u>3 seconds</u>	"Fade-in and fade-out recording"	24
GROUP?	Turn group mode ON and OFF	<u>ON</u> /OFF	"Group playback"	21
KEYBOARD?	Set the connected keyboard type	<u>JP</u> /US	"Setting the keyboard type"	31
IR REMOTE?	Set remote control operation	<u>Enable</u> /Disable (Note 1)	"Setting remote control operation"	15
F_PRESET?	Restore various settings to their default values	(Note 2)	"Restore settings to their defaults"	32
PLAY_TIME?	Display cumulative playback time		"Checking service data"	32
REC_TIME?	Display cumulative recording time		"Checking service data"	32

(Note 1) MENU, +, –, ENTER and ESC/CLR keys function even if set to "Disable"

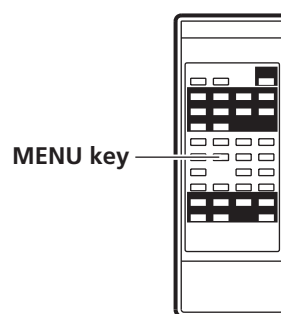
(Note 2) Excluding PLAY_TIME and REC_TIME settings

Menu operation basics

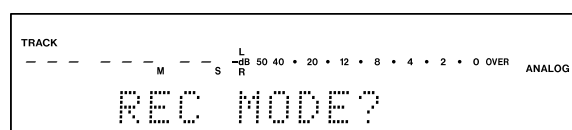
1. When in information display mode, press the MENU key on the main unit or on the remote control to enter menu mode. The main area of the display shows selectable menu items. The menu item that was last selected is shown again.



MENU key



MENU key

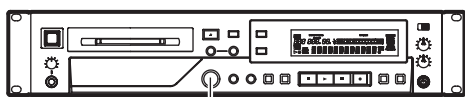


4 – Menu Operation

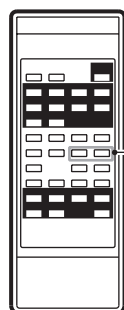
NOTE

Press the MENU key when a selectable menu item is shown to return to the information display.

- Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to select the desired menu item.



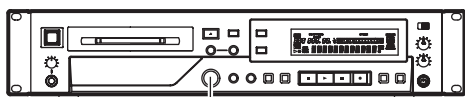
MULTI JOG dial



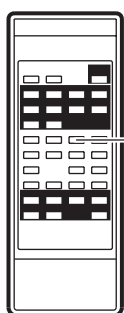
-/+ key

- Press the MULTI JOG dial on the main unit or the ENTER key on the remote control to confirm the selection.

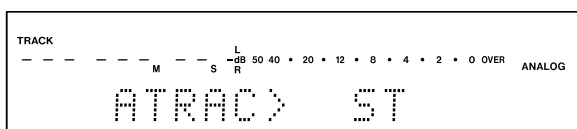
The menu item and its setting value are shown. Change the setting using the following procedures.



MULTI JOG dial



ENTER key



- Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to set the value as desired.
- Use the MULTI JOG dial on the main unit or the ENTER key on the remote control to confirm the setting.

The unit returns to information display mode.

NOTE

- Press the ESCAPE key on the main unit or the ESC/CLR key on the remote control when a menu item and its setting value are shown to return to the menu item selection screen.
- Some menu items, such as the time display, do not have settings and are only for confirmation.
- After making settings with the menu, press the MULTI JOG dial or ENTER key to exit the menu after confirming the selection and return to the information display mode.
- To leave the menu without any changes, press the MENU key on the main unit or the remote control to exit menu mode.
- When "IR REMOTE?" is set to "Disable," the main unit does not respond to remote control operations, with the exception of some keys. When set to "Enable," the unit responds to all remote control keys.

5 – Playback

Playable MDs

This unit can play audio MDs that have been recorded in ST (stereo), LP2, LP4 or MONO mode.

Playback modes

This unit has three playback modes. The currently selected playback mode is indicated on the display.

Ordinary playback (Continue) mode: no indicator

Program playback mode: “PROGRAM” indicator

Random playback mode: “RANDOM” indicator

Press the **PLAY MODE** key on the main unit or the **P.MODE** key on the remote control to cycle through the playback modes in the following order: Continue, Program and Random.



In this manual, unless otherwise indicated, explanations assume that ordinary playback mode (Continue) is set.

NOTE

- The playback mode can be changed when playback is stopped and when no MD is loaded. The mode cannot be changed during playback, recording or when in playback or recording standby.
- When in group playback mode, random playback cannot be selected.

Basic playback operations

1. Press the **POWER** switch to turn the power **ON**.

“NO DISC” appears on the display.

2. Insert an MD into the MD slot in the direction of the arrow with the labeled side up.

After loading an MD, the title of the disc (if available), the total number of tracks and the total playback time are shown.

3. Press the **PLAY** key on the main unit or the remote control.

“▶” lights and the first track starts to play.

The track number of the currently playing track appears in the track number display area.

■ Stopping playback

Press the **STOP** key on the main unit or the remote control.

■ Pausing playback

Press the **READY** key on the main unit or the remote control.

“⏸” lights on the display and the MD begins playback standby. Press the **PLAY** key on the main unit or the remote control to start playback again.

■ Ejecting an MD

Press the **EJECT** key on the main unit or the remote control.

■ Listening to a desired track

When using the main unit controls, use the **MULTI JOG** dial to select the track.

Using the remote control, use the **SKIP** (◀◀/▶▶) keys to select the track or enter the track number directly with the number keys (see “Selecting tracks” below).

Monitoring

Monitoring with headphones

Plug headphones into the **PHONES** jack below the **POWER** switch, and adjust the level with the level knob.

CAUTION

When using headphones, do not turn the volume level up too much. Listening for a long time to loud volumes that stress the ears can have a harmful effect on hearing.

Selecting tracks

Using the skip function

Use the **MULTI JOG** dial on the main unit or the **SKIP** (◀◀/▶▶) keys on the remote control to select tracks.

After selecting a track, press the **PLAY** key on the main unit or remote control to start playing the selected track. You can also press the **READY** key on the main unit or the remote control to start playback standby at the beginning of the selected track.

During playback, press the ◀◀ key once to skip to the beginning of the currently playing track. To skip to a lower-numbered track, press the ◀◀ key repeatedly.

Selecting a track by number keys

Use the number keys on the remote control to directly select a track by number.

For track numbers with two or three digits, simply input the digits in order from the largest to smallest unit.

Examples:

Track 9: Press 9

Track 12: Press 1 followed by 2

Track 103: Press 1 followed by 0 and then 3

After selecting a track by number keys, press the **PLAY** key on the remote control to start playing the selected track. You can also press the **READY** key on the remote control to start playback standby at the beginning of the selected track.

Searching

During playback (or in playback standby), you can search in a track for a part that you want to hear.

Press and hold the search (◀◀/▶▶) keys on the main unit or the **SEARCH** ◀◀/▶▶ keys on the remote control.

Repeat playback

Press the **REPEAT** key on the main unit or the remote control to set the repeat mode.

Repeat OFF: REPEAT not shown

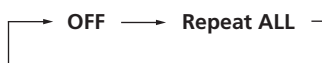
Repeat ALL: REPEAT appears

Repeat 1: REPEAT appears and SINGLE appears

Press the **REPEAT** key during playback or playback standby to cycle through the modes in this order: OFF, Repeat ALL and Repeat 1.



Press the **REPEAT** key when stopped to switch between OFF and Repeat ALL modes.



By using this function at the same time as the program or random functions, program repeat and random repeat are also possible.

NOTE

- If the unit is in single repeat mode when the **STOP** key is pressed, the mode changes to all repeat.
- If the unit is in single repeat mode when the power is turned OFF, the mode changes to all repeat when the power is turned ON again.

Using power on play

By using a commercially available timer, for example, to turn this deck's power on, it can be made to begin playback at desired times.

1. Connect the deck in advance so that it receives power from an external timer's power output.
2. Insert an MD for playback.
3. Set the **POWER ON PLAY** switch on the main unit's front panel to ON. This causes the timer icon to light on the display.

NOTE

If the **POWER ON PLAY** switch is set to **PLAY** but no MD is loaded, the ⏻ icon on the display blinks.

4. Set the timer to the desired time.

At the desired time this unit's power is turned ON and playback starts automatically.

NOTE

Since the contents of the program are not retained when the power is turned OFF, if the playback mode was set to "Program," the playback mode automatically changes to "Continue" when the power is turned ON again and playback starts.

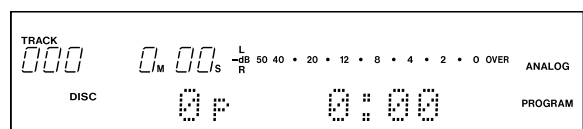
Play selected tracks in desired order (program playback)

You can create and play a program of selected tracks in a desired order.

Up to 32 tracks can be included in the program.

1. When stopped, press the **PLAY MODE** key on the main unit or the **P.MODE** (play mode) key on the remote control until "Program" appears on the display.

The number of tracks in the program and the program total time appear in the character display area.



2. Use the **MULTI JOG** dial on the main unit or the number keys on the remote control to select the track number that you want to add to the program, and then press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control to add it to the program.
3. Repeat step 2 to program additional tracks.
As tracks are added to the program, the number of tracks in the program and the program total time shown increase.
4. After finishing setting the program, press the **PLAY** key to start playing tracks in the program order.

5 – Playback

NOTE

- If you press the **STOP** key before pressing the **PLAY** key, the program data is erased.
- If the total playback time of the programmed tracks exceeds 150 minutes 00 seconds, "---m--s" is shown.

Confirming the contents of the program

During playback or when playback is paused, turn the **MULTI JOG** dial on the main unit or use the **SKIP** keys on the remote control.

Erasing the entire program

When playback is stopped during program playback mode, press the **STOP** key to erase the entire contents of the program.

In addition, pressing the **PLAY MODE** key on the main unit or the **P.MODE** key on the remote control to change the playback mode also completely erases the contents of the program.

Removing a track from the program

When stopped, press the **ESCAPE** key on the main unit or the **ESC/CLR** on the remote control to remove the last track in the program.

Adding a track to the program

1. When stopped, use the **MULTI JOG** dial on the main unit or the number keys on the remote control to show the track that you want to add in the track display area.
2. Press the **ENTER** key to add this track to the end of the program.

Program restrictions

- When group mode is ON, you cannot create a program with tracks from more than one group.
- You can repeat the same track in a program.
- The maximum number of tracks in a program is 32. If you try to add more tracks, "PGM Full!" appears and they will not be added to the program.
- In program mode, if you press the **PLAY** key when there is no program data, "PGM Empty!" appears and the deck does not operate.

Program data retention

- Program data is retained after program playback completes and when the **STOP** key is used to stop playback.
- Program playback mode stays active even when the power is turned OFF, but program data is erased.
- When stopped, pressing the **STOP** key on the main unit or the remote control discards the program data.
- When stopped, pressing the **PLAY MODE** key on the main unit or the **P.MODE** key on the remote control exits program mode and discards the program data.
- If group mode is turned on or off, the program data is discarded.
- If a different group is selected when group mode is on, the program data is discarded.
- If an MD is ejected, the program data is discarded. (The playback mode is not changed.)

Random playback

In this mode, the unit plays all the tracks on a disc in random order regardless of track number.

1. When stopped, press the **PLAY MODE** key on the main unit or the **P.MODE** key on the remote control until "RANDOM" lights on the display.
2. Press the **PLAY** key on the main unit or the remote control to start random playback.

NOTE

Random mode stays active even when the power is turned OFF.

Changing the time and character information display

■ Changing the time display

During playback (or playback standby), press the **TIME** key on the main unit or the remote control to change the time display option. (The "REMAIN" indicator is lit when the second option is active.)

During playback: track elapsed time, track remaining time ("REMAIN" lit)

During recording: record elapsed time, disc remaining time ("REMAIN" lit)

NOTE

- The track remaining time display during playback is the amount of time needed to play until the track end. Note that this differs from the remaining time display during recording.
- The total playback time is always shown when playback is stopped.

- For time display when recording and when in recording standby, see “Checking the MD’s remaining time” on page 25.
- The time display setting is retained even when the power is turned OFF.

■ Changing the character display

Press the DISPLAY key on the main unit or the remote control when stopped to show the current disc title on the display. Press during playback or in playback standby to show the current track title.

If there is a title, it scrolls across the display and then the first 12 characters are shown. If there is no title, “No Title” is shown.

Group playback

This unit can divide tracks into groups. Turn group mode ON to play only the tracks in the selected group. Program, repeat end other playback modes are conducted entirely inside a group.

■ Setting group playback

- Use the editing menu to create and erase groups. See “Creating groups” on page 29 and “Deleting groups” on page 30 for details.
 - Use the editing menu to give names to groups. See “Adding group titles” on page 27 for details.
1. Press the GROUP key on the remote control to turn group playback mode ON. “Group ON” is shown on the display. If “Group OFF” is shown, press the GROUP key on the remote control again.

Alternatively, press the MENU key on the main unit, and use the MULTI JOG dial to select “GROUP?” Press the MULTI JOG dial then use the MULTI JOG dial to select “GROUP > ON” and press the MULTI JOG dial again.

2. When playback is stopped, use the ◀◀/▶▶ keys on the main unit or the SEARCH (◀◀/▶▶) keys on the remote control to select a group.

When pressing these keys, selected group number is shown followed by the group name on the display.

CAUTION

- When group playback mode is ON, tracks that do not belong to any group cannot be played back.
- When group playback mode is ON, recording is not possible.
- When group playback mode is ON, random playback cannot be selected.

6 – Recording

In this chapter, we explain procedures related to recording, including setting the record mode, selecting input sources, adjusting recording levels while monitoring the input signal and actually recording.

The following procedures assume that the unit's power is ON and a recordable MD is loaded.

Setting the recording mode

Use the "REC MODE?" menu item to select one of the following record modes.

Option	Mode	Indicator
ST	Standard stereo recording mode	None
MONO	Monaural recording mode	MONO
LP2	2x long-play stereo recording mode	LP2
LP4	4x long-play stereo recording mode	LP4

- If "MONO" is selected, the same signal is output from both left and right channels of the headphones and rear panel audio output jacks.
- The recording time of monaural mode is double that of standard stereo recording.
- LP2 and LP4 mode allow double and quadruple the recording time of standard stereo recording.

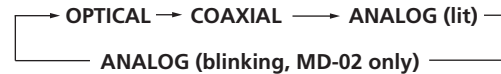
NOTE

- The MD record remaining time display differs according to the current recording mode setting.
- Different recording modes can be mixed on a single disc.
- LP4 mode (4x recording mode) realizes extended stereo recording using a special compression method. This method might cause momentary noise on very rare occasions when recording certain sources. We recommend that you do not use the LP4 mode if you are concerned about sound quality.

1. Press the MENU key on the main unit or the remote control.
2. Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to select "REC MODE?"
3. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.
4. Select ST, MONO, LP2 or LP4 as the recording mode.
5. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.

Selecting the input signal

Use the INPUT SELECT key on the main unit or the INPUT SEL key on the remote control to cycle through the input signal options: OPTICAL, COAXIAL, ANALOG (lit) and ANALOG (blinking).



OPTICAL: optical jack digital input

COAXIAL: coaxial jack digital input

ANALOG (lit): RCA unbalanced jack analog input

ANALOG (blinking): XLR balanced jack analog input (MD-02B only)

- The input signal selection is retained even when the power is turned OFF.
- Input signal levels are shown by the meters on the display.

CAUTION

The input signal cannot be changed while recording.

Monitoring the input signal

Press the RECORD key on the main unit or the remote control to start recording standby. In addition, "REC" and "II" light on the display.

When in recording standby, the input signal can be monitored, using headphones or an external audio system.

CAUTION

- If any of the following types of MD discs are loaded, the unit cannot start recording standby.
 - MD discs with write protection engaged ("W_Protected!" appears on the display)
 - Disc that have been fully recorded ("Disc Full!" appears on the display)
 - The number of tracks recorded has already reached the limit ("Track Full!" appears on the display)
- If there is no normal digital input when digital input is selected, "D-IN UNLOCK!" appears on the display and recording is not possible.

NOTE

- If you insert an MD that has been partially recorded, the unit detects the end of the recording and pauses there.
- Even if no disc is loaded, pressing the RECORD key allows the input signal to be monitored. In this situation, "Monitor" appears on the display.
- Press the STOP key to stop monitoring the input.

Adjusting the recording level

Adjust the recording level while monitoring the input signal or watching the meters.

For analog input, use the **INPUT** knobs (L, R) on the main unit and the “REC VOLUME?” item in the menu to adjust the recording levels. Use this menu item when “REC VOLUME?” is first set to “0dB” and you cannot adjust with the **INPUT** knob.

For digital input, use the “REC VOLUME?” item in the menu to adjust the recording level.

Adjust the levels so that the meters do not reach “OVER.”

■ Adjusting level with the REC VOLUME menu item

1. Press the **MENU** key on the main unit or the remote control.
2. Use the **MULTI JOG** dial on the main unit or the +/- keys on the remote control to select “REC VOLUME?”
3. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.
4. Use the **MULTI JOG** dial on the main unit or the +/- keys on the remote control to adjust the input level. The adjustment options are $-\infty$ and -48 to $+12$ dB. The default value is 0 dB.
5. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.

Recording a track

When in recording standby, press the **PLAY** key to start recording.

Press the **STOP** key to stop recording. After pressing the **STOP** key, “UTOC Writing!” is shown as the U-TOC is written to the disc.

- If the disc remaining time becomes four seconds during recording, recording automatically fades out and stops.
- Discs used in this unit can have a maximum of 254 recorded tracks. If you press the **READY** key while recording the 254th track, recording ends and the unit stops.

CAUTION

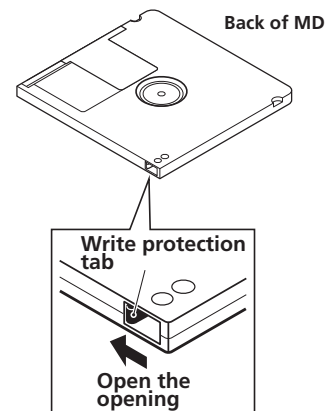
When “UTOC Writing!” is blinking, the recording is being written to the MD. Unplugging the power cord or moving the unit could prevent the recording from being correctly written to the disc.

- Press the **READY** key to pause recording.
- To eject the disc, press the **EJECT** key on the main unit when the disc is stopped.

Precautions when recording

If “W_Protected!” is shown, an MD that cannot be recorded because the write-protection tab is engaged or an MD that can only be played back might be loaded. In the former case, slide the write-protection tab to close the opening, enabling the disc for recording.

To prevent the accidental erasure of recorded contents after recording an MD, slide the write-protection tab to open the opening, disabling recording to the disc.



Creating new tracks (incrementing track numbers)

Adding a track number for each recorded song is convenient for returning to the beginning of the song during editing and playback. Tracks can be added (track numbers incremented) manually or automatically during recording. They can also be edited after recording.

CAUTION

- Discs cannot have more than 254 tracks.
- Tracks cannot be added if the disc remaining time is four seconds or less.

■ Automatically creating tracks (auto track function)

Using the auto track function, tracks can be automatically created (incrementing track numbers) when recording.

The auto track mode can be set to “OFF,” “Level” or “Time” using the **AUTO TRACK** key on the remote control.

It can also be set by selecting the “A_TRK?” menu item.

1. Press the **MENU** key on the main unit or the remote control.
2. Use the **MULTI JOG** dial on the main unit or the +/- keys on the remote control to select “A_TRK?”
3. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.
4. Use the **MULTI JOG** dial on the main unit or the +/- keys on the remote control to select “OFF,” “Level” or “Time.” The default value is OFF.

6 – Recording

5. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.

■ When "Level" is selected

If the input signal is analog and its level becomes less than -41 dB for two seconds or more, a new track is created (track number incremented) when an input level of -41 dB is detected again.

If the input signal is digital (COAXIAL or OPTICAL), and the input source is not a CD or MD, new tracks are created in the same manner as for analog input, but the detection level is -61 dB.

When the input signal is digital (COAXIAL or OPTICAL), and the input source is a CD or MD, new tracks are created when both track information and level changes are detected.

■ When "Time" is selected

When the auto track operation time is reached, a new track is automatically created (track number incremented). Use the "A_TRK TIME?" item in the menu to set this time.

Setting the auto track operation time

1. Press the MENU key on the main unit or the remote control.
2. Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to select "A_TRK TIME?"
3. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.
4. Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to set the operation time. The setting range is between 1 and 10 minutes (in one minute increments). The default value is five minutes.
5. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.

NOTE

All auto track settings are retained even when the power is turned OFF.

If the auto track operation time is changed while recording, the new time setting becomes effective after the next track.

Manually creating tracks (incrementing track numbers)

When recording, press the RECORD key whenever you want to create a new track (increment the track number).

Creating track after recording

Tracks can be created by dividing existing tracks (see "Dividing tracks (DIVIDE)" on page 27).

In addition, you can merge tracks (see "Combining tracks (COMBINE)" on page 28).

Fade-in and fade-out recording

This unit can fade-in the beginning of a recording and fade-out the end of a recording.

The following procedures assume that preparation has been made for recording and that a recordable disc is loaded and in recording standby.

1. In recording standby, press the FADER key on the remote control.
Recording starts, fading in over the set time.
2. To fade-out during recording, press the FADER key on the remote control.
The recording fades out over the set time, and the unit returns to recording standby.

Setting the fade-in and fade-out times using the menu

1. Press the MENU key on the main unit or the remote control.
2. Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to select "FADE IN?"
3. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.
4. Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to set the fade-in time in a range between 1 and 10 seconds (in one second increments). The default value is 3 seconds.
5. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.
6. Follow the same procedures to set the fade-out time in the FADE OUT menu.

NOTE

- You can use either fade-in or fade-out without using the other.
- You can also fade-out during a fade-in and fade-in during a fade-out. For example, if fade-in time is set to 10 seconds, press the FADER key to start fade-in recording and then press the FADER key again 5 seconds after the start of recording to fade-out.

Sync recording

In sync recording, the level of the input signal is detected and recording starts and pauses automatically.

When the sync recording function is ON and the unit is in recording standby, recording automatically starts when an analog input exceeding –41 dB or a digital input exceeding –61 dB is detected.

When recording, if the analog input becomes less than –41 dB or the digital input becomes less than –61 dB for 8 seconds, the unit returns to recording standby. If these input levels are exceeded again, recording restarts automatically, creating a new track with the next higher track number (track incremented).

The following procedures assume that preparation has been made for recording, that a recordable disc is loaded and that the unit is stopped.

1. **Press the RECORD key on the main unit or the remote control to put the unit in recording standby.**
2. **Press the SYNC key on the main unit or the remote control to turn sync recording mode ON and OFF.**
 “Sync Ready” appears when the unit completes preparation for sync recording.

CAUTION

Recording starts immediately at this time if a signal is already being input.

3. **Input the source signal.**

Recording begins automatically when the input signal is detected.

If the input signal level becomes less than that indicated above for eight or more seconds, the unit returns to recording standby and “Sync Standby” appears on the screen. “Sync Ready” appears again when the unit completes preparations for sync recording.

4. **Press the STOP key on the main unit or the remote control to manually stop recording.**

NOTE

During sync recording, fade-in does not function.

CAUTION

- *When sync recording is enabled and the unit is in recording standby, it is not possible to manually start recording by pressing the PLAY key on the main unit or the remote control.*
- *While “Sync Standby” is displayed, sync recording cannot start even if an input signal is detected.*
- *After sync recording, the recorded data is erased if you turn the power OFF while the unit is still in recording standby. Always press the STOP key on the main unit or the remote control (allowing the U-TOC to be written) before turning the power OFF.*

Checking the MD’s remaining time

When recording (or in recording standby), press the TIME key on the main unit or the remote control to show the track elapsed time and disc remaining time alternately.

Indicator	Time display
None	Track elapsed time
REMAIN	Disc remaining time

7 – MD Editing

Editing operations allow recorded tracks to be titled, deleted, moved, divided or combined, for example. Tracks can also be put into groups.

NOTE

Editing is only possible when the playback mode is set to "Continue" and group playback mode is OFF.

Editing operations

Use the editing (EDIT) menu for all editing functions.

The procedures after selecting an editing menu item depend on that item. Detailed operation procedures for each menu item are provided in the explanations of the individual editing functions.

NOTE

In addition to not being recordable, write-protected discs cannot be edited. If you select the editing menu when using a write-protected disc, "W_Protected!" is shown.

Tracks and points to be edited

The "DIVIDE" and "COMBINE" editing menu items require that the tracks and points to be edited already be in a playback or playback standby state. Otherwise these items cannot be selected ("Can't Edit!" displayed).

Cancelling editing operations

To cancel an editing operation when already on a settings display or confirmation display ("Sure?"), press the STOP key on the main unit or the remote control.

Title input method

When title editing mode is active, the cursor blinks in the character display area.

NOTE

Inputting titles is even easier if you connect a keyboard (see "Using a keyboard to input titles" on page 31).

Follow these guidelines to input titles on the title input display.

■ Selecting the type of character to input

Press the DISPLAY key on the main unit or the remote control to cycle through the following three character types.

Lower case letters/symbols (no indicator on the display)

Upper case letters/symbols ("CAPS" indicator on the display)

Katakana ("katakana" indicator on the display)

■ Inputting characters

Use the MULTI JOG dial on the main unit or the +/- or ◀◀/▶▶ keys on the remote control to select a character at the cursor position.

■ Moving the cursor

Use the ◀◀/▶▶ keys on the main unit or the SEARCH ◀◀/▶▶ key on the remote control.

■ Erasing characters

Align the cursor with the character that you want to erase, and press the PLAY MODE/DEL key on the main unit or the P.MODE key on the remote control.

■ Inserting characters

Place the cursor in the position where you want to insert a character, and press the EDIT/INS key on the main unit or the EDIT key on the remote control.

■ Replacing characters

Align the cursor with the character that you want to replace, and input the desired character.

NOTE

When inputting a title, press the STOP key on the main unit or the remote control to cancel the contents that you have input and exit title input mode.

CAUTION

After setting a title, if you turn the power OFF with the MD still loaded ("TOC" lit), the U-TOC will not be recorded and the title will be lost. Ejecting the MD disc causes the unit to write data to the U-TOC, so always eject the disc once after adding titles.

Adding disc titles

1. With playback is stopped, press the EDIT key on the main unit or the remote control.
2. Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to select "TITLE INPUT?"
3. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.
"Title> Disc" appears on the display.

TIP

Instead of steps 1 and 2 in the above procedures, you can press the TITLE key on the remote control. "Title> Disc" appears on the display in the same way.

- Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.

The current disc title is shown in the character display area, and title editing mode is activated (the cursor blinks).

NOTE

If there is no title, nothing is shown (except for the blinking cursor).

- Follow the guidelines in the “Title input method” section below to add a title, and then press the MENU key on the main unit or the remote control to confirm it.

- Eject the MD.

CAUTION

- When using a disc with groups set, turn group mode ON when adding titles. If you change the disc title while group mode is OFF, the group settings could be lost.
- After setting a title, if you turn the power OFF with the MD still loaded (“TOC” lit), the U–TOC will not be recorded and the title will be lost. Ejecting the MD disc causes the unit to write data to the U–TOC, so always eject the disc once after adding titles.

Adding track titles

- With playback stopped, press the EDIT key on the main unit or the remote control.
- Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to select “TITLE INPUT?”
- Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.

“Title> Disc” appears on the display.

TIP

Instead of steps 1 and 2 in the above procedures, you can press the TITLE key on the remote control. “Title> Disc” appears on the display in the same way.

- Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to select the track that you want to title.

For example, set “Title> 3” to select track 3.

- Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.

The current track title is shown in the character display area, and the title editing mode is activated (the cursor blinks).

NOTE

If there is no title, nothing is shown (except for the blinking cursor).

- Enter a title following the guidelines in the “Title input method” section above, and press the MENU key on the main unit or the remote control to confirm.

- Eject the MD.

CAUTION

After setting a title, if you turn the power OFF with the MD still loaded (“TOC” lit), the U–TOC will not be recorded and the title will be lost. Ejecting the MD disc causes the unit to write data to the U–TOC, so always eject the disc once after adding titles.

Adding group titles

- When playback is stopped, press the EDIT key on the main unit or the remote control.
- Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to select “TITLE GROUP?”
- Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.

“Title Grp> ##” is shown on the display (“##” is the group number).

- Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.

The current group title is shown in the character display area, and title editing mode is activated (the cursor blinks). In addition, the group number blinks in the track number display area.

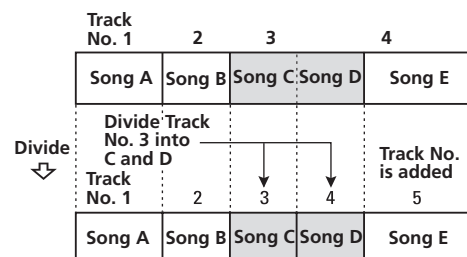
- Enter a title following the guidelines in the “Title input method” section above, and press the MENU key on the main unit or the remote control to confirm.

CAUTION

After setting a title, if you turn the power OFF with the MD still loaded (“TOC” lit), the U–TOC will not be recorded and the title will be lost. Ejecting the MD disc causes the unit to write data to the U–TOC, so always eject the disc once after adding titles.

Dividing tracks (DIVIDE)

A track can be divided at the current position.



- Play or ready the track you want to divide.

7 – MD Editing

2. Press the **EDIT** key on the main unit or the remote control.
3. Use the **MULTI JOG** dial on the main unit or the **+/-** keys on the remote control to select “**DIVIDE?**”
4. Start playing the track before the point when you want to divide it and, when you reach that point, press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.

“Point> 0” appears on the display, and a short section of the track immediately after the divide point (when you pressed **ENTER**) is played repeatedly to allow confirmation.

TIP

Instead of steps 1 and 2 in the above procedures, you can pause playback at the point when you want to divide the track before selecting “**DIVIDE?**” from the **EDIT** menu. “Point>0” appears on the display in the same way, and a few seconds of the track immediately after the divide point (the point when you paused playback) are played repeatedly to allow confirmation.

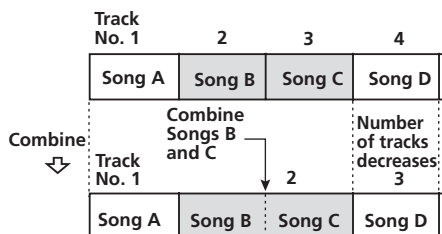
5. If necessary, use the **MULTI JOG** dial on the main unit or the **+/-** keys on the remote control to adjust the divide point.
6. After setting the point, press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.
“Sure?” appears.
7. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control to divide the track. After the track is divided, “**Complete**” is shown on the display.

NOTE

- If the track has a title, the same title is given to both parts of the divided track.
- The following tracks are renumbered with values increased by one.
- This function cannot be applied to the beginning of any track.

Combining tracks (COMBINE)

Two continuous tracks can be combined into one track.



NOTE

Tracks that have been recorded using different modes cannot be combined together.

1. Play the latter of the two tracks to be combined or put it in playback standby.
For example, to combine tracks 2 and 3, play track 3 or put it into playback standby.
2. Press the **EDIT** key on the main unit or the remote control.
3. Use the **MULTI JOG** dial on the main unit or the **+/-** keys on the remote control to select “**COMBINE?**”
4. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.
“Track OK?” is displayed, and the last three seconds of the first track and the first three seconds of the second track are played repeatedly to allow confirmation.
5. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.
After the tracks are combined, “**Complete**” is shown on the display.

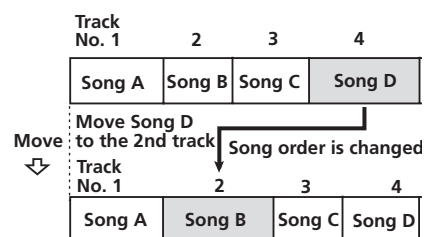
To combine more than two consecutive tracks, repeat the above procedures as many times as necessary.

NOTE

- If both tracks have titles, the title of the first track becomes the title of the combined track.
- The following tracks are renumbered with their values decreased by one.
- You cannot select the first track on the disc as the latter of the two tracks at Step 1. “1st Track!” is displayed if you try to do so.

Moving tracks (MOVE)

Tracks can be moved, changing their order.



1. Play the track to be moved or put it in playback standby.

NOTE

If the above step is not performed, the last track on the disc is automatically selected for moving when the following step is conducted while the unit is in a stopped state. However, you can still change the selected track number after starting the procedure.

2. Press the **EDIT** key on the main unit or the remote control.
3. Use the **MULTI JOG** dial on the main unit or the **+/-** keys on the remote control to select “**MOVE?**”
4. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.
“Move xxx > ###” is shown on the display. (The track number to be moved is “xxx” and the destination track number is “###.”)
5. If necessary, use the **<</>>** keys on the main unit or the **SEARCH (<</>>)** keys on the remote control to change the number of the track to be moved if necessary.
6. Use the **MULTI JOG** dial on the main unit or **+/-** keys on the remote control to select the destination track number.
7. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.
“Sure?” appears.
8. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control to move the track.
“**Complete**” appears on the display when moving is finished.

NOTE

After moving a track other track numbers are adjusted accordingly.

Creating groups

With this deck, tracks on a single disc can be divided into groups and played back as groups (see “Group playback” on page 21).

To create a group, the numbers of the first track and the last track in the group are designated.

1. When stopped, press the **EDIT** key on the main unit or the remote control.
2. Use the **MULTI JOG** dial on the main unit or the **+/-** keys on the remote control to select “**GRP CREATE?**”
3. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.
“ST Trk> 1” is displayed.

Select the start track (first track in the group) when this is shown.
4. Use the **MULTI JOG** dial on the main unit or the **+/-** keys on the remote control to select the desired start track.
5. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.
“ED Trk> ###” is displayed.

Select the end track (last track in the group) when this is shown.

6. Use the **MULTI JOG** dial on the main unit or the **+/-** keys on the remote control to select the end track.
7. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.
“Sure?” appears.
8. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control to create the group. “**Complete**” appears on the display when the operation finishes.

NOTE

- When a group is created, it is assigned a group number.
- Group numbers are assigned in the order of track numbers.
- A track cannot be included in more than one group.

CAUTION

When using the MD-02/MD-02B, even if a group is created, the disc title display does not change. However, internally, the real disc title is changed automatically to a disc title that includes group information and group names.

For example, if the disc title is “My Best” and the group with tracks 1–4 is called “Jazz,” while the group with tracks 5–8 is called “Latin,” a disc title is created as follows.

0; My Best//1–4; Jazz//5–8; Latin//

In the above example, if there were no assigned disc or group titles, the disc title would be created as follows.

0;//1–4;//5–8;//

If a disc with groups created in an MD-02 is loaded into an MD-350 or MD-CD1MK2, for example, the disc title is displayed as above.

Deleting groups

Use the following procedures to delete a group.

1. When stopped, press the **EDIT** key on the main unit or the remote control.
2. Use the **MULTI JOG** dial on the main unit or the **+/-** keys on the remote control to select “**GRP CANCEL?**”
3. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.
“Group No> 01” is displayed.

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4. Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to select the group number to be deleted.

In addition to the currently existing groups, you can also select “ALL” to delete all groups.

5. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.
“Sure?” appears.
6. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control to delete the selected group. “Complete” appears on the display when the operation finishes.

NOTE

If there are any remaining groups after deleting a group, their group numbers are decreased by one.

4. Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to select the track to be deleted.
5. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.
“Sure?” appears.
6. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control to erase the track. After the track is erased, “Complete” is shown on the display.

NOTE

If a track is erased, the following tracks are renumbered with values decreased by one.

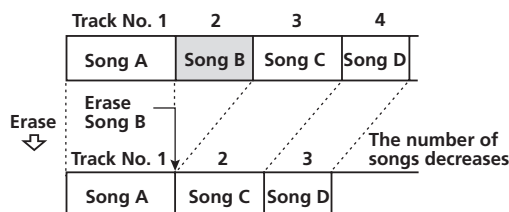
Erasing all tracks (ERASE DISC)

This operation erases all tracks on the disc at once.

1. When playback is stopped, press the EDIT key on the main unit or the remote control.
2. Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to select “ERASE DISC?”
3. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.
“Sure?” appears.
4. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.
After all tracks on the disc are completely erased
“Complete” appears.

Erasing one track (ERASE TRK)

Tracks can be erased one at a time as desired.



1. When playback is stopped, press the EDIT key on the main unit or the remote control.
2. Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to select “ERASE TRK?”
3. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.
“Track> ###” is displayed (“###” is the last track number).

8 – Using a computer keyboard with the deck

Connect an IBM PC-compatible PS/2 interface keyboard to the front panel to allow keyboard control of the deck and more efficient input of titles.

Setting the keyboard type

Set the keyboard type when you connect a keyboard.

1. Press the MENU key on the main unit or the remote control.
2. Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to select “KEYBOARD?”
3. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.
4. Use the MULTI JOG dial on the main unit or the +/- keys on the remote control to set the type of the connected keyboard.

Set to “JP” for Japanese-language keyboards.
Set to “US” for English-language keyboards.

5. Press the MULTI JOG dial on the main unit or the ENTER key on the remote control.

Using a keyboard to input titles

Disc, track and group titles can be input in the same manner that characters are input with a computer.

■ Opening the title editing menu

Press SHIFT + F7 to open the group title editing menu (“Title Grp>##” is shown on the display).

Press SHIFT + F8 to open the disc/track title editing menu (“Title> ##” is shown on the display).

■ Selecting the type of character to input

The CAPS key enables and disables upper case letters.

The katakana key (on a Japanese-language keyboard) enables and disables katakana.

If neither of the above are engaged, lower case letters are input.

■ Inputting characters

Use the number and character keys for direct input.

■ Moving the cursor

Use the arrow (←/→) keys.

■ Erasing characters

The DELETE key erases the character at the cursor position.

The BACKSPACE key erases the character before the cursor position.

■ Inserting characters

Press the Insert key at the desired position.

■ Replacing characters

Place the cursor on a character and type a new character to overwrite it.

List of keyboard functions

In addition to inputting titles, the keyboard can be used for a variety of operations, including transport control and editing.

Keyboard key	Function
F1 key	◀◀ key equivalent
F2 key	▶▶ key equivalent
F3 key	(No assignment)
F4 key	STOP key equivalent
F5 key	PLAY key equivalent
F6 key	READY key equivalent
F7 key	(No assignment)
F8 key	RECORD key equivalent
F9 key	(No assignment)
F10 key	REPEAT key equivalent
F11 key	PLAY MODE key equivalent
F12 key	(No assignment)
SHIFT + F1 key	Opens "ERASE TRK"
SHIFT + F2 key	Opens "ERASE DISC"
SHIFT + F3 key	(No assignment)
SHIFT + F4 key	Opens "MOVE"
SHIFT + F5 key	Opens "DIVIDE"
SHIFT + F6 key	Opens "COMBINE"
SHIFT + F7 key	Opens "TITLE GRP"
SHIFT + F8 key	Opens "TITLE INPUT"
SHIFT + F9 key	(No assignment)
SHIFT + F10 key	Opens "GRP CANCEL"
SHIFT + F11 key	Opens "GRP CREATE"
SHIFT + F12 key	(No assignment)
CAPS key	Enables/disables upper case letters
Katakana key	Enables/disables katakana
Number key/ character key	Enables number/character input
←/→ keys	Move the cursor
Delete key	During title input, erases the character at the cursor position
Back Space key	During title input, erases the character before the cursor position
Insert key	During title input, inserts a space at the cursor position
ESC key	Cancel editing/title editing and exit menu mode
Enter key	ENTER key equivalent

9 – Checking Service Data and Restoring Default Settings

Checking service data

Use the following menu items to check service data.

1. Press the **MENU** key on the main unit or the remote control.
2. Use the **MULTI JOG** dial on the main unit or the **+/-** keys on the remote control to select “**PLAY TIME?**” or “**REC_TIME?**”.
3. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.

PLAY_TIME	Shows the total playback time of the MD deck
REC_TIME	Shows the total recording time of the MD deck

Restore settings to their defaults

Various settings can be restored to their factory defaults.

1. With no disc loaded, press the **MENU** key on the main unit or the remote control.
2. Use the **MULTI JOG** dial on the main unit or the **+/-** keys on the remote control to select “**F_PRESET?**”
3. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control.
“Sure?” appears.
4. Press the **MULTI JOG** dial on the main unit or the **ENTER** key on the remote control to restore various settings to their factory defaults.

NOTE

- Do not turn OFF the power until “Complete” appears on the display.
- *PLAY_TIME* (total playback time) and *REC_TIME* (total recording time) will not be restored.

10 – MD System Limitations

During use of this deck, some of the following issues might arise. Please be aware that these are due to MD system limitations and are not malfunctions.

■ “Track Full!” is displayed even when recordable time remains.

Regardless of the time, “Track Full!” is displayed when the maximum number of tracks has been reached. The maximum number of tracks that can be recorded is 255. To make additional recordings, delete unwanted tracks, combine tracks or use a different MD.

■ “Track Full!” is displayed even when recordable time remains and the number of tracks has not reached the maximum.

Certain operations result in events that are treated as the equivalent to track divisions, so “Track Full!” might be displayed regardless of the total time or number of tracks. Moreover, if short tracks (ST: 9 seconds or less, LP2: 17 seconds or less, MONO: 17 seconds or less, LP4: 33 seconds or less) have been created, “Track Full!” might be displayed due to MD management conditions.

■ Even though tracks have been deleted, the remaining time on the MD does not increase.

When the remaining time on an MD is displayed, sections less than 12 seconds are ignored. So, even if short tracks are erased, the time available does not increase.

■ When elapsed recording time and remaining time are added, their total does not match the possible recording time of the MD disc.

Normally, the shortest possible recording unit is 1 cluster (about 2 seconds). Even if a recording is less than this, 2 seconds of space is taken up on the disc, so the actual possible recording time might decrease. Furthermore, if a scratch occurs on a disc, that area is automatically excluded, reducing the possible recording time.

■ Tracks cannot be combined.

- Tracks created through editing might not be able to be combined with other tracks.
- If the recording mode (ST, MONO, LP2 or LP4) of two tracks differs, they cannot be combined.
- If you repeatedly erase parts and then record again, empty gaps could occur on different parts of the disc. Single tracks might be recorded in separate parts in the gaps on a disc like this. Such a track cannot be combined with other tracks if any of these recorded parts are too short (about 9 seconds for STEREO mode, about 17 seconds for MONO mode and LP2 mode, and about 33 seconds for LP4 mode).

■ When searching, the sound breaks up.

When searching tracks created through editing operations, the sound might sometimes break up.

■ Track numbers are not properly added.

When recording a CD through a digital connection, short tracks are sometimes created depending upon the recorded content of the CD. In addition, when the auto track function is used and track numbers are automatically generated, the track numbers might not be properly assigned depending on the material being recorded.

■ “TOC Reading” stays on for a long time.

When a new recordable MD disc is loaded, the “TOC Reading” indication is displayed longer than usual.

■ Less than 1,700 characters are available for title input.

The title recording area is divided into 7-character units. Even if a title is created with less than 7 characters, that amount of space is still used, so 1,700 characters might not fit.

11 – Messages & Troubleshooting

Operation messages

Depending on the operation of the unit, the following messages might be shown in the main display area.

Messages	Meaning/response
Blank Disc	A recordable MD that has nothing recorded is loaded.
UnknownDisc!	There is a problem with the disc. Try a different disc.
Complete	Editing has been finished correctly.
TOC Reading	TOC information is being read.
UTOOC Writing	TOC information is being written.
Now Editing	Editing is being executed.

Warning messages

The following types of messages might appear in the main display area when an operation cannot be completed.

Error messages	Meaning/response
Disc Error!	There is a problem with the disc. Replace it.
Disc Full!	The MD has no more remaining time, so recording is not possible.
Title Full!	The title is at the maximum length.
D-IN UNLOCK!	There is nothing connected to a DIGITAL IN input or the device connected has not been turned on.
Not Execute!	Due to MD system limitations, editing could not be completed.
Not Audio!	The signal input through the DIGITAL IN is not an audio signal.
PGM Empty!	No tracks have been added to the program.
PGM Full!	No more tracks can be added to the program.
W_Protected!	The MD is write-protected.
Pre Master!	An MD that can only be played is loaded.
Can't Edit!	Due to MD system limitations and editing conditions, editing could not be completed.
Group Mode!	Since group mode is ON, editing is not possible.
NotContinue!	Since playback mode is not "Continue," editing is not possible.
Not Stopped!	Since the unit is not stopped, editing is not possible.
Sync Rec ON!	You cannot start recording manually because the unit is in sync recording standby.
Rec Execute!	Since the unit is recording, recording mode cannot be changed.
Can't Sel!	Since selection is currently prohibited, a menu item cannot be selected.
Mecha Error!	An error occurred in disc reading, recording or playback. Try again.
No Group!	No group has been created.
Entry Track!	The track you are trying to add has already been added to a group.
Random Mode!	Since the playback is set to random mode, group mode cannot be turned ON.
1st Track!	When the first track is selected, combine cannot be performed. Select the second or later track.
IR Disable!	Remote control operation has been disabled.

11 – Messages & Troubleshooting

Troubleshooting

■ The power does not come on.

Is the power plug completely connected?

■ "Disc Error!" or "Mecha Error!" appears on the display.

The disc might be dirty. Change the disc.

■ "System Err!" appears on the screen.

The MD deck could be malfunctioning. Please contact a TEAC service center.

■ The unit cannot play a disc.

Is there condensation?

If there is condensation, eject the disc, turn the power OFF and wait several hours.

■ There is no sound.

- Confirm the connections with the audio system.
- Check the volume and the amplifier settings.

■ Cannot record to a disc.

- If the MD is write-protected, slide the write-protection tab.
- Confirm connections with connected equipment again.
- Adjust the recording level.
- MDs that are only for playback cannot be recorded. Load a recordable MD.
- If the MD remaining time is insufficient, erase unnecessary tracks or change the MD.
- Confirm the audio system settings.

■ Even though I changed a setting, it has not been saved.

This unit backs up mode settings every time they are changed. If the power is turned OFF too quickly after a setting is made, the setting might not be saved.

■ I hear noise.

Locate the unit far from televisions and other devices with strong magnets.

12 – Specifications

■ MD deck

Model	MiniDisc deck
Type of disc	MiniDisc
Recording modes	STEREO, MONO, LP2, LP4
Recording format overwrite	Magnetic field modulation
Recording time	74 minutes (STEREO), 148 minutes (MONO), 148 minutes (LP2), 296 minutes (LP4) (using a 74-minute disc)
Sampling frequency	44.1 kHz
Compression format	ATRAC (Adaptive TRansform Acoustic Coding)

Analog inputs (BALANCED, MD-02B only)

Connectors	XLR
Nominal input level	+4 dBu
Maximum input level	+20 dBu
Minimum input level	-8 dBu
Input impedance	14 k Ω

Analog inputs (UNBALANCED)

Connectors	RCA
Nominal input level	-10 dBV
Maximum input level	+6 dBu
Minimum input level	-22 dBV
Input impedance	22 k Ω

Analog line outputs (BALANCED, MD-02B only)

Connectors	XLR
Nominal output level	+4 dBu
Maximum output level	+20 dBu
Output impedance	200 Ω

Analog line outputs (UNBALANCED)

Connectors	RCA
Nominal output level	-10 dBV
Maximum output level	+6 dBV
Output impedance	200 Ω

PHONES

Connector	Stereo phone jack
Maximum output level	45 mW + 45 mW
Load impedance	32 Ω

Digital input (COAXIAL)

Connector	RCA
Format	IEC60958-3 (S/PDIF)

Digital input (OPTICAL)

Connector	Digital optical, rectangular (JEITA RC-5720C)
Format	IEC60958-3 (S/PDIF)

Digital output (COAXIAL)

Connector	RCA
Format	IEC60958-3 (S/PDIF)

Digital output (OPTICAL)

Connector	Digital optical, rectangular (JEITA RC-5720C)
Format	IEC60958-3 (S/PDIF)

KEYBOARD

Connector	Mini DIN 6P
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■ Performance

Frequency response	20 Hz–20 kHz, ± 0.5 dB
S/N ratio	94 dB or more (during playback, 20 kHz LPF +A WTD) 92 dB or more (during recording, 20 kHz LPF +A WTD)
Dynamic range	94 dB or more (during playback, 20 kHz LPF +A WTD) 92 dB or more (during recording, 20kHz LPF +A WTD)
Total harmonic distortion	0.006% or less (during playback, 1 kHz) 0.008% or less (during recording, 1 kHz)
Channel separation	80 dB or more (during playback, 1 kHz) 80 dB or more (during recording, 1 kHz)

■ Backup memory

The following settings are retained by a back-up battery even when the unit's main power is turned OFF.

- Repeat mode setting
- Time display setting
- Menu items
- Input signal selection
- Playback mode

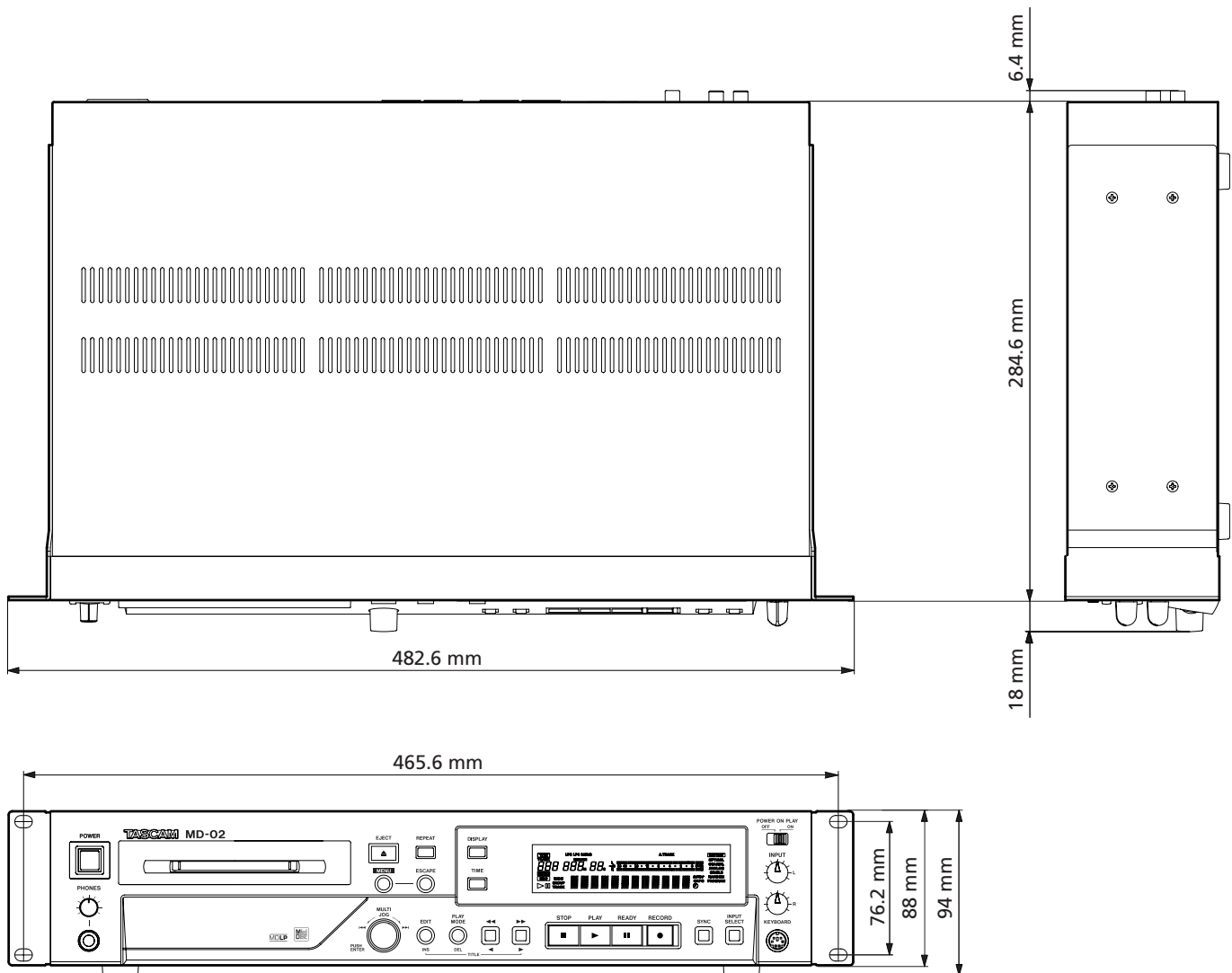
■ Other specifications

Power	AC 100-240 V, 50/60 Hz
Power consumption	8 W (100 - 120 V), 10 W (200 - 240 V) (MD-02/MD-02B)

12 – Specifications

Dimensions (WHD)	482.6 x 94 x 308.7 mm 19 x 3.7 x 12.15 in.
Weight	4.4 kg/9.7 lb (MD-02) 4.5 kg/9.92 lb (MD-02B)
Operation temperature	5–35° C (41–95° F)
Inclination of installation	5° or less

Dimensions



NOTE

- Specifications and external appearance are subject to change without notice for product improvement.
- Please be aware that due to product improvements, illustrations in this operation manual, for example, might appear different from so parts of the actual unit.

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MD-02B

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