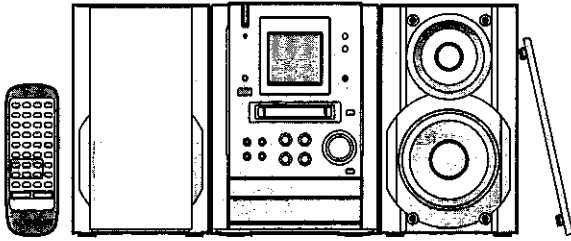


MD Stereo System

Operating Instructions

Model No. **SC-PM37MD**

Panasonic®



COMPACT
disc
DIGITAL AUDIO

MDLP



Note:

"EB" on the packaging indicates the United Kingdom.

Before connecting, operating or adjusting this product, please read these instructions completely. Please keep this manual for future reference.

EB GCS

RQT5975-B

Dear customer

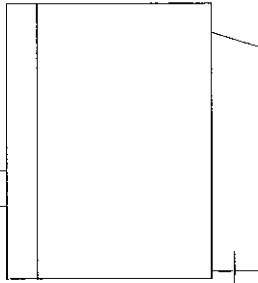
Thank you for purchasing this product.
For optimum performance and safety, please read these instructions carefully.
These operating instructions are applicable to the following system.

System	SC-PM37MD
Main unit	SA-PM37MD
Speakers	SB-PM37

Before use

CD and MD sections

Right side of the product

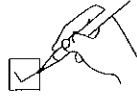


<p>DANGER ILV SYBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.</p> <p>ADVARSEL USYNLIG LASERSTRÅL. NÅR VED ÅBNING VÅR SIKKERHEDSFORBUDDE ER UD I ÅR FUNKTION. UNDSÅ UDSEEN (E) SE FOR STRÅLING.</p> <p>VARO! AVATTATSSA JA SUOJAN UUTTUUS OINTEITÄESSÄ OLET ALTIINA NÄKYMÄTÖNTÄ LASERISÄTEILYLLE. ÄLÄ KATSO SÄTEESIÄ.</p> <p>VARNING OSYNLIG LASERSTRÅLNING NÄR DE VÅRA DEL ÄR ÖPPNA OCH SPÅRREN ÄR URKOPPLAD. BETRÄKTA FJ STRÅLEN.</p> <p>ADVARSEL USYNLIG LASERSTRÅLNING NÄR DEKSEL ÅPNES OG SIKKERHEDSBLÅS BRØYES. UNDSÅ EKSPONERING FØR STRÅLEN.</p> <p>VORSICHT NIMS CHITFARRE LASERSTRÅHLUNG. WENN ABDECKUNG GEÖFFNET NICHT DIRM STRAHLEN AUSSEITZEN. ROL9218</p>	<p>(Inside of product)</p> <p>(Innersiden af apparatet)</p> <p>(Tuotteen sisällä)</p> <p>(Apparatens insida)</p> <p>(Produktets innsida)</p> <p>(Im Inneren des Gerätes)</p>
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CAUTION!

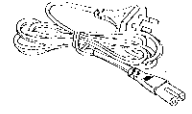
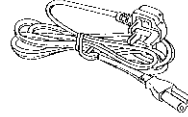
THIS PRODUCT UTILIZES A LASER. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

Supplied accessories

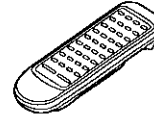


Please check and identify the supplied accessories.

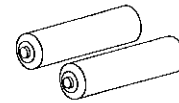
- AC mains lead1 pc.
For the United Kingdom (VJA0733) For others (RJA0019-2K)



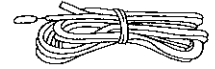
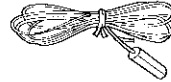
- Remote control1 pc.
(EUR648109)



- Remote control batteries2 pcs.



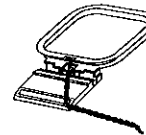
- FM indoor antenna1 pc.
For the United Kingdom (RSA0007-L) For others (RSA0006-L)



- FM antenna plug adaptor1 pc.
(Only for the United Kingdom) (SJP9009)



- AM loop antenna1 pc.
(RSA0033)



Use the numbers indicated in parentheses when asking for replacement parts.

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Safety precautions

Placement

Set the unit up on an even surface away from direct sunlight, high temperatures, high humidity, and excessive vibration. These conditions can damage the cabinet and other components, thereby shortening the unit's service life.
Do not place heavy items on the unit.

Voltage

Do not use high voltage power sources. This can overload the unit and cause a fire.
Do not use a DC power source. Check the source carefully when setting the unit up on a ship or other place where DC is used.

AC mains lead protection

Ensure the AC mains lead is connected correctly and not damaged. Poor connection and lead damage can cause fire or electric shock. Do not pull, bend, or place heavy items on the lead.
Grasp the plug firmly when unplugging the lead. Pulling the AC mains lead can cause electric shock.
Do not handle the plug with wet hands. This can cause electric shock.

Foreign matter

Do not let metal objects fall inside the unit. This can cause electric shock or malfunction.
Do not let liquids get into the unit. This can cause electric shock or malfunction. If this occurs, immediately disconnect the unit from the power supply and contact your dealer.
Do not spray insecticides onto or into the unit. They contain flammable gases which can ignite if sprayed into the unit.

Service

Do not attempt to repair this unit by yourself. If sound is interrupted, indicators fail to light, smoke appears, or any other problem that is not covered in these instructions occurs, disconnect the AC mains lead and contact your dealer or an authorized service center. Electric shock or damage to the unit can occur if the unit is repaired, disassembled or reconstructed by unqualified persons.

Extend operating life by disconnecting the unit from the power source if it is not to be used for a long time.

Caution for AC Mains Lead

(For United Kingdom)



("EB" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS 1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as stated below.

If in any doubt please consult a qualified electrician.

IMPORTANT


The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral, Brown: Live.

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.

The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL  OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF--KEEP DRY.

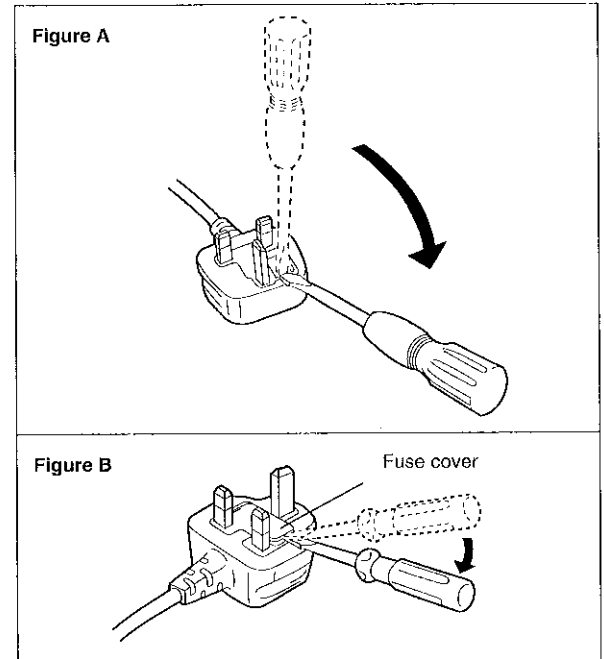
Before use

Remove the connector cover.

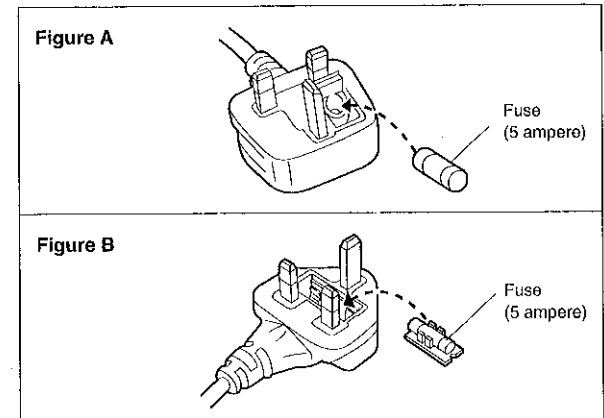
How to replace the fuse

The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below. Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.



2. Replace the fuse and close or attach the fuse cover.



Connections

Placement of speakers

Speakers are designed identically so that no left or right channel orientation is necessary.

For better sound

- Position the speakers 5 cm or more from the floor and wall.
- Put them on a flat, stable surface.
- Cover walls and windows with thick curtains.

Note

- Keep your speakers at least 1 cm away from the system for proper ventilation.
- These speakers do not have magnetic shielding. Keep at least 10 cm away from televisions, personal computers or other devices easily influenced by magnetism.
- To avoid damage to the speakers, do not touch the speakers cones if you have taken the nets off.

Caution

- Use the speakers only with the recommended system. Failure to do so may lead to damage to the amplifier and/or the speakers, and may result in the risk of fire. Consult a qualified service person if damage has occurred or if you experience a sudden change in performance.
- Do not attach these speakers to walls or ceilings.

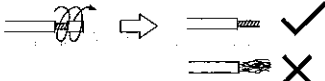
Note

- You can damage your speakers and shorten their useful life if you play sound at high levels over extended periods.
- Reduce the volume in the following cases to avoid damage:
 - When playing distorted sound.
 - When the speakers are receiving howling from a microphone or record player, noise from FM broadcasts, or continuous signals from an oscillator, test disc, or electronic instrument.
 - When adjusting the sound quality.
 - When turning the unit on or off.

Basic connections

Before connection

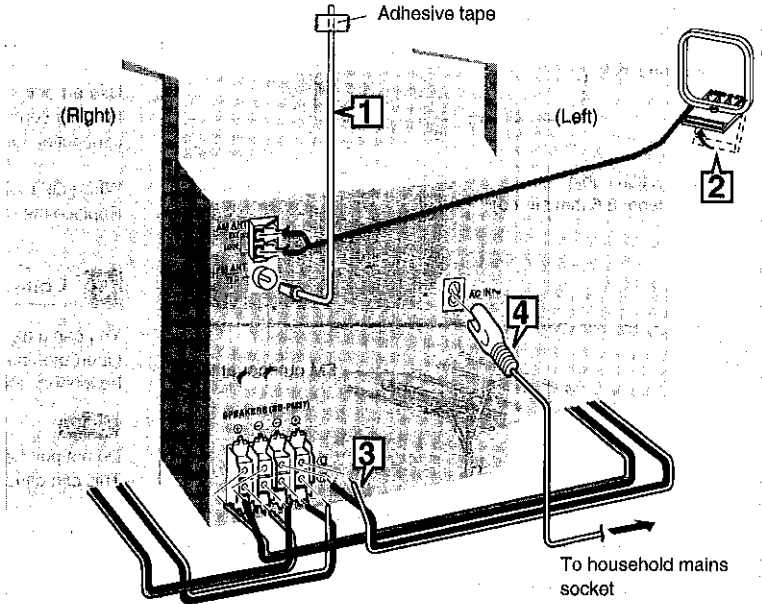
- Do not connect the AC mains lead until all other connections are complete.
- To prepare the AM loop antenna, the FM antenna (except for the United Kingdom) and speaker cables, twist the vinyl tip and pull off.



(FOR THE UNITED KINGDOM ONLY)
READ THE CAUTION FOR THE AC MAINS LEAD ON PAGE 4 BEFORE CONNECTION.

Note

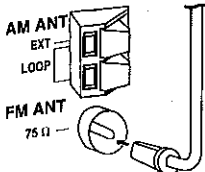
The included AC mains lead is for use with this unit only. Do not use it with other equipment.



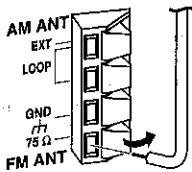
1 FM antenna

Fix the other end of the antenna where reception is best.

For the United Kingdom



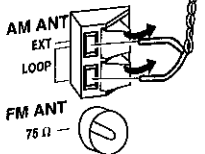
For others



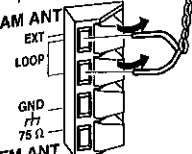
2 AM loop antenna

Stand the antenna up on its base. Keep loose antenna cord away from other wires and cords.

For the United Kingdom

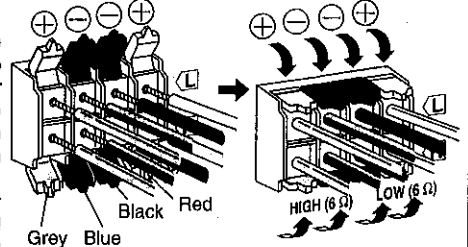


For others



3 Speaker cables

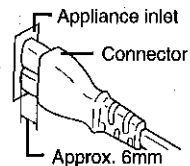
Connect the cables to the terminals of the same colour so (+) and (-) are correct. Never allow the exposed wires to contact each other when connected. Incorrect connection can damage the unit. The grey and blue cords are for high frequency and the red and black cords are for low frequency.



4 Connect the AC mains lead.

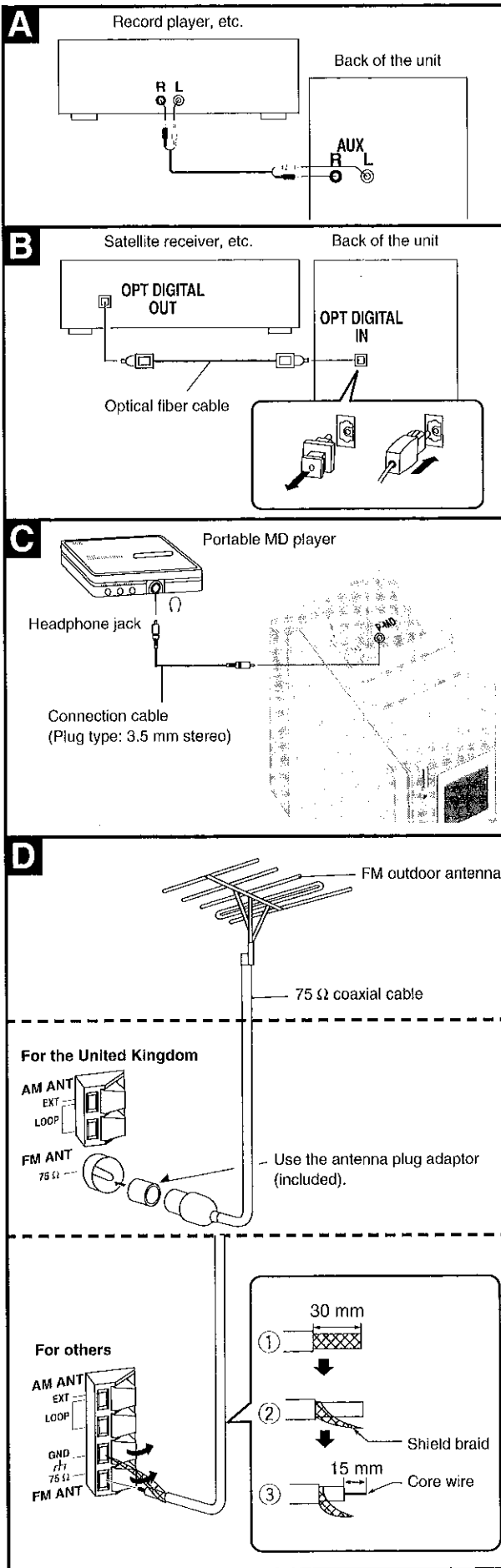
Insertion of connector

Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing. However there is no problem using the unit.



For your reference

Information you enter into the unit's memory, except for time, remains intact for up to one week after the mains lead is disconnected.

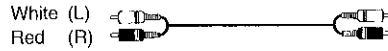


Connections

External unit connections

- Turn off all units before making connections.
- Refer to the manual of the other unit for details. (Cables and equipment not included.)

Stereo phono cable



A Connecting a record player or television

By connecting a record player or television to this unit, you can play audio from these units through this unit's speakers and record to the MD and tape sections.

The example in the illustration shows connection of a record player with a built-in phono equalizer.

When connecting a record player other than this type, consult your audio dealer.

B Connecting digital equipment

You can play audio from digital equipment through this unit's speakers and record to the MD and tape sections. Remove the dust cap before use.

Use an optical fiber cable to connect digital equipment to OPT DIGITAL IN. This connection enables you to make digital recordings. Use analog connection to make analog recordings.

When OPT DIGITAL IN is not in use

Replace the dust cap to prevent dust from causing malfunction.

C Connecting a portable MD player

You can make analog recordings from a portable MD player.

Open the flap on top of the unit (→ page 7) and connect this unit to the headphone jack on the portable MD player.

Note

Do not put the portable MD player on top of this unit when recording. This can cause noise.

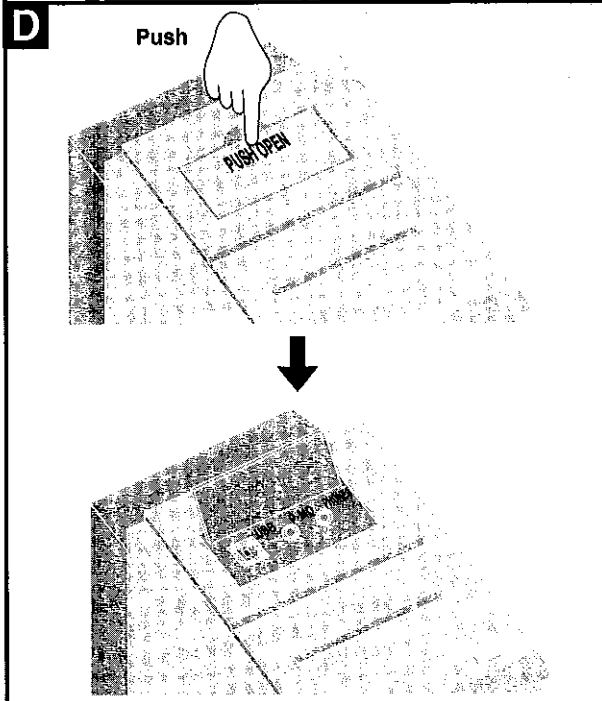
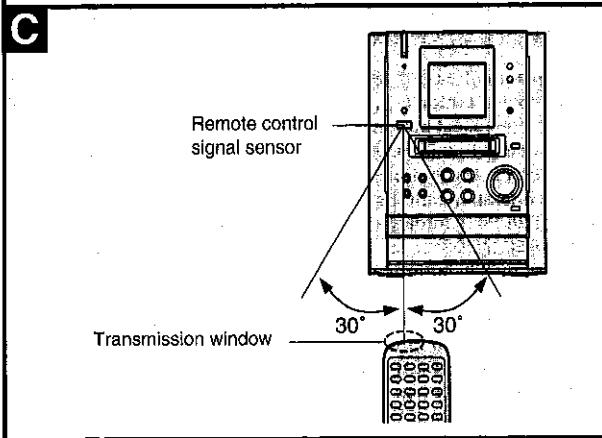
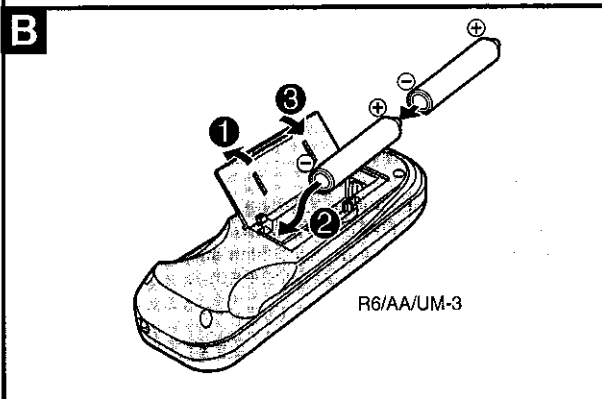
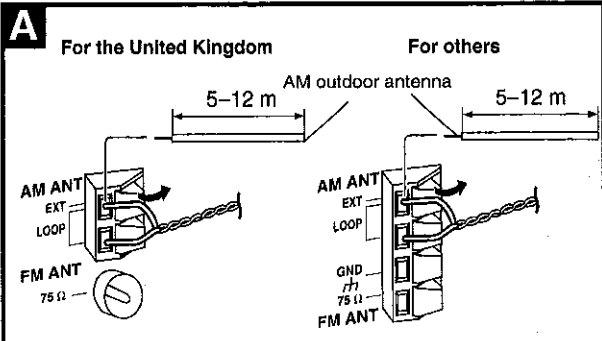
See pages 47 and 48 for details about operating other equipment.

Optional antenna connections

Use outdoor antennas if radio reception is poor.

D FM outdoor antenna

- Disconnect the FM indoor antenna.
- The antenna should be installed by a competent technician.



Connections

A AM outdoor antenna

Run a piece of vinyl wire horizontally across a window or other convenient location.
Leave the loop antenna connected.

Note

- Disconnect the antenna when the unit is not in use.
- Do not use the antenna during an electrical storm.

The remote control

B Batteries

- Insert so the poles (+ and -) match those in the remote control.
- Do not use rechargeable type batteries.

Do not;

- mix old and new batteries.
- use different types at the same time.
- heat or expose to flame.
- take apart or short circuit.
- attempt to recharge alkaline or manganese batteries.
- use batteries if the covering has been peeled off.
- keep together with metallic objects such as necklaces.

Mishandling of batteries can cause electrolyte leakage which can damage items the fluid contacts and may cause a fire.

If electrolyte leaks from the batteries, consult your dealer.

Wash thoroughly with water if electrolyte comes in contact with any part of your body.

Remove if the remote control is not going to be used for a long period of time. Store in a cool, dark place.

Replace if the unit does not respond to the remote control even when held close to the front panel.

C Use

Aim at the sensor, avoiding obstacles, at a maximum range of 7 meters directly in front of the unit.

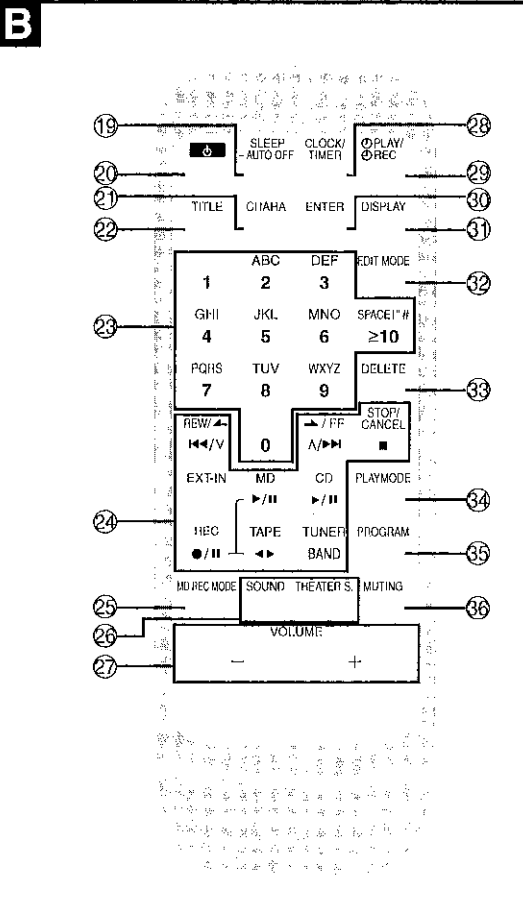
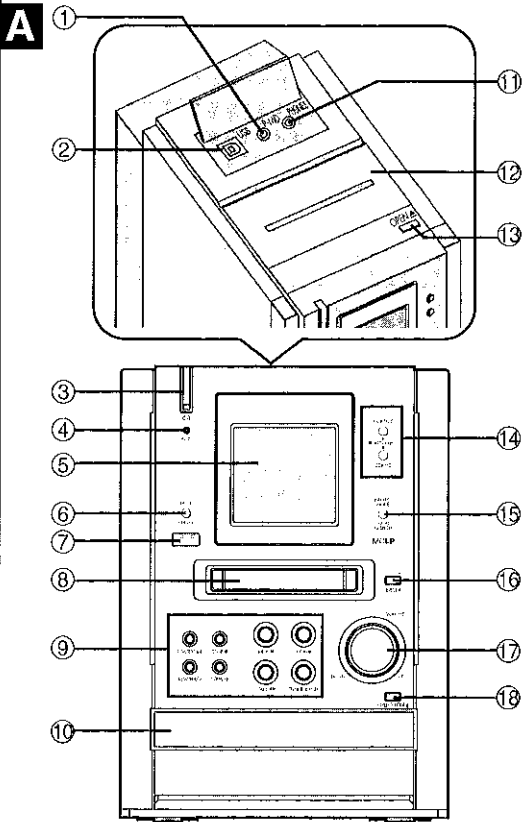
- Keep the transmission window and the unit's sensor free from dust.
- Operation can be affected by strong light sources, such as direct sunlight, and the glass doors on cabinets.

Do not;

- put heavy objects on the remote control.
- take the remote control apart.
- spill liquids onto the remote control.

D Opening the flap on top of the unit

Open the flap to use the USB, P-MD, and PHONES jacks.
Close the flap when you are not using it to keep dust out.



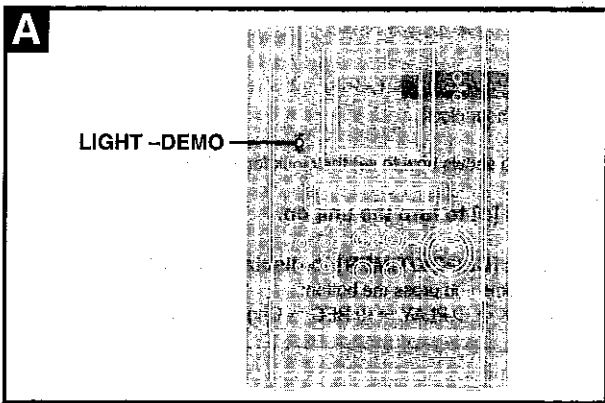
Control reference guide

A Main unit

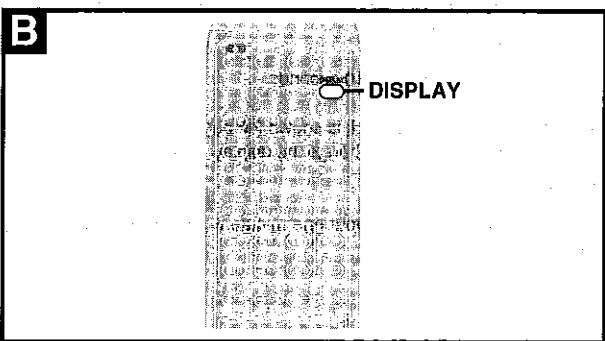
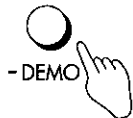
- ① P-MD terminal (P-MD)6
- ② USB terminal (USB).....44
- ③ Standby/on switch (⏻/⏻).....12
Press to switch the unit from on to standby mode or vice versa.
In standby mode, the unit is still consuming a small amount of power.
- ④ AC supply indicator (AC IN)
This indicator lights when the unit is connected to the AC mains supply.
- ⑤ Display
- ⑥ Display and light mode/demonstration button (LIGHT -DEMO)9
- ⑦ Remote control signal sensor.....7
- ⑧ MD slot
- ⑨ Main operating buttons
- ⑩ CD tray
- ⑪ Headphone jack (PHONES)9
- ⑫ Cassette holder
- ⑬ Cassette holder open button (OPEN ▲).....16
- ⑭ Auto record buttons (● AUTO REC, CD ▶ MD, CD ▶ TAPE).....23
- ⑮ SP/LP2/LP4 recording mode select/high-speed recording mode button (MD REC MODE -DUAL HI-SPEED).....20, 25
- ⑯ MD eject button (EJECT ▲)12
- ⑰ Volume control (VOLUME)12
- ⑱ CD tray open/close button (OPEN/CLOSE ▲).....13

B Remote control

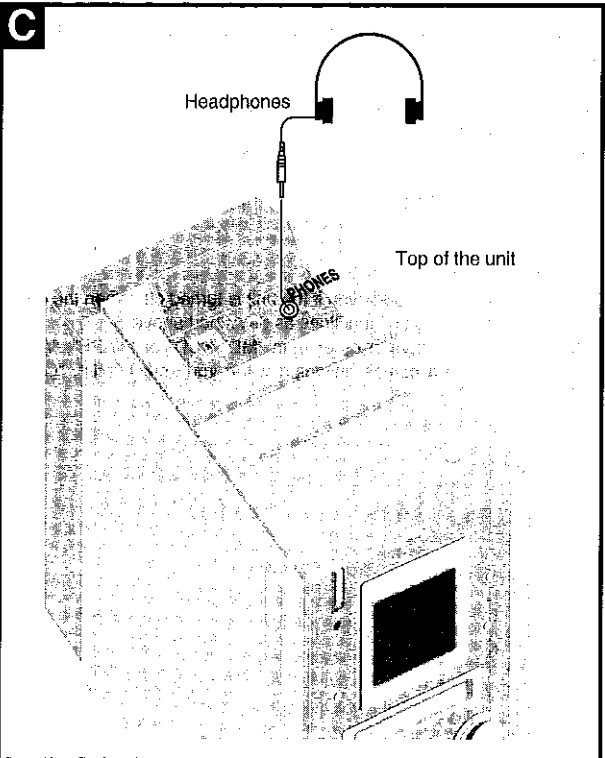
- ⑲ Sleep/auto off button (SLEEP -AUTO OFF).....10, 43
- ⑳ Standby/on button (⏻).....10
- ㉑ Character select button (CHARA).....37
- ㉒ Title edit button (TITLE).....36
- ㉓ Numbered, text buttons14, 19, 37
- ㉔ Main operating buttons
- ㉕ SP/LP2/LP4 recording mode select button (MD REC MODE).....24
- ㉖ Sound quality buttons (SOUND and THEATER S.)40
- ㉗ Volume buttons (-, + VOLUME)12, 40
- ㉘ Clock/timer button (CLOCK/TIMER)10, 41
- ㉙ Play/record timer button (⌚ PLAY/⌚ REC)41
- ㉚ Enter button (ENTER)29
- ㉛ Display select button (DISPLAY)9, 18, 20
- ㉜ Edit mode button (EDIT MODE)20, 29
- ㉝ Delete button (DELETE)37
- ㉞ Play mode button (PLAY MODE)15, 16, 18
- ㉟ Program button (PROGRAM)14, 19
- ㊱ Muting button (MUTING).....40



LIGHT



DISPLAY



Headphones

Top of the unit

A Demo and display mode

Turning the demo function off

If you do not set the clock and the demo function is left on, then 10 seconds after you turn the unit off, a demonstration of the unit's display starts.
This function is set to on at the time of purchase.

Press and hold [LIGHT - DEMO] until "DEMO OFF" is displayed.

The display changes each time the button is held down.
DEMO OFF (off) ⇄ DEMO ON (on)

Note

To save power during standby mode, turn the demo function off or set the clock.

Changing the display and light mode

You can change the brightness of the display and turn the side lights on or off by changing the display mode.

Press [LIGHT - DEMO].

The mode changes each time you press the button.
The chart shows the type of display for each mode.

Display and light mode	Display brightness	Side lights
MODE 1	Bright	On
MODE 2	Bright	Off
MODE 3	Dim	Off

B Switching the display

Press [DISPLAY].

The display changes each time you press the button.
The information displayed depends on the source.

- If you press this button while a title with 13 or more characters is being displayed, the title will scroll from right to left. The next display is shown if you press the button while a title is scrolling.

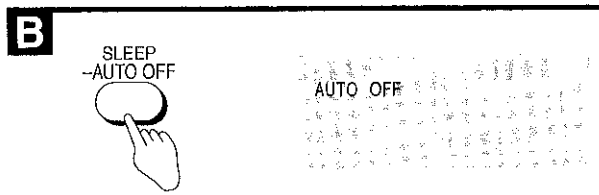
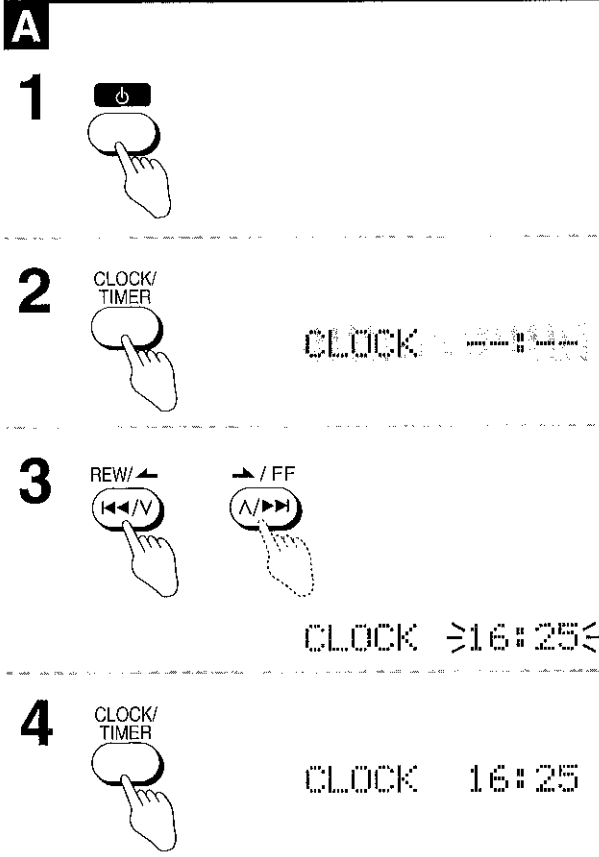
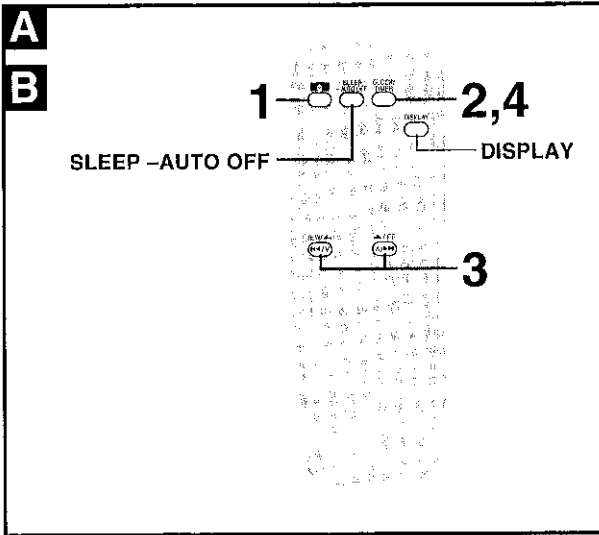
C Using headphones (not included)

Open the flap on top of the unit (→ page 7).

Reduce the volume before connection.

Avoid listening for prolonged periods of time to prevent hearing damage.
Plug type: 3.5 mm stereo

Before use



A Setting the time

Remote control only

This is a 24-hour clock.

The example shows how to set the clock for 16:25 (4:25 pm).

- 1 Press [⏻] to turn the unit on.
- 2 Press [CLOCK/TIMER] to display "CLOCK".
Each time you press the button:
CLOCK → ⏪ PLAY → ⏩ REC → Original display
|-----|
- 3 Within 10 seconds
Press [⏮/REW/⏪] or [⏭/FF/⏩] to set the time.
Press and hold to change the time faster.
- 4 Press [CLOCK/TIMER].

The time is set and the original display is restored.

Displaying the clock

Press [CLOCK/TIMER].

The clock is shown for about 10 seconds.

Or

Press [DISPLAY] until the clock is shown (→ page 9).

The clock is shown until you change the display again.

Note

The clock can gain or lose about one minute a month. Reset it regularly to maintain accuracy.

B Auto power-off

Remote control only

When "MD", "CD" or "TAPE" is selected as the source

To save power, the unit turns off if it is left unused for 10 minutes.

This function does not work if the source is tuner, AUX, P-MD, USB or OPT IN.

Press and hold [SLEEP -AUTO OFF].

"AUTO OFF" is displayed.

To cancel

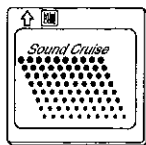
Press and hold [SLEEP -AUTO OFF] to clear "AUTO OFF" from the display.

For your reference

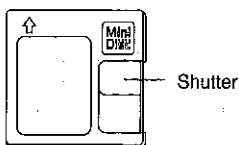
- The setting is maintained even if the unit is turned off. When the unit is turned on again, the unit functions as described above.
- If you select any source other than "MD", "CD" or "TAPE", "AUTO OFF" goes out. It comes on again when you select "MD", "CD" or "TAPE".

Some useful information about MDs and CDs

Types of MDs



Prerecorded MDs
These discs are for playback only.



Recording MDs
Apart from the time limitations, it is possible to record up to 254 tracks on an MD.

Recording on MDs

MDs are different to tapes

MDs give you control over how tracks are recorded and editing functions allow you to change the contents of an MD after recording. Unlike cassettes, you do not need to find an empty space to start recording as all recordings start from the first available space. When the MD fills up, you can use the editing functions to erase unneeded tracks. You cannot record over tracks.

Limitations on digital recording

The serial copy management system (SCMS) prevents unlimited recording of digital material.

Clear, relatively intact, digital recordings can be made when recording a CD in this unit. So to protect the rights of the producer of the original material, it is not possible to make a further recording from that MD to another MD.

Analog recordings are unlimited by this system.



MDLP (Long Play)

Advances in digital technology have now made it possible to record two to four times the amount of stereo material on an MD.

Now you can record a maximum of 160 minutes of audio on an 80-minute MD using LP2 recording mode and 320 minutes using LP4 recording mode.

SP: Standard recording mode

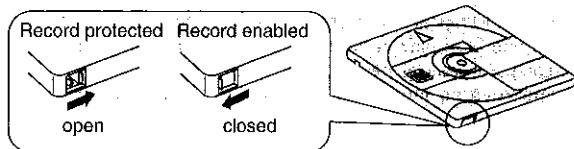
LP2: Double the amount of material.

LP4: Four times amount of material.

The three modes can be used on the same MD.

Protecting your recordings

Move the switch to open the write protect hole. Close the hole when you want to record or edit the MD again.



Note when recording, editing, and titling

These operations are not complete until "UTOC Writing" and the "UTOC" indicator stop flashing on the display. Be careful not to interrupt the power supply otherwise these operations will not be completed and the disc itself can be damaged.

Glossary of terms

Analog

This is the method that phonographic records and cassettes use to handle sound signals.

Digital

This is the usual method used by MDs and CDs to carry and record sound signals. Digital recording can be of very high quality.

Editing

This refers to any post-recording changes made to the MD.

Marking

This is the act of adding track marks. It can be done automatically when recording, or it can be done manually during recording or after recording with the editing functions (DIVIDE).

TOC

Table of contents. Information stored on the MD about the tracks and times.

Track marks

These marks separate tracks. There can be up to 254 marks on one MD. They can be inserted automatically or manually during recording, and they can be added (DIVIDE) or removed (COMBINE) with the editing functions after recording.

UTOC

User table of contents. This is information the user can edit, such as text and track positions.

The message "UTOC Writing" appears on the display after recording and editing.

Care and storage

Label MDs only as recommended. Extra labels and exposed adhesive can cause malfunctions.

Do not open the shutter, and close it immediately if it accidentally opens. Never touch the disc inside the MD cartridge.

Keep your MDs out of direct sunlight, humid and dusty places, and away from the direct heat of heating appliances.

CD selection and care

Choose discs with this mark: (a)

Playing CD-R and CD-RW

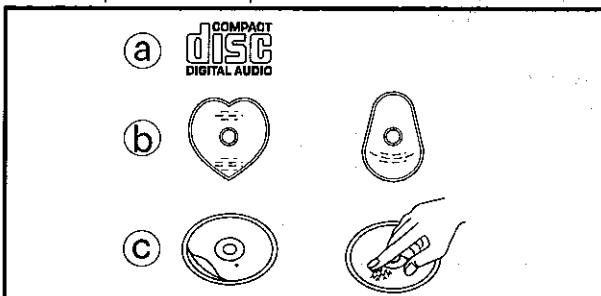
This unit can play CD-DA (digital audio) format audio CD-R and CD-RW that have been finalized * upon completion of recording.

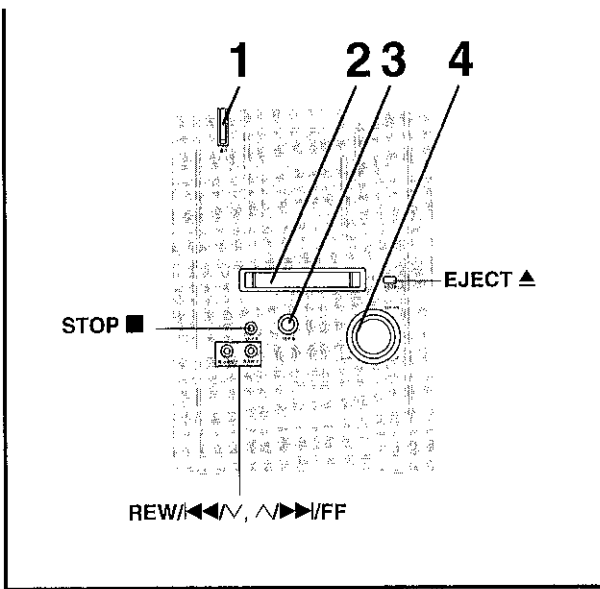
It may not be able to play some CD-R or CD-RW due to the condition of the recording.

* Finalizing is a process that enables CD-R/CD-RW players to play audio CD-R and CD-RW.

Do not;

- use irregularly shaped discs. (b)
- attach extra labels and stickers.
- use discs with labels and stickers that are coming off or with adhesive exuding from under labels and stickers. (c)
- attach scratch-proof covers or any other kind of accessory.
- write anything on the CD.
- clean CDs with liquids. (Wipe with a soft, dry cloth.)
- use CDs printed with label printers available on the market.





MDs

- 1 Press [⏻/⏩].**
The unit comes on.
- 2 Insert the MD.**
If "MD" is selected as the source, the message "TOC Reading" appears on the display, then information about the disc is shown; total number of tracks, total play time, and any text information on the disc.
If "MD" is not selected as the source, you can see this information by pressing [MD ▶/⏩] and then [STOP ■].
- 3 Press [MD ▶/⏩] to start play.**
"SP" lights if the track was recorded with SP mode.
"LP2" lights if the track was recorded with LP2 mode.
"LP4" lights if the track was recorded with LP4 mode.
- 4 Adjust the volume.**

To stop the disc
Press [STOP ■].

To pause play
Press [MD ▶/⏩]. Press [MD ▶/⏩] again to resume play.

Skipping tracks
Press [REW/◀◀/∨] (backward) or [∧▶▶/FF] (forward).

Skipping groups (→ page 30)
Press and hold [REW/◀◀/∨] (backward) or [∧▶▶/FF] (forward) while stopped.

Searching through tracks
During play or pause
Press and hold [REW/◀◀/∨] (backward) or [∧▶▶/FF] (forward).

One touch play
When an MD is loaded and the unit is off, press [MD ▶/⏩]. The unit comes on and starts play.

To eject the MD
Press [EJECT ▲].

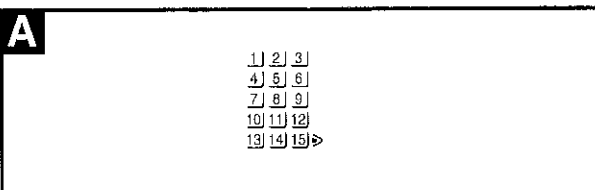
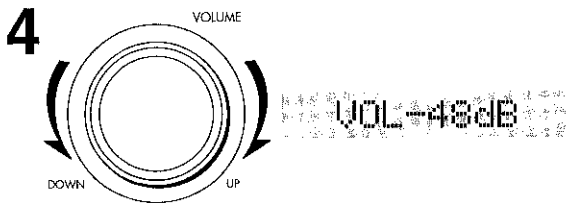
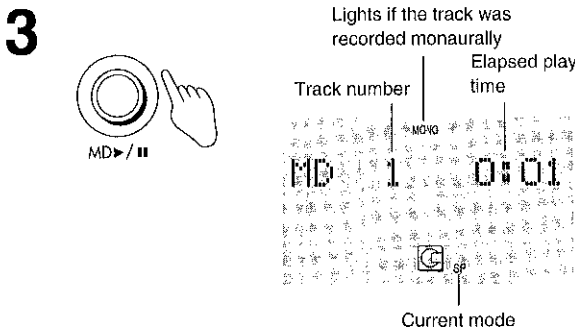
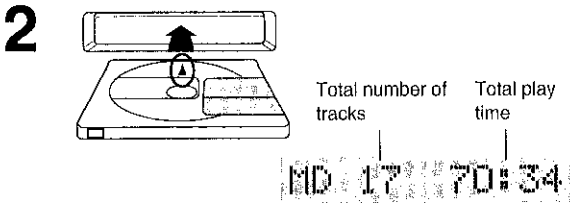
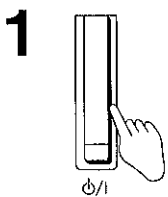
For your reference
▲ When " > " is displayed
There are 16 or more tracks on the disc.

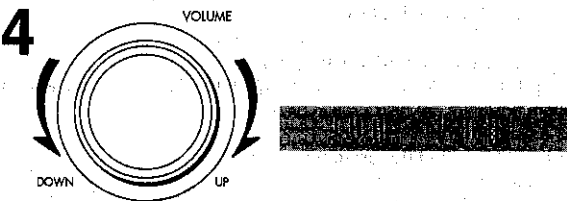
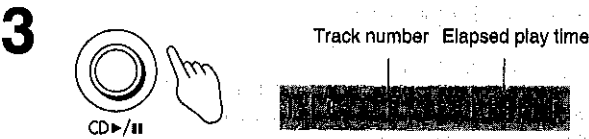
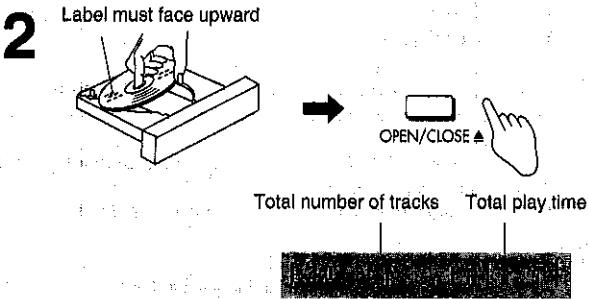
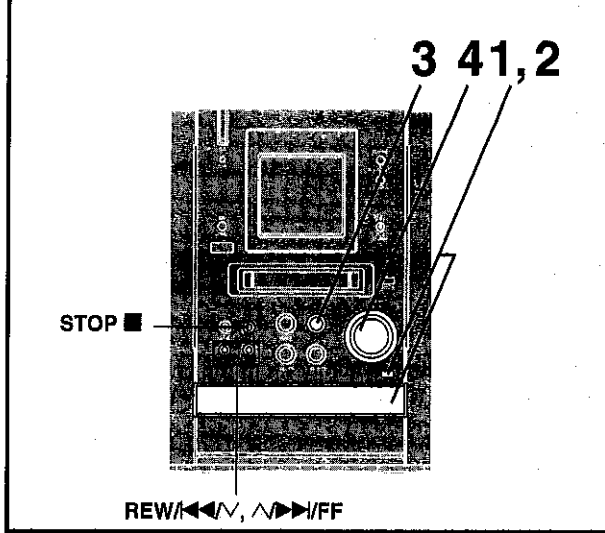
When "BLANK DISC" is displayed
You inserted a blank disc.

Relay play
Plays in the order MD, TAPE, CD.
While stopped
Press and hold [MD ▶/⏩] until "RELAY" appears.
To cancel
Press [STOP ■].

During relay play

- CD and MD repeat modes are canceled (→ pages 15 and 31).
- CDs and MDs play in the selected play mode (program, random, 1-song or 1-group → pages 14, 15 and 31).
- Tape reverse mode switches to "↔" if it was set to "C↔" (→ page 16).





A

1	2	3
4	5	6
7	8	9
10	11	12
13	14	15 ▶

CDs

- 1 Press [OPEN/CLOSE ▲] to open the tray.**
The unit comes on automatically.
- 2 Insert the CD.**
Set a CD label up on the tray.
Press [OPEN/CLOSE ▲] to close the tray.
If "CD" is selected as the source, the message "TOC Reading" appears on the display then the total number of tracks and total play time are displayed.
If "CD" is not selected as the source, you can see this information by pressing [CD ▶/II] and then [STOP ■].
- 3 Press [CD ▶/II] to start play.**
- 4 Adjust the volume.**

To stop the disc
Press [STOP ■].

To pause play
Press [CD ▶/II]. Press [CD ▶/II] again to resume play.

Skipping tracks
Press [REW/◀◀/V] (backward) or [▶▶/FF] (forward).

Searching through tracks
During play or pause
Press and hold [REW/◀◀/V] (backward) or [▶▶/FF] (forward).

One touch play
When a CD is loaded and the unit is off, press [CD ▶/II]. The unit comes on and starts play.

To remove a CD
Press [OPEN/CLOSE ▲].

For your reference

▲ When " > " is displayed
There are 16 or more tracks on the disc.

Relay play

Plays in the order CD, MD, TAPE.

While stopped

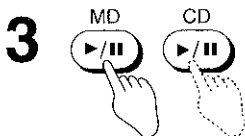
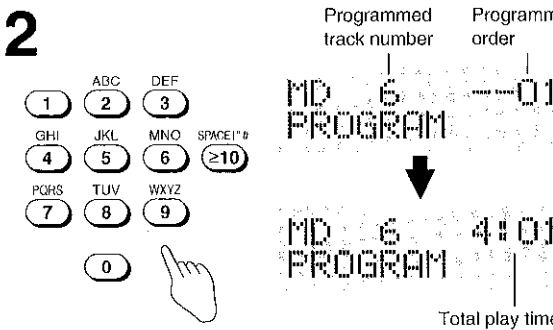
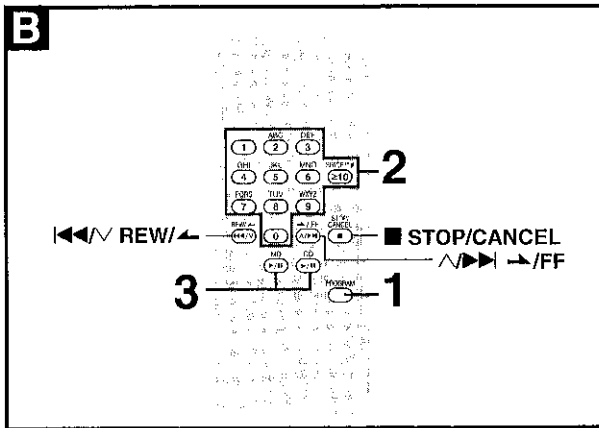
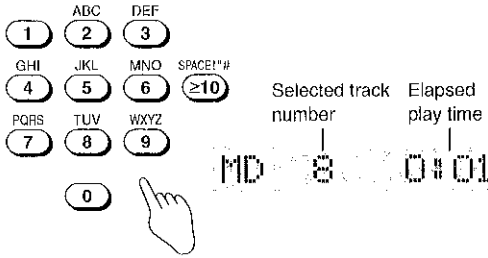
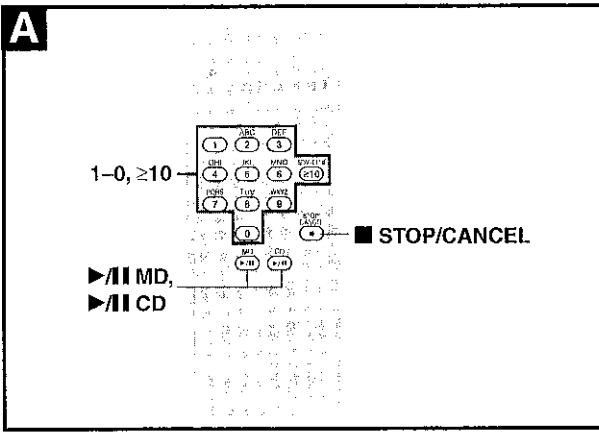
Press and hold [CD ▶/II] until "RELAY" appears.

To cancel

Press [STOP ■].

During relay play

- CD and MD repeat modes are canceled (⇒ pages 15 and 31).
- CDs and MDs play in the selected play mode (program, random, 1-song or 1-group ⇒ pages 14, 15 and 31).
- Tape reverse mode switches to "↔" if it was set to "C↔" (⇒ page 16).



Other MD and CD functions

Remote control only

Preparation:

Press [▶/|| MD] or [▶/|| CD] to select "MD" or "CD" as the source then press [■ STOP/CANCEL].

A Direct play

You can start play from a selected track.

Select the track with the numbered buttons.

For tracks numbered 10 and over, press [≥10 SPACE!#] then the two digits.

For tracks numbered 100 and over, press [≥10 SPACE!#] twice then the three digits (MD only).

e.g. To select track no. 132:

[≥10 SPACE!#] → [≥10 SPACE!#] → [1] → [3] → [2]

B Program play

You can select up to 24 tracks to play in the order you choose.

1 While stopped
Press [PROGRAM].

2 Enter the track number with the numbered buttons.
For tracks numbered 10 and over, press [≥10 SPACE!#] then the two digits.
For tracks numbered 100 and over, press [≥10 SPACE!#] twice then the three digits (MD only).

Repeat this step to program the tracks in the required order.

3 Press [▶/|| MD] or [▶/|| CD].
All the selected tracks are played in the selected order.

Do the following while stopped

To cancel program play

Press [PROGRAM] to clear "PGM" from the display. Programmed contents will be saved in memory.

To play the program again

- ① Press [PROGRAM] so "PGM" is displayed.
- ② Press [▶/|| MD] or [▶/|| CD].

To check the contents of the program

Press [◀/REW] or [▶/FF]. The track numbers and program positions are displayed in order.

To add to the end of the program

Repeat step 2.

To clear all the tracks

Press [■ STOP/CANCEL].

"PGM CLEAR" is displayed and all the tracks are cleared.

"PROGRAM FULL" is displayed

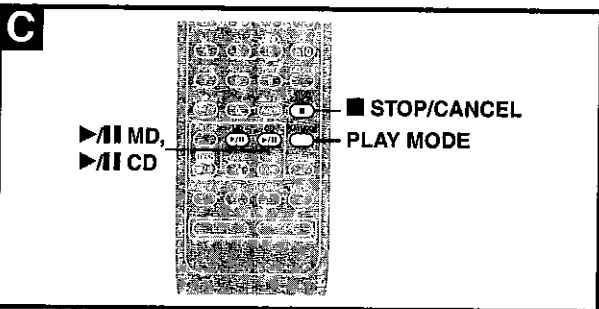
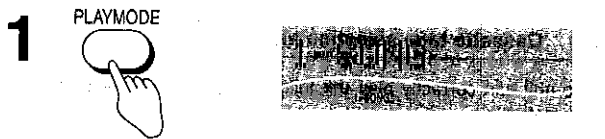
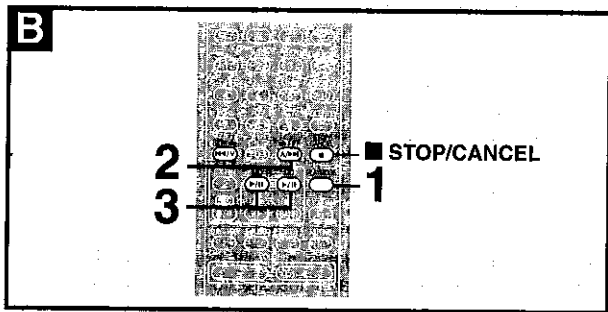
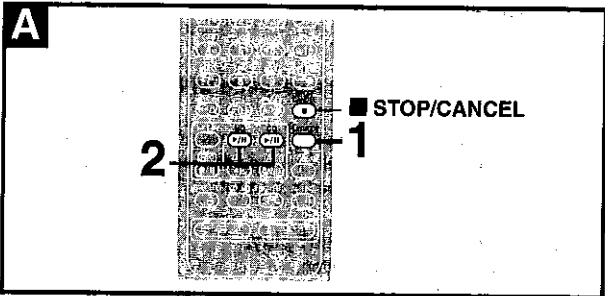
24 tracks have been programmed.

"--:--" is displayed

Total playing time for the tracks is over 249 minutes and 59 seconds. Tracks can be still programmed and played.

Note

- Skipping is done in the selected order in program play.
- You can search only within tracks in CD program mode.
- MD editing is not possible while in the program mode.



Other MD and CD functions

Remote control only

Preparation:

Press [▶/|| MD] or [▶/|| CD] to select "MD" or "CD" as the source then press [■ STOP/CANCEL].

A Random play

You can play the tracks once each in random order.

- While stopped
Press [PLAY MODE] to select "RANDOM".
Each time you press the button:
Original display → 1-SONG → 1-GROUP → RANDOM
"1-GROUP" appears only if the MD has groups on it.

- Press [▶/|| MD] or [▶/|| CD] to start play.

To cancel

While stopped, press [PLAY MODE] so "RANDOM" goes out.

Note

- You cannot skip to tracks already played in random play.
- You can search only within tracks in random play.
- MD editing is not possible while in the random mode.

B 1-song play

Play a selected track.

- While stopped
Press [PLAY MODE] to select "1-SONG".
Each time you press the button:
Original display → 1-SONG → 1-GROUP → RANDOM
"1-GROUP" appears only if the MD has groups on it.

- Press [◀◀/REW/⏪] or [▶▶/FF/⏩] to select the track.

- Press [▶/|| MD] or [▶/|| CD] to start play.

To cancel

While stopped, press [PLAY MODE] so "1-SONG" goes out.

You can also select the track with the numbered buttons in step 2. See direct play (→ page 14).

Note

MD editing is not possible while in the 1-song mode.

C Repeat play

Press and hold [PLAY MODE] until "REPEAT ON" appears.

To cancel

Press and hold [PLAY MODE] until "REPEAT OFF" appears.

To repeat selected tracks

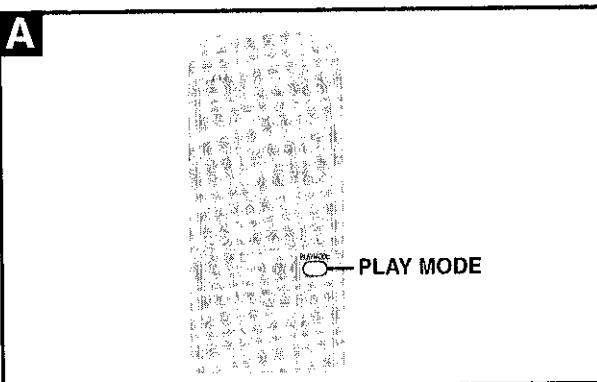
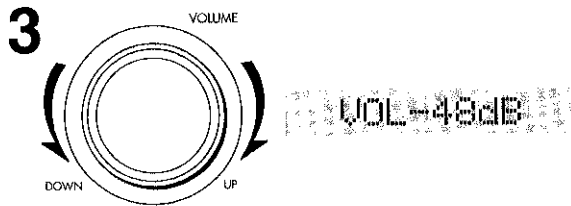
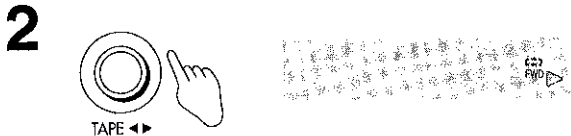
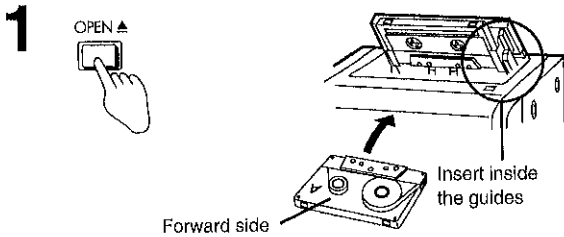
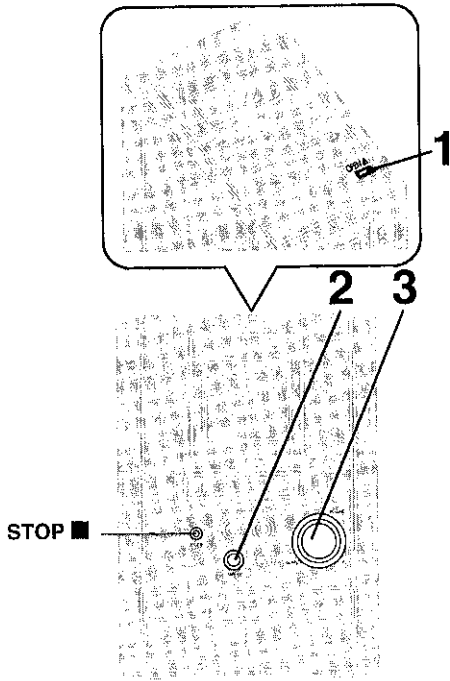
- Program the tracks (→ page 14).
- Press and hold [PLAY MODE] until "REPEAT ON" appears.

To repeat a track

- Select "1-SONG" (→ above).
- Press and hold [PLAY MODE] until "REPEAT ON" appears.

To repeat play randomly

- Select "RANDOM" (→ above).
- Press and hold [PLAY MODE] until "REPEAT ON" appears.



Cassette tapes

1 Press [OPEN ▲], insert a cassette with the tape facing in.

When the button is pressed, the unit comes on automatically. Make sure the cassette is fully inserted and close the lid by hand. Play is ready to start from the forward side ("FWD ▷").

2 Press [TAPE ◀▶] to start play.

Each time you press the button:
 FWD ▷ ⇄ ◀REV
 "FWD ▷": to play the forward side
 "◀REV": to play the reverse side

3 Adjust the volume.

To stop the tape
 Press [STOP ■].

A Selecting reverse mode

Press [PLAY MODE] on the remote control to select the reverse mode.

Each time you press the button:



- ⇄ : One side is played.
- ⇄⇄ : Both sides are played.
- ◀▶ : Both sides are played continuously.

One touch play

When a cassette is inserted and the unit is off, press [TAPE ◀▶]. The unit comes on and starts play in the direction last selected.

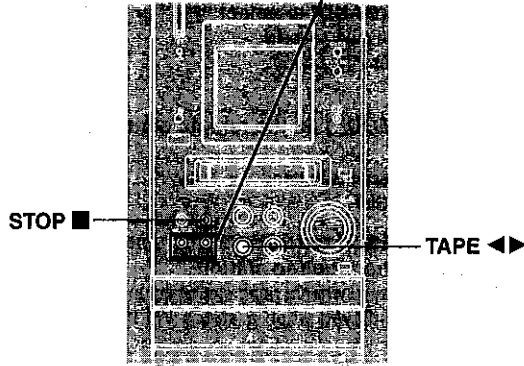
Cassette tape selection and care

The unit can correctly play the following tapes. It identifies the type automatically.

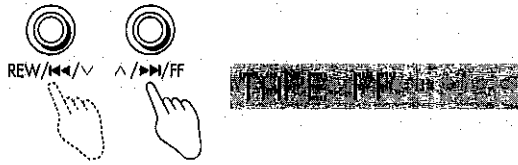
Normal position/TYPE I	✓
High position/TYPE II	✓
Metal position/TYPE IV	✓

- Tapes exceeding 100 minutes are thin and can break or get caught in the mechanism.
- Tape slack can get caught up in the mechanism and should be taken up before the tape is played.
- Endless tapes can get caught up in the deck's moving parts if used incorrectly. Use tapes appropriate to this unit's auto-reverse mechanism.

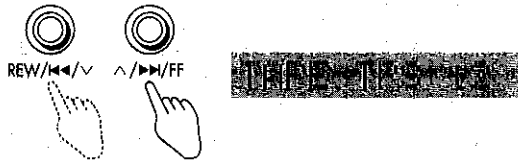
REW/◀◀/▶, ◀▶/▶▶/FF



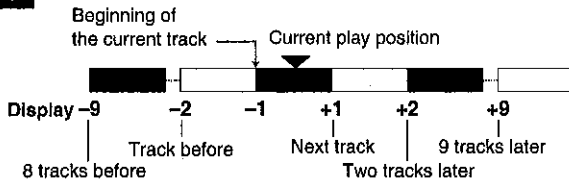
A



B



C



Cassette tapes

A Fast-forwarding and rewinding

Press [REW/◀◀/▶] or [▶▶/▶▶/FF] while the tape is stopped.

To rewind	To fast-forward
[REW/◀◀/▶]	[▶▶/▶▶/FF]

B Tape program sensor (TPS)

TPS finds the beginning of a track and resumes play from there.

Press [REW/◀◀/▶] or [▶▶/▶▶/FF] during playback.

[▶▶/▶▶/FF]: Forward

Play starts from the beginning of the next track.

[REW/◀◀/▶]: Backward

Play starts from the beginning of the present track.

C Each press increases the number of tracks skipped, up to a maximum of 9.

Note

TPS may not operate correctly in the following situations:

- If the interval between tracks is less than 4 seconds.
- If there is noise between tracks.
- If there are silent parts within tracks.

Relay play

Plays in the order TAPE, CD, MD.

While stopped

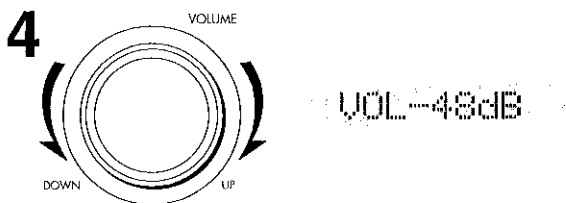
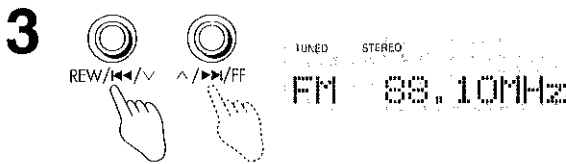
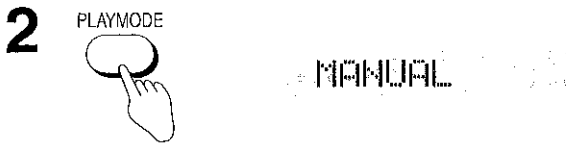
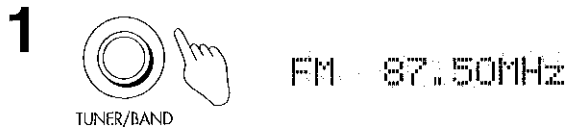
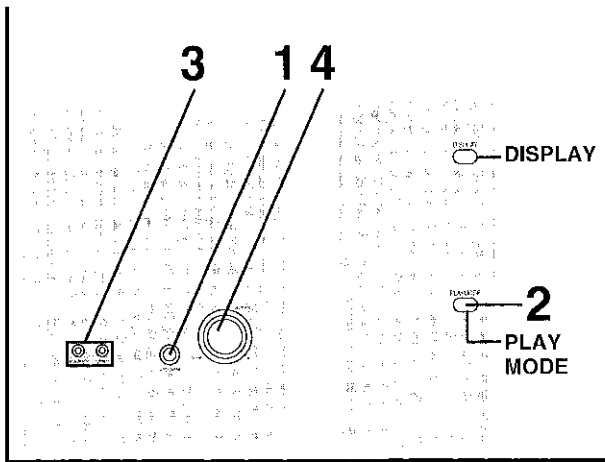
Press and hold [TAPE ◀▶] until "RELAY" appears.

To cancel

Press [STOP ■].

During relay play

- CD and MD repeat modes are canceled (⇒ pages 15 and 31).
- CDs and MDs play in the selected play mode (program, random, 1-song or 1-group ⇒ pages 14, 15 and 31).
- Tape reverse mode switches to "↔" if it was set to "↔" (⇒ page 16).



Program type displays			
NEWS	VARIED	FINANCE	COUNTRY
AFFAIRS	POP M	CHILDREN	NATIONAL
INFO	ROCK M	SOCIAL A	OLDIES
SPORT	M.O.R M*	RELIGION	FOLK M
EDUCATE	LIGHT M	PHONE IN	DOCUMENT
DRAMA	CLASSICS	TRAVEL	TEST
CULTURE	OTHER M	LEISURE	ALARM
SCIENCE	WEATHER	JAZZ	

The radio: manual tuning

- 1 Press [TUNER/BAND] to select "FM" or "AM".**
The unit comes on automatically.
Each time you press the button:
FM ⇄ AM
- 2 Press [PLAY MODE] on the remote control to select "MANUAL".**
Each time you press the button:
MANUAL ⇄ PRESET
- 3 Press [REW/◀◀/▶▶] or [▶▶/FF] to select the frequency of the required station.**
"TUNED" is displayed when a radio station is tuned.
"STEREO" is displayed when a stereo FM broadcast is being received.
- 4 Adjust the volume.**

Auto tuning

Press and hold [REW/◀◀/▶▶] or [▶▶/FF] for a moment until the frequency starts changing rapidly. The unit begins auto tuning, stopping when it finds a station.

- Auto tuning may not function when there is excessive interference.
- To cancel auto tuning, press [REW/◀◀/▶▶] or [▶▶/FF] once again.

A If noise is excessive in FM

Remote control only

Press and hold [PLAY MODE] to display "MONO".

This mode improves sound quality if reception is weak, but broadcasts will be heard in monaural.

Press and hold [PLAY MODE] again to cancel the mode.

"MONO" goes out. MONO is also canceled if the frequency is changed.

Turn off "MONO" for normal listening. Stereo and monaural broadcasts are automatically played as they are received.

B RDS broadcasting (Only for the United Kingdom)

Remote control only

This unit can display the text data transmitted by the radio data system (RDS) available in some areas ("RDS" lights on the display).

Displaying the name of a broadcasting station or a program type

Press [DISPLAY].

Each time you press the button:

Original display → Station name → Program type → clock

↑

If an MD is loaded, the available time on the MD, then the total number of tracks and total play is displayed between program type and clock.

Note

RDS displays may not be available if reception is poor.

* "M.O.R M"="Middle of the road music"

(Except for the United Kingdom) About allocation settings

Each country allocates broadcast bands according to their particular needs. This system can receive AM broadcasts allocated in 9 or 10 kHz steps.

To change the step (9 kHz ⇄ 10 kHz)

- (1) Press [TUNER/BAND] to select FM.
- (2) Press and hold [TUNER/BAND]. The band first changes to AM, then, as you continue to hold down the button, the current lowest AM frequency flashes on the lower line, then the minimum frequency changes and the bottom line disappears.
Repeat this procedure to change the step back.

Note

- After changing the "allocation" setting, the frequencies you previously preset in the memory will be cleared.
- AM broadcasts are interrupted for a moment when you open the cassette holder.
- Personal computers can interfere with reception. Disconnect the USB cable or move the computer further away from this unit if this occurs.

The radio: preset tuning

Remote control only

There are two methods of presetting stations.

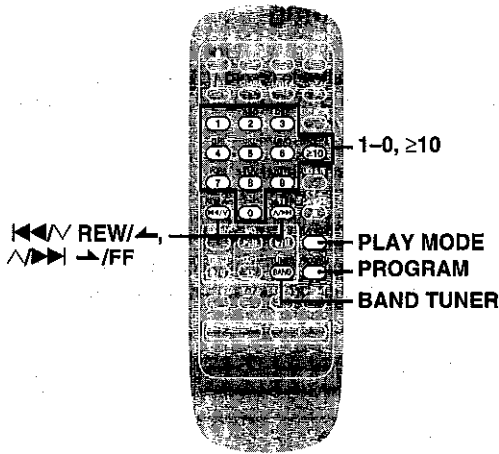
Automatic presetting: The stations the tuner can receive are preset.

Manual presetting: You can select the stations to preset and the order they are preset in.

Up to 15 stations each can be set in the FM and AM bands.

Preparation:

Press [BAND TUNER] to select "FM" or "AM".



A PROGRAM



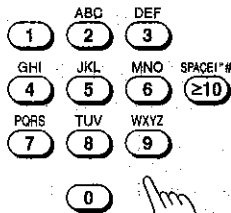
B ① PLAYMODE



②



or



Preset channel

A Automatic presetting

Do the following once each for FM and AM.

Preparation:

Tune to the frequency where presetting is to begin (→ page 18).

Press and hold [PROGRAM].

Release the button when the frequency begins to change.

The tuner presets the stations it can receive into the channels in ascending order. When finished, the last station memorized is tuned in.

Manual presetting

Preset the stations one at a time.

- ① Press [PLAY MODE] to select "MANUAL".
- ② Press [REW/FF] or [PLAYMODE] to select the frequency of the required station.
- ③ Press [PROGRAM].
- ④ While "PGM" is flashing (about 10 seconds) Press the numbered buttons to select a channel. To select channel 10 or over Press [≥ 10 SPACE]# then the two digits.

Repeat steps 2 to 4 to preset other stations.

The station occupying a channel is erased if another station is preset in that channel.

B Selecting channels

- ① Press [PLAY MODE] to select "PRESET".
- ② Press [REW/FF] or [PLAYMODE] to select the channel.

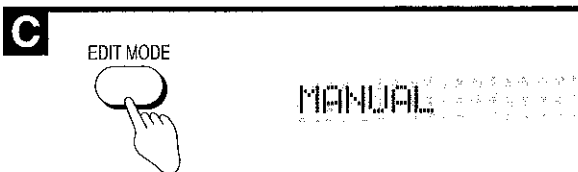
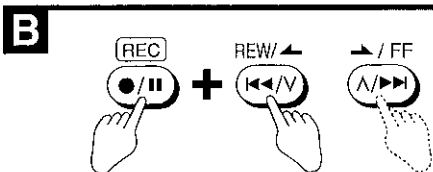
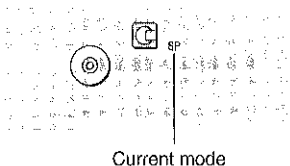
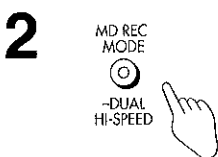
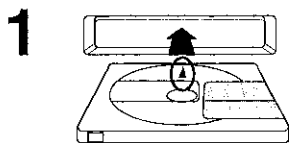
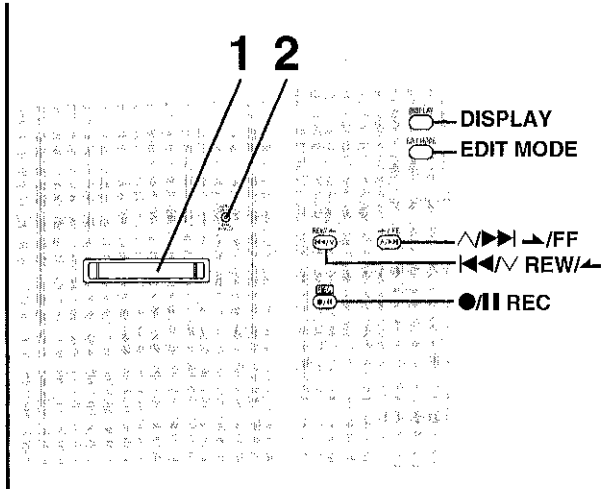
OR

Press the numbered buttons to select the channel in step

②.

To select channel 10 or over

Press [≥ 10 SPACE]# then the two digits.



Before recording

You can use MDs or cassettes to record ([MD REC] [TAPE REC]). You can also record CDs onto an MD and a cassette at the same time ([RECORD]).

Volume and sound quality

Recordings are unaffected by changes to volume and sound quality.

Your attention is drawn to the fact that recording pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.

For MD recording

Preparatory steps

Do these steps before each recording.

1 Insert an MD.
"BLANK DISC" is displayed when you insert a blank disc and MD is selected as the source.

2 Press [MD REC MODE -DUAL HI-SPEED] to select the SP/LP2/LP4 recording mode.

Each time you press the button:

SP → LP2 → LP4

- LP4 mode uses a special compression method in order to achieve extended recording and this may rarely cause some noise when recording some material.
- Use SP or LP2 for better sound quality.

A To see how much time is left on an MD

Remote control only

The remaining time display also depends on the current recording mode.

Press [DISPLAY].

Press again and:

During recording, the MD track number and elapsed recording time appear.

While stopped, the total number of tracks and total play time are displayed.

B Adjusting recording level

Remote control only

While stopped

Press and hold [●/II REC] then adjust the level with [◀/REW] or [▶/FF].

You can adjust the level between -10 dB and +10 dB.

The level returns to "0 dB" when you turn the unit off.

C MD recording mode

When recording any source except CD

Press [EDIT MODE] before pressing the recording button to select the mode.

The modes you can choose depend on the source.

MANUAL : Insert track marks manually.

SYNCHRO : Recording starts automatically when you start play of the source, pauses if a 3-second silence is detected, then starts again when play starts. A track mark is added at the point recording starts. You cannot insert track marks manually.

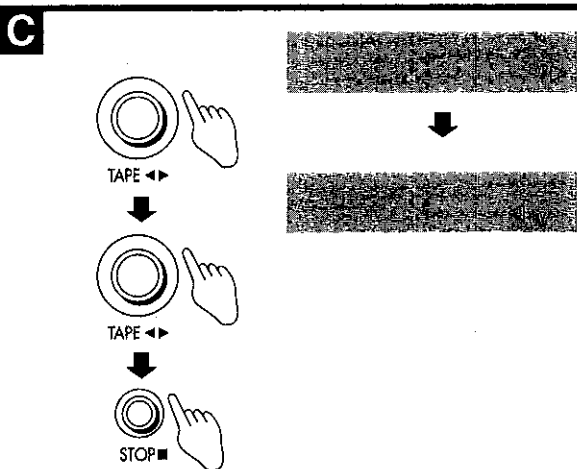
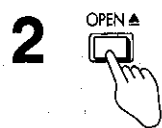
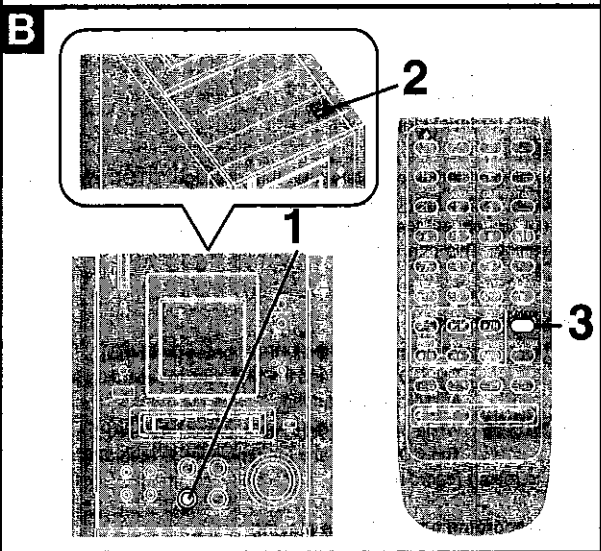
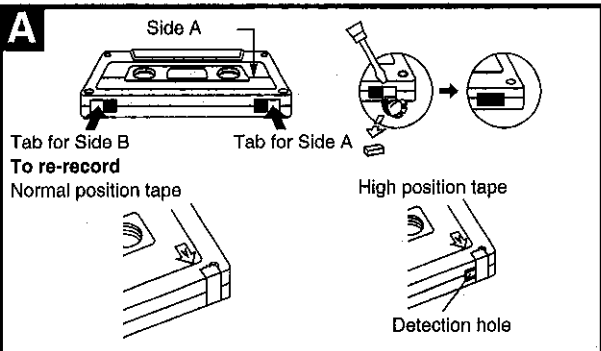
TURN BACK : Records sound received a few seconds before the recording button is pressed. This mode is useful when recording the radio.

Track marks can be inserted manually.

TIME MARK : Track marks inserted every five minutes.

Track marks can also be inserted manually.

TURN/TIME : A combination of turn back and time mark.



Before recording

For tape recording

Selection of tapes for recording

The unit automatically identifies the type of tape.

Normal position/TYPE I	✓
High position/TYPE II	✓
Metal position/TYPE IV	×

Metal position tapes can be used, but the unit will not be able to record or erase them correctly.

A Erasure prevention for tapes

The illustration shows how to remove the tabs to prevent recording. To record on the tape again, cover as shown, being careful not to cover the high position detection hole.

B Preparatory steps

Do these steps before each recording.
Wind up the leader tape so recording can begin immediately.

- 1 Press [TAPE ◀▶] to select TAPE.**
- 2 Press [OPEN ▲], insert a cassette with the tape facing in.**
Make sure the cassette is fully inserted and close the lid by hand.
- 3 Press [PLAY MODE] on the remote control to select the reverse mode.**
Each time you press the button:
 ◀▶ → ▶◀ → ◀▶
 ▶◀ : One side records only.
 ◀▶ and ▶◀ : Both sides record.
 (forward side → reverse side)
 "▶◀" automatically changes to "◀▶" when the REC buttons are pressed.

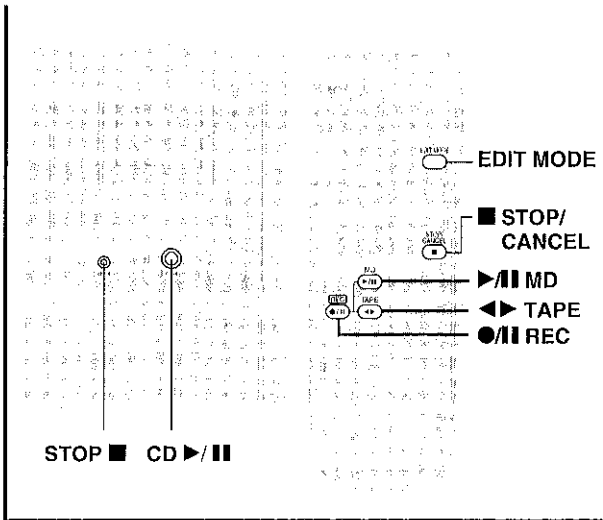
C To record on the reverse side

Press [TAPE ◀▶] twice and then [STOP ■].

Erasing recordings on tape

Remote control only

- Press [◀▶ TAPE] to select TAPE as the source then press [■ STOP/CANCEL].
- Press [PLAY MODE] to select the reverse mode.
- While pressing [●/II REC], press [◀▶ TAPE].



Recording CDs

Normal recording

MD REC **TAPE REC**

Preparation:

Do the preparatory steps. (→ pages 20 and 21).
 Insert the CD (→ page 13) and press [CD ▶/||] to select CD as the source then press [STOP ■].

While pressing [●/|| REC]

MD REC : Press [▶/|| MD].

TAPE REC : Press [◀◀ TAPE].

Recording starts automatically.

To stop recording

Press [■ STOP/CANCEL].

CD and MD (or tape) stop.

MD REC

A Recording on MD is complete after the message "UTOC Writing" and "UTOC" stops flashing on the display.

Do not disconnect the unit from its power source while this message is flashing. This can cause the recording to be erased and damage the disc.

To pause recording

MD REC : While pressing [●/|| REC], press [▶/|| MD].

The CD pauses and the MD goes to recording standby.
 A track mark is added.

TAPE REC : While pressing [●/|| REC], press [◀◀ TAPE].

The CD pauses and the tape goes to recording standby.

Repeat to restart recording.

To start recording a track that is playing

MD REC : While pressing [●/|| REC], press [▶/|| MD]

TAPE REC : While pressing [●/|| REC], press [◀◀ TAPE]

The track returns to the beginning and recording starts and records through to the last track on the CD.

The MD/cassette stops when recording finishes.

To record only the current track, first turn on 1-song play (→ page 15).

To record from partway through a track, pause CD play, then start recording (while pressing [●/|| REC] press [▶/|| MD] or [◀◀ TAPE]).

B To add track marks while recording on MDs

Press [EDIT MODE] on the remote control where the track mark is required.

These marks can be removed after recording with the editing functions (→ "COMBINE", page 33).

"SCMS CAN'T COPY" appears on the display

This appears when you try to make a digital recording of some CD-R and CD-RW. You can record these discs by pressing [EDIT MODE] on the remote control to select "ANALOG-REC". You cannot use high-speed recording in this case (→ page 25).

MD REC

REC

▶/||

+

MD

▶/||

REC

▶/||

+

TAPE

▶/||

REC

▶/||

+

TAPE

▶/||

◀◀

REC

▶/||

+

TAPE

▶/||

◀◀

REC

▶/||

+

TAPE

▶/||

◀◀

REC

▶/||

+

TAPE

▶/||

◀◀

REC

▶/||

+

TAPE

▶/||

◀◀

REC

▶/||

+

TAPE

▶/||

◀◀

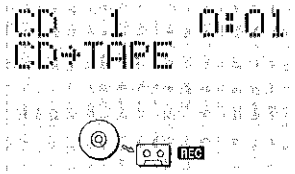
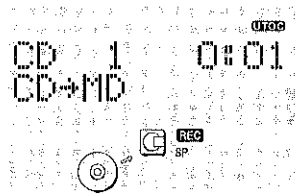
REC

▶/||

+

TAPE

▶/||

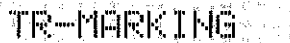


A

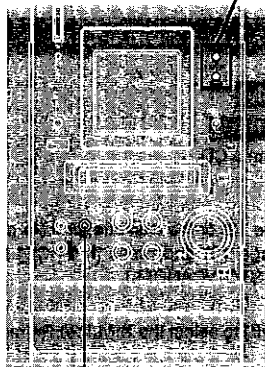


B

EDIT MODE



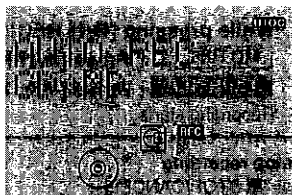
● AUTO REC, CD▶MD, CD▶TAPE



STOP ■

MD REC

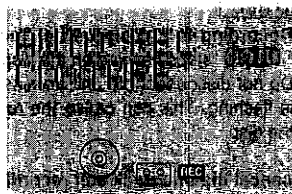
● AUDIO REC



TAPE REC

CD▶TAPE

● AUDIO REC

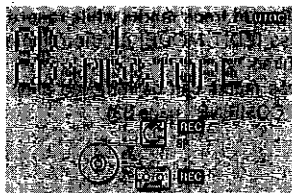
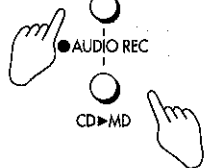


MD & TAPE REC

CD▶TAPE

● AUDIO REC

CD▶MD



A



Recording CDs

Recording all the tracks on a CD: AUTO REC

MD REC TAPE REC MD & TAPE REC

This function automatically records all the tracks onto an MD and/or tape as long as the remaining time allows.

Preparation:

Do the preparatory steps. (→ pages 20 and 21).
Insert the CD (→ page 13).

MD REC

Press and hold [● AUTO REC CD ▶ MD] until "AUTO REC" appears.

Recording starts.

- If either LP2 or LP4 recording mode is used, then the recorded tracks are treated as one group unless there is not enough space in UTOC.
- "NO REMAIN" appears if even one track cannot fit on the MD.
- "REMAINING SHORT" appears if there is not enough space on the MD to record all the tracks. You can cancel AUTO REC by pressing [STOP ■] while this is displayed. You may be able to fit all the tracks on the MD if you change the SP/LP2/LP4 recording mode.

TAPE REC

Press and hold [● AUTO REC CD ▶ TAPE] until "AUTO REC" appears.

Recording starts.

- Recording begins from the beginning of the forward side. The tape automatically rewinds.
- A track incompletely recorded on the forward side is recorded again on the reverse side.
- The cassette must have tabs for both sides.

MD & TAPE REC

Press and hold [● AUTO REC CD ▶ MD] and [● AUTO REC CD ▶ TAPE] at the same time until "CD → MD & TAPE" appears.

Recording starts.

- The recording on the tape may be slightly interrupted at the point recording switches from the forward to reverse side.
- Even if the MD or tape runs out of space, recording continues on the other.
- You can only record simultaneously to an MD and tape from CDs. This is not possible with the radio and AUX.
- You cannot use this in combination with high-speed recording.

Note

Play modes (random, 1-song and repeat) and program play are canceled.

To stop recording

Press [STOP ■].
Both the CD and MD and/or tape stop.

MD REC MD & TAPE REC

ⓘ Recording on MD is complete after the message "UTOC Writing" and "UTOC" stops flashing on the display.

Do not disconnect the unit from its power source while this message is flashing. This can cause the recording to be erased and damage the disc.

Recording operations

Recording CDs

Recording a track from a CD

Remote control only

MD REC **TAPE REC**

Records one track from a CD.

Preparation:

Insert the MD (→ page 12) or the cassette tape (→ page 16). Insert the CD (→ page 13) and press [▶/|| CD] to select CD as the source then press [■ STOP/CANCEL].

MD REC

Press [MD REC MODE] to select the SP/LP2/LP4 recording mode.

- 1** Press [PLAY MODE] to select "1-SONG".
- 2** Press [◀◀/REW/ ←] or [▶/FF/ →] to select the track to be recorded. Unnecessary when recording the first track.
- 3** While pressing [●/|| REC]
 - MD REC** : Press [▶/|| MD].
 - TAPE REC** : Press [◀▶ TAPE].
 Recording starts.

To stop recording

Press [■ STOP/CANCEL]. Both CD and MD (or tape) stop.

MD REC

A Recording is complete after the message "UTOC Writing" and "UTOC" stops flashing on the display.

Do not disconnect the unit from its power source while this message is flashing. This can cause the recording to be erased and damage the disc.

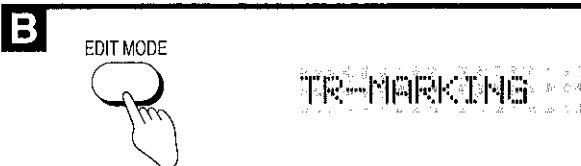
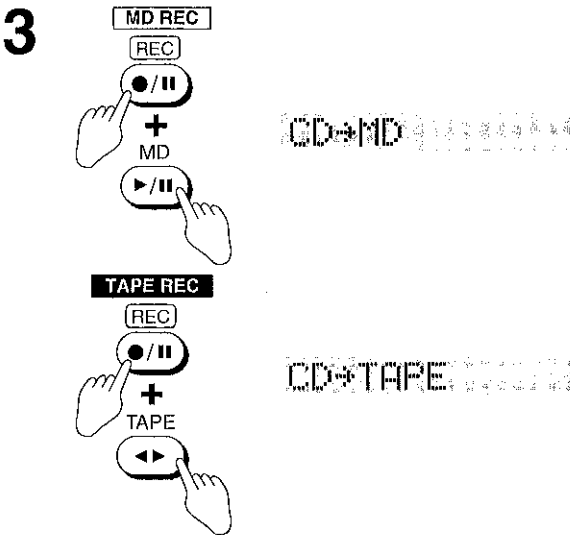
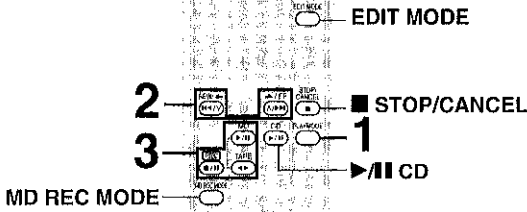
To cancel the one track edit recording

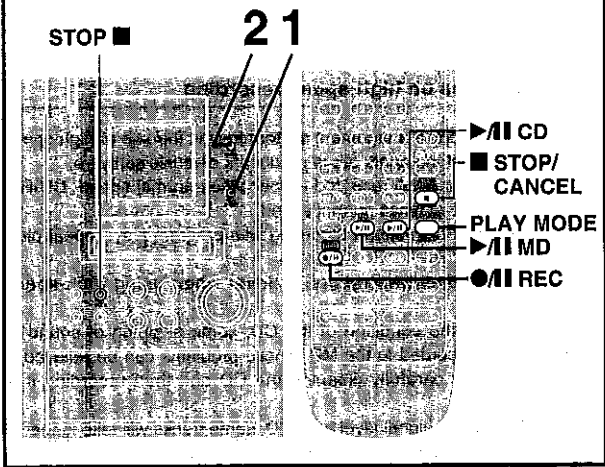
While stopped, press [PLAY MODE] to clear "1-SONG" from the display.

B To add track marks while recording on MDs

Press [EDIT MODE] on the remote control where the track mark is required.

These marks can be removed after recording with the editing function (→ "COMBINE", page 33).





Recording CDs

High-speed recording from a CD to an MD

MD REC

You can record at up to four times normal speed from a CD to an MD. This means you can complete recording from a 74-minute CD in 23 minutes.

Preparation:

Do the preparatory steps (➔ page 20).
Insert the CD (➔ page 13).

- 1 Press and hold [MD REC MODE -DUAL HI-SPEED] until "HIGH-SPEED" appears.
- 2 Press and hold [● AUDIO REC CD ▶ MD] until "AUTO REC" appears.
Recording starts.

When recording is finished

When the CD finishes the MD also stops.

- ▲ The message "UTOC Writing" and "UTOOC" stop flashing on the display.

To stop recording

Press [STOP ■].
Both CD and MD stop.

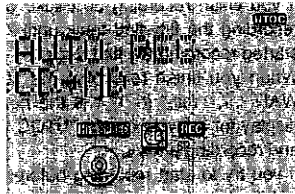
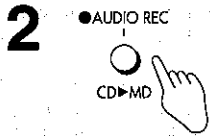
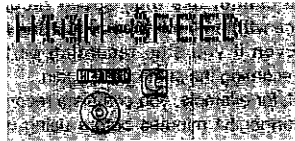
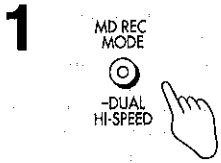
- ▲ The message "UTOC Writing" and "UTOOC" stop flashing on the display.

For your reference

- From the remote control
 - ① Press [▶/|| CD] to select "CD" as the source then press [■ STOP/CANCEL].
 - ② While pressing [●/|| REC], press [▶/|| MD].
- To record one track
 - ① Select the track.
 - ② Press [PLAY MODE] to select "1-SONG" (➔ page 15).
 - ③ While pressing [●/|| REC], press [▶/|| MD].

Note

- If either LP2 or LP4 recording mode is used, then the recorded tracks are treated as one group unless there is not enough space in UTOC or you start recording with the remote control.
- You will not hear sound when using high-speed recording.



A



Limitations on high-speed recording

This unit uses a copy management system to limit the use of high-speed recording to protect the rights of the producers of music software.

- Some discs cannot be recorded at four times normal speed. CD-RW are recorded a two times normal speed.
- You cannot use high-speed recording with program play, repeat play, or random play.
- You cannot adjust the recording level when using high-speed recording.
- Depending on the condition of the CD, some skipping of sound or noise will be recorded to the MD. These problems can be relieved in some cases by carefully cleaning the CD and then recording it at normal speed.
- Depending on the signal level on a CD, some tracks will take longer to record than others, even if they are the same length.

You cannot use high-speed recording to record the same track twice within 74 minutes of starting recording.

- Even if you stop recording part way through, you cannot start recording the same track again.
- If, for example, you complete recording in 20 minutes, you must wait a further 54 minutes before using high-speed recording to record the track again. You can record the track at normal speed.

You can record up to 50 tracks.

- If you finish recording 50 tracks within 74 minutes, you cannot start recording the fifty-first track until 74 minutes have passed since you started recording the first track.
- When you finish recording the 50th track, the message "PLEASE WAIT (XX) min" ("XX" is the number of minutes) appears on the display for a few seconds. "UTOC Writing" then flashes on the display and recording ends.
- If you try to start recording before the waiting period is up, "PLEASE WAIT (XX) min" appears again.

Recording the radio

Remote control only

MD REC TAPE REC

Preparation:

Insert the MD (→ page 12) or the cassette tape (→ page 16).
Tune to the required station. (→ pages 18 and 19)

MD REC

Press [MD REC MODE] to select the SP/LP2/LP4 recording mode.

MD REC

- 1 Press [EDIT MODE] to select the desired mode. (→ page 20)

Each time you press the button:

MANUAL → TURN BACK → TIME MARK → TURN/TIME

If you selected "TURN BACK" or "TURN/TIME" in step 1

- 2 While pressing [●/|| REC], press [▶/|| MD] to enter recording standby.

Note

Wait until the "TURN BACK" indicator stops flashing before proceeding to step 3 to start recording. (Turn back may not function correctly if recording is started while the indicator is flashing.)

- 3 While pressing [●/|| REC], press [▶/|| MD].

TAPE REC

- 1 While pressing [●/|| REC], press [◀▶ TAPE].

To stop recording

Press [■ STOP/CANCEL].

MD REC

Recording is complete after the message "UTOC Writing" and "UTOC" stops flashing on the display.

Do not disconnect the unit from its power source while this message is flashing. This can cause the recording to be erased and damage the disc.

To pause recording

MD REC : While pressing [●/|| REC], press [▶/|| MD].
A track mark is added.

TAPE REC : While pressing [●/|| REC], press [◀▶ TAPE].
Repeat to restart recording.

▲ To add track marks while recording on MDs

Press [EDIT MODE] on the remote control where the track mark is required.

These track marks can be removed after recording with the editing function (→ "COMBINE", page 33).

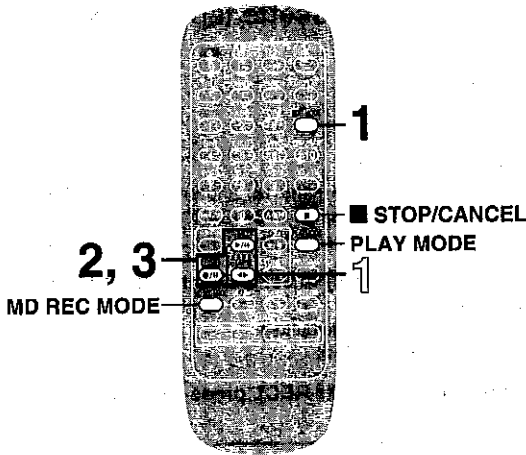
TAPE REC

To reduce noise while tape recording an AM broadcast (Beat proof function)

Press and hold [PLAY MODE] on the remote control.

Each time you press and hold the button: BP 1 ⇄ BP 2

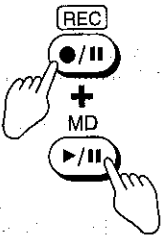
Select the position where there is less noise.



1 EDIT MODE



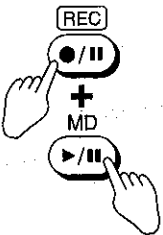
2



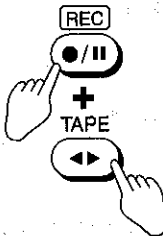
↓ "TURN BACK" indicator



3



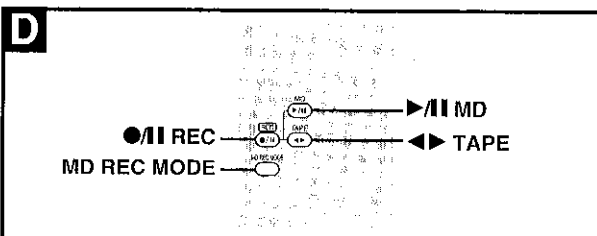
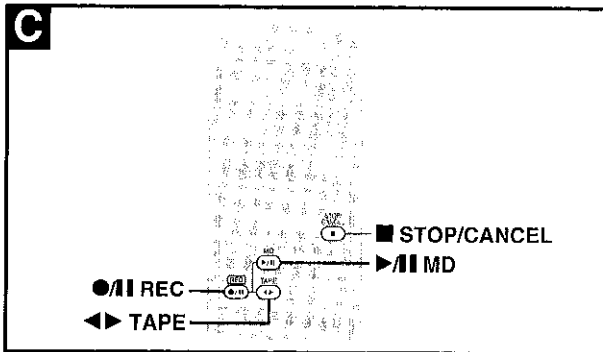
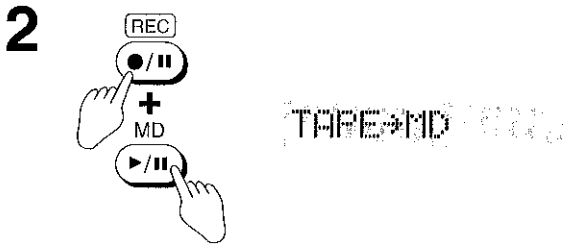
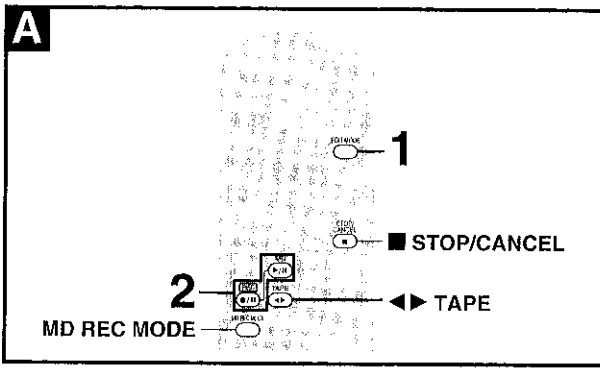
1



A

EDIT MODE





A Recording cassette tapes on MDs

Remote control only

MD REC

Preparation:

Insert the MD (→ page 12).

Insert the cassette tape (→ page 16) and press [◀▶ TAPE] to select tape as the source then press [■ STOP/CANCEL].

Press [MD REC MODE] to select the SP/LP2/LP4 recording mode.

1 Press [EDIT MODE] to select MD recording mode. (→ page 20)

Each time you press the button:
MANUAL ⇄ TIME MARK

2 While pressing [●/|| REC], press [▶/|| MD]. Recording starts.

To stop recording

Press [■ STOP/CANCEL].

Both MD and tape stop.

Recording is complete after the message "UTOC Writing" and "UTOC" stops flashing on the display.

Do not disconnect the unit from its power source while this message is flashing. This can cause the recording to be erased and damage the disc.

To pause recording

While pressing [●/|| REC], press [▶/|| MD].

The tape stop and the MD goes to recording standby. A track mark is added.

Repeat to restart recording.

B To add track marks while recording on MDs

Press [EDIT MODE] on the remote control where the track mark is required.

These track marks can be removed after recording with the editing function (→ "COMBINE", page 33).

C Recording MDs on cassette tapes

Remote control only

TAPE REC

Preparation:

Insert the cassette tape (→ page 16).

Insert the MD (→ page 12) and press [▶/|| MD] to select MD as the source then press [■ STOP/CANCEL].

While pressing [●/|| REC], press [◀▶ TAPE].

Recording starts.

To stop recording

Press [■ STOP/CANCEL].

Both MD and tape stop.

To pause recording

While pressing [●/|| REC], press [◀▶ TAPE].

The MD pauses and the tape goes to recording standby.

Repeat to restart recording.

D Recording selected tracks

Remote control only

When recording from CD to MD

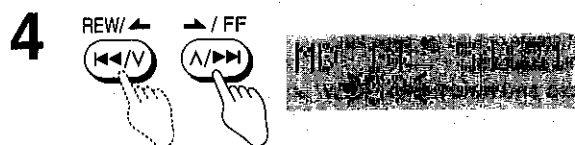
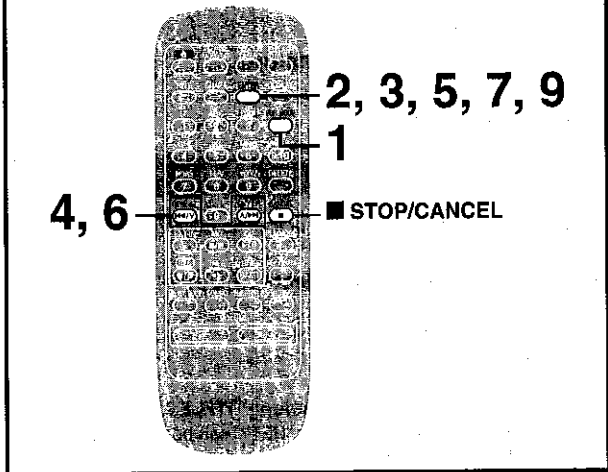
- 1 Program the tracks you want to record (→ steps 1 to 2, page 14).
- 2 Press [MD REC MODE] to select the SP/LP2/LP4 recording mode.
- 3 While pressing [●/|| REC], press [▶/|| MD] to start recording.

When recording from CD to TAPE

- 1 Program the tracks you want to record (→ steps 1 to 2, page 14).
- 2 While pressing [●/|| REC], press [◀▶ TAPE] to start recording.

When recording from MD to TAPE

- 1 Program the tracks you want to record (→ steps 1 to 2, page 14).
- 2 While pressing [●/|| REC], press [◀▶ TAPE] to start recording.



MD editing

Using the MD group feature

Remote control only

Putting tracks into groups

You can record a number of tracks onto an MD when you use LP2 and LP4 recording modes. You can manage these tracks by putting them into groups.

You can create up to 99 groups, depending on the available space in UTOC.

For example, putting tracks 3, 4 and 5 into a group.

1 While stopped
Press [EDIT MODE] to select "GROUP?".

Each time you press the button:
TRACK ERASE? → ALL ERASE? → MOVE?
↑ ↓
GROUP? ← TITLE ST.? ← COMBINE?

2 Press [ENTER].
"SET?" appears.
"SET?" does not appear if all tracks are in groups.

3 Press [ENTER].
"—?" appears.

4 Press [REW/FF] or [FF/REW] to select the first track in the group.

5 Press [ENTER].

6 Press [REW/FF] or [FF/REW] to select the last track in the group.

7 Press [ENTER].

8 Give the group a title (→ page 37).

9 Press [ENTER].
Group editing is complete when "UTOC Writing" stops flashing.

To cancel part way through
Press [STOP/CANCEL].

Note

- Tracks can only be grouped in sequence (e.g., 1,2,3,4,5). Tracks separated by other tracks cannot be grouped, so, for example, you cannot group tracks 3, 7, and 9.
- A group can be made from one track.
- A single track cannot be put into more than one group.
- Groups are not ordered in the order you create them. They are ordered by track numbers.
- If you create groups with this unit and then edit on a unit that is incompatible with group functions, the group information may be rendered unusable.
- The disc title may not be displayed correctly on a unit that is incompatible with group functions.
- After using editing functions (→ pages 32 to 35) on a disc with groups, the UTOC is refreshed to maintain consistent group information.

Using the MD group feature

Remote control only

A Changing group titles

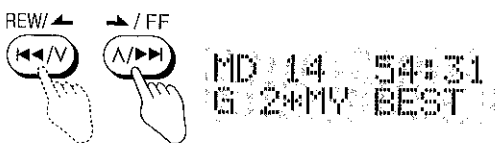
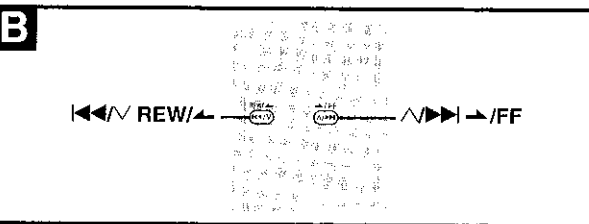
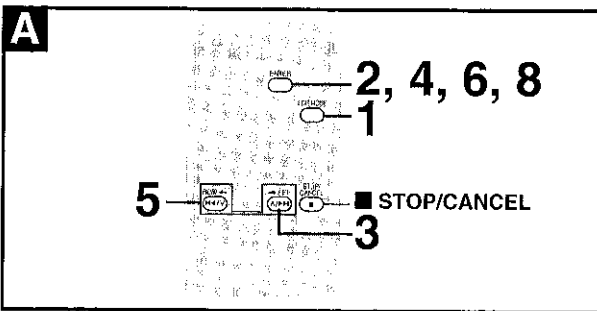
Do the following to give groups titles or change existing ones.

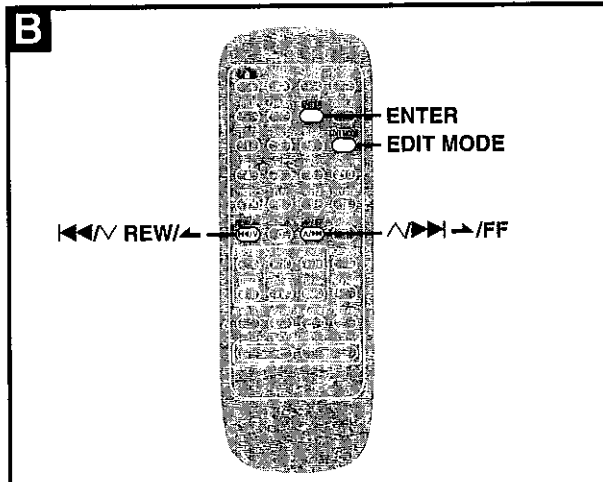
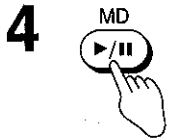
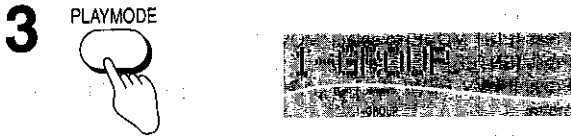
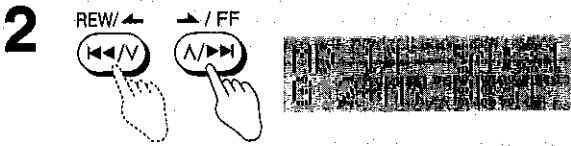
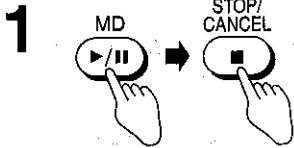
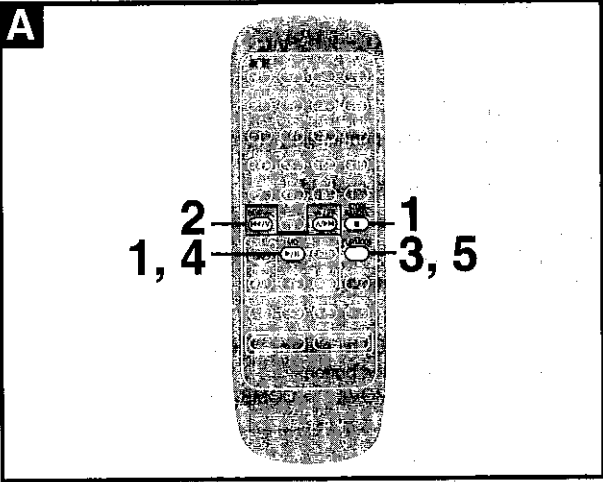
- 1 Press [EDIT MODE] to select "GROUP?".
- 2 Press [ENTER]. "SET?" appears.
- 3 Press [^/▶▶] or [◀◀/FF] to select "TITLE?".
If there are no groups at all, only "SET?" can be selected.
Each time you press the button:
SET? → TITLE? → RELEASE? → ALL RELEASE?
- 4 Press [ENTER].
- 5 Press [◀◀◀/REW/◀] or [^/▶▶] or [▶▶▶/FF] to select the group.
- 6 Press [ENTER].
- 7 Give the group a title (→ page 37).
- 8 Press [ENTER].
Editing is complete when "UTOOC Writing" stops flashing.

To cancel part way through
Press [■ STOP/CANCEL].

B Group skip

First create groups (→ page 29).
While stopped,
Press and hold [◀◀◀/REW/◀] or [^/▶▶] or [▶▶▶/FF] to select the group you want to play.





MD editing

Using the MD group feature

Remote control only

A 1-group play

First create groups (→ page 29).

- 1 Press [▶/|| MD] to select MD as the source then press [■ STOP/CANCEL].
- 2 Press and hold [◀◀/REW/←] or [^/▶▶ →/FF] to select the group.
- 3 Press [PLAY MODE] to select "1-GROUP".
- 4 Press [▶/|| MD].
Play starts.
- 5 To play the group repeatedly (1-group repeat) Press and hold [PLAY MODE] until "REPEAT ON" appears.
To cancel, press and hold [PLAY MODE] until "REPEAT OFF" appears.

To cancel

While stopped, press [PLAY MODE] so "1-GROUP" goes out.

Note

MD editing is not possible while in the 1-group mode.

B To release tracks from a group

To release one group

- ① Press [EDIT MODE] to select "GROUP?".
- ② Press [ENTER].
- ③ Press [◀◀/REW/←] or [^/▶▶ →/FF] to select "RELEASE?".
- ④ Press [ENTER].
- ⑤ Press [◀◀/REW/←] or [^/▶▶ →/FF] to select group.
- ⑥ Press [ENTER].
- ⑦ Press [ENTER].
"UTOC Writing" appears.

To release all groups

- ① Press [EDIT MODE] to select "GROUP?".
- ② Press [ENTER].
- ③ Press [◀◀/REW/←] or [^/▶▶ →/FF] to select "ALL RELEASE?".
- ④ Press [ENTER].
- ⑤ Press [ENTER].
"UTOC Writing" appears.

Moving tracks—MOVE

Remote control only

This function allows you to permanently change the order tracks are played in.
Make sure the disc is record enabled.

Preparation:

Insert the MD (→ page 12).
Play the track you want to move.

- 1** Press [EDIT MODE] to select "MOVE?".
Each time you press the button:
TRACK ERASE? → MOVE? → COMBINE? → DIVIDE?
↑ _____ |
- 2** Press [ENTER].
The track's current number is shown and the new position flashes to the right of it.
- 3** Press [◀◀/REW/↶] or [▶▶/FF/↷] to select the new track number.
- 4** Press [ENTER].
The old track number and new track number are displayed.
- 5** Press [ENTER] to confirm the new track number.
Play stops and "UTOC Writing" and "UTOC" flash on the display.
When this stops flashing, the new track number has been entered.

To cancel part way through

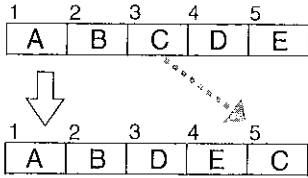
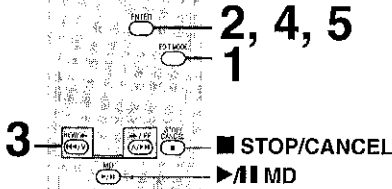
Press [■ STOP/CANCEL].

To move the track while the disc is stopped

- ① Press [▶▶ MD] to select "MD" as the source then press [■ STOP/CANCEL].
- ② Press [EDIT MODE] to select "MOVE?".
- ③ Press [ENTER].
- ④ Press [◀◀/REW/↶] or [▶▶/FF/↷] to select the track to move.
- ⑤ Press [ENTER].
- ⑥ Press [◀◀/REW/↶] or [▶▶/FF/↷] to select the new track number.
- ⑦ Press [ENTER].
- ⑧ Press [ENTER].

For your reference

"GROUP DATA FULL" appears if UTOC is full and you will not be able to move the track. Release a group or erase unnecessary titles before proceeding.



1 EDIT MODE



▶MOVE?◀

2 ENTER



MOVE

3 * 5 ?

3 REW/↶ ▶▶/FF



3 * 5 ?

4 ENTER



3 * 5 ?

PRESS ENTER

5 ENTER



▶UTOC Writing◀

Combining tracks—COMBINE

Remote control only

This function removes track marks so the tracks either side effectively become one track.

Make sure the disc is record enabled.

Preparation:

Insert the MD (➔ page 12).

Play the track that comes after the track mark you want to remove.

1 Press [EDIT MODE] to select "COMBINE?".

Each time you press the button:

TRACK ERASE? → MOVE? → COMBINE? → DIVIDE?

2 Press [ENTER].

A segment before and after the track mark plays repeatedly. (8 seconds in SP mode, 16 seconds in LP2 mode, and 32 seconds in LP4 mode.)

3 Press [ENTER] to confirm the combination.

Play stops and "UTOC Writing" and "UTOC" flashes on the display. When this stops flashing the track mark has been removed and the two tracks now are counted as one.

To cancel part way through

Press [■ STOP/CANCEL].

To divide the tracks again

Use DIVIDE (➔ page 34).

To combine tracks while the disc is stopped

① Press [▶/|| MD] to select "MD" as the source then press [■ STOP/CANCEL].

② Press [EDIT MODE] to select "COMBINE?".

③ Press [ENTER].

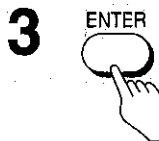
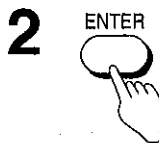
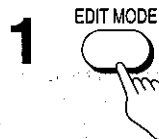
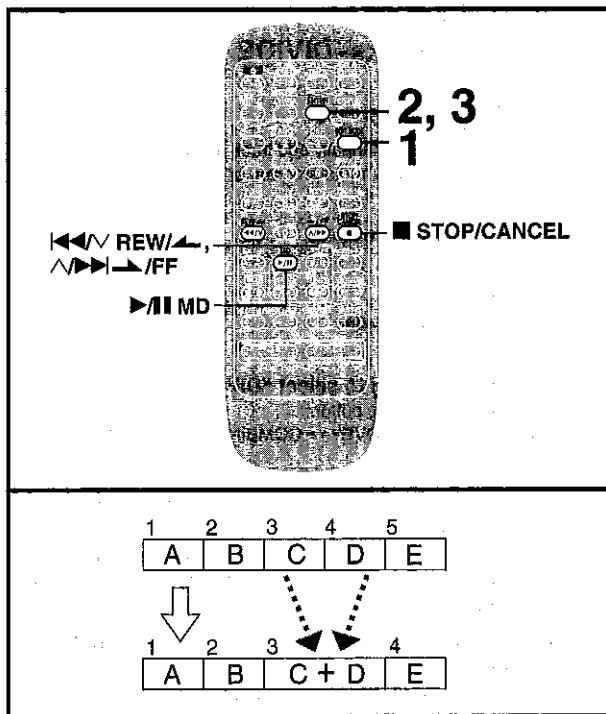
④ Press [◀/REW/] or [▶/FF/] to select which pair of tracks to combine.

⑤ Press [ENTER].

⑥ Press [ENTER].

Note

- If you combined titled tracks, the combined track retains only the title of the first track.
- You cannot combine tracks recorded with different recording modes (SP, LP2, and LP4).
- Sound may be unusual at the point where you join two tracks recorded with LP4 mode.



Dividing tracks—DIVIDE

Remote control only

This function allows you to manually add track marks. You can edit a recording of a radio program or divide a symphony into its separate movements.

Make sure the disc is record enabled.

Preparation:

Insert the MD (→ page 12).
Play the track you want to divide.

1 Press [EDIT MODE] to select "DIVIDE?".

Each time you press the button:
TRACK ERASE? → MOVE? → COMBINE? → DIVIDE?
↑

2 Press [ENTER] at the approximate point you want the track mark to go.

A segment before and after the point you specify plays repeatedly. (4 seconds in SP mode, 8 seconds in LP2 mode, and 16 seconds in LP4 mode.)

3 Press [◀◀/REW/ ←] or [▶/FF] to adjust the point.

In SP mode you can adjust the point by 8 seconds, in LP2, 16 seconds, and in LP4, 32 seconds.

The display shows figures between -128 and +127

4 Press [ENTER].

Play stops and "UTOC Writing" and "UTOC" flash on the display. When this stops flashing, the new track mark has been entered.

To cancel part way through

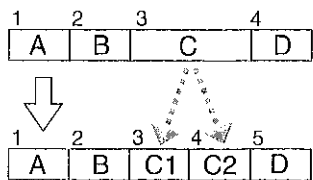
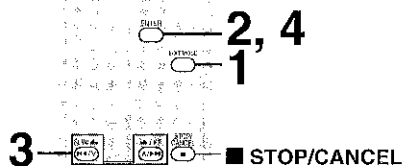
Press [■ STOP/CANCEL].

To remove the track mark again

Use COMBINE (→ page 33).

Note

- If you divide a titled track, the part after the new track mark becomes untitled.
- "GROUP DATA FULL" appears if UTOC is full and you will not be able to divide the track. Release a group or erase unnecessary titles before proceeding.
- Sound may be unusual at the point where you divide a track recorded with LP4 mode.



1 EDIT MODE



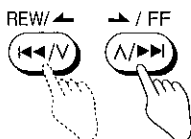
▷DIVIDE?◁

2 ENTER



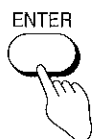
DIVIDE
↓
POS ▷+000?◁

3

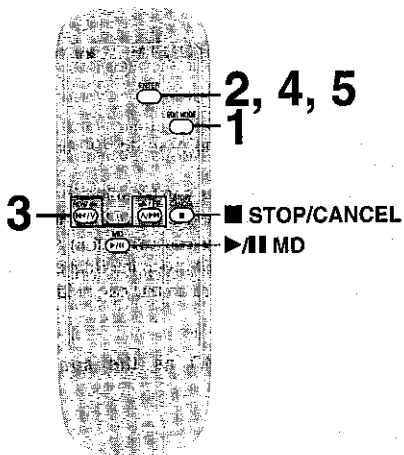


POS ▷+006?◁

4 ENTER



▷UTOC Writing◁



MD editing

Erasing tracks and creating blank discs

Remote control only

There are two types of erasing:

TRACK ERASE: You can erase between 1 and 24 tracks at a time.

ALL ERASE: You can erase all the tracks.

Make sure the disc is record enabled.

Preparation:

Insert the MD (➔ page 12) and press [▶/|| MD] to select "MD" as the source then press [■ STOP/CANCEL].

1

While stopped

Press [EDIT MODE] to select "TRACK ERASE?" or "ALL ERASE?".

Each time you press the button:

TRACK ERASE? → ALL ERASE? → MOVE?

↑
GROUP? ← TITLE ST.? ← COMBINE?

2

Press [ENTER].

With TRACK ERASE

3 Press [◀◀/REW/←] or [▶▶/FF/→] to select the track.

4

Press [ENTER].

Repeat steps 3 and 4 to select other tracks to erase.

5

Press [ENTER].

"UTOC Writing" and "UTOC" flash on the display.

TRACK ERASE:

When they stop flashing the track has been erased. The tracks after it move back to fill the space so there is no missing track number after a track is erased.

ALL ERASE:

When they stop flashing the disc has been erased and "BLANK DISC" is shown on the display.

To cancel part way through

Press [■ STOP/CANCEL].

You can use TRACK ERASE while playing or paused.

- ① Press [EDIT MODE] to select "TRACK ERASE?" while the track you want to erase is playing or paused.
- ② Press [ENTER] twice.

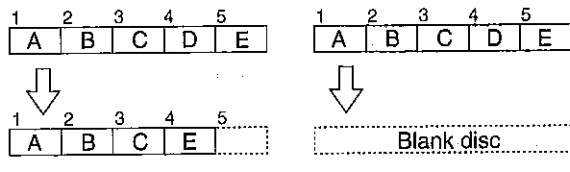
If "SELECT OVER" is displayed

You have tried to select more than 24 tracks.

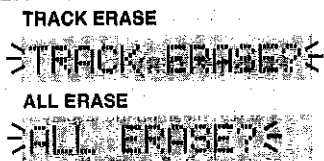
You cannot select anymore tracks to erase.

If you erase all tracks

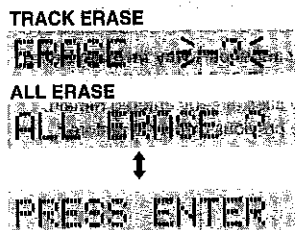
The disc title and any group titles will also be erased.



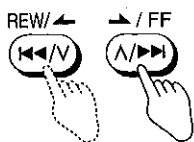
1 EDIT MODE



2 ENTER



3



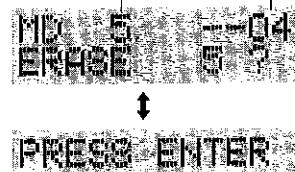
Play time of the selected track



4



Last selected track number Total number of tracks selected



5



Titling discs and tracks

Remote control only

Each track and disc can have a title of up to 100 characters in length (97 when recorded with LP2 or LP4).

A maximum of about 1700 characters can be entered.

"LP" is automatically added to the beginning of track titles when you use MDLP, so the number of characters you can put in an MD is reduced. When you put tracks into groups, this group information is also recorded and reduces the number of characters an MD can hold.

Preparation:

Press **[▶/|| MD]** to select MD as the source then press **[■ STOP/CANCEL]**.

- 1** While stopped
Press **[TITLE]**.
- 2** Press **[◀◀/V REW/ ←]** or **[^/▶▶] → /FF** to select the item to be titled.
Each time you press the button:
Disc ←→ Track 1 • • Track 2... • Final track
↑ _____ ↓
- 3** Press **[ENTER]**.
- 4** Enter the required characters. (→ page 37)
- 5** Press **[ENTER]**.
Titling is complete after the message "UTOC Writing" and "UTOC" flash on the display.

Repeat steps 2-5 until all required titles are entered.

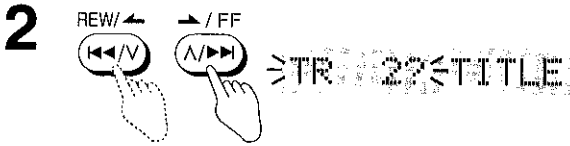
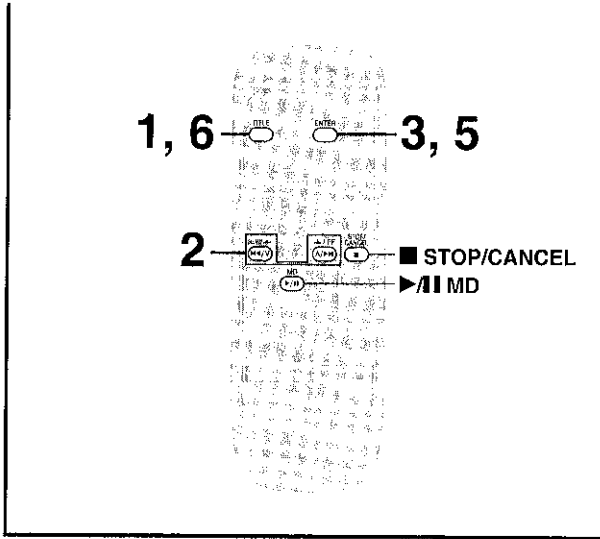
- 6** Press **[TITLE]** to finish.

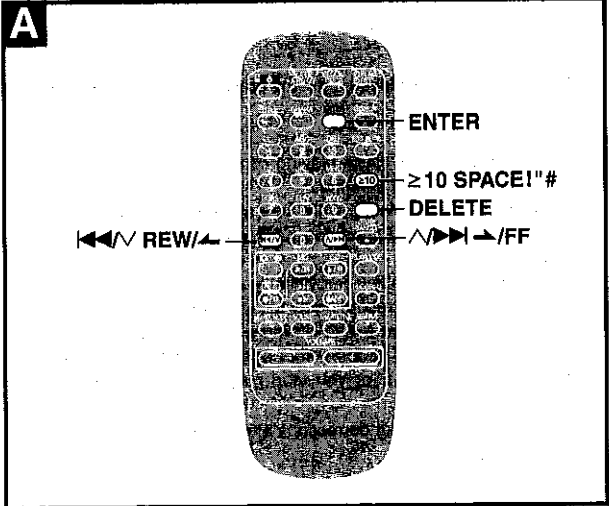
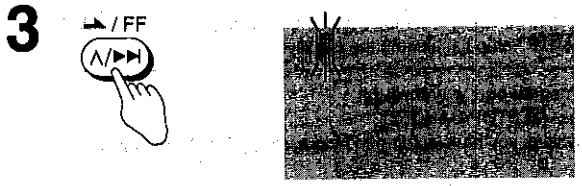
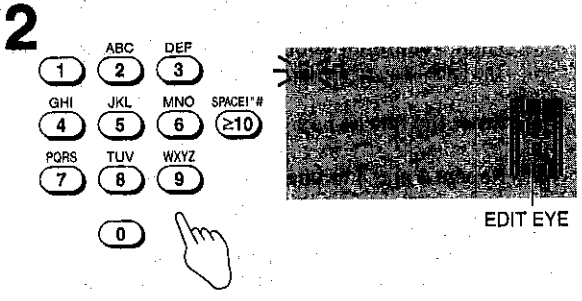
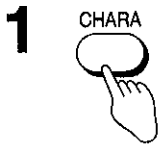
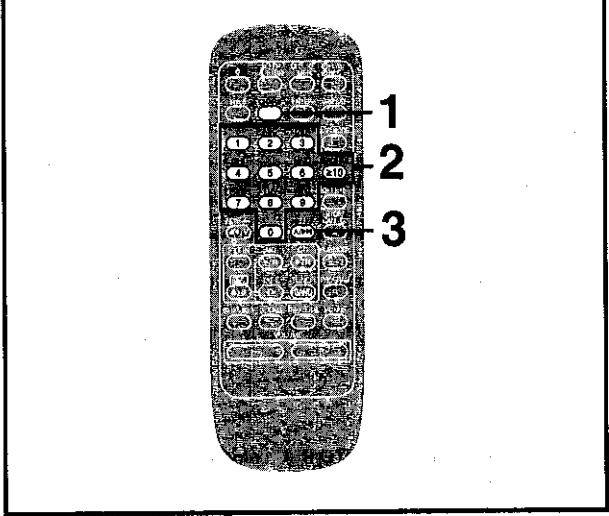
To cancel part way through titling

Press **[■ STOP/CANCEL]**.

Any titles already entered remain.

The previous display is restored.





MD editing

Titling discs and tracks

Remote control only

Entering the characters

1 Press [CHARA] to select the type of character.

Each time you press the button:

▲ (Capitals) → a (Lower case) → 1 (Numbers)

2 Press the numbered buttons so the character is displayed in the EDIT EYE.

3 Press [↖/▶] [↗/FF] to enter the character.

Repeat steps 1-3 to complete the title.

Step 1 is not necessary when you are entering characters of the same type.

To enter a space

Press [↖/▶] [↗/FF] when no character is in the EDIT EYE.

For your reference

The character in the edit eye is also entered if you press another numbered button or [CHARA]. Another character or character type is then displayed.

Characters allocated to the numbered buttons

The characters change each time a numbered button is pressed.

	Character type		
	Capitals ▲	Lower case a	Numbers 1
1			1
2	ABC	abc	2
3	DEF	def	3
4	GHI	ghi	4
5	JKL	jkl	5
6	MNO	mno	6
7	PQRS	pqrs	7
8	TUV	tuv	8
9	WXYZ	wxyz	9
0			0

To enter symbols

Press [≥10 SPACE!"#].

Each time the button is pressed, the symbols are displayed in the EDIT EYE in the following order.

_ ! " # \$ % & ' () * + , - . / : ; < = > ? @ _ ' .

_ represents a space.

A Editing titles

To move the cursor

Press [↖/REW] [↗/FF].

Inserting a character or space

- 1 Move the cursor over the character to the right of the place where the new character or space is to go.
- 2 Enter the desired character or press [≥10 SPACE!"#] to select " _ " (space).

Deleting a character

- 1 Move the cursor over the character to be deleted.
- 2 Press [DELETE].

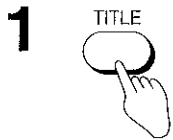
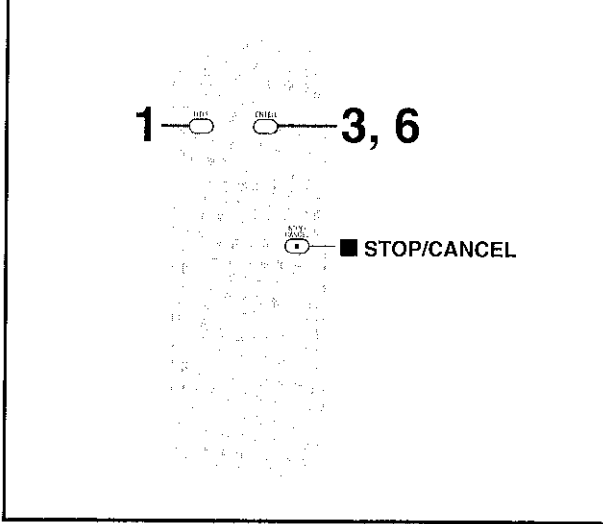
Changing letters

- 1 Delete the old letter.
- 2 Insert the new letter.

Making corrections to a title

- 1 Select the title to be corrected (➡ page 36, steps 1-3).
- 2 Correct the title using the above editing techniques.
- 3 Press [ENTER].

MD editing operations



When recording with AUTO REC using LP2 or LP4 mode

CD 1 → MD 1



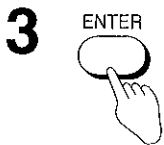
When recording with AUTO REC using SP mode

TITLE INPUT



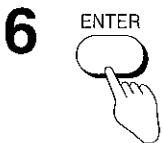
In other cases

TR 1 TITLE



When recording with AUTO REC using LP2 or LP4 mode

CD 1 → MD 1



MD editing

Titling discs and tracks

Remote control only

Titling while recording a CD

- You can title groups and all tracks when recording with AUTO REC using LP2 or LP4.
- You can title all tracks when recording with AUTO REC using SP mode.
- You can title the current track only when using any other recording method.

1 While recording

Press [TITLE].

When recording with AUTO REC using LP2 or LP4 mode:

The group titling screen appears.

When recording with AUTO REC using SP mode:

The track titling screen appears.

In other cases: The track titling screen appears.

2 Enter the title (→ page 37).

When recording with AUTO REC

3 Press [ENTER].

When recording with AUTO REC using LP2 or LP4 mode:

The track titling screen appears.

When recording with AUTO REC using SP mode:

The track titling screen for the next track appears.

4 Enter the title (→ page 37).

5 Repeat 3 and 4 to title all the tracks.

6 Press [ENTER].

The next track is selected even if you do not enter a title.

"TITLE WRITE" is displayed and then the normal display is restored.

Titling is complete after the recording is finished and "UTOC Writing" and "**UTOC**" stop flashing on the display.

To cancel part way through

Press [STOP/CANCEL].

Any titles you have confirmed by pressing [ENTER] remain intact.

To title a track while it is playing

(1) Press [TITLE].

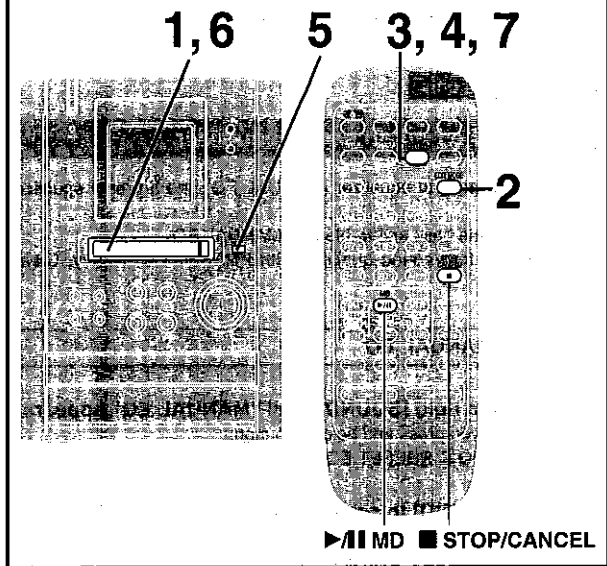
(2) Enter the title (→ page 37).

(3) Press [ENTER].

"TITLE WRITE" is displayed, then the previous display is restored.

Note

- Even if the next track starts playing or recording, that track will not receive the title you are entering.
- If play or recording finishes while you are entering a title, the titling display is cleared. Any titles you have entered, or partially entered, remain intact.
- When 1-song recording finishes, titling is also stopped. Complete the title after recording by following the normal titling steps.
- After you have entered a title during play, "**UTOC**" lights on the display and you cannot perform other editing operations (DIVIDE, etc.) except for titling until after you stop play and "UTOC Writing" and "**UTOC**" stop flashing.
- Add other titles and make corrections after recording with the methods described on page 37.



MD editing

Titling discs and tracks

Copying the titles from one MD to another (Title station)

You can copy the disc and track titles from one MD to another MD with the same number of tracks. Any group information on the original disc is also copied.

Preparation:

Press [▶/|| MD] to select "MD" as the source and press [■ STOP/CANCEL].

1 Insert the MD with the title.

2 While stopped

Press [EDIT MODE] to select "TITLE ST.?"

Each time you press the button:
TRACK ERASE? → ALL ERASE? → MOVE?

↑
GROUP? ← TITLE ST.? ← COMBINE?

When the disc is write-protected, only "TITLE ST.?" is displayed.

3 Press [ENTER].

4 Press [ENTER].

"TITLE MEMORY" is displayed when the unit is copying the titles, then "COMPLETE" → "EJECT MD" is displayed.

5 Press [EJECT ▲] to eject the MD.

6 Insert the other MD.

7 When "Writing OK?" appears on the display

Press [ENTER] to start copying.

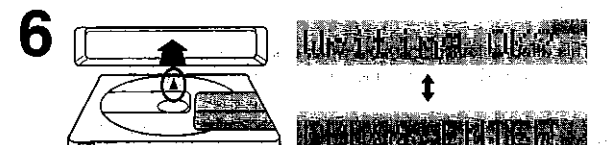
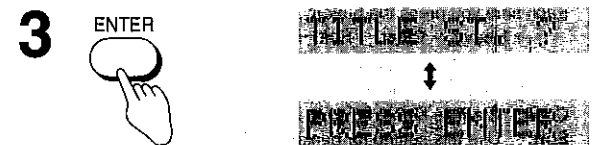
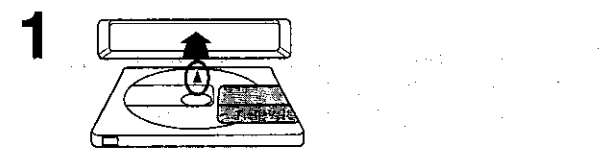
Copying is complete after "UTOC Writing" and "UTOC" stop flashing on the display.

To cancel part way through

Press [■ STOP/CANCEL].

Note

- You cannot copy titles from playback MDs.
- You can only copy titles if both MDs have the same number of tracks.
- The unit can only copy the titles from one MD.
- The title will be lost from the unit's memory if the unit is turned off.
- Any titles already on the other MD will be replaced by this operation.
- "LP:" is added to the beginning of titles recorded with LP2 or LP4. This means that when you copy the titles of such tracks, even tracks recorded with SP mode will have "LP:" at the beginning of the title.



Changing the sound quality

Remote control only

Using the built-in sound equalizer

This unit has a manual equalizer (MANUAL EQ) and a preset equalizer (PRESET EQ).

You can adjust the bass and treble with MANUAL EQ.

You can select four sound qualities with PRESET EQ: Heavy, Clear, Soft, and Vocal.

A Using MANUAL EQ

- 1 Press and hold [SOUND] until "MANUAL EQ" appears. Each time you press and hold the button: MANUAL EQ ↔ PRESET EQ
- 2 Press [SOUND] to select "BASS" or "TREBLE". Each time you press the button: BASS → TREBLE → Original display
- 3 Press [VOLUME - or +] while "BASS" or "TREBLE" is displayed to adjust the level. You can adjust bass and treble between -4 dB and +4 dB.

B Using PRESET EQ

- 1 Press and hold [SOUND] until "PRESET EQ" appears. Each time you press and hold the button: MANUAL EQ ↔ PRESET EQ
 - 2 Press [SOUND] to select the sound quality. Each time you press the button: Heavy → Clear → Soft → Vocal → OFF (canceled) → Heavy
- Heavy:** Adds punch to rock
Clear: Clarifies higher sounds
Soft: Use this setting for background music
Vocal: Adds gloss to vocals

Note

Recordings are unaffected by changes to sound quality.

C Using Theater Sound

This effect gives dialog and vocals atmosphere, adding a natural breadth and depth to sound.

Use it when listening to stereo sources.

Press [THEATER S.].

To cancel
Press [THEATER S.] again.

Note

- This effect is less discernible when using headphones.
- Cancel this effect if noise increases when listening to FM.

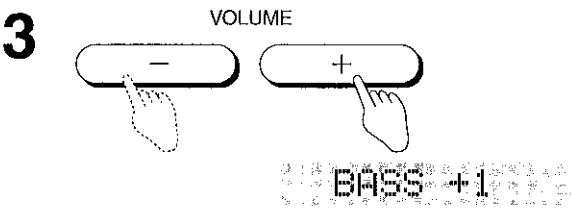
D Muting the volume

Press [MUTING].
Volume is reduced to minimum.

To cancel
Press [MUTING] again.
Volume is restored.
To cancel from the unit, turn [VOLUME] to minimum (-4 dB), then raise it to the required level.
Muting is also canceled when the unit is turned off.



A



B

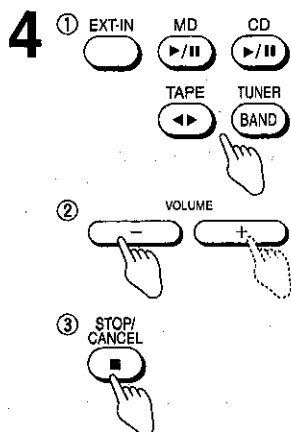
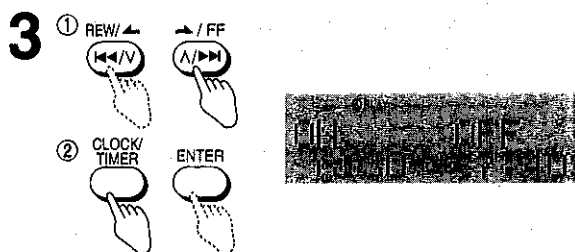
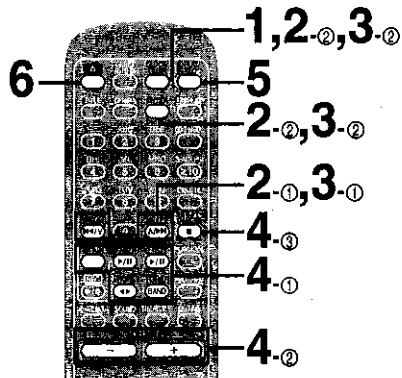


C



D





Using the timers

Remote control only

The play timer

This timer starts play of the selected source at the selected time. The example shows settings for play between 6:30 and 7:40.

Preparation:

Press [⏻] to turn the unit on, set the time (→ page 10).

1 Press [CLOCK/TIMER] twice to select "⏻ PLAY".

Each time you press the button:

CLOCK → ⏻ PLAY → ⏻ REC → Original display

2 ① (within 10 seconds or so)

Press [⏮/REW/ ←] or [⏭/FF/ →] to select ON time.

② Press [CLOCK/TIMER] or [ENTER].

3 ① Press [⏮/REW/ ←] or [⏭/FF/ →] to select OFF time.

② Press [CLOCK/TIMER] or [ENTER].

4 Select the source and set the volume.

① Select the source.

MD, CD, tape

Insert disc or cassette and press [▶/⏪ MD], [▶/⏪ CD] or [◀/▶ TAPE] to select "MD", "CD" or "TAPE".

The radio

Press [BAND TUNER] and tune in the desired station.

An external unit

Press [EXT-IN] to select "OPT IN" or "AUX".

Each time you press the button:

USB → OPT IN → AUX → P-MD

Set the external unit's timer to the same time.

② Set the volume.

③ When you selected "MD", "CD" or "TAPE"

Press [■ STOP/CANCEL] to stop play.

5 Press [⏻ PLAY/⏻ REC] to select "⏻ PLAY".

Each time you press the button:

TIMER-PLAY → TIMER-REC → TIMER-REC → TIMER OFF
MD REC TAPE REC (Canceled)
(when the record timer is set)

6 Press [⏻] to turn the unit off.

The timer starts in the set condition at the set time.

The volume increases gradually to the set level.

The "⏻ PLAY" indicator flashes while the timer is functioning.

If you set the timer incorrectly

Repeat the procedure from step 1.

To cancel the timer

While the unit is on

Press [⏻ PLAY/⏻ REC] to clear the timer indicator from the display.

Note

You cannot use the play timer and record timer at the same time.

Using the timers

Remote control only

The record time

This timer records the radio or an external source at the set time. The example shows settings for recording from 18:30 to 20:00.

Preparation:

- Press [⏻] to turn the unit on, set the time (→ page 10).
- Do the preparatory steps for the MD (→ page 20) or tape (→ page 21).
- When recording to an MD, adjust the recording level and select the recording mode (→ page 20).

1 Press [CLOCK/TIMER] three times to select "Ⓞ REC".

Each time you press the button:

CLOCK · → Ⓞ PLAY · → Ⓞ REC · → Original display

2 ① (within 10 seconds or so)

Press [◀◀/REW/←] or [▶▶/FF/→] to select ON time.

② Press [CLOCK/TIMER] or [ENTER].

3 ① Press [◀◀/REW/←] or [▶▶/FF/→] to select OFF time.

② Press [CLOCK/TIMER] or [ENTER].

4 Select the source.

The radio

Press [BAND TUNER] and tune in the desired station.

An external unit

Press [EXT-IN] to select "OPT IN" or "AUX".

Each time you press the button:
USB · → OPT IN · → AUX · → P-MD

5 Press [Ⓞ PLAY/Ⓞ REC] to select "MD REC" or "TAPE REC".

Each time you press the button:

TIMER-PLAY · → TIMER-REC · → TIMER-REC · → TIMER OFF
(when the play MD REC TAPE REC (Canceled)
timer is set)

6 Press [⏻] to turn the unit off.

Recording starts 30 seconds before the set time with the volume muted during the set time.

The "Ⓞ REC" indicator flashes while the timer is functioning.

If you set the timer incorrectly

Repeat the procedure from step 1.

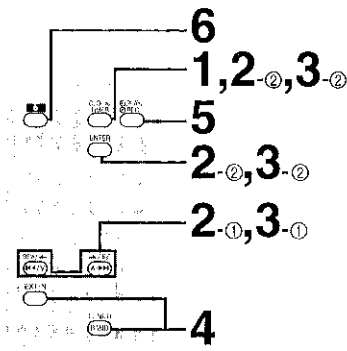
To cancel the timer

While the unit is on

Press [Ⓞ PLAY/Ⓞ REC] to clear the timer indicator from the display.

Note

- Timer recording starts from the set time even if TURN BACK or TURN/TIME is selected.
- You cannot use the play timer and record timer at the same time.
- When recording from "OPT IN", select the recording level (→ page 48) before setting the record timer. The level is set when you set the timer.

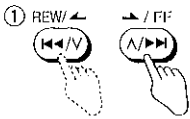


1

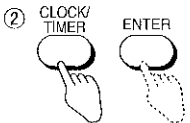


ON OFF
0:00 → 0:00

2

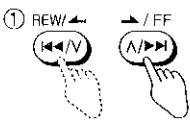


ON OFF
18:30 → 0:00

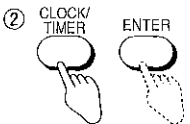


ON OFF
18:30 → 18:30

3



ON OFF
18:30 → 20:00



4



5



TIMER-REC
MD REC

6



Using the timers

Remote control only

A The play and record timers

Checking the timers

While the unit is off

Press [CLOCK/TIMER].

The timer conditions are shown in the following order (when set).

- Play timer:
Source, start and finish times → source and volume
- Record timer:
When recording to an MD
Source, start and finish times → recording mode, source and destination → recording level
When recording to a tape
Source, start and finish times → source, source and destination

While the unit is on

Press [CLOCK/TIMER].

The start and finish times for "Ⓜ PLAY" (or "Ⓜ REC") are displayed.

Turning the timers on and off

The selected timer comes on at the set times if the "Ⓜ PLAY" indicator or "Ⓜ REC" indicator on the display is on. The indicator can be turned on and off by pressing [Ⓜ PLAY/Ⓜ REC] while the unit is on.

Playing the unit after the timers are set

The unit can be used after the timers are set.

Turn the unit off before the set start time.

Note

If you select an external source, set the external unit's timer to the same time. (See the instruction manual that came with the external unit.)

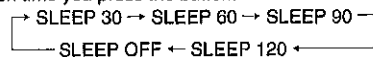
B The sleep timer

This function turns the unit off after a set time.

While playing a source

Press [SLEEP -AUTO OFF] to select the time (minutes).

Each time you press the button:



To cancel the sleep timer

Press [SLEEP -AUTO OFF] to select "SLEEP OFF".

To confirm the remaining time

Press [SLEEP -AUTO OFF].

The remaining time is shown for about 5 seconds.

To change the setting

Press [SLEEP -AUTO OFF] to display the remaining time, then press again to select the required time.

Using the timers together

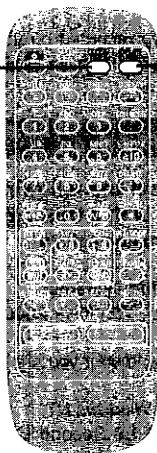
The play and sleep timer or the record and sleep timer can be used together.

The sleep timer always has priority. Be sure not to overlap timer settings.

The play and record timer cannot be used in combination.

A

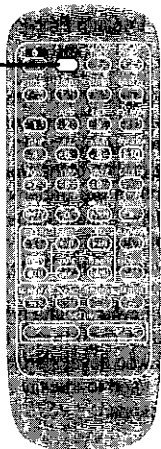
CLOCK/TIMER



Ⓜ PLAY/Ⓜ REC

B

SLEEP -AUTO OFF



SLEEP
-AUTO OFF



Using the unit with a computer

You can play music you have recorded on your computer through this unit's speakers by connecting the two with a USB cable.

Before use

Your computer must meet the following conditions for you to connect it to this unit with a USB cable.

**IBM PC/AT operating system compatible
USB board, version 1.0**

One of the following operating systems:

Windows 98 Second Edition, Windows 2000 Professional, Windows Millennium Edition

Correct operation is not guaranteed if you are using one of the following operating systems:

- Windows 98, Windows 95, Windows NT
- When used with Windows 98 Second Edition, Windows 2000, or Windows Millennium Edition that has been upgraded from Windows 3.1/95/98.

Recommended CPU

MMX Technology Pentium Processor, 266 MHz or equivalent

Note

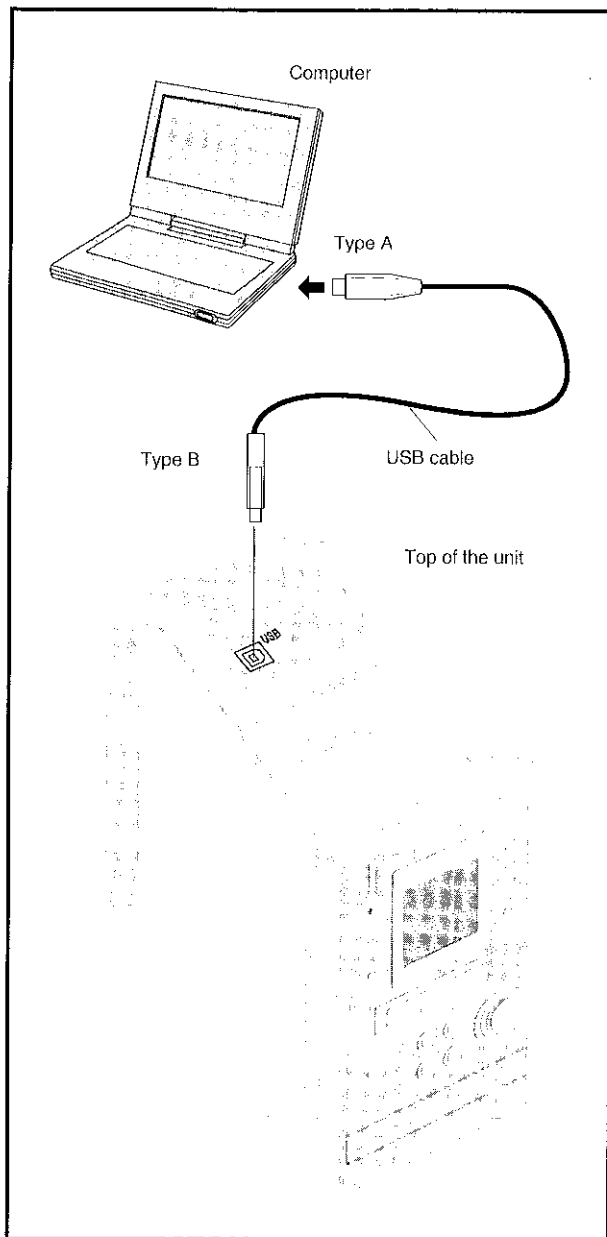
- Operation is not guaranteed even if the above conditions are met.
- You cannot control the computer with this unit or vice versa.
- IBM and PC/AT are registered trademarks of International Business Machines Corporation of the United States.
- MMX and Pentium are trademarks or registered trademarks of Intel Corporation of the United States.
- Microsoft and Windows are registered trademarks of Microsoft Corporation of the United States, in both the United States and other countries.
- Other names of systems and products mentioned in these instructions are usually the registered trademarks or trademarks of the manufacturers who developed the system or product. The "™" and "®" marks are not used to identify registered trademarks and trademarks in these instructions.

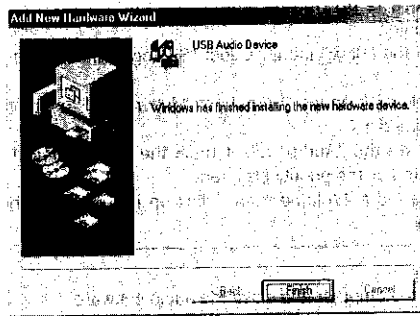
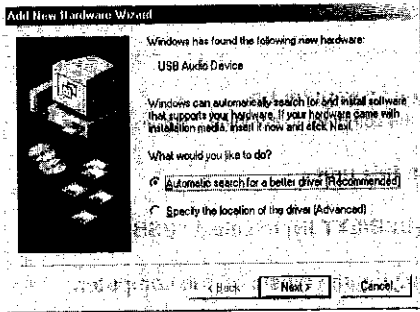
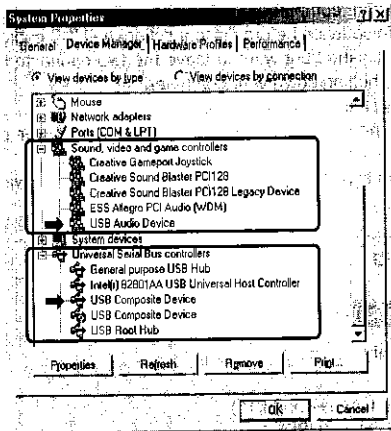
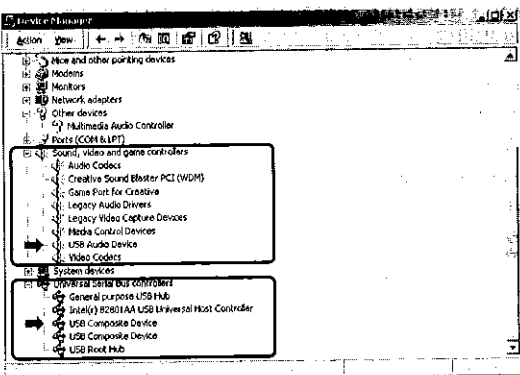
Connection

Open the flap on top of the unit (➔ page 7).

Note

- Operation is not guaranteed if you connect a USB hub or extension cord.
- Connect to the root hub terminal if your computer has more than one USB board. (Read your computer's operating instructions for details.)



A**Display in Windows Millennium Edition****B****Display in Windows Millennium Edition****Display in Windows 2000 Professional****Using the unit with a computer****First time connection – Install the driver software**

You must install the USB driver when you connect this unit to your computer the first time. This only has to be done the first time. Driver software is included with the computer's operating system software. You may need a CD-ROM to install the software so have it on hand. Read the computer's operating instructions before installation.

A Driver Installation

- ① Turn on your computer and start up the operating system.
- ② Turn on this unit.
- ③ Connect this unit to the computer with the USB cable (→ page 44).
The computer detects this unit and installs the appropriate device driver. Follow the instructions displayed on the computer.

Do not disconnect the USB cable while the computer is detecting this unit.

B Confirming driver installation

Confirm that the driver has been correctly installed.

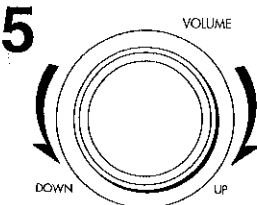
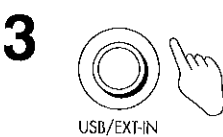
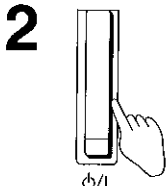
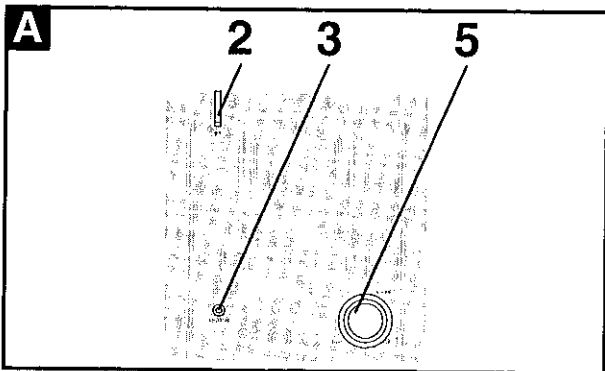
- ① From the "Start" menu, select "Settings" and click on "Control Panel".
- ② In the control panel window, double-click on the "System" icon.
- ③ In Windows 98 Second Edition or Windows Millennium Edition Click on the "Device Manager" tab. Make sure "View devices by type" is checked. In Windows 2000 Professional Click on the "Hardware" tab and then click on "Device Manager".
- ④ Check that the device has been recognized. Confirm that "USB Audio Device" appears under "Sound, video and game controllers" and that "USB Composite Device" appears under "Universal Serial Bus controllers".

If the devices have not been recognized

Disconnect the USB cable, then reconnect it. If the devices are still not recognized, try restarting your computer.

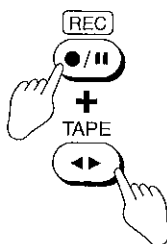
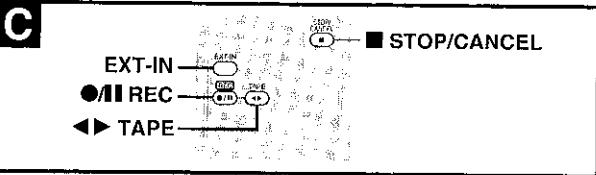
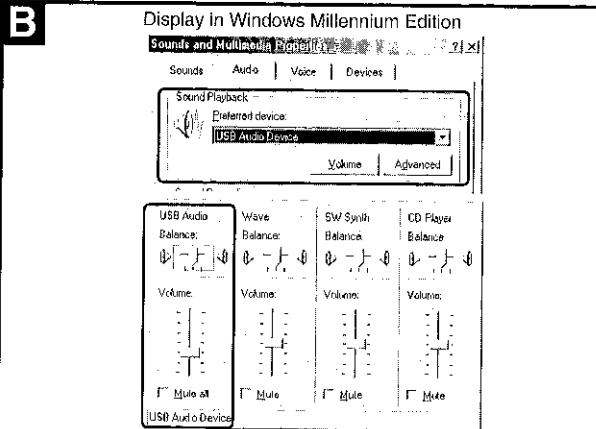
Note

What is actually displayed in the device manager list and other computer windows depends on your computer environment.



USB

VOL-48dB



USB+TAPE

Using the unit with a computer

A Play

- 1 Turn your computer on.**
Wait for the computer to complete start-up.
- 2 Turn on this unit.**
- 3 Press [USB/EXT-IN] to select "USB".**
- 4 Start playing the music on the computer.**
- 5 Adjust the volume on this unit.**
 - B** If there is no output, check the audio properties on the computer.
 - ① From the "Start" menu, select "Settings" and click on "Control Panel".
 - ② Double click on the "Sound and Multimedia Properties" icon (or "Multimedia").
 - ③ Click on the "Audio" tab. Check the "USB Audio Device" is selected as the priority play item.
 - ④ If there is a "Volume" item, click on it and check the volume setting.

Stopping play

Stop play on the computer and close the audio software.

Note

- Do not turn this unit off or change the input source while playing as this can cause your computer to malfunction.
- Close the audio software before disconnecting the USB cable.
- When you are finished but want to leave the two connected, turn this unit off before shutting down your computer.
- Turn this unit off if the computer goes into sleep mode.
- Skipping and noise may occur under some computer operating environments.
- Read the instructions for your computer and the audio software.

C Recording

Remote control only

TAPE REC only

Preparation:

Insert the cassette tape (→ page 16).
Press [EXT-IN] to select "USB".
Start playing the music on the computer.

While pressing [●/|| REC], press [◀▶ TAPE] to start recording.

To stop recording

Press [■ STOP/CANCEL].

To pause recording

While pressing [●/|| REC], press [▶ TAPE].
Repeat to restart recording.

Note

You cannot record to MDs.

Using other equipment

Recording from a portable MD player

MD REC **TAPE REC**

Make an analog recording from a portable MD player connected to the P-MD terminal.

Preparation:

- Insert the MD (→ page 12) or the cassette tape (→ page 16).
- Set the volume on the portable MD player to an appropriate level and turn all sound quality modes off.

Note

- Do not place the portable MD player on top of this unit during recording. This can cause noise.
- Adjust the volume on the portable MD player if there is distortion.

1 Press [EXT-IN] to select "P-MD".

Each time you press the button:
 USB → OPT IN → AUX → P-MD

MD REC

2 Press [EDIT MODE] to select the desired mode.

Each time you press the button:
 MANUAL ⇄ SYNCHRO

MANUAL: Normal recording mode

SYNCHRO: Recording starts automatically when the signal from the source reaches a certain level, pauses if a 3-second silence is detected, then starts again when play starts. A track mark is added at the point recording starts.

3 While pressing [●/|| REC]

MD REC : Press [▶/|| MD].

Recording starts when you have selected MANUAL.

TAPE REC : Press [◀▶ TAPE].

Recording starts.

4 Start the portable MD player.

MD REC

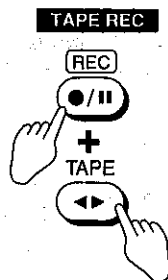
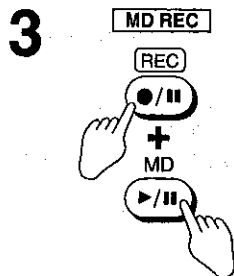
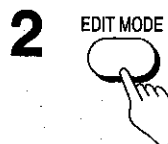
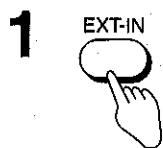
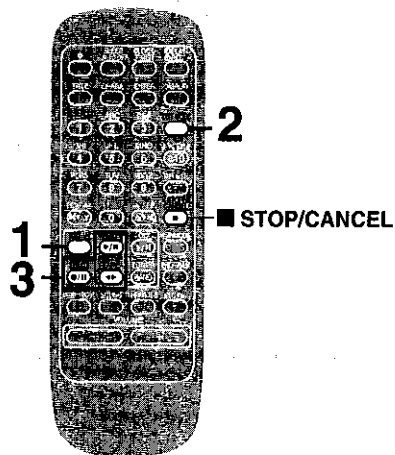
Recording starts when you have selected SYNCHRO.

To stop recording

Press [■ STOP/CANCEL].

MD REC

Recording is complete after "UTOO Writing" and "UTOO" stop flashing on the display.



Using other equipment

Listening to an external source

- 1 Press [EXT-IN] to select "OPT IN" or "AUX".
Each time you press the button:
USB → OPT IN → AUX → P-MD
↑ _____ ↓
- 2 When you have selected "OPT IN"
Press [PLAY MODE] to select the play level.
NORMAL: normal mode
HIGH: when playing sources with low volume, such as satellite and cable
- 3 Operate the unit.
See the unit's operating instructions for details on operation and connection.

Recording an external source

MD REC **TAPE REC**

- 1 Press [EXT-IN] to select "OPT IN" or "AUX".
- 2 When you have selected "OPT IN"
Press [PLAY MODE] to select the recording level.
NORMAL: normal mode
HIGH: when recording sources with low volume, such as satellite and cable
MD REC only
- 3 Press [EDIT MODE] to select the desired mode.
(→ page 20)
Each time you press the button:
MANUAL → SYNCHRO → TURN BACK
↑ _____ ↓
TURN/TIME ← --- -- TIME MARK
- 4 While pressing [●/|| REC]
MD REC : Press [▶/|| MD].
TAPE REC : Press [◀▶ TAPE].

When you have selected TURN BACK or TURN/TIME, wait until "TURN BACK" stops flashing and lights, then while pressing [●/|| REC] press [▶/|| MD].

- 5 Start the source to be recorded.

MD REC

Recording starts when you have selected SYNCHRO.

To stop recording

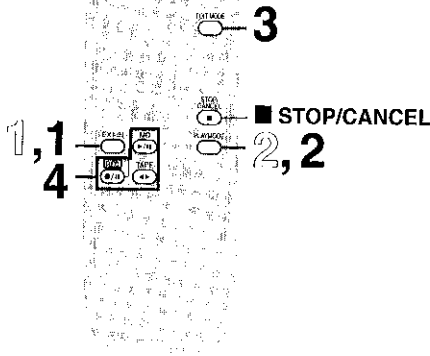
Press [■ STOP/CANCEL].

MD REC

Recording is complete after "UTOOC Writing" and "UTOOC" stops flashing on the display.

While "OPT IN" is selected

- There will be a one-second interruption when recording starts on the MD. This has no effect on the recording.
- There will be a five-second interruption when recording finishes on the MD while the unit writes UTOC.



1, 1

EXT-IN



OPT IN

2, 2

PLAYMODE



LEVEL: NORMAL

3

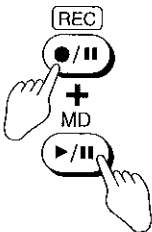
EDIT MODE



MANUAL

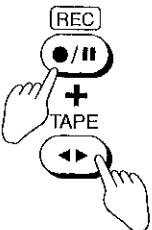
4

MD REC



OPT IN→MD

TAPE REC



OPT IN→TAPE

Specifications

■ Amplifier section

RMS Power OUTPUT (both channels driven)

10 % total harmonic distortion

For the United Kingdom

LOW 15 W per channel (6 Ω)

HIGH 3 W per channel (6 Ω)

Total BI-AMP Power 18 W per channel

For others

LOW 14 W per channel (6 Ω)

HIGH 3 W per channel (6 Ω)

Total BI-AMP Power 17 W per channel

PMPO (Except for the United Kingdom) 160 W

Input sensitivity

AUX 500 mV

P-MD 160 mV

USB Based on USB Rev. 1.0

OPT-IN Digital Optical Input

Input Impedance

AUX 30 k Ω

P-MD 5 k Ω

Output Impedance

Headphone 16–32 Ω

■ FM tuner section

Frequency range 87.50–108.00 MHz

(0.05 MHz steps)

Sensitivity 16.3 dBf (1.8 μ V, IHF 58)

Antenna terminals 75 Ω (unbalanced)

■ AM tuner section

Frequency range For the United Kingdom 522–1629 kHz (9 kHz steps)

For others 522–1629 kHz (9 kHz steps)

520–1630 kHz (10 kHz steps)

Sensitivity

S/N 20 dB 500 μ V/m

■ Cassette deck section

Track system 4 track, 2 channel

Heads

Record/playback Solid permalloy head

Erase Double gap ferrite head

Motor DC servo motor

Recording system AC bias 100 kHz

Erasing system AC erase 100 kHz

Tape speed 4.8 cm/sec

Overall frequency response (–6 dB at Deck out)

Type I (Normal) 35 Hz–14 kHz

Type II (High) 35 Hz–14 kHz

Wow and Flutter 0.18 % WRMS

■ CD section

Sampling frequency 44.1 kHz

Decoding 16 bit linear

Beam source Semiconductor laser

Wavelength 780 nm

Number of channels 2 channels stereo

Wow and Flutter Below measurable limit

Digital filter 8 fs

D/A converter MASH (1 bit DAC)

■ MD section

System

Recording

Reading

Sampling frequency

Coding system

Number of channels

Wow and flutter

Recording/Playback time

80 min MD Disc use

MiniDisc Digital Audio System

Magnetic field modulation direct overwrite

Non-contact optical system

with semiconductor laser ($\lambda=780$ nm)

44.1 kHz

ATrac/ATrac3 (MDLP)

2 channels stereo

Below measurable limit

80 min (SP)

160 min (LP2)

320 min (LP4)

■ USB DAC section

Based on USB Rev. 1.0

■ Speakers (SB-PM37)

Type

2 way 2 speaker, bassreflex system

Superwoofer

10 cm cone type

Fullrange

8 cm cone type

Impedance

LOW

6 Ω

HIGH

6 Ω

Input power

LOW

35 W (Music)

HIGH

15 W (Music)

Output sound pressure

86 dB/W (1.0 m)

Crossover frequency

110 Hz

Frequency range

55 Hz–25 kHz (–16 dB)

75 Hz–22 kHz (–10 dB)

133×225.3×237 mm

Dimensions (W×H×D)

Mass

2.4 kg

■ General

Power supply

For the United Kingdom

AC 230–240 V, 50 Hz

For others

AC 220–240 V, 50/60 Hz

Power consumption

For the United Kingdom

60 W

For others

60 W

Standby

0.9 W

Dimensions (W×H×D)

165.4×228×315 mm

Mass

4.8 kg

Notes:

1. Specifications are subject to change without notice. Mass and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

US and foreign patents licensed from Dolby Laboratories.

Displays

BLANK DISC	An MD with no recording on it is inserted.
CAN'T COMBINE	System limitations prevent combining some tracks.
CAN'T DIVIDE	System limitations prevent dividing some tracks.
CAN'T EDIT	You cannot edit titles during program, random, or repeat play. Cancel the modes to continue.
DISC ERROR	There is a problem with the disc and you need to replace it.
DISC FULL	There is no space on the disc. Erase some tracks or record with another disc.
DISC PROTECTED	Close the write protect hole to enable recording and editing (➔ page 11).
TAPE PROTECTED	Close the write protect hole to enable recording (➔ page 21).
EJECT ERROR	A problem occurred while loading or ejecting the disc. After this is displayed the unit automatically switches off. Remove the MD and start again.
LOAD ERROR	
EMERGENCY STOP	A problem occurred during recording. Eject the MD, reinsert it and start recording from the beginning again.
ERROR	Incorrect operation was performed. Read the instructions and try again.
F -	There may be a problem with the circuitry. Turn the unit on again. If this does not fix the problem, consult your dealer.
H -	
GROUP DATA FULL	There is no space in UTOC and editing is not possible. To proceed, erase or shorten titles, or release a group.
MD F -	Turn the unit off then on again and reinsert the MD. Consult a dealer if the display appears again.
MD NO DISC	A disc hasn't been inserted.
CD NO DISC	
NO REMAIN	You cannot record an entire CD if there is not enough space on the MD. Erase some tracks or record with another disc.
REMAINING/SHORT	You have started AUTO REC on a CD to an MD but there is not enough space for all the tracks.
NO TAPE	A cassette hasn't been inserted.
PlaybackDISC	This is a playback only disc. You cannot record on it or edit it.
SCMS CAN'T COPY	<ul style="list-style-type: none"> • You cannot record from video CDs or CD-ROM. • You are trying to record digitally from a CD-R or CD-RW that is protected by SCMS (➔ page 11). Press [EDIT MODE] to select "ANALOG-REC".
TITLE FULL	You have entered the maximum number of letters for the track title.
TITLE OVER	The title has 101 or more characters. The extra characters are erased if you press [ENTER].
TOC Reading	The unit is reading information on the disc. The unit cannot be operated while this is displayed.
TRACK NUMBER/NOT EQUAL	You cannot use title station to copy titles if the second MD has a different number of tracks.
TRACK PROTECTED	The track was write-protected on another unit. Check whether you want to erase or edit the track before proceeding.
UTOC FULL	<p>This display appears for one of the following reasons.</p> <ul style="list-style-type: none"> • The section reserved for text information is full; erase unneeded titles to make room. • The maximum number of tracks (254) has been reached; erase unneeded tracks. • You tried to edit groups when there was not enough space in UTOC; erase or shorten titles, or release a group.

Troubleshooting guide

Before requesting service, make the below checks. If you can't fix the system as described below, or if something not listed here occurs, refer to the enclosed directory to locate an Authorized Service Center convenient to you or contact your dealer.

Reference pages are shown as black circled numbers ⑤.

Note

The unit may become warm during operation, but this is normal.

Common Problems

No sound.	Turn the volume up. The speaker cords may be shorted. Turn the unit off, check and correct the connections and turn the unit on. ⑤
Sounds unfixed, reversed or come from one speaker only.	Check the speaker connections. ⑤
Humming heard during play.	An AC mains lead or fluorescent light is near the cables. Keep other appliances and leads away from this unit's cables. If possible in your area, turn the AC mains lead's plug or connector over to reverse the lead's polarity.

Troubleshooting guide

MDs

<p>Cannot start play.</p> <p>Cannot record.</p>	<p>There may be condensation inside the unit. Wait for an hour and try again.</p> <p>Close the write protect hole. ①</p> <p>Check all connections. ④, ⑤</p> <p>Replace with a recording MD. ①</p>
<p>Cannot enter text.</p> <p>The disc isn't pulled automatically into the unit, or it needs to be pushed forcefully to go in.</p>	<p>Reduce the amount of text on the MD. (An MD can hold up to about 1700 characters.) ⑫</p> <p>Turn the unit off then on again. This situation can occur if the MD is stopped when ejecting or if it is forced into the slot.</p>
<p>Cannot high-speed record.</p> <p>No operation or incorrect display.</p>	<p>There are limitations on high-speed recording. ⑭</p> <p>The MD may not act correctly because of the recording system. This may cause the following problems.</p> <ul style="list-style-type: none"> • UTOC FULL is displayed despite there being space on the MD and the maximum number of tracks is yet to be reached. • COMBINE or DIVIDE cannot be used. • Remaining time doesn't increase after erasing a track. • The total time of the tracks and the remaining recording time do not add up to the total possible recording time. This may occur because tracks less than two seconds are counted as two seconds.
<p>After inserting an MD, "TOC Reading" continues to flash and you are unable to operate the unit or eject the MD.</p>	<p>A problem occurred while the unit was reading TOC.</p> <ol style="list-style-type: none"> 1. Press [⏪/I] and wait a moment until the unit clicks to indicate it is completely off. 2. Press [EJECT ▲]. The unit comes on and the MD is ejected. (Repeat steps 1 and 2 if the MD is not ejected.) 3. Insert another MD. If the problem reoccurs, consult your dealer.
<p>Cannot play tracks recorded with LP2 or LP4 on other equipment.</p> <p>Cannot record to an MD from equipment connected through the USB terminal.</p>	<p>The equipment must be compatible with MDLP. "LP:" is displayed at the beginning of the title and the track is played without sound.</p> <p>You cannot record to MDs due to copyright restrictions. You can record to cassettes.</p>

CDs

<p>The display is wrong or play won't start.</p>	<p>The disc may be upside down. ⑬</p> <p>Wipe the disc.</p> <p>Replace the disc if it is scratched, warped, or nonstandard. ①</p> <p>There may be condensation inside the unit. Wait for an hour and try again.</p>
<p>Only one track from the CD is recorded.</p>	<p>Press [PLAY MODE] to cancel 1-song mode. ⑮</p>

The radio

<p>Noise is heard.</p> <p>The stereo indicator flickers or doesn't light.</p> <p>Sound is distorted.</p>	<p>Use an outdoor antenna. ⑯, ⑰</p>
<p>A beat sound is heard.</p> <p>A low hum is heard during AM broadcast.</p>	<p>Turn the television or computer off or separate them from the unit.</p> <p>Separate the antenna from other cables and leads.</p>

Cassette tapes

<p>Poor quality sound.</p> <p>Recording is not possible.</p>	<p>Clean the heads. Back cover</p> <p>If the erasure prevention tabs have been removed, cover the holes with adhesive tape. ⑱</p>
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Remote control

<p>Remote control doesn't work.</p>	<p>Check the batteries are inserted correctly. ⑲</p> <p>Replace the batteries if they are worn. ⑲</p>
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USB

<p>Sound skips.</p> <p>The computer freezes.</p> <p>No sound.</p>	<ul style="list-style-type: none"> • Close other applications. • Use a lighter application to play audio. • Check the volume settings on the computer and audio software ⑳. • Make "USB Audio Device" the priority device ㉑.
<p>There is no sound from the computer.</p>	<p>Disconnect the USB cable from the computer and restart the computer.</p>

Maintenance

If the surfaces are dirty

To clean this unit, wipe with a soft, dry cloth.

- Never use alcohol, paint thinner or benzine to clean this unit.
- Before using chemically treated cloth, read the instructions that came with the cloth carefully.

For a cleaner crisper sound

Clean the heads regularly to assure good quality playback and recording. Use a cleaning tape (not included).

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE, DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

CAUTION!

- DO NOT INSTALL, OR PLACE THIS UNIT, IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.
- DO NOT OBSTRUCT THE UNIT'S VENTILATION OPENINGS WITH NEWSPAPERS, TABLECLOTHS, CURTAINS, AND SIMILAR ITEMS.
- DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.
- DISPOSE OF BATTERIES IN AN ENVIRONMENTALLY FRIENDLY MANNER.

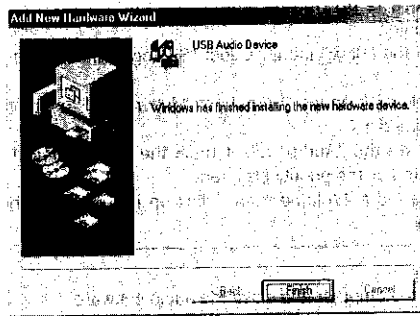
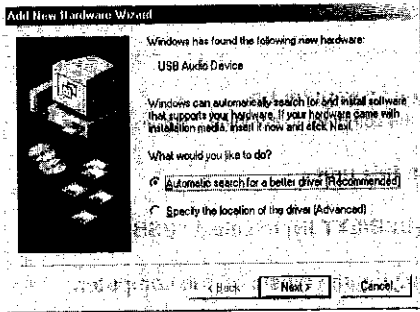
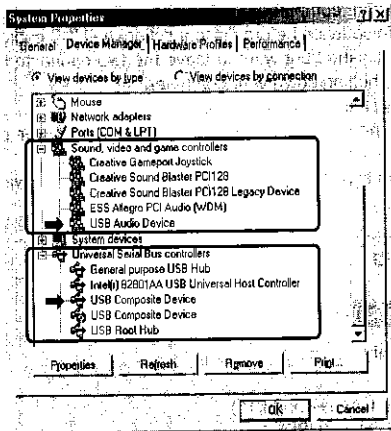
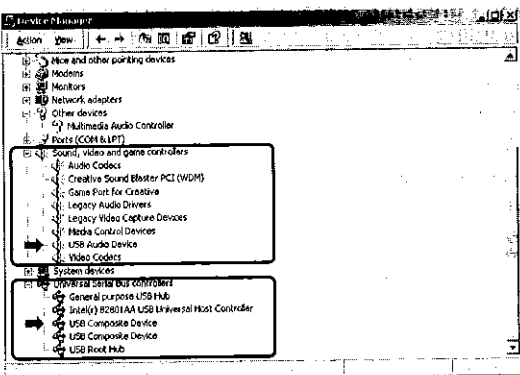
This product may receive radio interference caused by mobile telephones during use. If such interference is apparent, please increase separation between the product and the mobile telephone.

For the United Kingdom

THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.

For others

THIS UNIT IS INTENDED FOR USE IN TROPICAL CLIMATES.

A**Display in Windows Millennium Edition****B****Display in Windows Millennium Edition****Display in Windows 2000 Professional****Using the unit with a computer****First time connection – Install the driver software**

You must install the USB driver when you connect this unit to your computer the first time. This only has to be done the first time. Driver software is included with the computer's operating system software. You may need a CD-ROM to install the software so have it on hand. Read the computer's operating instructions before installation.

A Driver Installation

- 1 Turn on your computer and start up the operating system.
- 2 Turn on this unit.
- 3 Connect this unit to the computer with the USB cable (→ page 44).
The computer detects this unit and installs the appropriate device driver. Follow the instructions displayed on the computer.

Do not disconnect the USB cable while the computer is detecting this unit.

B Confirming driver installation

Confirm that the driver has been correctly installed.

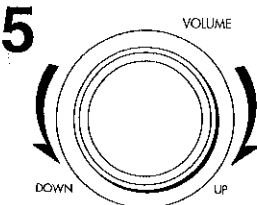
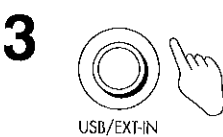
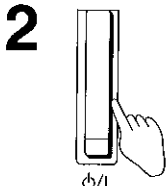
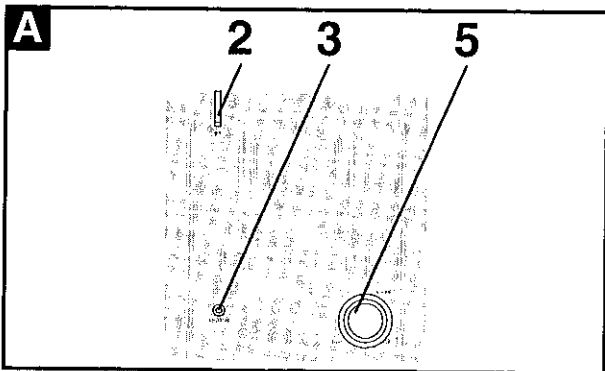
- 1 From the "Start" menu, select "Settings" and click on "Control Panel".
- 2 In the control panel window, double-click on the "System" icon.
- 3 In Windows 98 Second Edition or Windows Millennium Edition Click on the "Device Manager" tab. Make sure "View devices by type" is checked. In Windows 2000 Professional Click on the "Hardware" tab and then click on "Device Manager".
- 4 Check that the device has been recognized. Confirm that "USB Audio Device" appears under "Sound, video and game controllers" and that "USB Composite Device" appears under "Universal Serial Bus controllers".

If the devices have not been recognized

Disconnect the USB cable, then reconnect it. If the devices are still not recognized, try restarting your computer.

Note

What is actually displayed in the device manager list and other computer windows depends on your computer environment.



Using the unit with a computer

A Play

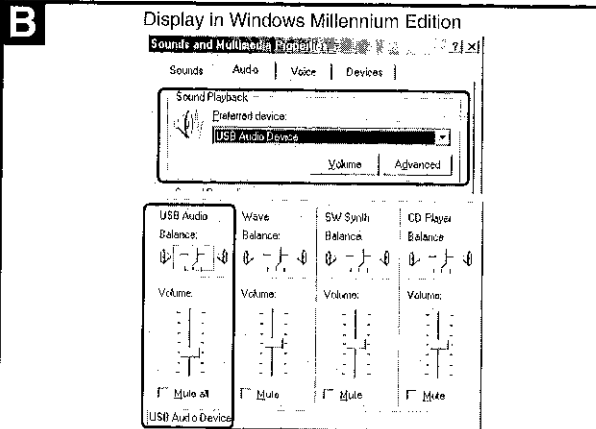
- 1 Turn your computer on.**
Wait for the computer to complete start-up.
- 2 Turn on this unit.**
- 3 Press [USB/EXT-IN] to select "USB".**
- 4 Start playing the music on the computer.**
- 5 Adjust the volume on this unit.**
 If there is no output, check the audio properties on the computer.
 - ① From the "Start" menu, select "Settings" and click on "Control Panel".
 - ② Double click on the "Sound and Multimedia Properties" icon (or "Multimedia").
 - ③ Click on the "Audio" tab. Check the "USB Audio Device" is selected as the priority play item.
 - ④ If there is a "Volume" item, click on it and check the volume setting.

Stopping play

Stop play on the computer and close the audio software.

Note

- Do not turn this unit off or change the input source while playing as this can cause your computer to malfunction.
- Close the audio software before disconnecting the USB cable.
- When you are finished but want to leave the two connected, turn this unit off before shutting down your computer.
- Turn this unit off if the computer goes into sleep mode.
- Skipping and noise may occur under some computer operating environments.
- Read the instructions for your computer and the audio software.



C Recording

Remote control only

TAPE REC only

Preparation:
Insert the cassette tape (→ page 16).
Press [EXT-IN] to select "USB".
Start playing the music on the computer.

While pressing [●/|| REC], press [◀▶ TAPE] to start recording.

To stop recording

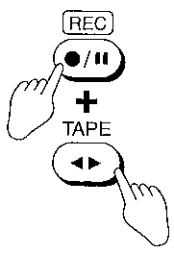
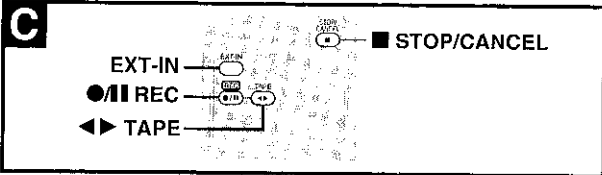
Press [■ STOP/CANCEL].

To pause recording

While pressing [●/|| REC], press [▶ TAPE].
Repeat to restart recording.

Note

You cannot record to MDs.



USB+TAPE