SHARP

MD MINI SYSTEM
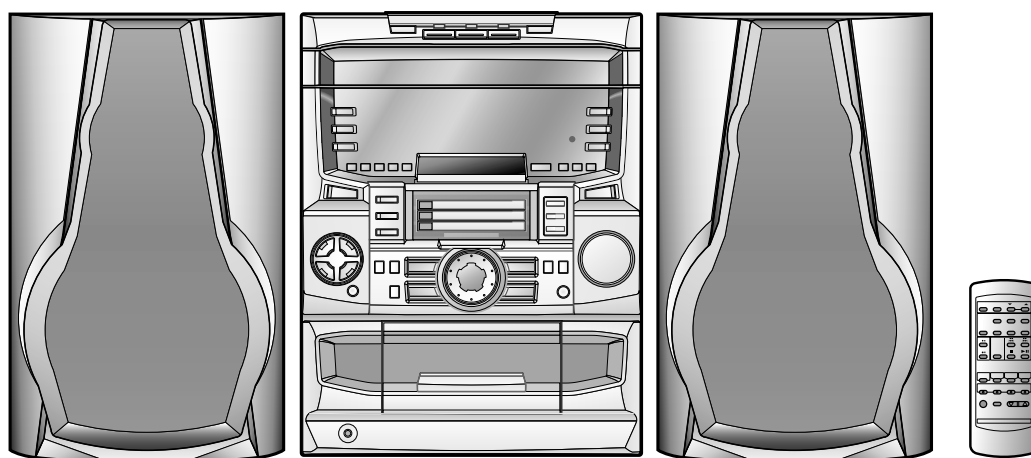
OPERATION MANUAL

MODEL

MD-C2H

MiniDisc   COMPACT disc DIGITAL AUDIO   R·D·S EON

Thank you for purchasing this SHARP product.
To obtain the best performance from this product, please read this manual carefully. It will guide you in operating your SHARP product.
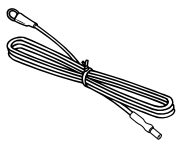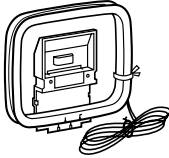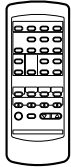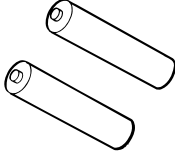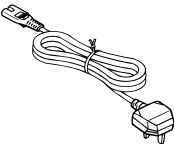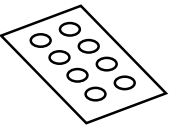
MD-C2H MD mini system consisting of
MD-C2H (Main unit) and CP-MDC2H (Speaker system).

CONTENTS

ACCESSORIES

FM aerial × 1	AM loop aerial × 1	Remote control × 1	"AA" size battery (UM/SUM-3, R6, HP-7 or similar) × 2	AC power lead × 1	Cushion × 8

Note:
Parts and accessories mentioned in this operation manual other than those in the drawing are not included.

SPECIAL NOTES

NOTE FOR USERS IN THE U.K.

The mains lead of this product is fitted with a non-rewire-able (moulded) plug incorporating a 3A fuse. Should the fuse need to be replaced, a BSI or ASTA approved BS 1362 fuse marked ♡ or ⬦ and of the same rating as above, which is also indicated on the pin face of the plug must be used.

Always refit the fuse cover after replacing the fuse. Never use the plug without the fuse cover fitted.

In the unlikely event of the socket outlet in your home not being compatible with the plug supplied, cut-off the mains plug and fit an appropriate type.

DANGER:
The fuse from the cut-off plug should be removed and the cut-off plug destroyed immediately and disposed of in a safe manner.

Under no circumstances should the cut-off plug be in-serted elsewhere into a 13A socket outlet as a serious electric shock may occur.

To fit an appropriate plug to the mains lead, follow the instructions below:

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

Blue   : Neutral
Brown   : Live

As the colours of the wires in the mains lead of this product 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 plug terminal which is marked N or coloured black.

● The wire which is coloured brown must be connected to the plug terminal which is marked L or coloured red.

Ensure that neither the brown nor the blue wire is con-nected to the earth terminal in your three pin plug.

Before replacing the plug cover, make sure that:
● If the new fitted plug contains a fuse, its value is the same as that removed from the cut-off plug.
● The cord grip is clamped over the sheath of the mains lead and not simply over the lead wires.

IF YOU HAVE ANY DOUBT, CONSULT A QUALIFIED ELECTRICIAN.

SERVICE INFORMATION
In the unlikely event of your equipment requiring repair, please contact the dealer or supplier from whom it was purchased. Where this is not possible, please contact the telephone number listed below. You will then be given details of how to obtain service.
- 0345-125387 -
Please note; all calls will be charged at local rate.

Certain replacement parts and accessories may be ob-tained from our main parts distributor.

WILLOW VALE ELECTRONICS LTD.

MANCHESTER   0161-682-1415
READING   01189-876444

In the unlikely event of this equipment requiring repair during the guarantee period, you will need to provide proof of the date of purchase to the repairing company. Please keep your invoice or receipt, which is supplied at the time of purchase.

● Recording and playback of any material may require consent, which SHARP is unable to give. Please refer particularly to the provisions of the Copyright Act 1956, the Dramatic and Musical Performers Protection Act 1958, the Performers Protection Acts 1963 and 1972 and to any subsequent statutory enactments and orders.

● This equipment complies with the requirements of Directives 89/336/EEC and 73/23/EEC as amended by 93/68/EEC.

● When the ON/STAND-BY button is set at STAND-BY position, mains voltage is still present inside the unit. When the ON/STAND-BY button is set at STAND-BY position, the unit may be brought into operation by the timer mode or remote control.

Warning:
This unit contains no user serviceable parts. Never remove covers unless qualified to do so. This unit contains danger-ous voltages, always remove mains plug from the socket before any service operation and when not in use for a long period.

● US and foreign patents licensed from Dolby Laboratories Licensing Corporation.

CLASS 1 LASER PRODUCT
APPAREIL À LASER DE CLASSE 1
PRODUCTO LASER DE CLASE 1
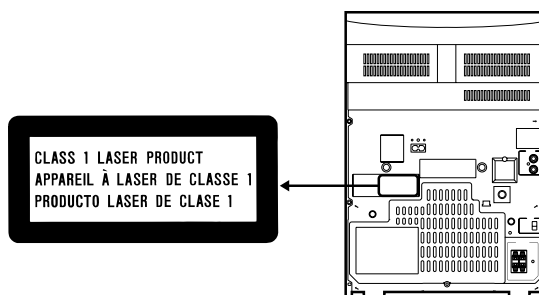
CAUTION
Use the MD mini system only in accordance with the instruc-tions given in this manual and do not attempt to interfere with the interlock switch or make any other adjustment as this may result in exposure to hazardous radiation.

1

PRECAUTIONS

■ General

● Please make sure that the unit is positioned in a well ventilated area and that there is at least 10 cm (4") of free space along the sides and back. There must also be a minimum of 20 cm (8") of free space on the top of the unit.

● Do not use oil, solvents, petrol, paint thinners or insecticides on the unit.

● Do not expose the unit to moisture, to temperatures higher than 60˚C (140˚F) or to extreme low temperatures.

● Keep the unit away from direct sunlight, strong magnetic fields, excessive dust, humidity and electronic/electrical equipment (home computers, facsimiles, etc.) which generates electrical noise.

● Hold the AC power plug by the head when removing it from the AC socket, as pulling the lead can damage internal wires.

● When cleaning the heads, pinch roller, etc, remove the AC power plug from the wall socket as the unit contains high voltages.
Do not remove the outer cover, as this may result in electric shock. Refer internal service to your local SHARP service facility.

● Use the unit on a firm, level surface free from vibration, and do not place anything on the top of the unit.

● If the unit malfunctions whilst in use, press the ON/STAND-BY button to enter the stand-by mode, then disconnect the AC power lead from the AC socket. Plug the AC power lead back in, and then press the ON/STAND-BY button to turn the power on.

● If an electrical storm is taking place near you, it is suggested that you disconnect the AC power lead from the AC socket for safety.

Warning:
The voltage used must be the same as that specified on this unit. Using this product with a higher voltage other than which is specified is dangerous and may result in a fire or other type of accident causing damage. SHARP will not be held responsible for any damage resulting from use of this unit with a voltage other than that which is specified.

■ Volume control

The sound level at a given volume setting depends on a combination of speaker efficiency, location and various other factors.
It is advisable to avoid exposure to high volume levels, which occur whilst turning the unit on with the volume control setting up high, or whilst continually listening at high volumes.

■ Condensation

Sudden temperature changes, storage or operation in an extremely humid environment may cause condensation inside the cabinet (CD pickup, MD pickup, tape heads, etc.) or on the transmitter LED on the remote control.
Condensation can cause the unit to malfunction.
If this happens, leave the power on with no disc (or cassette) in the unit until normal playback is possible (about 1 hour).
Wipe off any condensation on the transmitter LED with a soft cloth before operating the unit.

■ Care of compact discs

Compact discs are fairly resistant to damage, however mistracking can occur due to an accumulation of dirt on the disc surface.
Follow the guidelines below for maximum enjoyment from your CD collection and player.

● Do not write on either side of the disc, particularly the non-label side. Signals are read from the non-label side. Do not mark this surface.

● Keep your discs away from direct sunlight, heat, and excessive moisture.

● Always hold the CDs by the edges. Fingerprints, dirt, or water on the CDs can cause noise or mistracking. If a CD is dirty or does not play properly, clean it with a soft, dry cloth, wiping straight out from the centre, along the radius.

NO

YES
Correct
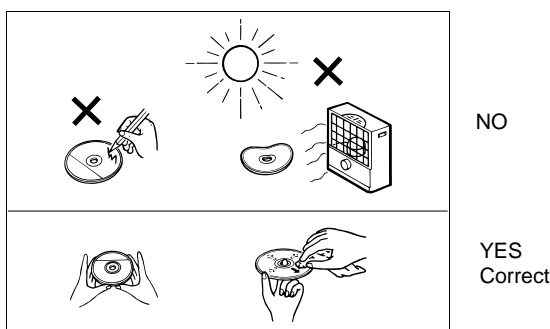
■ Cassette tape

● For playback, use normal or low-noise tape for the best sound. (Metal or CrO_2 tape is not recommended.)
For recording, use only normal tape.

● Do not use C-120 tapes, tapes with large diameter reels, or poor-quality tapes, as they may cause malfunctions.

● Before loading a tape into the cassette compartment, tighten the slack with a pen or pencil.

● Cassettes have removable tabs which prevent accidental recording or erasing from taking place. Removing the tab will protect the corresponding side from being erased. Cover the tab holes with adhesive tape to erase or record again.

Side A (1)

Tab for side B (2)   Tab for side A (1)

2
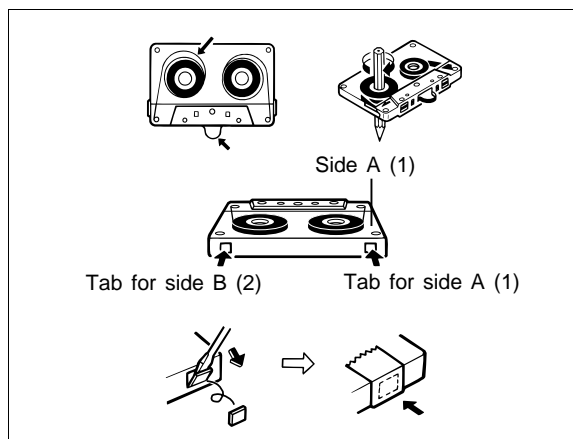
NAMES OF CONTROLS AND INDICATORS
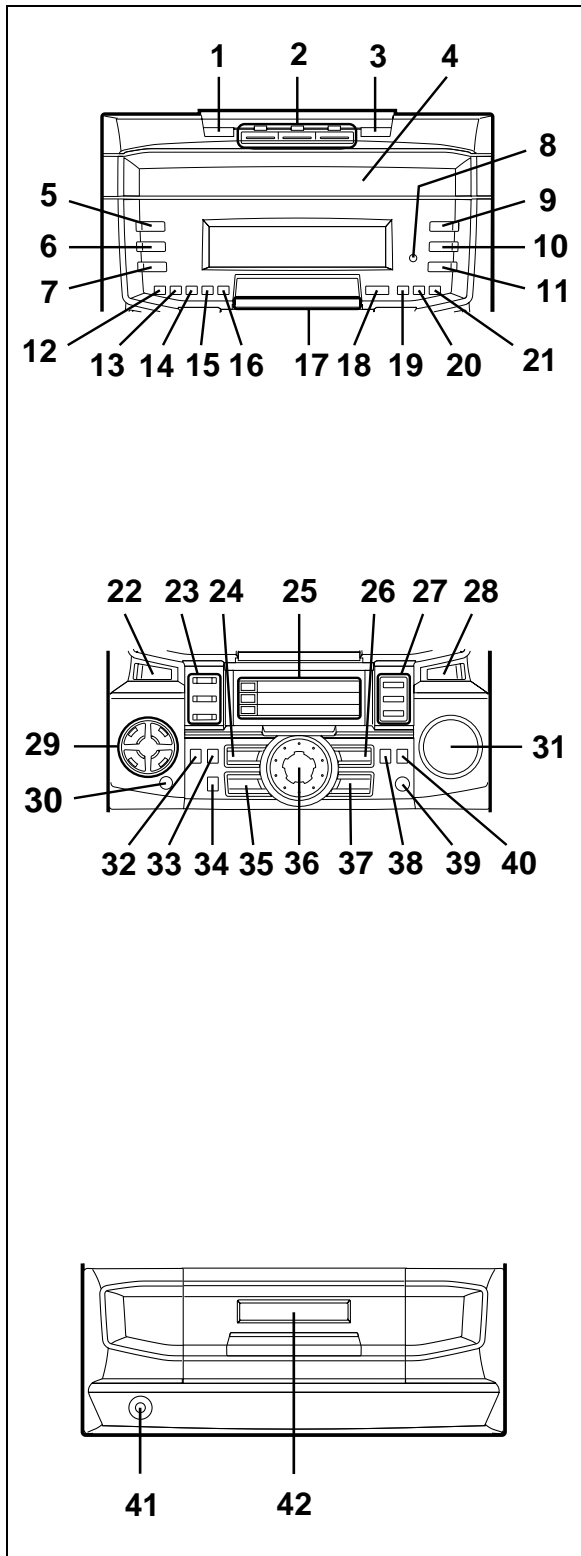
■ **Front panel**
1. **(CD) Disc Skip Button**
2. **(CD) Select/Direct Play Buttons**
3. **(CD) Open/Close Button**
4. **(CD) Disc Tray**
5. **Surround Button**
6. **Extra Bass Button**
7. **Pre-programmed Equalizer Button**
8. **Timer Set Indicator**
9. **(MD) Record Stand-by Button**
10. **(TAPE) Record Stand-by Button**
11. **Dimmer Button**
12. **Programme Type/Traffic Information Search Button**
13. **EON Button**
14. **ASPM Button**
15. **Station Selector Button**
16. **Display Mode Selector Button**
17. **MD Illumination**
18. **MD Release Button**
19. **Timer Button**
20. **Sleep Button**
21. **Clock Button**

22. **On/Stand-by Button**
23. **(MD) Select/Direct Play Buttons**
24. **(TUNER) Tuning Down Button**
    (MD/CD) Track Down/Review Button
    (TAPE) Rewind Button
25. **MD Compartment**
26. **(TUNER) Tuning Up Button**
    (MD/CD) Track Up/Cue Button
    (TAPE) Fast Forward Button
27. **(MD) Eject Buttons**
28. **CD ► MD Edit Button**
29. **Function Selector Buttons**
30. **Auxiliary Input Button**
31. **Volume Control**
32. **(MD/CD/TUNER) Memory Button**
33. **(MD) Name/TOC-Edit Button**
34. **(MD/CD) Delete/Clear Button**
35. **(MD/CD/TAPE) Stop Button**
36. **Jog Dial**
37. **(MD/CD) Play/Pause Button**
    (TAPE) Play Button
38. **Display Button**
39. **(MD/CD/TUNER) Enter Button**
40. **(MD/CD) Play Mode Button**

41. **Headphone Socket**
42. **Cassette Compartment**

3

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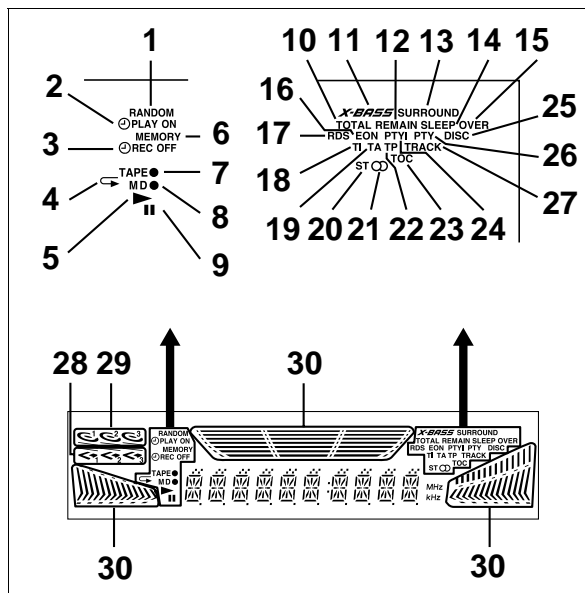
■ **Display window**
1. (MD/CD) Random Play Indicator
2. Timer Play Indicator
3. Timer Record Indicator
4. (MD/CD) Repeat Indicator
5. (MD/CD) Play Indicator
6. Memory Indicator
7. (TAPE) Record Indicator
8. (MD) Record Indicator
9. (MD/CD) Pause Indicator
10. Total Time Indicator
11. Extra Bass Indicator
12. Remaining Time Indicator
13. Surround Indicator
14. Sleep Indicator
15. Over Indicator
16. EON Indicator
17. RDS Indicator
18. Traffic Information Indicator
19. Traffic Announcement Indicator
20. FM Stereo Mode Indicator
21. FM Stereo Indicator
22. Traffic Programme Indicator
23. TOC Indicator
24. Dynamic PTY Indicator
25. Disc Indicator
26. Programme Type Indicator
27. Track Indicator
28. (MD) Disc Number Indicators
29. (CD) Disc Number Indicators
30. Level Meter/Volume Level Indicator
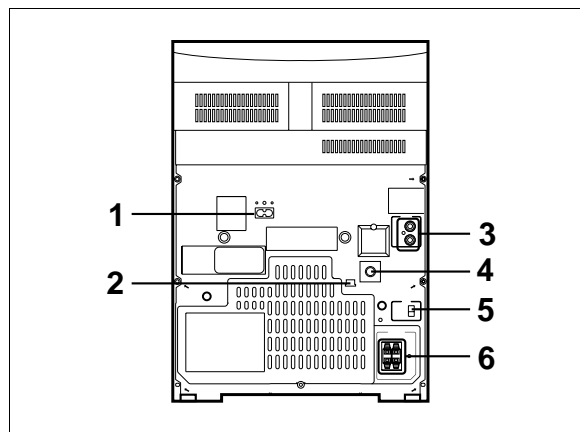
■ **Rear panel**
1. AC Power Input Socket
2. AM Loop Aerial Socket
3. Auxiliary (Audio Signal) Input Sockets
4. FM 75 Ohms Aerial Socket
5. Demo Switch
6. Speaker Terminals
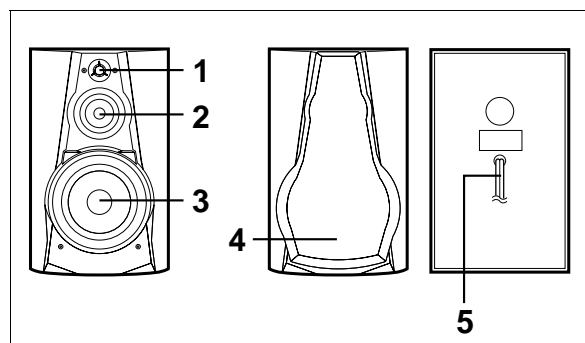
■ **Speaker section**
1. Super Tweeter
2. Tweeter
3. Woofer
4. Speaker Grille
5. Speaker Wire

4

(Continued)
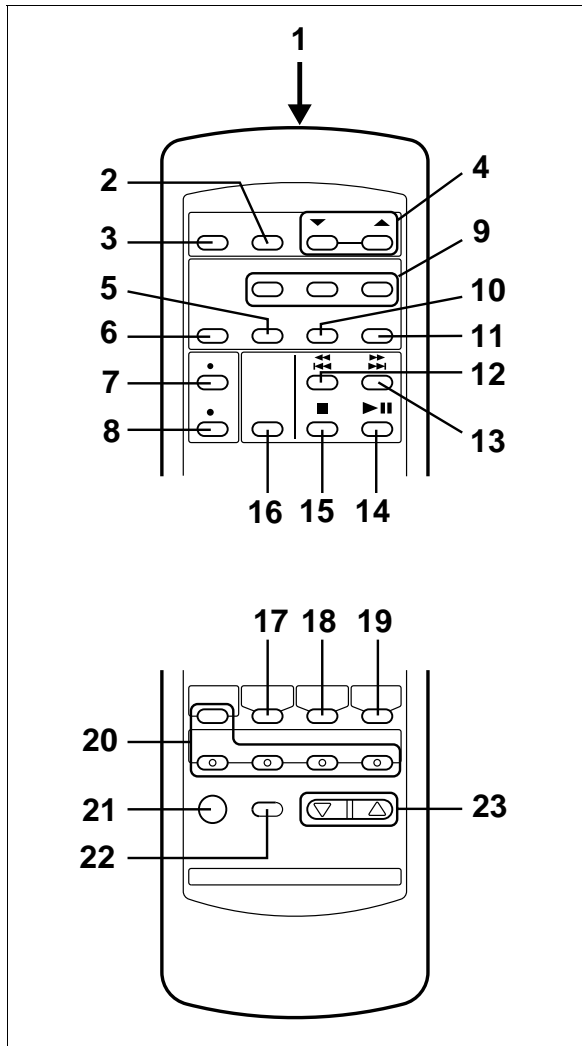
■ **Remote control**
1. Remote Control Transmitter LED
2. Programme Type/Traffic Information Search Button
3. Station Selector Button
4. (TUNER) Preset Up/Down Buttons
5. (MD/CD) Clear Button
6. MD Time Button
7. (TAPE) Record Stand-by Button
8. (MD) Record Stand-by Button
9. (MD/CD) Select/Direct Play Buttons
10. (MD/CD) Memory Button
11. (MD/CD) Enter Button
12. (MD/CD) Track Down/Review Button
   (TAPE) Rewind Button
13. (MD/CD) Track Up/Cue Button
   (TAPE) Fast Forward Button
14. (MD/CD) Play/Pause Button
   (TAPE) Play Button
15. (MD/CD/TAPE) Stop Button
16. (MD/CD) Play Mode Button
17. Surround Button
18. Pre-programmed Equalizer Button
19. Extra Bass Button
20. Function Selector Buttons
21. On/Stand-by Button
22. Dimmer Button
23. Volume Up/Down Buttons

5

PREPARATION FOR USE
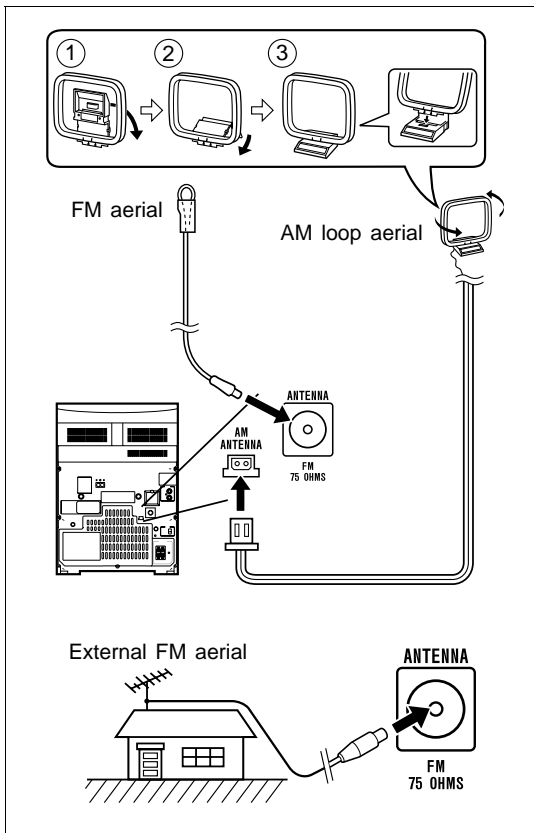
●Unplug the AC power lead from the AC socket before con-
necting or disconnecting any component.

■ Aerial connection

Supplied FM aerial
Connect the FM aerial wire to the FM 75 OHMS socket and
position the FM aerial wire in the direction where the strongest
signal can be received.

Supplied AM loop aerial
Connect the AM loop aerial wire to the AM ANTENNA socket.
Position the AM loop aerial for optimum reception.
Place the AM loop aerial on a shelf, etc., or attach it to a stand
or a wall with screws (not supplied).

Notes:
●Do not place the aerial on the main unit as it may result in
noise pickup from the internal digital electronics.
Place the aerial away from the unit for better reception.
●If the AM loop aerial and the FM aerial wire are placed near
the AC power lead, interference may result.

FM aerial

AM loop aerial

External FM aerial

External FM aerial
Use an external FM aerial if you require better reception.
Consult your dealer.
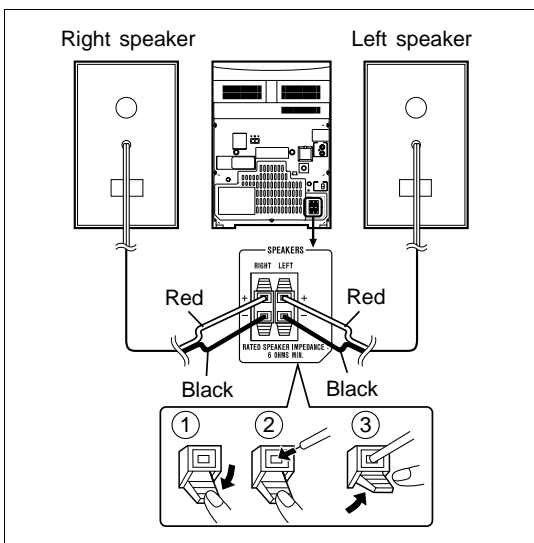
■ Speaker connection

Connect each speaker wire to the SPEAKER terminals as shown.
Use speakers with an impedance of 6 ohms or more, as lower
impedance speakers can damage the unit.

Caution:
●Connect the black wire to the minus (−) terminal, and the red
wire to the plus (+) terminal.
●Do not mix the right channel and left channel wiring when
connecting the speakers to the unit.
●Do not let bare speaker wires touch each other as this may
damage the amplifier and/or speakers.

Right speaker

Left speaker

Red

Red

Black

Black

Note:
●Attach the cushions to the bottom of the speaker to prevent it
from sliding.

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<P=002>
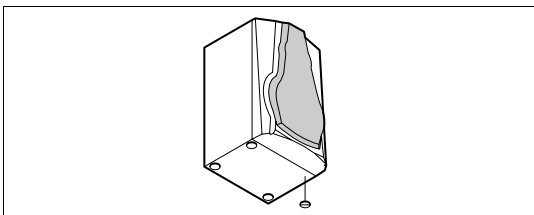
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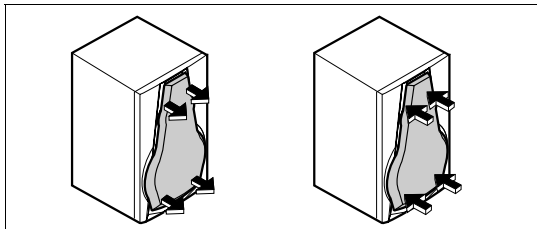
■ **Removing the speaker grilles**

1 Remove the lower part of the speaker grille first.

2 Remove the upper part of the speaker grille.

Caution:
When the speaker grilles are removed, the speaker diaphragms are exposed. Make sure nothing comes into contact with the speaker diaphragms.

■ **Mounting the speaker grilles**

Fit the four posts on the speaker grille into the mounting holes and push them lightly with the palm of your hand to secure.

■ **Placing the system**

● Be sure to keep space between the units for ventilation.

● Keep the top of this unit at least 20 cm (8") away from the wall, and the back at least 10 cm (4") away.

● Do not place the system or speakers near the television set as the magnetic fields produced may cause irregular colours to be displayed.

Note:
● A cooling fan is built into this product to avoid heat buildup. When the unit starts playing or recording a MiniDisc, the cooling fan may start. When the volume level is increased, the cooling fan may also start.

10 cm (4")   10 cm (4")

20 cm (8")

10 cm (4")
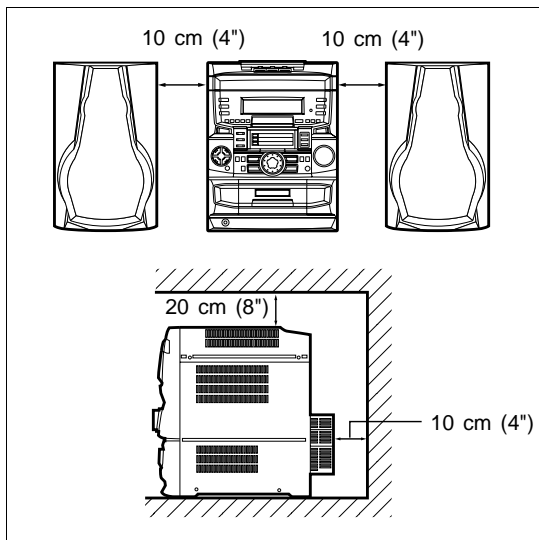
■ **Connecting the AC power lead**

Connect the AC power lead to the AC INPUT socket, then connect the AC power lead plug to an AC socket.

Notes:
● Unplug the AC power lead from the AC socket if the unit will not be in use for a prolonged period of time.

● Never use a power lead other than the one supplied. Use of a power lead other than the one supplied may cause an electric shock or fire.

To an AC socket

To AC INPUT

AC 230 V, 50 Hz
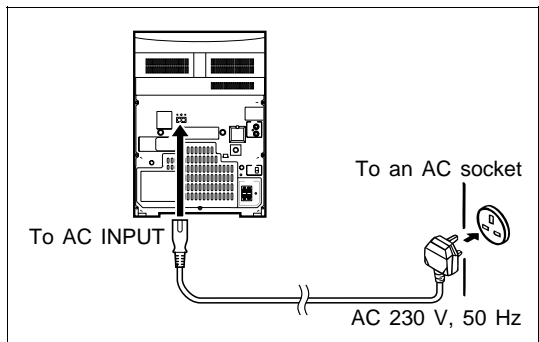
■ **Demo mode**

● When the AC power lead is first connected, the unit will enter the demonstration mode and the words will scroll across the display continuously.

To cancel the demonstration mode:
When in the demonstration mode, set the DEMO switch to OFF. Then turn the power on and enter the stand-by mode to cancel the demonstration mode and to enter the low power consumption mode.

To return to the demonstration mode:
Set the DEMO switch to ON. Then turn the power on and enter the stand-by mode.

Note:
● When the unit is in the low power consumption mode, the display will disappear.

DEMO
ON
OFF

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<P=003>

(Continued)

● 2 "AA" size batteries (UM/SUM-3, R6, HP-7 or similar)

0.2 m - 6 m (8" - 20')

15° 15° 15°

Remote sensor

Jog dial

◄◄   ■   ►II   ►►

(Main unit)   (Remote control)

DIMMER   DIMMER

MD NO DISC   When bright

⇕

MD NO DISC   When dark

■ Remote control

● When inserting or removing the batteries, push them towards the ⊖ battery terminal.

● Installing the batteries incorrectly may cause the unit to malfunction.

Precautions for battery use:

● Insert the batteries according to the direction indicated in the battery compartment.

● Replace all old batteries with new ones at the same time.

● Do not mix old and new batteries.

● Remove the batteries if they are weak or if the unit will not be used for long periods of time. This will prevent potential damage due to battery leakage.

Caution:
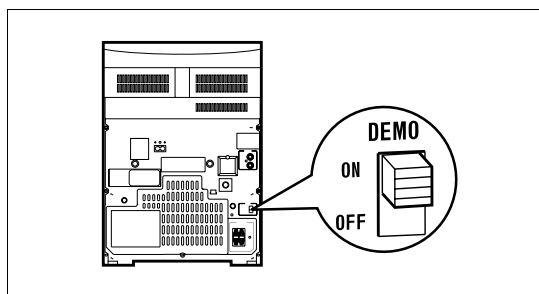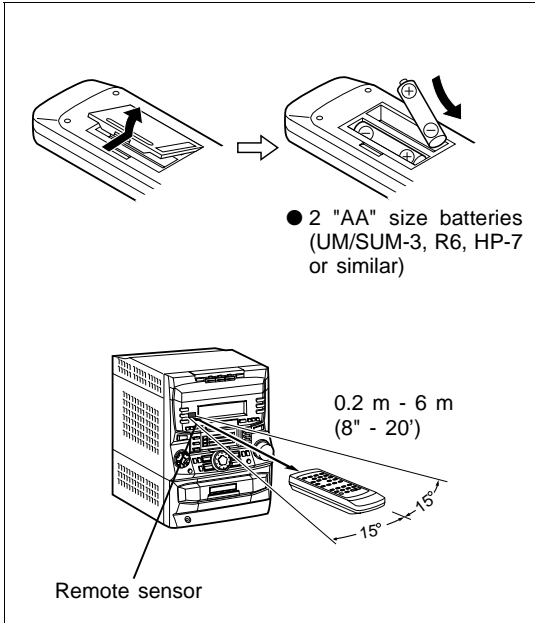Do not use rechargeable batteries (nickel-cadmium battery, etc.).

Notes concerning use:

● Replace the batteries if the operating distance is reduced or if the operation becomes erratic.

● Periodically clean the transmitter LED on the remote control and the sensor on the main unit with a soft cloth.

● Exposing the sensor on the main unit to strong light may interfere with operation. Change the lighting or the direction of the unit.

● Keep the remote control away from moisture, excessive heat, shock, and vibrations.
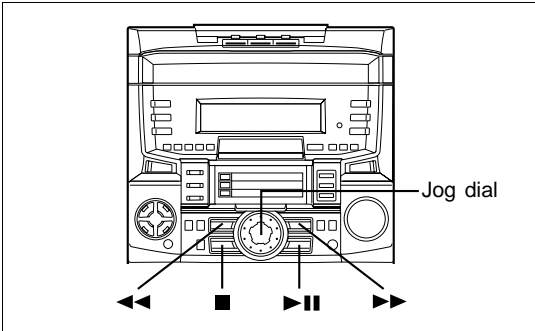
■ Main unit operation buttons

The main unit operating buttons are common to all functions (MD/CD/Tuner/Tape).
Some buttons may have no function, depending on the mode selected.
When a button indicator is lit, the corresponding button can be used.

■ Jog dial

The jog dial is used to select CD or MD track numbers, adjust the clock, select a station from memory, and enter characters.

● When the jog dial is turned one step, it will stop at an angle of about 15°. This has the same effect as pressing the ◄◄/I◄◄ or ►► /►►I button on the remote control once.

● If the jog dial is turned further, it has the same effect as pressing the ◄◄ / I◄◄ or ►► / ►►I button on the remote control repeatedly.
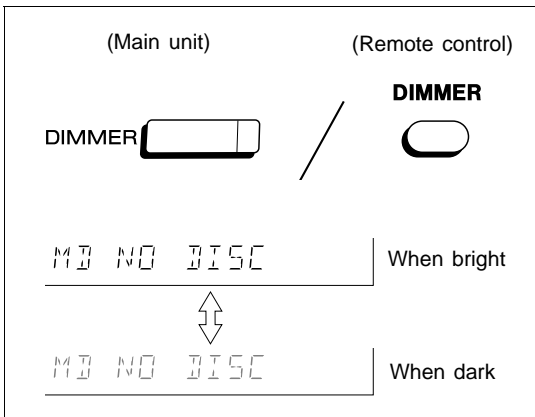
■ To change the brightness of the display

1 Press the ON/STAND-BY button to turn the power on.

2 Press the DIMMER button.

● The display will become dimmer, and the MD illumination will go out.

To return to the original brightness:
Press the DIMMER button again.

Note:

● The brightness setting of the display is maintained even after the unit has entered stand-by mode.

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SETTING THE CLOCK

In this example, the clock is set for the 24-hour (0:00) system.

Jog dial   CLOCK

ON/
STAND-BY

ENTER

2 ``CLOCK``

3 ``0:00``

4 ``0:00``

0:00 ←→ 12:00 AM ←→ 0:00 AM

5 ``0:00``

6 ``10:00``

7 ``10:00``

8 ``10:30``

9 ``10:30``

1 Press the ON/STAND-BY button to turn the power on.

2 Press the CLOCK button.

3 Within 5 seconds, press the ENTER button.

4 Turn the jog dial to select the time display mode.

"0:00"   → The 24-hour display will appear.
                      (0:00 - 23:59)
"12:00 AM" → The 12-hour display will appear.
                      (AM or PM 12:00 - 11:59)
"0:00 AM"   → The 12-hour display will appear.
                      (AM or PM 0:00 - 11:59)

● Note that this can only be set when the unit is first installed or it has been reset (see page 53).

5 Press the ENTER button.
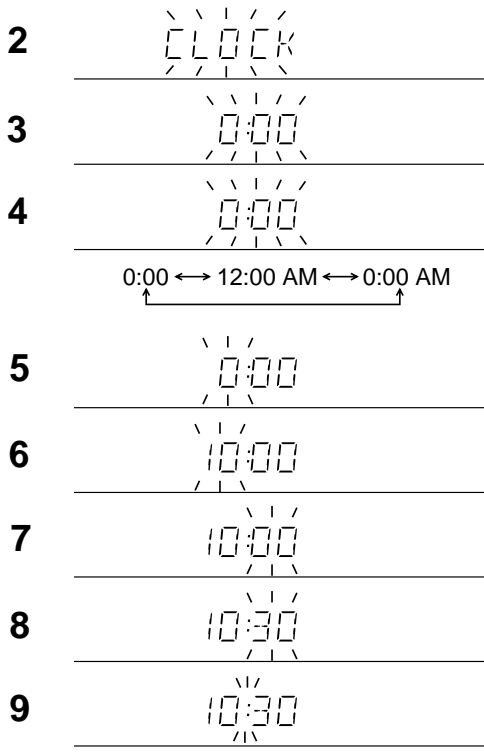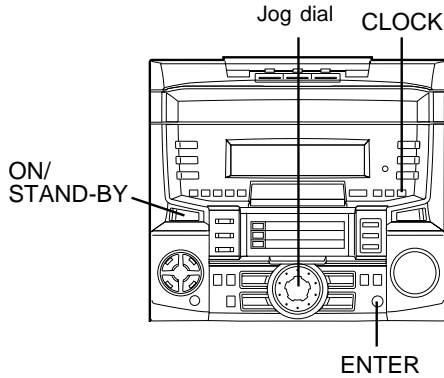
6 Adjust the hour by turning the jog dial.

● When the jog dial is turned one click clockwise, the time will increase by 1 hour. When it is turned one click anti-clockwise, the time will decrease by 1 hour.
Keep turning the jog dial to change the time continuously.

● When the 12-hour display is selected, "AM" will change automatically to "PM".

7 Press the ENTER button.

8 Adjust the minutes by turning the jog dial.

● When the jog dial is turned one click clockwise, the time will increase by 1 minute. When it is turned one click anti-clockwise, the time will decrease by 1 minute.
Keep turning the jog dial to change the time continuously.

● The hour setting will not advance even if minutes advance from "59" to "00".

9 Press the ENTER button.

● The clock starts operating from "0" seconds.
(Seconds are not displayed.)

Note:
● In the event of a power failure or when the AC power lead is disconnected, the clock setting will be lost. Reset the time.

To change the clock time:

① Press the CLOCK button.

② Within 5 seconds, press the ENTER button.

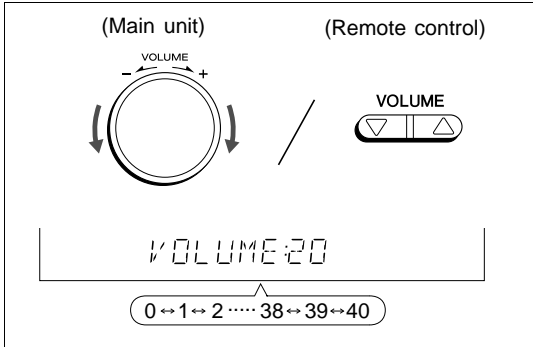③ Perform steps 6 - 9 above.

To see the time display:
Press the CLOCK button.
● The time display will appear for about 5 seconds.

To change the time display mode:
① Perform steps 1 - 2 in the section "If a problem occurs", on page 53.

② Perform steps 1 - 9 above.

9

SOUND CONTROL

(Main unit)   (Remote control)

VOLUME

VOLUME:20

0↔1↔2 ····· 38↔39↔40

■ Volume

(Main unit operation)
When the VOLUME control is turned clockwise, the volume will increase. When it is turned anti-clockwise, the volume will decrease.

(Remote control operation)
Press the VOLUME ⌒ button to increase the volume and the VOLUME ⌄ button to decrease the volume.
● The volume display can be changed within the range of "0" to "40".

(Main unit)   (Remote control)

EQUALIZER

EQUALIZER

FLAT ⟶ HEAVY-1 ⟶ HEAVY-2
SOFT-2 ⟵ SOFT-1 ⟵ VOCAL ⟵
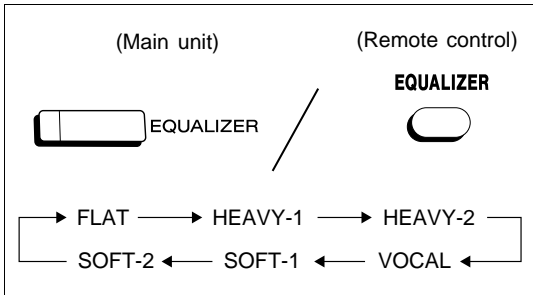
■ Pre-programmed equalizer

(Main unit/remote control operation)
When the EQUALIZER button is pressed, the current mode setting will be displayed. To change to a different mode, press the EQUALIZER button repeatedly.

FLAT: The sound is not modified.
HEAVY-1: Bass and treble are slightly emphasised.
HEAVY-2: Bass and treble are emphasised a lot.
VOCAL: Vocals (midrange tones) are emphasised.
SOFT-1: Treble is cut a little.
SOFT-2: Treble is reduced a lot.

Note:
● When the equalizer mode is being used, the surround mode is cancelled.

(Main unit)   (Remote control)
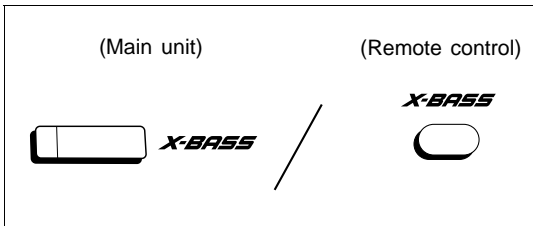
X-BASS

X-BASS

■ Extra bass (X-BASS)

(Main unit/remote control operation)
Press the X-BASS button to emphasise the bass region of the frequency spectrum.
"X-BASS-ON" will appear.
Press the X-BASS button again to cancel the extra bass mode.
"X-BASS-OFF" will appear.

(Main unit)   (Remote control)

SURROUND

SURROUND
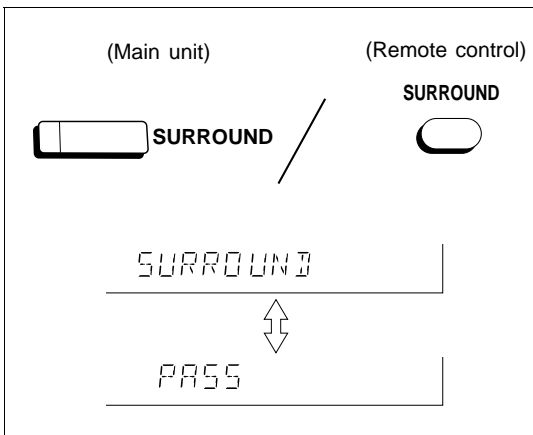
SURROUND
⇕
PASS

■ Surround

(Main unit/remote control operation)
Press the SURROUND button to allow you to enjoy music that seems to surround you.
● "SURROUND" will appear.

Press the SURROUND button again to cancel the surround mode.
● "PASS" will appear.

Note:
● When the surround mode is being used, the equalizer mode is cancelled.

10

COMPACT DISC OPERATION

4   5

12 cm (5")

8 cm (3")

5   CD PLAY
1► - 3►   3,6

1

2

■   7

CD PLAY
1► - 3►

2   7
■

1

The red frame that corre-
sponds to the selected CD
will flash.

16 56:13

Total number of tracks   Total playing time

■ Loading and playing CDs

1 Press the ON/STAND-BY button to turn the power on.

2 Press the CD button.

3 Press the ▲ OPEN/CLOSE button to open the disc tray.

4 Place the CD(s) on the disc tray, label side up.
● CDs can be placed on any open position on the disc tray.
● Be sure to place 8 cm (3") CD(s) in the middle of the disc trays.

Caution:
Do not stack CDs in the tray.
This can damage the player and the CDs.

5 When loading a third disc, press the CD SKIP button to turn the disc tray, then place the CD in the open position.

6 Press the ▲ OPEN/CLOSE button to close the disc tray.
● The total number of tracks and the total playing time for one disc will be displayed. At this time, the red frame that corre- spouds to the selected disc will flash.

7 Press the ► ‖ button.
● Playback will begin from track 1 on the disc whose disc frame is flashing.
● After the disc finishes playing, the next disc will automatically play.
● When there is no CD in one of the disc 1 - 3 positions, that position will be skipped and the next CD will be played.
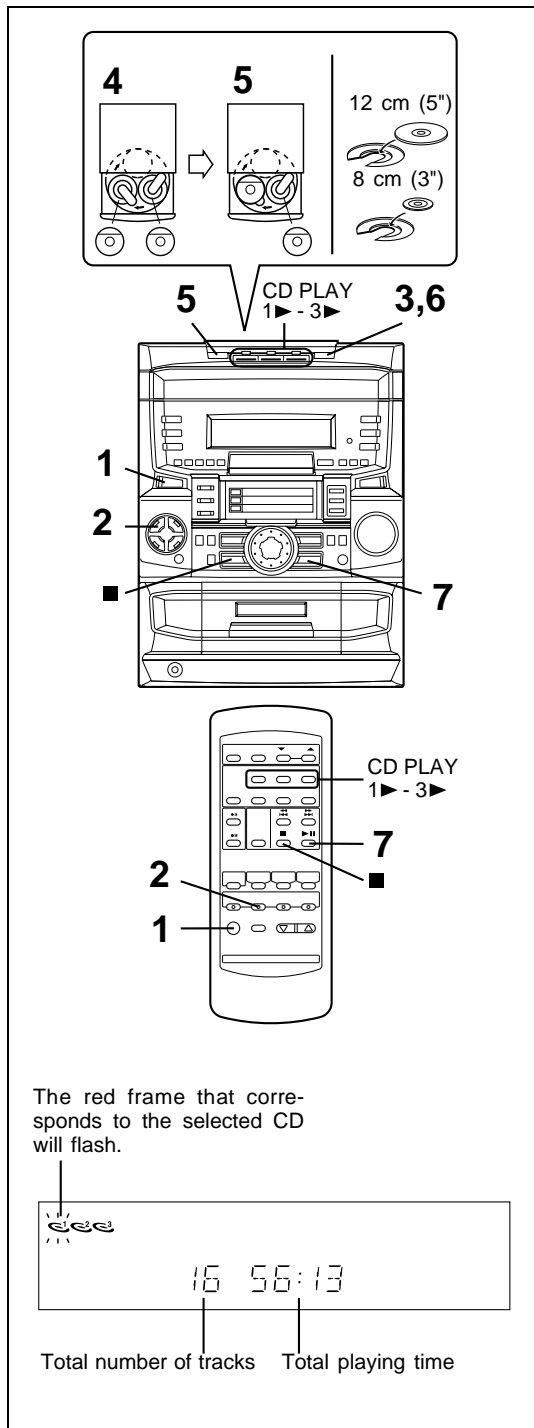● When the last track on the third disc has finished playing, the unit will stop automatically.

To select the disc to start with and have the unit per- form continuous playback:

① Press the CD PLAY 1 ► - 3 ► button whose number matches the frame which is currently flashing.

② Press the ■ button.

③ Press the ► ‖ button.
● All three discs, starting from the selected disc, will be played continuously.

To interrupt playback:
Press the ► ‖ button.
● "‖" will appear.

To resume continuous playback from the point where playback was interrupted:
Press the ► ‖ button again.

To stop playback:
Press the ■ button.

To remove the CDs:
Whilst in the stop mode, press the ▲ OPEN/CLOSE button.
● The disc tray will open. Remove the two discs. Then, press the CD SKIP button to rotate the disc tray and remove the remaining disc.

After use:
Press the ON/STAND-BY button to enter the stand-by mode.

To select the next disc number:
① When stopped, press the CD SKIP button.

② Press the ► ‖ button.
● Playback of the next disc will begin, after which each following disc will be played sequentially.

Notes:
● When the CD SKIP button is pressed during playback, playback will begin automatically from the next disc. (It is not necessary to press the ► ‖ button again.)
● When one of the CD PLAY 1 ► - 3 ► buttons is pressed during playback, playback of the selected disc will begin auto- matically.
(It is not necessary to press the ► ‖ button again.)

11

(Continued)

CD PLAY 1▶ - 3▶   ▶❙❙

CD PLAY
1▶ - 3▶

▶❙❙
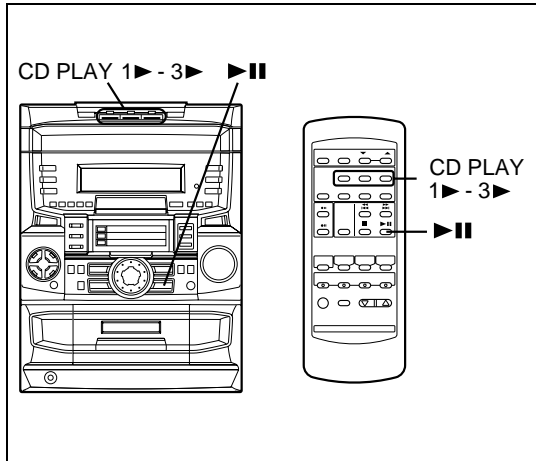
■ When choosing a CD for playback

Press one of the CD PLAY 1 ▶ - 3 ▶ buttons to select the CD you want to listen to.
● Only the selected disc will be played back.

When selecting disc 1	When selecting disc 2	When selecting disc 3
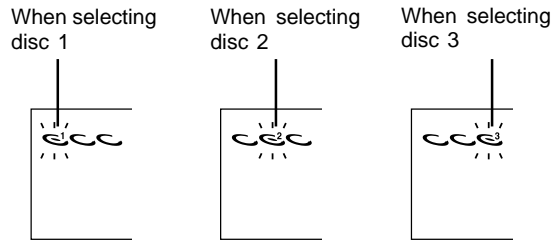
Notes:
● If the disc tray is open, it will be automatically closed.
● If the ▶ ❙❙ button is pressed, continuous playback will begin from the first track of the disc you have selected.

To interrupt playback:
Press the ▶ ❙❙ button.

To resume playback for just a single disc:
Press the CD PLAY 1 ▶ - 3 ▶ button whose number matches the frame which is currently flashing.

Caution:
● Do not carry the unit whilst CDs are in the trays or a MiniDisc is loaded. The discs may come loose inside the unit and they may be damaged or cause damage to the unit. This may also cause malfunctions.
● Do not place two CDs in one disc position.
● Do not push the disc tray whilst it is moving.
● Do not attempt to push the disc tray by hand. This may cause malfunctions.
● If the power fails whilst the tray is open, wait until the power is restored.
● If the disc tray is stopped forcibly, "TRAY ERR" will appear in the display and the unit will not function. If this occurs, press the ON/STAND-BY button to enter the stand-by mode and turn it on again.

● If TV or radio interference occurs during CD operation, move the unit away from the TV or radio.
● If a disc is damaged, dirty, or loaded upside down, the disc will be skipped and the next disc will automatically play.
● If the CDs are dirty or have label adhesive on their surface, make sure to clean them before loading.
● If the ▶ ❙❙ button, any of the CD PLAY 1 ▶ - 3 ▶ buttons or the ▲ OPEN/CLOSE button is pressed when a disc tray is open, the disc tray will close automatically. Be careful not to catch your fingers.
● If the unit is shaken by impact or vibration, playback may be disrupted. If the playback volume of a CD is raised excessively, playback may be disrupted. If this occurs, lower the playback volume.

12

<P=004>

MINIDISC OPERATION

MD PLAY
1► - 3► ⏏ MD RELEASE MD EJECT MD PLAY
1► - 3►

1
2
■

2
1
4
■
4

3
MD 1
MD 2
MD 3

The red frame that corresponds to the
selected MD will flash.

<◁₁◁₂◁₃   TOTAL   DISC

BEST HIT

Disc name

(Displayed only when a disc name has been
programmed)

⇩   After scrolling the
disc name

<◁₁◁₂◁₃   TOTAL   DISC

12 48:11

Total number of tracks   Total playing time

■ **Loading and playing MiniDiscs**

1 Press the ON/STAND-BY button to turn the power on.

2 Press the MD button.

3 Load the MiniDisc(s) in the direction indicated by the arrow on the MiniDisc, with the labeled side facing up.

● The MiniDisc loaded first is moved inside the main unit, and the unit will select it as the MiniDisc to be played first. The total number of tracks and the total playing time on the MiniDisc will be displayed.

● Do not load a second MiniDisc into the insertion slot if a MiniDisc has already been loaded.
If a second MiniDisc is inserted, the "RESERVED EJECT MD ✳" warning will appear.
(✳:Number or Symbol)

4 Press the ► II button.

● If the MD has a track name, the name will appear and scroll across the display. Then, the elapsed playing time will appear.

● If the MD has no track names, the elapsed playing time will appear.

● Continuous playback will start from the MiniDisc whose red frame is flashing, and will proceed in order.

● When the last track on the third disc has finished playing, the unit will stop automatically.

To select the disc to start with and have the unit perform continuous playback:

① Press the MD PLAY 1 ► - 3 ► button whose number matches the frame which is currently flashing.

② Press the ■ button.

③ Press the ► II button.

● All three discs, starting from the selected disc, will be played continuously.

To interrupt playback:

Press the ► II button.
● "II" will appear.

To resume continuous playback from the point where playback was interrupted:

Press the ►II button again.

To stop playback:
Press the ■ button.

To remove the MiniDiscs:
For the MiniDisc that is selected, whilst in the stop mode press the ⏏ MD RELEASE button. Then press the MD EJECT button.
For a MiniDisc that is not selected, press the MD EJECT button.
● When playing back a MD, it is possible to remove or change the other two discs.

Notes:
● The unit cannot enter the stand-by mode when reading the information on a MiniDisc.

● If TV or radio interference occurs when using the MD, move the unit away from the TV or radio.

● Although MiniDiscs will not normally skip due to vibration, you may hear a skip in the sound if there is continuous vibration.

● If "MD ✳✳ ERR" is displayed during MD operation, see "TROUBLESHOOTING" on page 52, and try again.
(✳:Number or Symbol)

13

(Continued)

MD PLAY 1► - 3►   ►II

MD PLAY 1► - 3►

►II
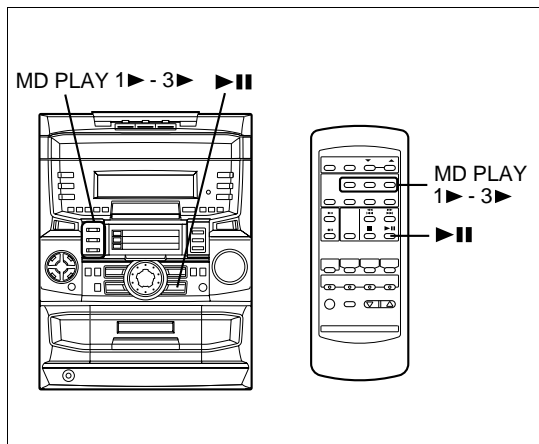
■When choosing a MD for playback

Press one of the MD PLAY 1 ► - 3 ► buttons to select the MD you want to listen to.
● Only the selected disc will be played back.

When selecting disc 1

When selecting disc 2

When selecting disc 3

Note:
● If the ► II button is pressed, continuous playback will begin from the first track of the disc you have selected.
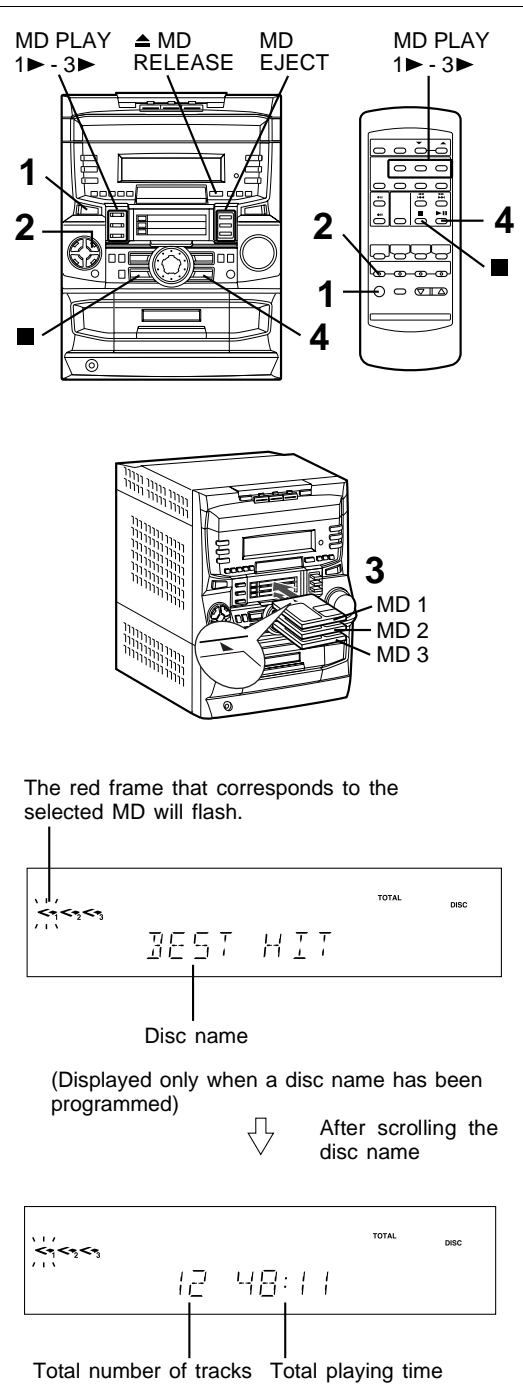
To interrupt playback:
Press the ► II button.
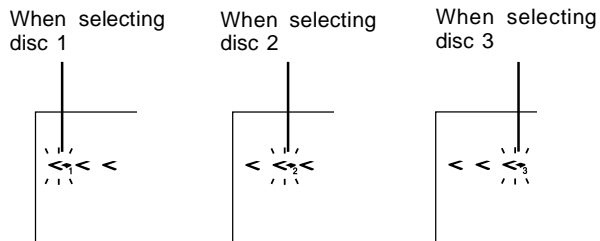
To resume playback for just a single disc:
Press the MD PLAY 1 ► - 3 ► button whose number matches the frame which is currently flashing.

CASSETTE OPERATION
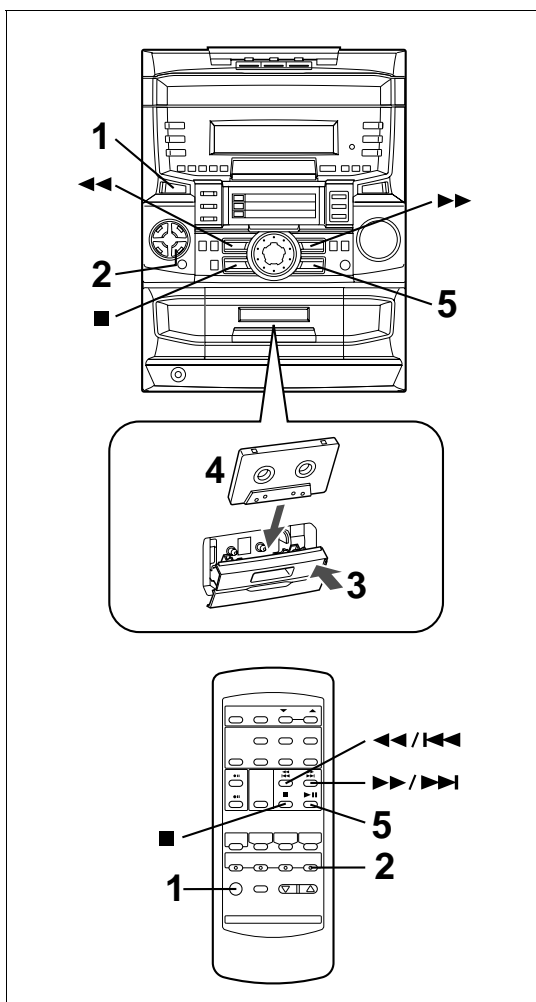
■Tape playback

1 Press the ON/STAND-BY button to turn the power on.

2 Press the TAPE button.

3 Open the cassette door by pushing the area marked "PUSH EJECT".

4 Load a cassette into the cassette compartment.

5 Press the ► II button to start playback.

To stop playback:
Press the ■ button.

Fast forward/rewind:

① Press the ■ button.

② To advance the tape, press the ►► (►► / ►►I) button.
To rewind it, press the ◄◄ (◄◄ / I◄◄) button.

Precautions:
● When removing the cassette tape, press the ■ button, and then open the cassette compartment.
● Before changing from one tape operation to another, press the ■ button.
● If a power failure occurs during tape operation, the tape head will remain engaged with the tape and the cassette door will not open. If this occurs, wait until power is restored.
● Even if the ► II button is pressed during tape playback, the unit will not enter the pause mode.

14

RADIO OPERATION

(Main unit operation)

1

4

2,3,5,6

FM   8750 ST∞ MHz
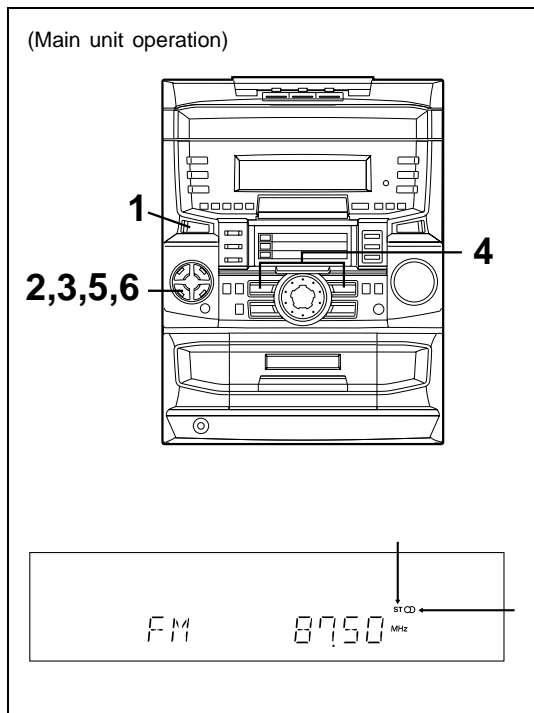
■ **Tuning**

1 Press the ON/STAND-BY button to turn the power on.

2 Press the TUNER (BAND) button.

3 Press the TUNER (BAND) button to select the desired frequency band. (FM ST, FM or AM)

4 Press the TUNING (∨ or ∧) button to tune into the desired station.

Manual tuning:
Press the TUNING (∨ or ∧) button as many times as required to adjust the frequency shown on the display to the frequency of the desired station.

Auto tuning:
When the TUNING (∨ or ∧) button is pressed for more than 0.5 seconds, scanning will start automatically and the tuner will stop at the first receivable broadcast station.

Notes:
● When radio interference occurs during auto scan tuning, auto scan tuning may stop automatically at that point.
● If a weak station signal is found during auto scan tuning, the station will be skipped.
● To stop the auto tuning, press the TUNING (∨ or ∧) button again.
● When an RDS (Radio Data System) station is tuned in, the frequency will be displayed first, and then the RDS indicator will light, Finally, the station name will appear.

5 To receive an FM stereo transmission, press the TUNER (BAND) button so that the "ST" indicator on the display lights up.

● "∞" will appear when an FM broadcast is in stereo.

6 If the FM reception is weak, press the TUNER (BAND) button so that the "ST" indicator goes out.

● The reception changes to monaural, the sound becomes clearer.
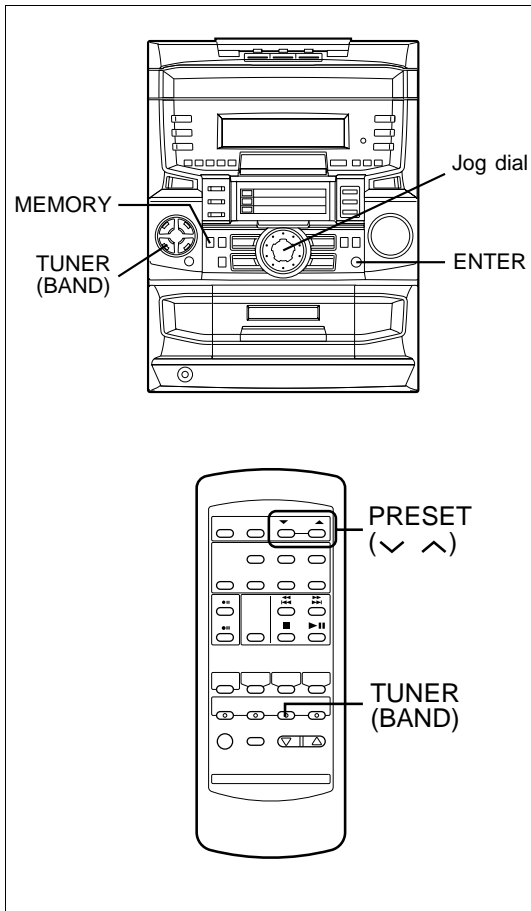
After use:
Press the ON/STAND-BY button to enter the stand-by mode.

Notes:
● The last station tuned in will be recalled, even after changing the tuning band or the function, or after switching the unit to the stand-by mode.
● If the unit's AM/FM tuner interferes with the reception of a nearby TV or radio, move the unit as far away from these items as possible.

15

(Continued)

MEMORY

TUNER
(BAND)

Jog dial

ENTER

PRESET
(∨ ∧)

TUNER
(BAND)

(Remote control operation)

PRESET
(∨ ∧)

■ Preset tuning

You can store up to 40 stations in memory (40 stations consisting of any combination of AM and FM stations you like) and recall them.

To enter stations into memory:

1 Perform steps 1 - 6 in the "Tuning" section.

2 Press the MEMORY button.

3 Within 30 seconds, turn the jog dial to make the preset channel number flash in the display.

● Store the stations in memory, in order, starting with preset channel 1.

4 Within 30 seconds, press the ENTER button to store that station in the selected station preset number memory.

● If the "MEMORY" and preset number indicators go out before the station is memorised, repeat the operation from step 2.

5 Repeat steps 1 - 4 to set other preset stations, or to change a preset station.

● When a new station is stored in the selected station preset number memory, the contents previously memorised will be erased.

● To store an RDS station in memory, perform steps 2 - 4 whilst the RDS station name is being displayed.

To recall a memorised station:

Turn the jog dial on the main unit or press the PRESET (∨ or ∧) button on the remote control for less than 0.5 seconds to select the desired station.

● The stations (preset channel number, frequency and frequency band) which have been stored in memory will appear in the display in numerical order, irrespective of the frequency bands.

Note:

When searching for a memorised station, do not press the PRESET button for more than 0.5 seconds.

When the PRESET button is pressed for more than 0.5 seconds, the unit will enter the preset memory scan mode.

Backup function:

The backup function protects all station presets for a few hours should there be a power failure or the AC power lead is removed from the AC socket.

■ Preset memory scan

The stations saved in the preset memory can be scanned automatically.

1 To scan the preset stations, press the PRESET (∨ or ∧) button for more than 0.5 seconds.

● The station preset number will flash and the programmed stations will be tuned in sequentially, for 5 seconds each.

2 Press the PRESET (∨ or ∧) button again to stop the memory scan at the desired station.

Note:
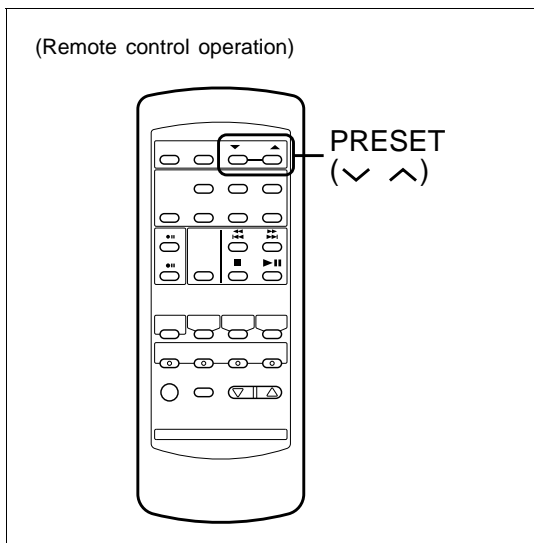
When the preset memory does not have any stations stored in it, the preset memory scan will not function.

To erase all memorised stations:

When the unit is in the stand-by mode, hold and press the MEMORY and TUNING ∧ buttons, and then press the ON/STAND-BY button.

● "TUNER CL." will appear.

● After performing this operation, all of the preset memory information will be erased.

16

RDS (Radio Data System) OPERATION

RDS is a broadcasting service which a growing number of FM stations are now providing. It allows these FM stations to send additional signals along with their regular programme signals. For example, the stations send their station names, and information about what type of programme they broadcast, such as sports or music, etc.

When tuned to an FM station which provide the RDS service, the RDS will appear, the station frequency (and then the station name if sent) is displayed.
The TP (Traffic Programme) will appear on the display when the received broadcast carries traffic announcements, and the TA (Traffic Announcement) will appear whilst a traffic announcement is being received.
EON will appear whilst the EON (Enhanced Other Networks information) data is being broadcast.
The PTYI (Dynamic PTY Indicator) will appear whilst the Dynamic PTY station is being received.

Note:
When the TP and TA appear at the same time, an announcement is being made.
When only the TA appears, an announcement is not being made. (See page 25.)
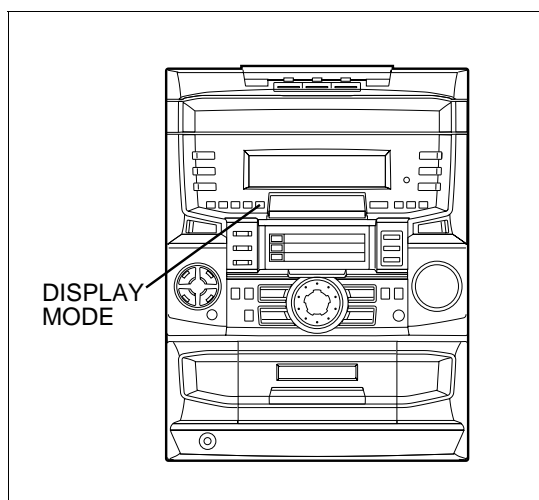
DISPLAY
MODE

■ Information Provided by RDS

With the MD-C2H, you can display three types of RDS service. To show them in the display, press the DISPLAY MODE button. Each time you press the DISPLAY MODE button, the display will change to show the following information.

PS (Programme Service):   Station names commonly known will be displayed. "NO PS" appears if no signal is being received.

PTY (Programme Type):   Programme type will be displayed. "NO PTY" appears if no signal is being received.

RT (Radio Text):   Radio text will be displayed. "NO RT" appears if no signal is being received.

Station Frequency: Station frequencies.

17

<P=005>
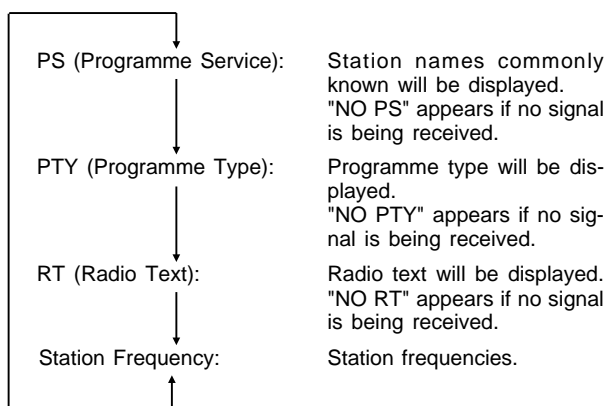
(Continued)

Descriptions of the PTY (Programme Type) codes, TP (Traffic Programme) and TA (Traffic Announcement)
With the MD-C2H, you can search for and receive the following PTY, TP and TA signals.

NEWS: Short accounts of facts, events and publicly expressed views, reportage and actuality.

AFFAIRS: Topical programme expanding or enlarging upon the news, generally in different presentation style or concept, including debate, or analysis.
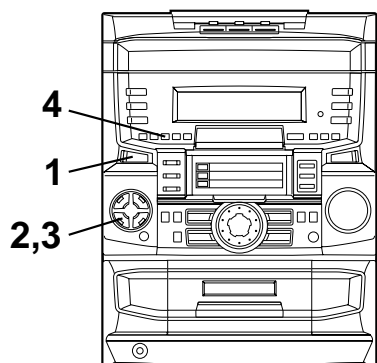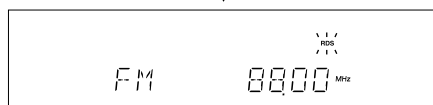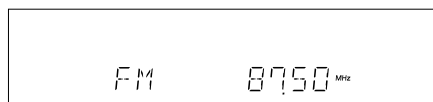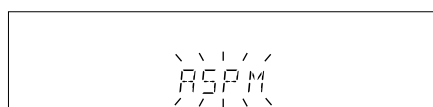
INFO: Programmes whose purpose is to impart advice in the widest sense.

SPORT: Programme concerned with any aspect of sport.

EDUCATE: Programme intended primarily to educate, of which the formal element is fundamental.

DRAMA: All radio plays and serials.

CULTURE: Programmes concerned with any aspect of national or regional culture, including language, theatre, etc.

SCIENCE: Programmes about the natural sciences and technology.

VARIED: Used for mainly speech-based programmes usually of light-entertainment nature, not covered by other categories. Examples include: quizzes. panel games, personality interviews.

POP M: Commercial music, which would generally be considered to be of current popular appeal, often featuring in current or recent record sales charts.

ROCK M: Contemporary modern music, usually written and performed by young musicians.

EASY M: Current contemporary music considered to be "easy-listening", as opposed to Pop, Rock or Classical, or one of the specialized music styles, Jazz, Folk or Country. Music in this category is often but not always, vocal, and usually of short duration.

LIGHT M: Classical Musical for general, rather than specialist appreciation. Examples of music in this category are instrumental music, and vocal or choral works.

CLASSICS: Performances of major orchestral works, symphonies, chamber music etc., and including Grand Opera.

OTHER M: Musical styles not fitting into any of the other categories. Particularly used for specialist music of which Rhythm & Blues and Reggae are examples.

WEATHER: Weather reports and forecasts and Meteorological information.

FINANCE: Stock Market reports, commerce, trading etc.

CHILDREN: For programmes targeted at a young audience, primarily for entertainment and interest, rather than where the objective is to educate.

SOCIAL: Programmes about people and things that influence them individually or in groups. Includes: sociology, history, geography, psychology and society.

RELIGION: Any aspect of beliefs and faiths, involving a God or Gods, the nature of existence and ethics.

PHONE IN: Involving members of the public expressing their views either by phone or at a public forum.

TRAVEL: Features and programmes concerned with travel to near and far destinations, package tours and travel ideas and opportunities. Not for use for Announcements about problems, delays, or roadworks affecting immediate travel where TP/TA should be used.

LEISURE: Programmes concerned with recreational activities in which the listener might participate. Examples include, Gardening, Fishing. Antique collecting, Cooking, Food & Wine etc.

JAZZ: Polyphonic, syncopated music characterised by improvisation.

COUNTRY: Songs which originate from, or continue the musical tradition of the American Southern States. Characterised by a straightforward melody and narrative story line.

NATION M: Current Popular Music of the Nation or Region in that country's language, as opposed to International 'Pop' which is usually US or UK inspired and in English.

OLDIES: Music from the so-called "golden age" of popular music.

FOLK M: Music which has its roots in the musical culture of a particular nation, usually played on acoustic instruments. The narrative or story may be based on historical events or people.

DOCUMENT: Programme concerned with factual matters, presented in an investigative style.

TEST: Broadcast when testing emergency broadcast equipment or receivers.

ALARM !: Emergency announcement made under exceptional circumstances to give warning of events causing danger of a general nature.

NONE: No programme type (receive only).

TP: Broadcasts which carry traffic announcements.

TA: Traffic announcements are being broadcast at present.
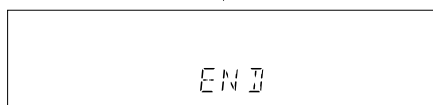
Note:
● When the unit is in the EON stand-by mode and a programme is selected, the unit will display "TI" instead of "TA".

18

(Continued)

(Main unit operation)

4

1

2,3

4

```
  \ \ | / /
  ASPM
  / / | \ \
```

⇩

```
FM      8750 MHz
```

⇩

```
                RDS
FM      8800 MHz
```

```
1 IN MEMORY
```

⇩ (4 seconds)

```
END
```

(4 seconds)

■ ASPM (Auto Station Program Memory)

It is recommended that you store stations in memory using ASPM.
(This memory can be used for PTY searches, station select and EON switching.)
When the ASPM button is pressed, whilst tuned to the FM band, the RDS (Radio Data System) function will automatically search for new RDS stations. Up to 40 stations can be stored in memory. (If you have already stored some stations in memory, the number of new stations you can store will be less.)

1 Press the ON/STAND-BY button to turn the power on.

2 Press the TUNER (BAND) button.

3 Press the TUNER (BAND) button to select the FM ST or FM band.

4 Press and hold down the ASPM button for at least 3 seconds.

① After "ASPM" has flashed for about 4 seconds, scanning will start. (87.50 - 108.00 MHz)

② When an RDS station is found, the RDS will appear for a short time and the station will be stored in memory.

③ After scanning, the number of stations that have been automatically stored in memory will be displayed for 4 seconds, and then "END" will appear for 4 seconds.

Notes:
● Only RDS stations will be stored in memory in numerical order.
● If the same station is broadcasting on different frequencies, the transmission with the strongest broadcast frequency will be stored in memory.
● Any station which has the same frequency as one which has been already stored in memory will not be stored again.
● The ASPM operation can be repeated until "END" appears.
● If a 40th station is stored in memory during a scan, the scanning will stop at that station. The number of stations and "END" will each be displayed for 4 seconds.
● If no stations have been stored in memory, "END" will flash for about 4 seconds.
● If 40 stations have already been stored in memory and the ASPM button is pressed, "END" will appear immediately and the scan will be aborted.
  If you want to redo the ASPM operation from the beginning, erase the preset memory, and then perform steps 1 - 4.
● If the RDS station broadcast signals are very weak, station names may not be stored in memory.

To stop the ASPM operation before it is complete:
Press the ASPM button whilst it is scanning for stations.
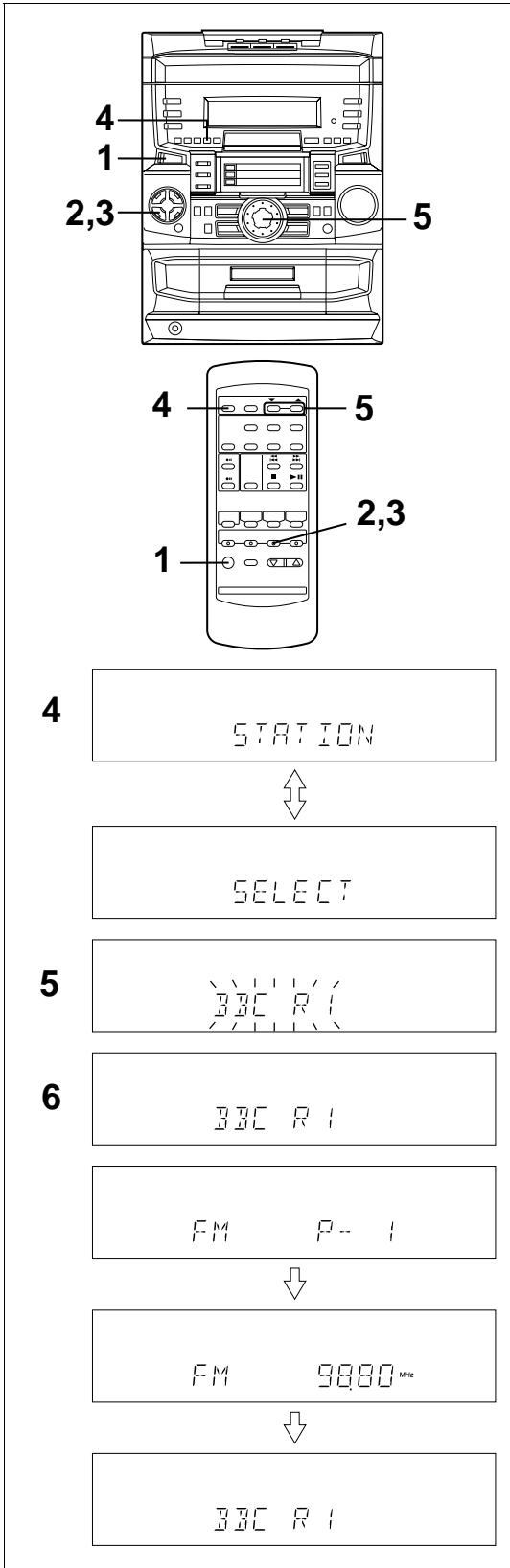● The stations that have already been stored in memory will be kept there.

To erase all of the contents of preset memory:
The unit is in the stand-by mode.
Hold down the MEMORY button and the TUNING ∧ button, and then press the ON/STAND-BY button.
● "TUNER CL." will appear.
● After performing this operation, all of the preset memory information will be erased.

19

<P=002>

(Continued)

■ To specify station names and select stations manually (station select)

You can received for a desired station by specifying the station name (BBC R1, BBC R2, etc.) from among the stations that have been stored in memory.
(ASPM is convenient for storing stations in memory.)

Before starting this operation, you must store one or more station names in memory.

1 Press the ON/STAND-BY button to turn the power on.

2 Press the TUNER (BAND) button.

3 Press the TUNER (BAND) button to select the FM ST or FM band.

4 Press the STATION button.

● "STATION" and "SELECT" will appear alternately for about 6 seconds.

5 Within 6 seconds, turn the jog dial on the main unit or press the PRESET (∨ or ∧) button on the remote control to select a desired station name you want.

● Each time the button on the remote control is pressed, the station name will appear. If the button is held down for more than 0.5 seconds, the station name will continuously change.

6 Whilst the selected station name is flashing (within 6 seconds), press the STATION button again.

● After the selected station name has been lit for 1 second, the preset station which corresponds to the selected station name will be recalled.

To cancel the station select operation:
Press the STATION button whilst "STATION" and "SELECT" appear alternately.
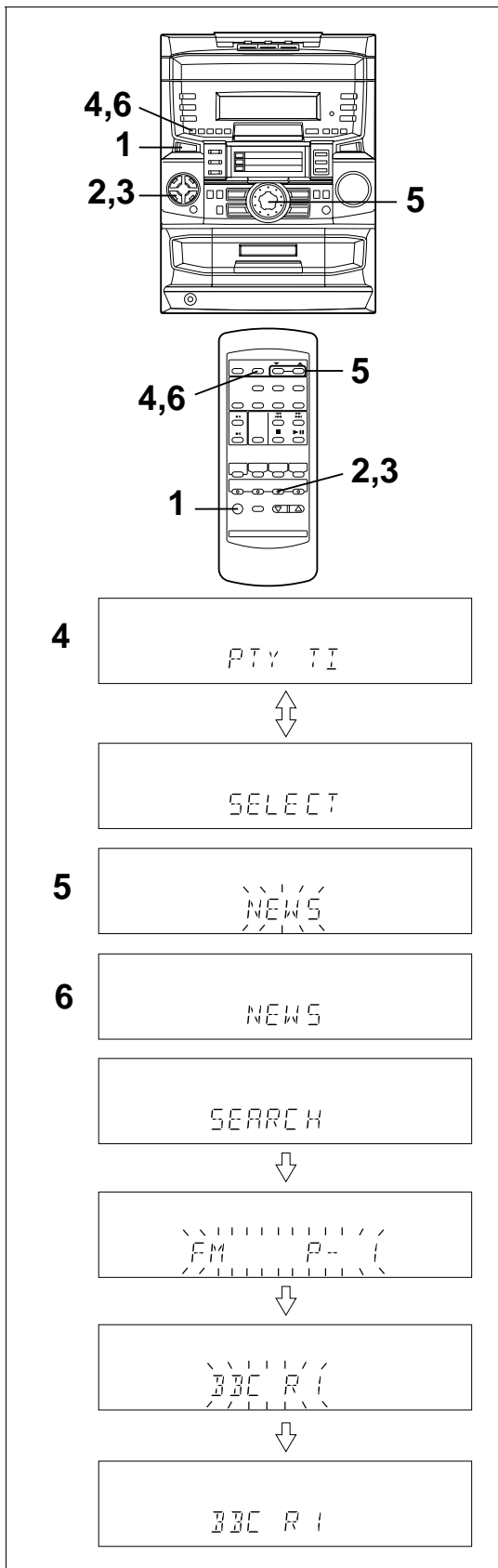
20

(Continued)

Notes:

● When there are no station names stored in memory, you cannot use this function. In this case, when the STATION button is pressed, "NOTHING" will flash for 5 seconds, and the unit will return to the original display.

● This function can only be used when the FM band has been selected.

● The same station name can be stored in different preset channels. Therefore, when you are choosing a station name from the presets, the same station name may be encountered more than once.

● In a certain area or during certain time periods, the station names selected using the station select function may temporarily be different from the name of the station you are actually receiving.

To try to store a station name again, if the wrong name was stored in memory by mistake:

When you store station names in memory using the ASPM function, the correct station names may not actually be stored if there is lots of noise or if the RDS station signal is too weak.
In this case, try storing station names in memory using the following procedure.

1 Press the STATION button.

2 Within 6 seconds, turn the jog dial on the main unit or press the PRESET (∨ or ∧) button on the remote control to check whether the station names are correct.

3 If you find a station name that is wrong, press the STATION button again within 6 seconds to recall the preset station, which corresponds to the station name.

4 After the preset station has been received and the correct station name has been displayed, press the MEMORY button.

5 Within 30 seconds, Press the ENTER button whilst the preset channel number is flashing.

● The new station name has been stored in memory correctly.

21

<P=004>

(Continued)

4,6
1
2,3
5

4,6
5
2,3
1

4

```
PTY TI
```

⇕

```
SELECT
```

5

```
NEWS
```

6

```
NEWS
```

```
SEARCH
```

⇩

```
FM   P-1
```

⇩

```
BBC R1
```

⇩

```
BBC R1
```

■ To recall stations that have been stored in memory (PTY search)

You can search a desired stations by specifying the programme type (news, sports, traffic programme, etc. ... see page 18) from among the stations that have been stored in memory.
(ASPM is convenient for storing stations in memory.)

1 Press the ON/STAND-BY button to turn the power on.

2 Press the TUNER (BAND) button.

3 Press the TUNER (BAND) button to select the FM ST or FM band.

4 Press the PTY.TI SEARCH (PTY.TI) button.

● "PTY TI" and "SELECT" will appear alternately for about 6 seconds.

5 Within 6 seconds, turn the jog dial on the main unit or press the PRESET (∨ or ∧) button on the remote control to select the programme type you want.

● Each time the button on the remote control is pressed, the programme type will appear. If the button is held down for more than 0.5 seconds, the programme type will appear continuously.

6 Whilst the selected programme type is flashing (within 4 seconds), press the PTY.TI SEARCH (PTY.TI) button again.

● After the name of the selected programme type has been lit for 2 seconds, "SEARCH" will appear, and the search operation will start.

Note:
If the programme type has changed from flashing to steadily lit and the PTY.TI SEARCH (PTY.TI) button is pressed, nothing will happen. In this case, start again from step 4.
Each time a station of the programme type you want is encountered, you will be able to listen to the broadcast.
The channel number will flash for about 3 seconds. The station name will flash for 7 seconds, and then remain lit.
● If you want to listen to another station of that programme type, press the PTY.TI SEARCH (PTY.TI) button whilst the channel number or station name is flashing. The unit will look for the next station of that type.

Note:
● If no station of the programme type you want can be found, "NOT FOUND" will appear for 4 seconds.

★ If you have selected the traffic programme:
If you select traffic programme (TP) as the programme type in step 5, to receive only radio stations which broadcast traffic programmes, the TP will appear. (However, this does not necessarily mean that you will hear any traffic announcements at that time.)
When a traffic announcement is actually being made, the TA will appear.
(When both the TP and TA will appear, an announcement is being made.)
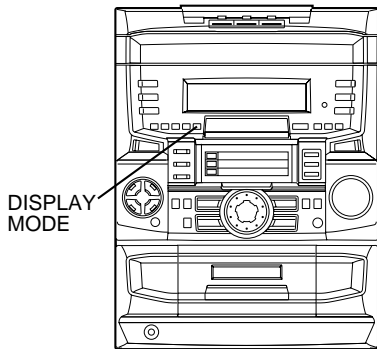
22

(Continued)

(Main unit operation)

Jog dial
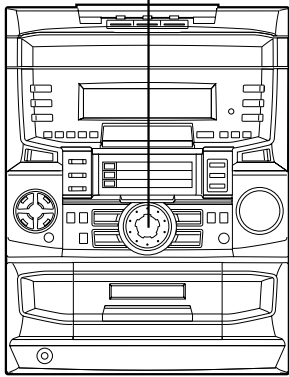
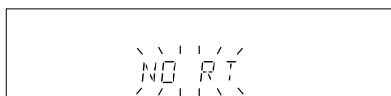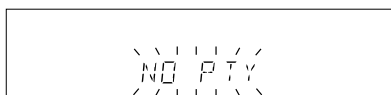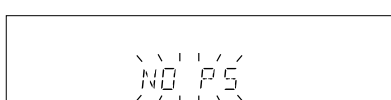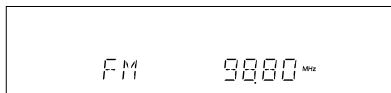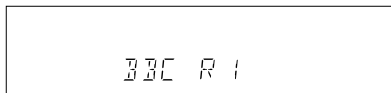### ■ To manually recall the stations stored in memory

Each time you turn the jog dial one step the channel number will change.

● After the channel number has been displayed for 2 seconds, the frequency for that channel will appear for 2 seconds, and then the station name will appear.
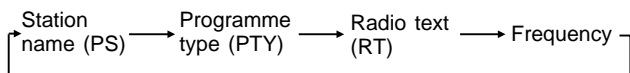

(Main unit operation)

DISPLAY MODE


```
    BBC R1
```

⇩

```
    NEWS
```

⇩

```
FM    98.80 MHz
```

```
    NO PS
```

```
    NO PTY
```

```
    NO RT
```

■ To switch the display

Each time the DISPLAY MODE button is pressed whilst an FM station is tuned in, the display will switch as follows:

Station name (PS) → Programme type (PTY) → Radio text (RT) → Frequency

When the station you are tuning in is not an RDS station or even if it is an RDS station but it is very weak signal, the display will change in the following order:

"NO PS" ⟶ "NO PTY" ⟶ "NO RT" ⟶ Frequency
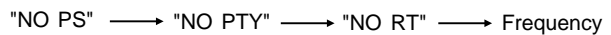
Notes:
● "NO PS", "NO PTY" or "NO RT" will flash for about 5 seconds, and then the frequency will be displayed.
● The display can only be switched whilst tuned to the FM band.

■ Notes for Radio text

● The radio text for 10 characters will be displayed steadily for 4 seconds and then it will scroll across the display.
● If you tune into a station which is not broadcasting any radio text, even if it is an RDS station, when you switch to the radio text position "NO RT" will be displayed.
● Whilst radio text data is being received or when the text contents change, "RT" will be displayed.

■ Notes for RDS operation

If any of the following events occur, it does not mean that the unit is faulty.
● "PS", "NO PS" and a station name appear alternately, and the unit does not operate properly.
● If a particular station is not broadcasting properly or a station is conducting tests, the RDS reception function may not work properly.
● When you receive an RDS station whose signal is too weak, information like the station name may not be displayed, even if "RDS" is lit.

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<P=006>

(Continued)

(Main unit operation)

2
4

DISPLAY
MODE

3

1

RDS EON
TA

`BBC R1`

2

RDS EON
TA

`PTY TI`

⇕

RDS EON
TA

`SELECT`

3

RDS EON
TA

`NEWS`

4

RDS EON   PTY
TA

`NEWS`

⇩

RDS EON   PTY
TA

`WAITING`

⇩

RDS EON   PTY
TA

`BBC R1`

5

RDS EON   PTY
TP

`BBC KENT`
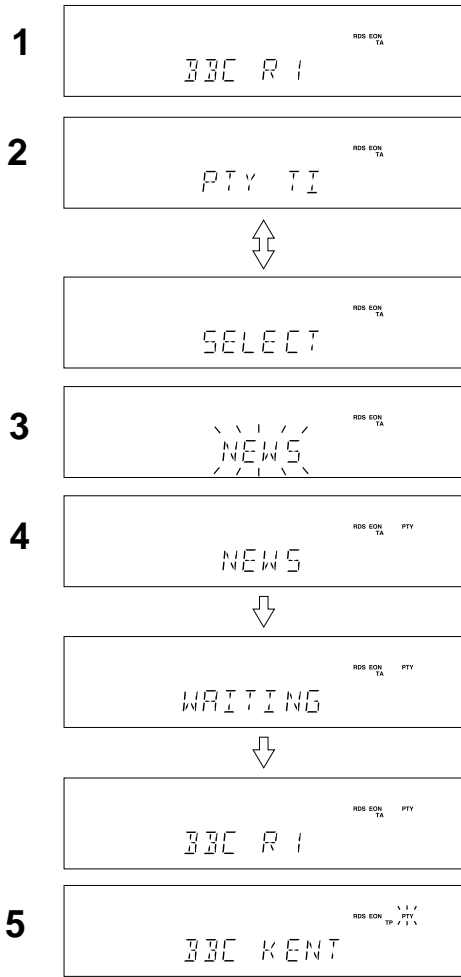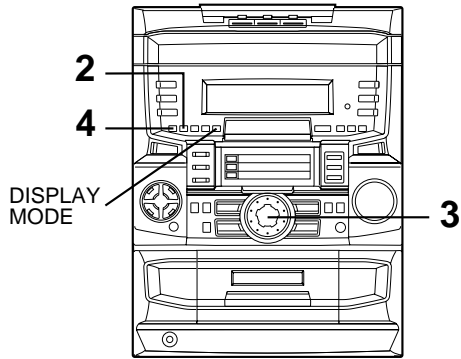
■ EON-PTY

1 Tune in the desired RDS station (when a station name is being displayed).

2 Press the EON button when "EON" appears.

● "PTY TI" and "SELECT" will appear alternately for about 6 seconds.

3 Whilst they are being displayed, select the desired programme type turning the jog dial.

● The selected programme type will flash.

4 Within 4 seconds, press the PTY.TI SEARCH button.

● The selected programme type and "WAITING" will be displayed for 2 seconds each.

● "PTY" will appear, and the unit will enter the EON-PTY stand-by mode.

5 When a programme of the type specified starts on an ON (other network) station, the unit will automatically switch to the station broadcasting the selected programme type, and "PTY" will flash.

6 When the programme specified for the ON station is over, the unit will automatically return to the original station you were tuned to.

Note:
● If the EON button is pressed when "EON" is not displayed, "NO EON" will appear for 5 seconds to indicate that the unit cannot enter the EON stand-by mode.

Checking the stand-by mode setting:
When in the EON stand-by mode, press the EON button.
("Programme type" → "WAITING")

To cancel the EON stand-by mode:
When in the EON stand-by mode, press the EON button. Within 4 seconds, press it again. The EON stand-by mode will be cancelled.
● "PTY" will go out.

About the PTYI (Dynamic PTY Indicator):
PTYI (Dynamic PTY Indicator) will appear whilst the Dynamic PTY station is being received.
Dynamic PTY indicates that the PTY for the station tuned in, or the PTY referenced in the EON data, is assessed whenever the programme changes and may be changed.
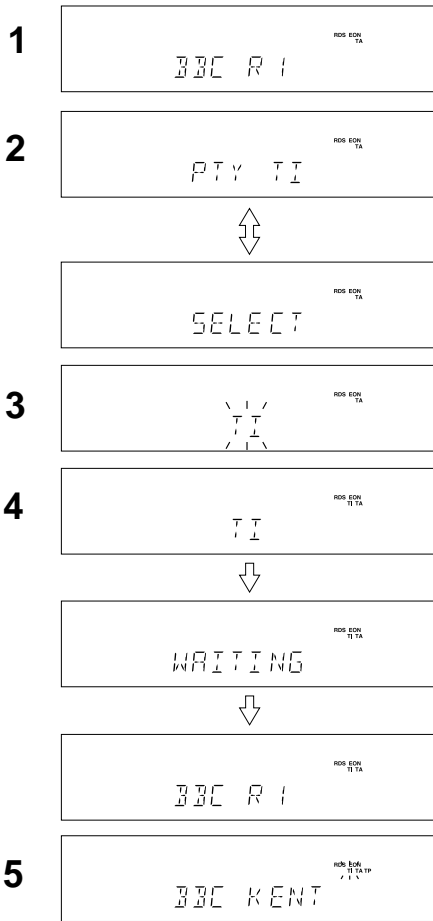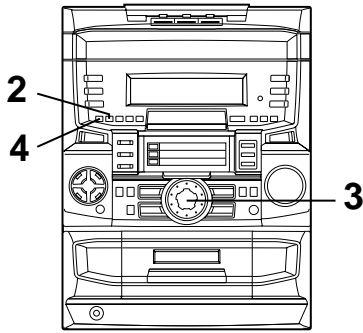
PTYI	Meaning
Lights up	Tuned into a dynamic PTY station.
Goes out	Tuned into a static PTY.

Note:
● When "PTYI" appears, if you press the DISPLAY MODE button to display the programme type, you can check the type of programme you are actually receiving.

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(Continued)

(Main unit operation)

2

4

3

1

BBC R1

RDS EON
TA

2

PTY TI

RDS EON
TA

⇕

SELECT

RDS EON
TA

3

TI

RDS EON
TA

4

TI

RDS EON
TI TA

⇩

WAITING

RDS EON
TI TA

⇩

BBC R1

RDS EON
TI TA

5

BBC KENT

rds EON
TI TA TP

■ EON-TI

1 Tune in the desired RDS station (when a station name is being displayed).

2 Press the EON button when "EON" appears.

● "PTY TI" and "SELECT" will appear alternately for about 6 seconds.

3 Whilst they are being displayed, select the TI (Traffic Information) using the jog dial.

● The selected "TI" will flash.

4 Within 4 seconds, press the PTY.TI SEARCH button.

● "TI" and "WAITING" will appear for 2 seconds each.

● "TI" will appear, and the unit will enter the EON-TI stand-by mode.

5 When a TA specifed starts on a other network station, the unit will automatically switch to that station, and "TI" will flash.

6 When the traffic announcement is over, the unit will automatically return to the original station you were tuned to.

Note:
● If the EON button is pressed when "EON" is not displayed, "NO EON" will appear for 5 seconds to indicate that the unit cannot enter the EON stand-by mode.

Checking the stand-by mode setting:
When in the EON stand-by mode, press the EON button.
("TI" → "WAITING")

To cancel the EON stand-by mode:
When in the EON stand-by mode, press the EON button. Within 4 seconds, press it again. The EON stand-by mode will be cancelled.
● "TI" will go out.

Note:
● If neither "TP" nor "TA" appear, then even if "EON" appears the unit cannot enter the EON-TI stand-by mode. In this condition, if the PTY. TI SEARCH button is press after TI is selected, "NO TI" will flash for 4 seconds.

About the TP and TA indicators

| TP indicator	TA indicator	Meaning
Not lit	Not lit	This programme does not carry traffic announcements nor does it refer, via EON, to a programme that does.
Not lit	Lit	This programme carries EON information about another programme which gives traffic information.
Lit	Not lit	This programme carries traffic announcements but none are being broadcast at present and may also carry EON information about other traffic announcements.
Lit	Lit	A traffic announcement is being broadcast on this programme at present.

25

(Continued)

In the following cases, the EON stand-by mode will be cancelled.

● Press the ON/STAND-BY button to enter the stand-by mode.

● When the unit is switched to another band in the EON stand-by mode

● When you change the FM station whilst in the EON stand-by mode

● When a preset call is made

Notes:

● During the same programme as the specified PTY (or TA) is being broadcast on the station you are receiving, the unit will not switch to other network station.

● If there are more than two other network stations you want to listen to, compare the strength of each station's signal and tune in the station with the strongest signal. (EON-AF)
However, if the frequency of other network station has been stored in the preset channel memory, the unit will switch to that preset channel.

● If you want to cancel the reception of an ON (other network) station which was tuned in by the EON system and return to the original station you were receiving, press the EON button.

● After the unit returns to the original station, the stand-by mode will still be active. (The "TI" or "PTY" will remain lit.)

● The unit will not switch from the ON station to another network station. The unit returns to the original station.

● When the unit switches automatically to "other network" station, if there is any problem with this station or the station cannot be received properly "WEAK SIG" will appear and the unit will return to the original station.

● Even if the unit switches from the station you are listening to directly to some "other network" station, if the signals from the other network stations are very weak, the unit will search for the station with the strongest signal and switch to it.
However, if the signals from all the other network stations are very weak, or if the tuning conditions are very bad (due to electrical noise), the unit will stop searching, "WEAK SIG" will be displayed, and the unit will return to the original station you were receiving.

26

CONVENIENT CD AND MD OPERATIONS
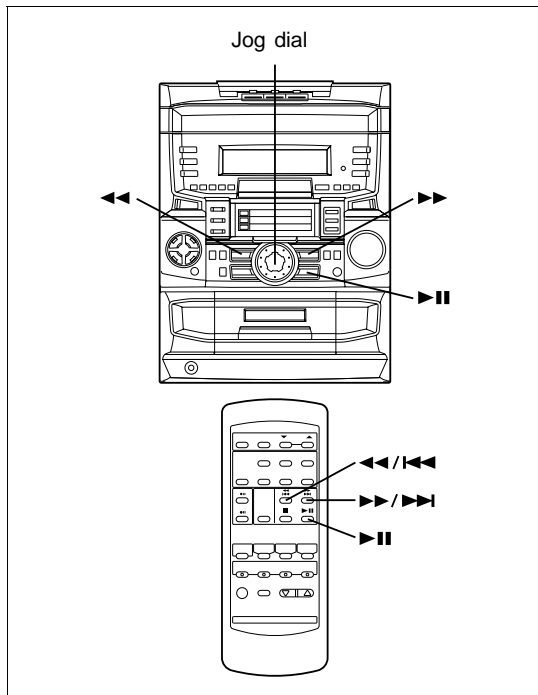
Jog dial

■ APSS (Auto Program Search System)

APSS automatically locates the beginning of any track.

To listen again to the track being played:
(Main unit operation)
Turn the jog dial anti-clockwise or press the ◄◄ button for less than 0.5 seconds during playback.

(Remote control operation)
Press the ◄◄/I◄◄ button for less than 0.5 seconds during playback.

To move to the beginning of the next track:
(Main unit operation)
Turn the jog dial clockwise or press the ►► button for less than 0.5 seconds during playback.

(Remote control operation)
Press the ►►/►►I button for less than 0.5 seconds during playback.

● To skip a number of tracks at one time, turn the jog dial on the main unit or press the ◄◄/I◄◄ or ►►/►►I button on the remote control repeatedly until the desired track number is shown.

● To start continuous playback from a desired track, select the track number by turning the jog dial on the main unit, or by pressing the ◄◄/I◄◄ or ►►/►►I button on the remote control, whilst in the stop mode. Then, press the ► II button.

Note:
APSS does not work on more than one disc at a time.
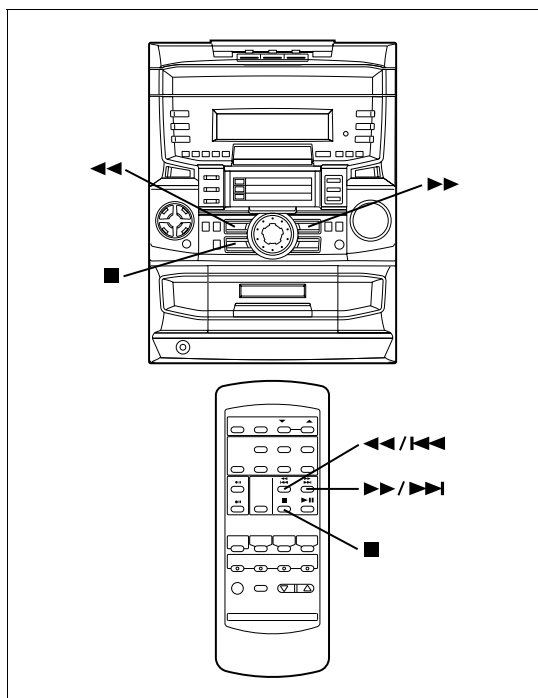
■ Cue and review

(Main unit/remote control operation)

1 Load a disc and begin playback.

2 Hold the ►► (►►/►►I) button down for audible fast forward, and hold the ◄◄ (◄◄/I◄◄) button down for audible fast reverse.

3 Normal playback will resume when the ◄◄ (◄◄/I◄◄) or ►► (►►/►►I) button is released.

To search very quickly:
When the ◄◄ (◄◄/I◄◄) or ►► (►►/►►I) button is held down for at least 0.5 seconds whilst in the pause mode, the search will be performed more quickly than during audible fast forward or fast reverse playback.

● In this mode, no sound is heard. Therefore, you should refer to the time display.

● When you lift your finger, the unit will re-enter the pause mode.

Notes:
● When the end of the disc is reached whilst cueing, "DISC END" will appear in the display. (Even though the next disc has been loaded, it will not be selected.)
Press the ◄◄ (◄◄/I◄◄) button for fast reverse or press the ■ button to stop the CD or MD operation.

● When the beginning of the first track is reached, normal playback will start.

● The sound may skip during fast forward or fast reverse, depending on the contents recorded on a MiniDisc.

● Fast forward or fast reverse will not move from one disc to another.

27

MD-C2H(SUK) TINSE0238AWZZ

<P=004>

(Continued)

MD PLAY 1► - 3►

CD PLAY 1► - 3►

PLAY MODE

MD

CD

■

►II

PLAY MODE

MD/CD PLAY 1► - 3►

►II

■

CD

MD

RANDOM

Repeat indicator   Random indicator   Disappears
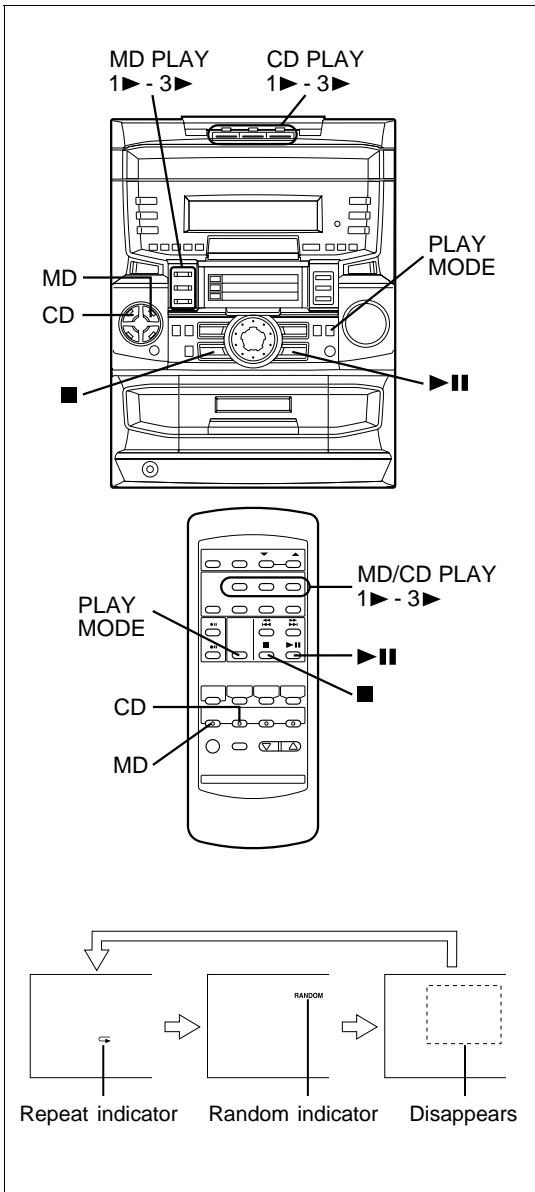
■ **Repeat and random play**

1 Select the desired programme source, MD or CD, by pressing the MD or CD button.

2 Press the PLAY MODE button.

● Each time this button is pressed, the mode will change in the following order:

Repeat play ⟶ Random play ⟶ Normal play
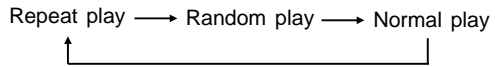
3 Press the ► II button to start playback.

● To play only the disc you specify, press one of the MD PLAY 1 ► - 3 ► buttons or CD PLAY 1 ► - 3 ► buttons.

Repeat play
After the last track has been played, playback will return to the first track and begin again.

Random play
All of the tracks on all of the discs can be played in random order automatically.
● If you press one of the MD PLAY 1 ► - 3 ► buttons or CD PLAY 1 ► - 3 ► buttons, you cannot play the tracks on the specified disc randomly.

To cancel repeat or random play:
Press the PLAY MODE button until the "⟲" or "RANDOM" display disappears.

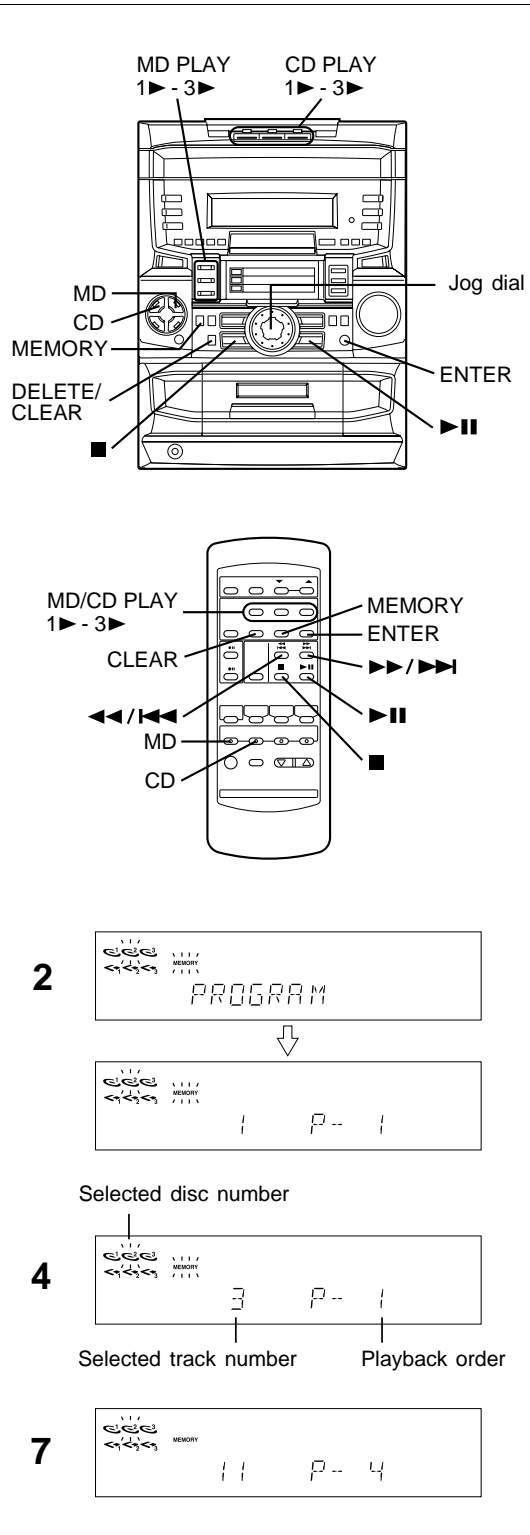**To repeat playback of selected tracks:**
Enter the programme for the tracks you want and start repeat play.
You can programme a single track and play it repeatedly (Refer to page 29).

Notes:
● When using random play or repeat play, be sure to press the ■ button after you are finished listening. Otherwise, the disc will play continuously.
● During APMS play, random play is not possible.
● When random or repeat play is selected during CD or MD playback, random or repeat play will start at that point.
● In random play the unit will select and play tracks automatically. (You cannot select the order of the tracks.)
● When you open the CD tray during CD random play or when you remove the MiniDisc during MD random play, normal play will resume at that point.
● You cannot make a one-touch editing using repeat or random play. (See page 32)

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<P=005>

(Continued)

MD PLAY
1► - 3►

CD PLAY
1► - 3►

MD

CD

MEMORY

DELETE/
CLEAR

Jog dial

ENTER

►II

■

MD/CD PLAY
1► - 3►

CLEAR

◄◄ / I◄◄

MD

CD

MEMORY

ENTER

►► / ►►I

►II

■

2

MEMORY

PROGRAM

MEMORY

1   P-- 1

Selected disc number

4

MEMORY

3   P-- 1

Selected track number   Playback order

7

MEMORY

11   P-- 4

■ **APMS**
  (Automatic Programmable Music Selector)

1 Select the desired programme source, MD or CD, by pressing the MD or CD button.

2 Press the MEMORY button.

● "MEMORY" will flash.

3 Press one of the MD PLAY 1 ► - 3 ► buttons or CD PLAY 1 ► - 3 ► buttons to select the desired disc number.

● The red frame of the selected disc will flash.

4 Turn the jog dial on the main unit or press the ◄◄ / I◄◄ or ►► / ►►I button on the remote control to select the desired track.

● The selected track number will be displayed.

5 Press the ENTER button.

6 Repeat steps 3 - 5 for any other tracks. Up to 32 MD tracks or 32 CD tracks can be programmed.

● To select another track on the same MD or CD, skip step 3.

● If you make a mistake whilst in the programming mode (MEMORY flashing) or wish to change your selections, the programmed tracks can be cleared by pressing the DELETE/CLEAR (CLEAR) button. The tracks will be cleared sequentially starting with the last entered track.

7 Press the ■ button.

● "MEMORY" will appear.

8 Press the ► II button to start playback of the programmed selections.

● After all of the programmed tracks have finished playback, the unit will automatically stop.

Adding tracks to the programme
If a programme has been previously stored, the "MEMORY" indicator will be displayed. Then follow steps 1 - 7 to add additional tracks, and they will be stored after the last track you entered.

Notes:
● It is not possible to insert an additional track between programmed tracks that have already been entered.

● Programming and cancelling are not possible during playback or in the pause mode.

To clear the programmed selections:
Press the DELETE/CLEAR (CLEAR) button whilst the disc is stopped.
● Each time the button is pressed, one track will be cleared, beginning with the last track programmed.

Notes:
● When you open the disc tray or a MiniDisc is removed, the APMS mode will be cancelled.

● You will not lose the programmed selections if you put the unit in Stand-by or change function i.e from CD to MD or other function.

● During APMS operation, random play is not possible.

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(Continued)

(Remote control operation)

MD TIME

1 1 0:03 TRACK

2 1 3:12 REMAIN TRACK

3 1 27:29 TOTAL REMAIN TRACK
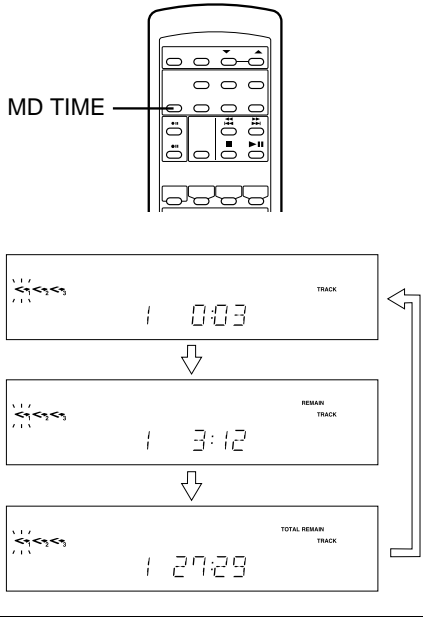
■ Switching the MD time display

Each time the MD TIME button is pressed during playback or when in the pause mode, the display will change as described below.
● The information displayed will relate to the MD whose red frame is flashing.

See the diagram to the left

1 The elapsed playing time for each track will be displayed.

2 The remaining playing time for the current track will be displayed.

3 The total remaining playing time for the disc from the point being played at that time will be displayed.

Notes:
● During random play, the total remaining playing time will not be displayed.
● Depending on a MD to be played, the playing time display may not match the total playing time which is indicated on the MD jacket, as the time between the tracks is not included.
● During playback, the elapsed time and the remaining playing time for the current track may be different from the actual time measured on a clock.

(Main unit operation)

DISPLAY

■ Changing the display during MD playback

Each time the DISPLAY button is pressed during playback or when in the pause mode, the display will change as described below.
● The information displayed will relate to the MD whose red frame is flashing.
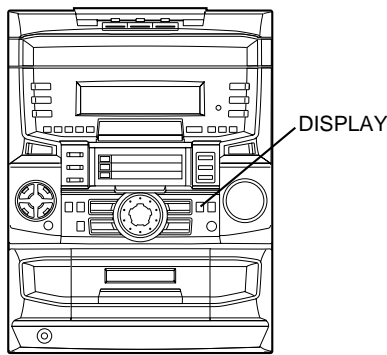
When the MD has a track name:

1 The track name will be displayed.

2 The total number of tracks and the remaining recording time will be displayed.

3 The elapsed playing time will be displayed.

When the MD does not have a track name:

1 The total number of tracks and the remaining recording time will be displayed.

2 The elapsed playing time will be displayed.

When the MD has a track name

1 LOVE SONG

2 12- 22:20

3 1 0:23
Elapsed playing time

When the MD does not have a track name

1 12- 22:20

2 1 0:23
Elapsed playing time
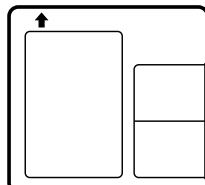
30

<P=002>
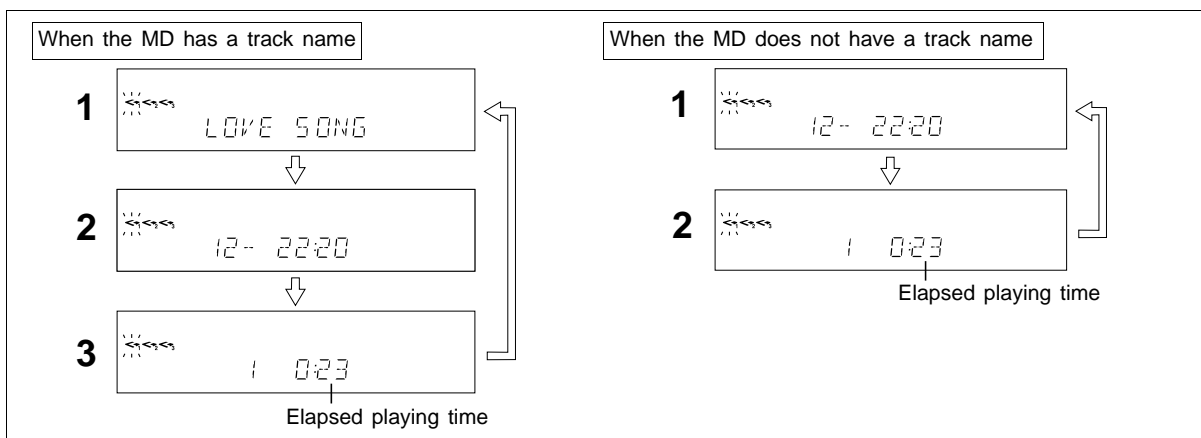
RECORDING

■ Differences from tape recordings

You cannot record music on the reverse side of a MiniDisc.

MiniDiscs are single sided and should only be inserted with the correct side up.

You don't need to search for the starting point at which to record.

The unit automatically finds the point at which recording can start. Recording will start from that point.

You can check the total or remaining recordable time (possible recording) before recording.

This lets you plan a recording session so that the last song will not come to an abrupt end before it has finished.

Area for TOC (recording track numbers, track names, etc.)

Area for recording the sound
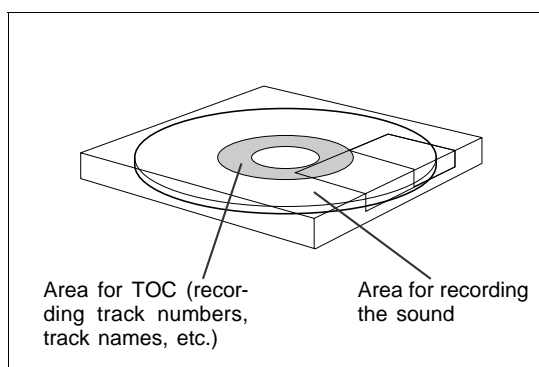
■ Disc writing (TOC)

The TOC (Table of Contents) is information on track numbers and recording areas to allow the unit to recognize musical selections or sounds.

The entire MD is controlled depending on this TOC, which enables the unit to find the beginning of a track quickly or to automatically record in a vacant area.

When you start recording or editing, "TOC" will appear in the display window.

This indicates that information in the TOC is now being changed according to recording or editing being performed. (The changed TOC is not yet recorded on the MiniDisc at this time.)

The TOC is recorded when

● you stop recording.

● you switch to another input source.

● you eject the MiniDisc.

● you enter the stand-by mode.

Do NOT unplug the power lead whilst the TOC is being recorded ("TOC" is flashing) and do NOT impart shock to the unit. Otherwise, TOC will not be correctly recorded, and consequently proper playback may not be possible.

■ About track numbers

When recording from a CD

New track numbers will be created automatically according to the original tracks (Synchro mark function).

● When you record from a CD to a MiniDisc, the track numbers recorded on the MiniDisc may not match the track numbers on the CD.
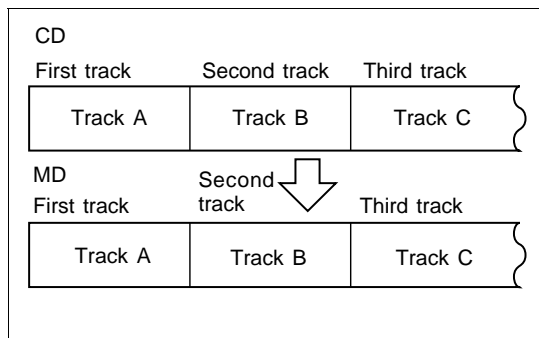
If this happens, correct the track numbers using the DIVIDE (page 38) and COMBINE (page 38) functions after recording.

Recordings cannot be made in the following situations.

● If you try recording on a playback-only MiniDisc (commercially available music)

● If a MiniDisc is protected against accidental erasure (Page 49)

● If there is no more recording time left on the disc (Page 50)

● When the "TOC FULL ∗" message appears (Page 50) (∗:Number or Symbol)

● If a disc's TOC has been damaged

● If you are trying to copy a digital signal that has been encoded with the SCMS signal (Serial Copy Management System)
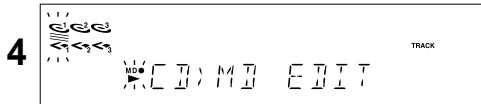
Notes:

● When recording important selections, be sure to make a preliminary test to ensure that the desired material is being properly recorded.

● The VOLUME, X-BASS and SURROUND controls may be adjusted with no effect to the recorded signal. (Variable Sound Monitor)

CD

First track	Second track	Third track
Track A	Track B	Track C

MD

First track	Second track	Third track
Track A	Track B	Track C

31

(Continued)

(Main unit operation)

3
1
2
■

4

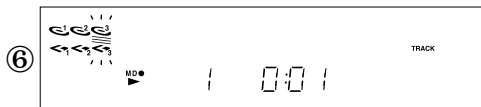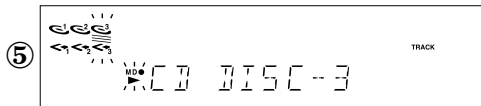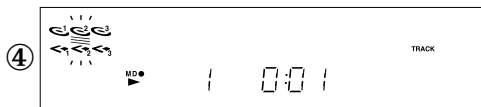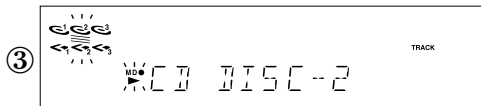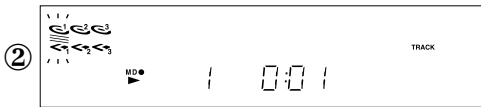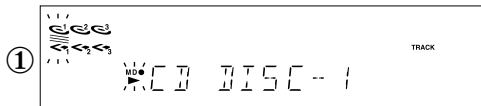CD)MD EDIT   TRACK
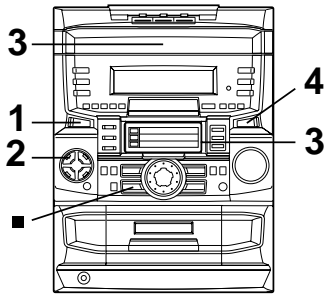
The unit will start recording the contents of CD 1 (2) (3) onto MD 1 (2) (3).

(Example: When three CDs and three MDs are loaded)

①
CD DISC-1   TRACK

⇩

②
▶   1 0:01   TRACK

⇩

③
CD DISC-2   TRACK

⇩

④
▶   1 0:01   TRACK

⇩

⑤
CD DISC-3   TRACK

⇩

⑥
▶   1 0:01   TRACK

⇩

⑦
EDIT END   DISC

■ **Recording from CDs onto MiniDiscs (One-Touch Editing)**

You can record from up to three CDs onto three MiniDiscs with a one-touch operation.
When multiple CDs are recorded onto MiniDiscs, the contents of a particular CD can be recorded onto the MiniDisc which has the same disc number as the CD.

1 Press the ON/STAND-BY button to turn the power on.

2 Press the CD button.

3 Load compact discs and recordable MiniDiscs.

● The total number of tracks and the total playing time will be displayed for the CD whose red frame is flashing.

● When a new recordable MiniDisc is loaded, it will take about 15 seconds to enter the recording stand-by mode.

4 Press the CD ▶ MD EDIT button.

● When CD 1, CD 2 and CD 3 are recorded onto MD 1, MD 2 and MD 3, recording will start from the first track on CD 1 and continue in order.

① CD 1 is selected.

② The unit will start recording the contents of CD 1 onto MD 1.

③ After recording on MD 1 has finished, the track numbers will be written to MD 1. Then, CD 2 will be selected.

④ The unit will start recording the contents of CD 2 onto MD 2.

⑤ After recording on MD 2 has finished, the track numbers will be written to MD 2. Then, CD 3 will be selected.

⑥ The unit will start recording the contents of CD 3 onto MD 3.

⑦ After recording on MD 3 has finished, the track numbers will be written to MD 3 and the unit will stop.

● When the recordings on MD 1 through MD 3 have been completely finished, the CD and the MD will be stopped automatically, and the track numbers will be written to the MD.

To stop recording:
Press the ■ button.

● Playback and recording will stop and the track numbers will be written on the MD.
It is not possible to pause in the recording mode.

Note:
● Only the tracks from the CD with the same disc number as a MiniDisc can be recorded.
When the available recording time on the MiniDisc is consumed, the CD will stop, even if there is more playing time left on the CD. Then, the unit will start recording from the first track on the next CD onto the next MD.

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(Continued)

(Main unit operation)
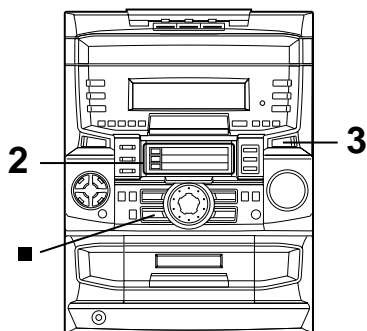
■ APMS recording from CDs onto MiniDiscs

You can select your favourite tracks from CDs and record them onto three consecutive MiniDiscs.

1 Select tracks for APMS playback. (Page 29)

2 Load recordable MiniDiscs.

3 Press the CD ► MD EDIT button.

● APMS playback will start, and recording will start on MD 1 automatically.

● Programmed tracks will be recorded in order. After the unit has finished recording the last track, recording will stop automatically.

● If a MiniDisc runs out of room whilst recording in the middle of a CD track, the unit will automatically start recording from the beginning of the track onto the next MD.
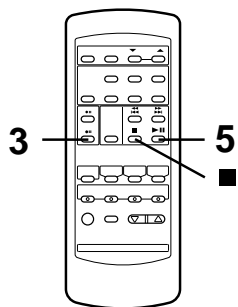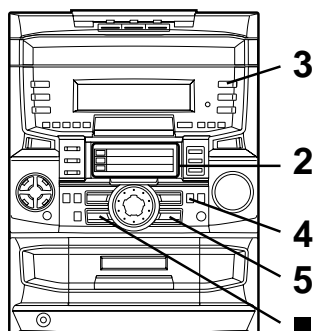
To stop recording:
Press the ■ button.

● It is not possible to pause in the recording mode.

Note:
● When repeat play or random play has been set, if you press the CD ► MD EDIT button, the play mode will be cancelled, and APMS recording will start.

■ Recording from the built-in radio onto MiniDiscs

When three MiniDiscs are loaded, you can make an extended recording from MD 1 through MD 3.

1 Tune in to the desired station. (pages 15 - 16.)

2 Load recordable MiniDiscs.

3 Press the MD REC ● button.

● The unit will enter the recording stand-by mode.

Note:
● Before recording an AM broadcast, enter the recording stand-by mode, and then separate the AM loop aerial from the main unit. Adjust it so that the AM broadcast can be tuned in most clearly.

4 Check the recordable time by pressing the DISPLAY button.

5 Press the ► ❙❙ button.

● Recording will start from MD 1, and MD 2 and MD 3 will be recorded in order.
When the available recording time on MD 3 is consumed, MD 3 will stop automatically.

● During recording, you cannot change the station.

To record the track number whilst recording:
The recording is performed as a single track.
To identify different sections of a recording you can increase the track number at any point during the recording process. To create a new track number, whilst in the recording mode, press the MD REC ● button.

● The track number will increase by one, and then the recording will continue.

To stop recording:
Press the ■ button.

33

(Continued)

CD PLAY
1► - 3►

1

4

CD

2

TAPE

5

1

6

■

4   **6**

■

CD   TAPE
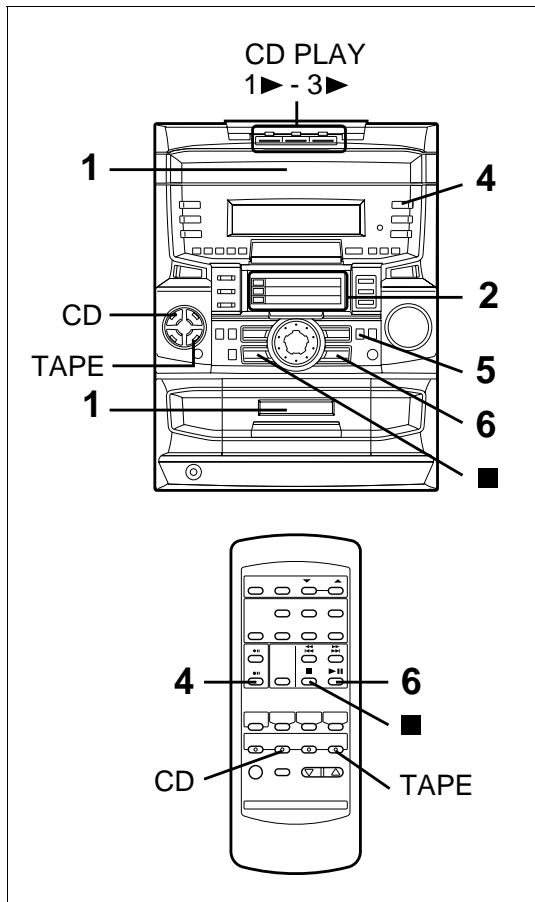
■ **Recording from CDs or a cassette onto MiniDiscs (Synchronised Recording System)**

When a CD or a tape is played, the MD recording will start simultaneously.

1 Load CDs or a tape for playback.

2 Load recordable MiniDiscs.

3 Press the CD or TAPE button to select the desired function.

● When recording from a CD, you can specify the CD track you want to start recording from.
Select a disc using the CD PLAY button, and press the ■ button to stop the disc. Then, use the jog dial to select the track.
(Continuous recording will start from the selected track.)

4 Press the MD REC ● button.

● "MD ●" will flash, and the unit will enter the recording stand-by mode.

● To cancel the operation, press the ■ button.

5 Check the recordable time by pressing the DISPLAY button.

6 Press the ► II button.

● When recording from a CD, continuous recording will start from the CD whose red frame is flashing.

● After the recording has finished, the CD or tape and the Mini-Disc will stop automatically.

To specify the disc to start with and start recording:

① Perform steps 1 - 3 above.

② Press the CD PLAY 1 ► - 3 ► button whose number matches the frame which is currently flashing.

③ Press the ■ button.

④ Press the MD REC ● button, then the ► II button.

To stop recording:
Press the ■ button after pressing the ■ button.
● It is not possible to pause in the recording mode.

Notes:
● When recording from a CD, if a MiniDisc runs out of room whilst recording in the middle of a CD track, the unit will automatically start recording from the beginning of the track onto the next MD.

● When recording from a tape, if a MiniDisc runs out of room whilst recording in the middle of a track, the unit will continue recording on the next MD from the point where the track was stopped.

Auto Mark function
If there is 1 second or more of silence, a new track number is created automatically.

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<P=002>

(Continued)
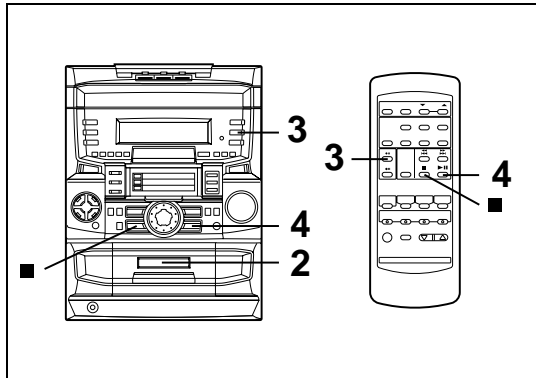
■ Recording from the built-in radio to a cassette tape

1 Tune in to the desired station. (Pages 15 - 16.)

2 Load a blank cassette into the cassette compartment.
● Wind past the tape leader which cannot be recorded on.

3 Press the TAPE REC ● button.
● "TAPE ●" will flash, and the unit will enter the recording stand-by mode.

4 Press the ► II button.
● After one side of the tape has finished recording, the recording will stop automatically.

To stop recording:
Press the ■ button.
● It is not possible to pause in the recording mode.

Notes:
● Before recording an AM broadcast, enter the recording stand-by mode, and then separate the AM loop aerial from the main unit. Adjust it so that the AM broadcast can be tuned in most clearly.
● During recording, you cannot change the station.

■ Recording from CDs or MDs to a cassette tape (Synchronised Recording System)

When a CD or an MD is played, recording will start automatically.
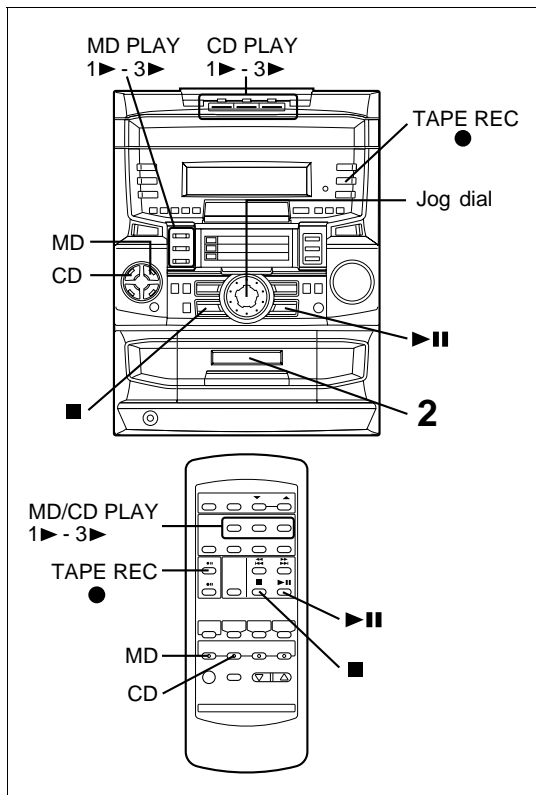
1 Load CDs or MiniDiscs.

2 Load a blank cassette into the cassette compartment.
● Wind past the tape leader which cannot be recorded on.

3 Press the CD or MD button to select the desired function.
● To select the track you want to start recording from, select a disc using the CD PLAY or MD PLAY button, and press the ■ button to stop the disc. Then, use the jog dial to select the track.
(Continuous recording will start from the selected track.)
● Use the APMS function to store the tracks you want to record in memory. (See page 29.)

4 Press the TAPE REC ● button.
● "TAPE ●" will flash, and the unit will enter the recording stand-by mode.
● To cancel the operation, press the ■ button.

5 Press the ► II button.
● Recording will start from the CD or MD whose red frame is flashing.
● After the recording has finished, the CD or MiniDisc and the tape will stop automatically.

To specify the disc to start with and start recording:

① Perform steps 1 - 3 above.

② Press one of the CD PLAY 1 ► - 3 ► buttons or MD PLAY 1 ► - 3 ► buttons.

③ Press the ■ button.

④ Press the TAPE REC ● button, then the ► II button.

To stop recording:
Press the ■ button after pressing the ■ button.
● It is not possible to pause in the recording mode.

Note:
● When the playing time on a CD or a MiniDisc is greater than the time you can record on one side of a tape, the unit will record on one side and then the tape will stop.
In this case, press the ■ button to stop the CD or MiniDisc.

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<P=003>

EDITING

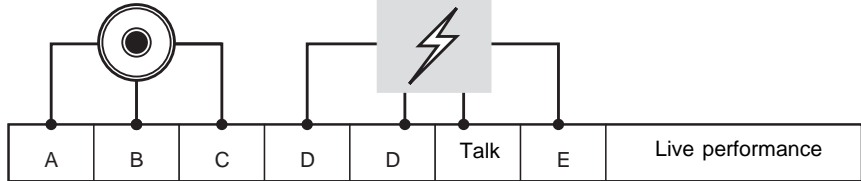### ■ Using the editing function

We will show you some examples of how to use the editing functions. You can create a disc of your favorite selections by recording tracks from a variety of input sources such as CDs and radio broadcasts.

STEP 1

Recording tracks to be edited on an MD

Digital recording from a CD

Recording a broadcast

| A | B | C | D | D | Talk | E | Live performance |

STEP 2

Putting the space be-tween tracks in order

| A | B | C | D | D | Talk | E | Live performance |

The tracks are com-bined using the com-bine function.

The tracks are divided using the divide func-tion.

STEP 3

Cutting unnecessary sections

| A | B | C | D | Talk | E | F | G | CM | H |

Cut using the erase function.

Cut using the erase function.

STEP 4

Rearranging tracks in your preferred order

| A | B | C | D | E | F | G | H |
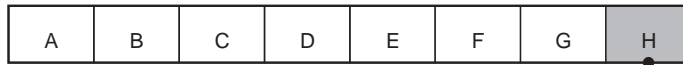
The track is moved using the move function.

STEP 5

Finish by putting names on the disc and tracks

BEST HITS

(Disc name)

LOVE SONG

(Track name)

■ Recording the editing results

TOC

Flashing during recor-ding
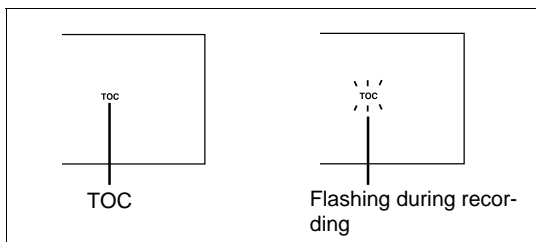
Whilst editing, the "TOC" indicator is displayed. This means the edit results have not been recorded on the MiniDisc.
To record the results, select another input or set the unit to the stand-by mode. During writing, the "TOC" display will flash.
Once the "TOC" goes out, all editing changes have been re-corded to the disc.

Note:
● Storing the edited contents on the disc can be done after sev-eral pieces of editing have been finished.

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(Continued)

We will explain the 5 editing functions with which you can create your own original discs from recorded MiniDiscs. Playback-only MiniDiscs cannot be edited.
(You cannot edit more than one MiniDisc at one time.)

DIVIDE

A track can be divided into two tracks. If two selections were recorded as a single track because there was not enough silent space between the pieces, you can use the DIVIDE function to separate the selections.
This feature is also convenient for identifying specific points with one selection so that you can locate those points easily whenever you like.
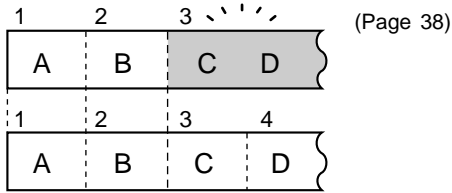This unit can hold up to 255 tracks. However, even if the number of tracks assigned has not reached 255, it might not be possible to make any further divisions of tracks.

(Page 38)

1	2	3	
A	B	C	D

1	2	3	4
A	B	C	D

COMBINE

Two adjacent tracks (for example, the third and fourth tracks) can be combined.
If there is a prolonged silent section in the middle of a selection that is recorded, a single piece of music may be recorded as two tracks. If this happens, these two tracks can be combined into a single track.

(Page 38)

1	2	3	4
A	B	C	D

| 1	2	3	
A	B	C	D
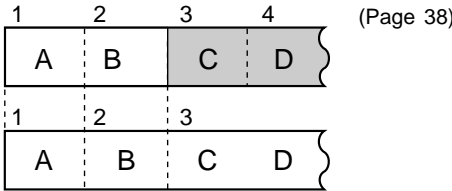
ERASE/ALL ERASE

Tracks you want to erase can be erased one at a time or all at once.
Once a track has been erased, it cannot be recovered. Double-check the track number before erasing it.

(Page 40)

1	2	3	4	5
A	B	C	D	E

1	2	3	4
A	B	D	E
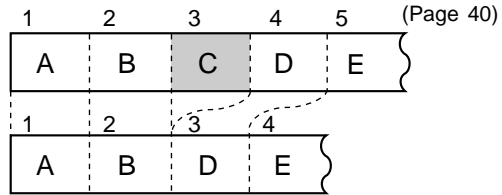
MOVE

The order of the recorded tracks can be changed. This feature is different from programme play. A new track order can be recorded directly on the disc. When the power is turned off, the revised order will not be changed.

(Page 39)

1	2	3	4
A	B	C	D

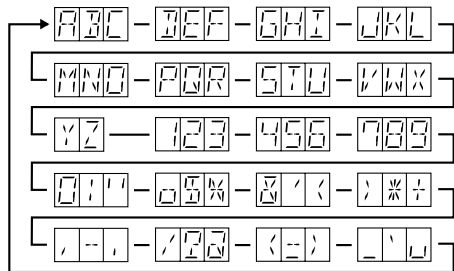| 1	2	3	4
C	A	B	D
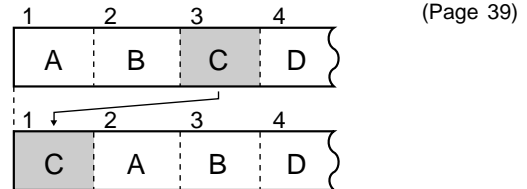
TRACK/DISC NAME

You can assign titles to recorded tracks and to discs. The characters must be capital letters, or symbols. Track and disc names can use up to 40 characters per name.

(Pages 41-42)

LOVE SONG

■ Usable characters

ABC – DEF – GHI – JKL
MNO – PQR – STU – VWX
YZ — 123 – 456 – 789
0!" – 0$% – &'(–)*+
,-. – /?@ – <=> – _`␣

● The display shapes shown below correspond to the following symbols.

Shape											
Symbols	!	"	#	$	%	&	'	(	)	*	+

Shape											
Symbols	,	-	.	/	?	@	<	=	>	_	`	␣

Number of characters you can enter
● Disc names and track names
Up to 40 characters (including spaces) can be entered for each name. If more than 40 characters are entered, "NAME FULL" will appear.
● Total number of characters per MiniDisc
A total of approximately 1700 characters can be used for all of the disc and track names. If more than 1700 characters are entered, "TOC FULL *" will appear.
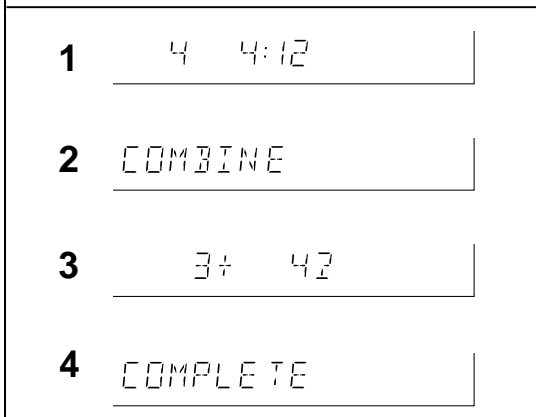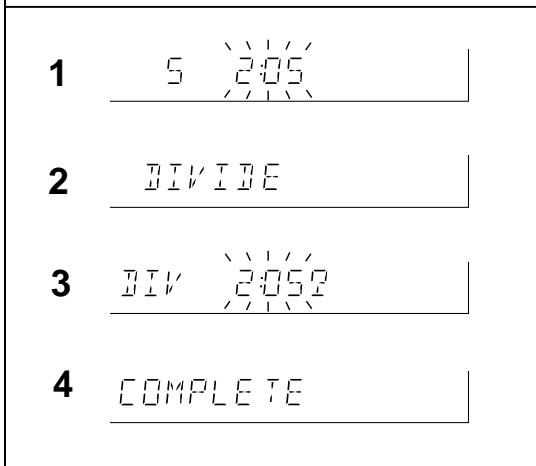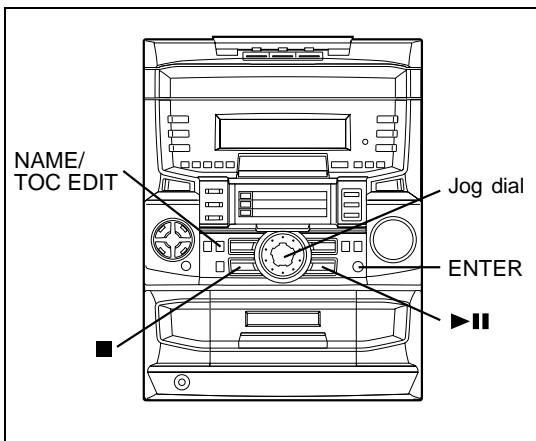(*:Number or Symbol)

Notes:
● Lower-case letters cannot be entered.
● All of the disc names and track names entered using other equipment are displayed in capital letters on this unit.

37

(Continued)

NAME/
TOC EDIT

Jog dial

ENTER

►‖

■

1   `5  2:05`

2   `DIVIDE`

3   `DIV 2:052`

4   `COMPLETE`

1   `4  4:12`

2   `COMBINE`

3   `3+  42`

4   `COMPLETE`

When both tracks have a name:
● When only the first track has a name → That name will be used.
● When only the second of the two tracks has a name → That name will be used.
● When both tracks have a name → The name of the first track will be used.

To combine two non-contiguous tracks:
(Example: the first and third tracks)
Move the third track to the second track using the MOVE function. (Page 39)
Then, combine the first and second tracks using the COMBINE function.

■ Divide

Before making editing changes, check the disc number.

1 Play the track which you want to divide into two, and press the ► ‖ button at the point where you want to divide the track.

● The unit will enter the pause mode.

2 Press the NAME/TOC EDIT button, and within 10 seconds, select "DIVIDE" using the jog dial.

3 Within 10 seconds, press the ENTER button.

● To cancel the operation, press the ■ button.

4 Press the ENTER button again.

● The track is divided, and the unit is stopped at the beginning of the second of the two tracks.

● The numbers of the tracks which come after the divided track are automatically increased by one.

Notes:
● When a track which has been given a name is divided, the two new tracks will have the same name. If the "TOC FULL ∗" message is seen, the second track may not be given a name. (Page 50)

● This unit can hold up to 255 tracks. However, even if the number of tracks assigned has not reached 255, it might not be possible to make any further divisions of tracks. (Page 50)

● This function cannot be used whilst a programme is being entered ("MEMORY" is lit: Page 29) or whilst in the random play mode ("RANDOM" is lit: Page 28). First, cancel the programme or random play mode before trying to use this function.

■ Combine

Before making editing changes, check the disc number.

1 Whilst in the stop mode, select the second of the two adjacent tracks you want to combine using the jog dial.
Or start playing the second of the two tracks you want to combine, and then press the ► ‖ button to enter the pause mode.

2 Press the NAME/TOC EDIT button, and within 10 seconds, select "COMBINE" using the jog dial.

3 Within 10 seconds, press the ENTER button.

● To cancel the operation, press the ■ button.

4 Press the ENTER button again.

● The two tracks are combined, and the unit is stopped at the beginning of the combined track.

● The numbers assigned to the tracks following the combined track are automatically decreased by one.

Notes:
● Tracks recorded from analogue inputs cannot be combined with tracks recorded from CDs or MDs using the digital inputs.

● Tracks recorded in the stereo mode cannot be combined with tracks recorded in the monaural long-play mode.

● Tracks where either track's recording time is less than 15 seconds may not be combined.

● This function cannot be used whilst a programme is being entered ("MEMORY" is lit: Page 29) or whilst in the random play mode ("RANDOM" is lit: Page 28). First, cancel the programme or random play mode before trying to use this function.

38

(Continued)

NAME/
TOC EDIT

Jog dial

ENTER

►II

■

1   4 4:27

2   MOVE

3   4)   7 2

4   4)   11 2

5 COMPLETE

■ Move

Before making editing changes, check the disc number.

1 Whilst in the stop mode, select the track you want to move using the jog dial.
Or start playing the track to be moved, and then press the ►II button to enter the pause mode.

2 Press the NAME/TOC EDIT button, and within 10 seconds, select "MOVE" using the jog dial.

3 Within 10 seconds, press the ENTER button.

4 Select the new track position using the jog dial.

● To cancel the operation, press the ■ button.

5 Press the ENTER button again.

● The track is moved, and the unit is stopped at the beginning of the track.

Note:
● When a track has been moved, the other tracks which are affected will be assigned new track numbers automatically.

Example:
When moving the fifth track to the third track, the old third track will become the new fourth track, and the old fourth track will become the new fifth track.
● This function cannot be used whilst a programme is being entered ("MEMORY" is lit: Page 29) or whilst in the random play mode ("RANDOM" is lit: Page 28). First, cancel the programme or random play mode before trying to use this function.

<P=004>

(Continued)

NAME/
TOC EDIT

Jog dial

ENTER

►II

■

1   `5  4:52`

2   `ERASE`

3   `ERASE  5 7`

4   `COMPLETE`

■ Erase

Before making editing changes, check the disc number.

To erase tracks one at a time:

1 Whilst in the stop mode, select the track you want to erase using the jog dial.
Or start playing the track to be erased, and then press the ► II button to enter the pause mode.

2 Press the NAME/TOC EDIT button, and within 10 seconds, select "ERASE" using the jog dial.

3 Within 10 seconds, press the ENTER button.

● To cancel the operation, press the ■ button.

4 Press the ENTER button again.

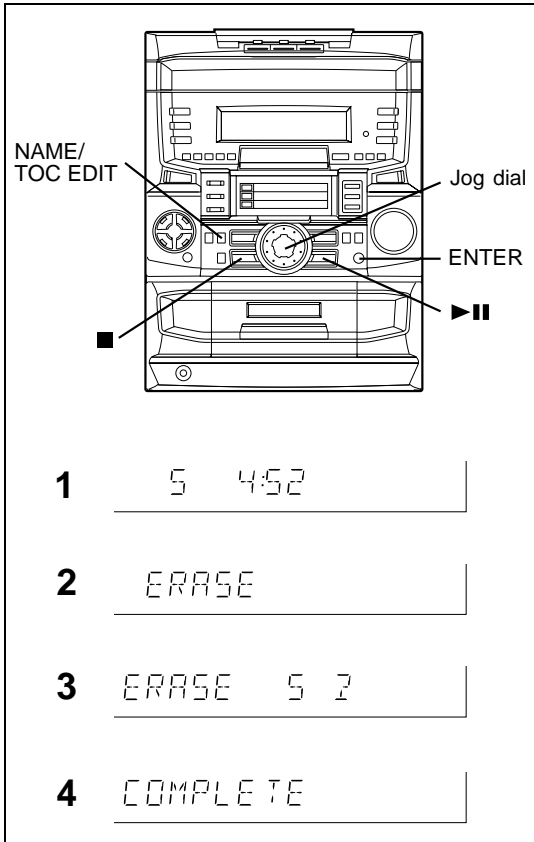● The track is erased, and the unit is stopped at the beginning of the previous track.

● When a track is erased, the numbers assigned to the tracks following the erased track will be automatically decreased by one.

Notes:
● Once a track has been erased, it cannot be recovered. Double-check the track number before erasing it.

● When a track is erased, the track name will be erased at the same time.

● This function cannot be used whilst a programme is being entered ("MEMORY" is lit: Page 29) or whilst in the random play mode ("RANDOM" is lit: Page 28). First, cancel the programme or random play mode before trying to use this function.

NAME/
TOC EDIT

Jog dial

ENTER

■

2   `ALL ERASE`

3   `ALL ERASE?`

4   `COMPLETE`

⇩

`BLANK MD`
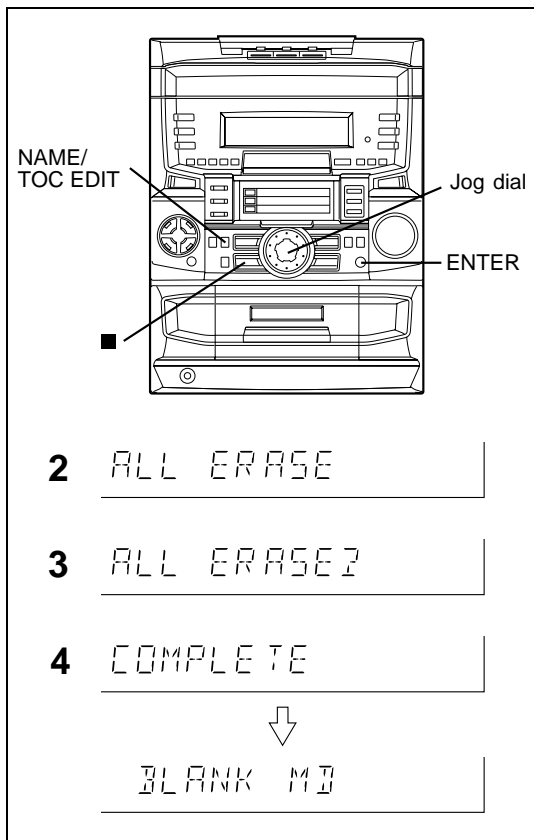
Before making editing changes, check the disc number.

To erase all of the tracks at once:

1 Press the ■ button.

● The total number of tracks and the total playing time on an MD will appear.

2 Press the NAME/TOC EDIT button, and within 10 seconds, select "ALL ERASE" using the jog dial.

3 Within 10 seconds, press the ENTER button.

● To cancel the operation, press the ■ button.

4 Press the ENTER button again.

● All of the track numbers, names and disc name will be erased.

Note:
● This function cannot be used whilst a programme is being entered ("MEMORY" is lit: Page 29) or whilst in the random play mode ("RANDOM" is lit: Page 28). First, cancel the programme or random play mode before trying to use this function.

40

(Continued)

NAME/
TOC EDIT

DELETE/
CLEAR

ENTER

Jog dial

2 DISC NAME ⟨DISC⟩

3 ⟨DISC⟩

4 ⟨DISC⟩

5 ⟨DISC⟩

6 BEST HIT ⟨DISC⟩
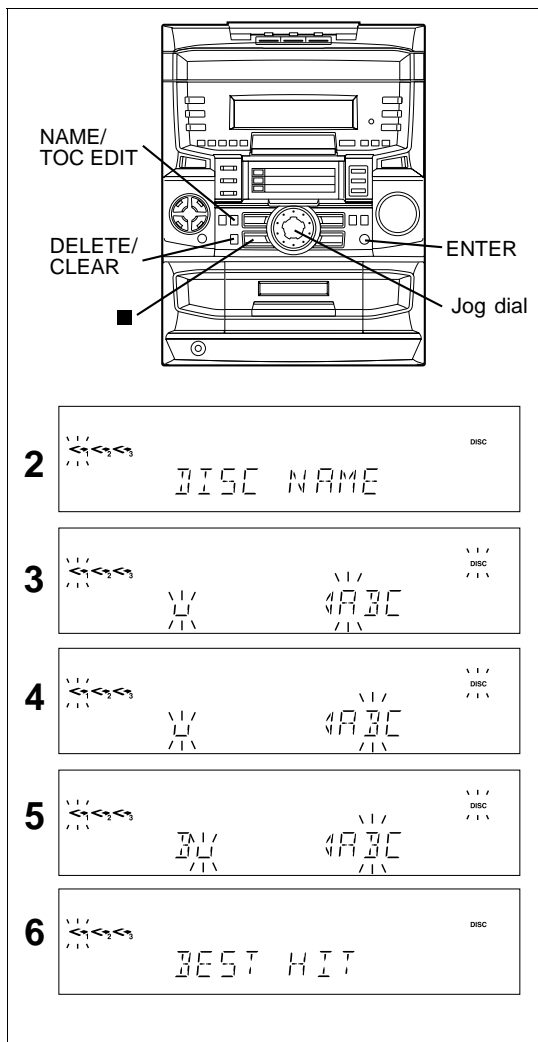
■ To create a disc name

Before making editing changes, check the disc number.

A name for the whole disc. A Disc name is displayed when an MD is inserted.

1 Press the ■ button.

● The total number of tracks and the total playing time on an MD will appear.

2 Press the NAME/TOC EDIT button, and then select "DISC NAME" using the jog dial.

3 Within 10 seconds, press the ENTER button.

● The unit will enter the character input mode.

4 Select the character you want using the jog dial.

5 Press the ENTER button to enter the character.

● Repeat steps 4 to 5 above to enter the characters in the name.

6 After entering all of the characters in the name, press the NAME/TOC EDIT button.

● The disc name will be recorded.

To erase a disc name:
After performing steps 1 to 2.

① Within 10 seconds, press the DELETE/CLEAR button for 2 seconds or more.

● "D.NAME CL?" will appear.

● To cancel the operation, press the NAME/TOC EDIT button.

② Press the ENTER button.

Note:
● This function cannot be used whilst a programme is being entered ("MEMORY" is lit: Page 29) or whilst in the random play mode ("RANDOM" is lit: Page 28). First, cancel the programme or random play mode before trying to use this function.

41

(Continued)

NAME/
TOC EDIT

DELETE/
CLEAR

ENTER

Jog dial

1 `►TRACK NAME` TRACK

2 `►⊔ ◄ABC` TRACK

3 `►⊔ ◄JKL` TRACK

4 `►L⊔ ◄JKL` TRACK

5 `►LOVE SONG` TRACK

■ To create a track name

Before making editing changes, check the disc number.
Name each track.
A track's name will be displayed whenever you select it and during playback.

1 During playback, press the NAME/TOC EDIT button.

● "TRACK NAME" will appear.

2 Within 10 seconds, press the ENTER button.

● The unit will enter the character input mode.

● The track you are listening to will be played repeatedly.

3 Select the character you want using the jog dial.

4 Press the ENTER button to enter the character.

● Repeat steps 3 to 4 above to enter the characters in the name.

5 After entering all of the characters in the name, press the NAME/TOC EDIT button.

● The track name will be recorded.

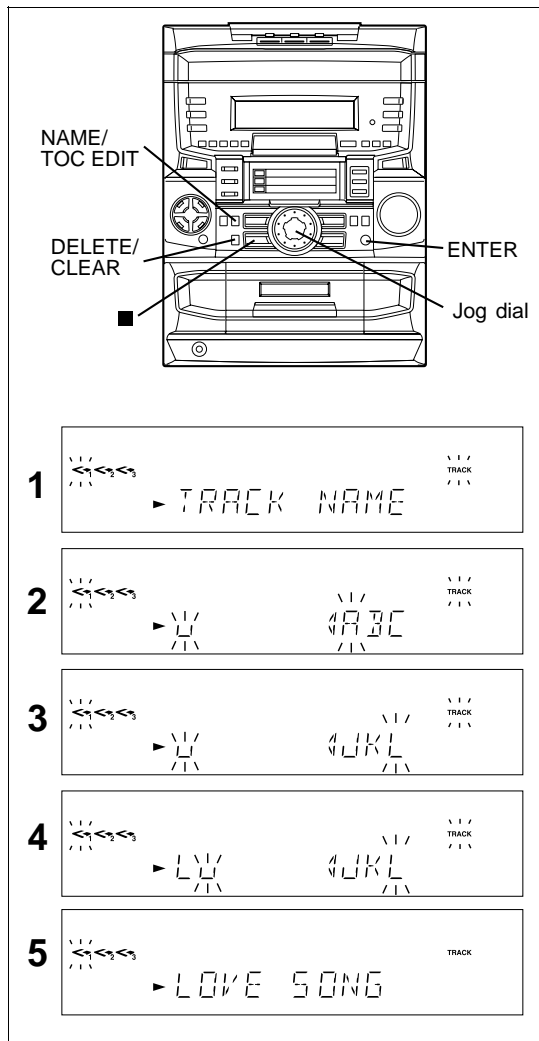● The unit will return to normal playback.

To erase a track name:
After performing step 1.

① Within 10 seconds, press the DELETE/CLEAR button for 2 seconds or more.

● "T.NAME CL?" will appear.

● To cancel the operation, press the NAME/TOC EDIT button.

② Press the ENTER button.

Notes:
● This function cannot be used whilst a programme is being entered ("MEMORY" is lit: Page 29) or whilst in the random play mode ("RANDOM" is lit: Page 28). First, cancel the programme or random play mode before trying to use this function.

● The track name function can be used whilst in the stop mode (when selecting a track), in the pause mode, or in the recording mode. (Select "TRACK NAME" from the edit menu.)

● If you create a track name whilst recording the track, make sure you finish entering the name before you finish recording the track.
If the end of the recording is reached before you have entered the complete name, only the characters entered before the recording ended will be recorded.

42

(Continued)
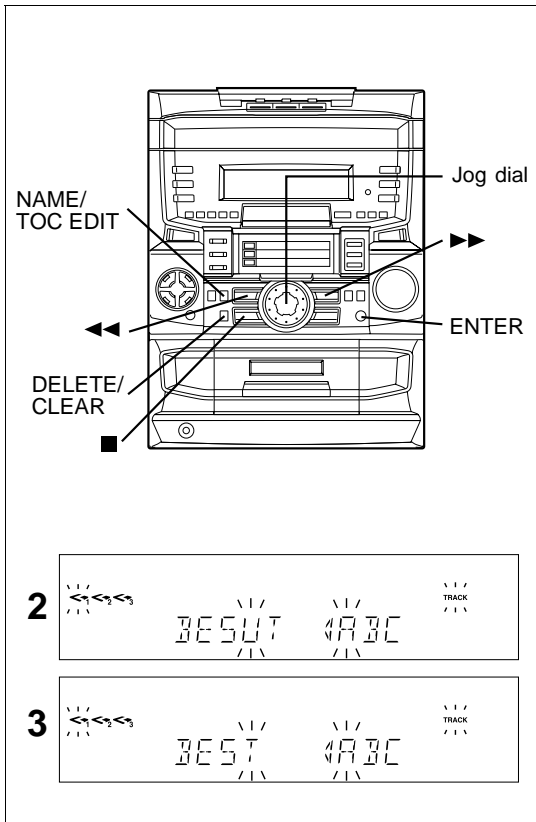
■To change disc names and track names

Before making editing changes, check the disc number.

1 To change disc names, perform steps 1 - 3 on page 41.

To change track names, perform steps 1 - 2 on page 42.

Example: To change "BESUT" to "BEST"

2 Press the ◄◄/►► button to make the character you want to erase begin flashing.

● To cancel the operation, press the ■ button.
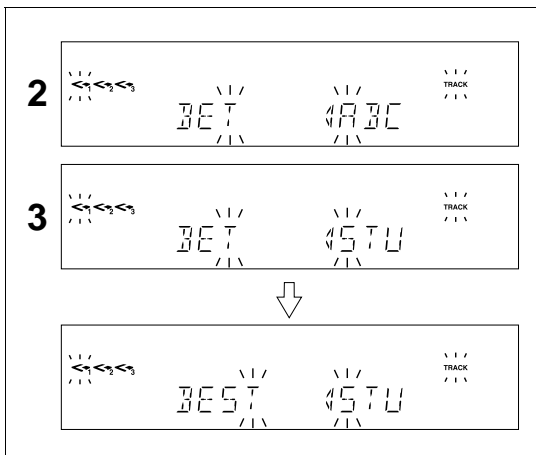
3 Press the DELETE/CLEAR button.

● After this step, if you are not going to enter a character, go to step 5.

4 Select the character you want to add, using the jog dial. Then, press the ENTER button.

● The selected character will be added, and the original characters will move to the right by one.

5 After entering all of the characters in the name, press the NAME/TOC EDIT button.

To add a character:

1 To change disc names, perform steps 1 - 3 on page 41.

To change track names, perform steps 1 - 2 on page 42.

Example: To change "BET" to "BEST"

2 Press the ◄◄/►► button to make the character at the place you want to add a letter begin flashing.

● To cancel the operation, press the ■ button.

3 Select the character you want to add, using the jog dial. Then, press the ENTER button.
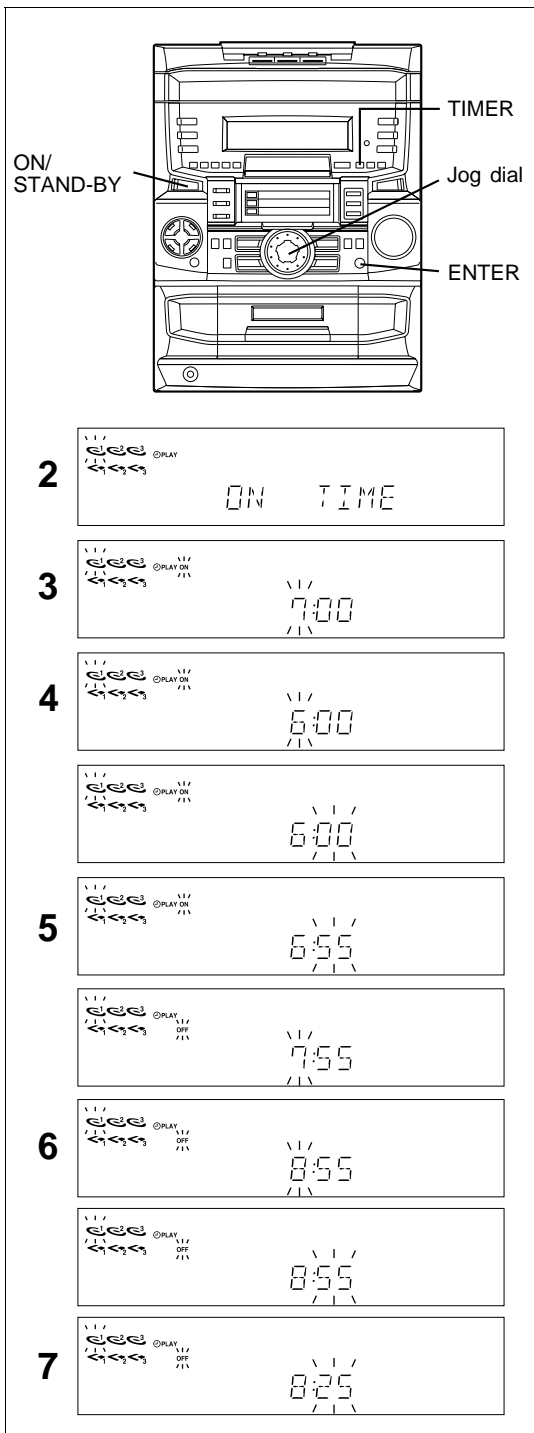
● The selected character will be added, and the original characters will move to the right by one.

4 After entering all of the characters in the name, press the NAME/TOC EDIT button.

Note:
● You cannot modify 40 characters or more if they were entered using some other equipment.
In this case, erase the name and then enter a new name.

43

HOW TO USE THE BUILT-IN TIMER

● Before setting the timer, make sure that the clock setting is correct. (Page 9)

■ Timer playback

Before timer playback, the following preparations are required.
● Load a CD, MD or tape.

1 Press the ON/STAND-BY button to turn the power on.

2 Press the TIMER button.

3 Within 5 seconds, press the ENTER button.
● The start time setting display will appear.

4 Within 10 seconds, turn the jog dial to set the hour to start, and then press the ENTER button.

5 Within 10 seconds, turn the jog dial to set the minute to start, and then press the ENTER button.
● If not set manually, the ending time will automatically be set for one hour after the starting time.

6 Within 10 seconds, turn the jog dial to set the hour to stop, then press the ENTER button.

7 Within 10 seconds, turn the jog dial to set the minute to stop, then press the ENTER button.

8 Press the MD, CD, TUNER (BAND), TAPE or AUX button to select the desired function.

When MD is selected:
● Continuous playback will start from MD 1.

When CD is selected:
● Continuous playback will start from the CD whose red frame is flashing.
To specify a disc to start playback from, press one of the CD PLAY 1 ► - 3 ► buttons. Then, press the ■ button.

When TUNER is selected:
● Tune in the radio station.

When is AUX is selected:
● Set the timer on the other equipment connected to this unit.

9 Rotate the VOLUME control to adjust the sound volume.
● Be careful not to turn the volume up too high.

10 Press the ON/STAND-BY button to enter the stand-by mode.
● The timer set indicator will light up.

11 When the timer start time is reached, timer playback will start.

12 When the timer end time is reached, timer playback will stop.
● "⏱ PLAY" will disappear, and the timer mode will be cancelled. The unit will enter the stand-by mode.

Notes:
● Timer playback and timer recording cannot be set at the same time using the timer.
Use the timer in one mode or the other.
● The timer cannot control the component connected to the AUX-IN sockets.
● When the CD or MD is played to the end, playback will stop before the stop time.
If you wish to play to the stop time, set repeat play for the CD or MD.

2
ON TIME

3
7:00

4
6:00

5
6:00

5
6:55

6
7:55

6
8:55

7
8:55

7
8:25

To change the programmed contents:
Start again from step 1.

To stop playback during timer playback:
Press the ON/STAND-BY button to enter the stand-by mode.
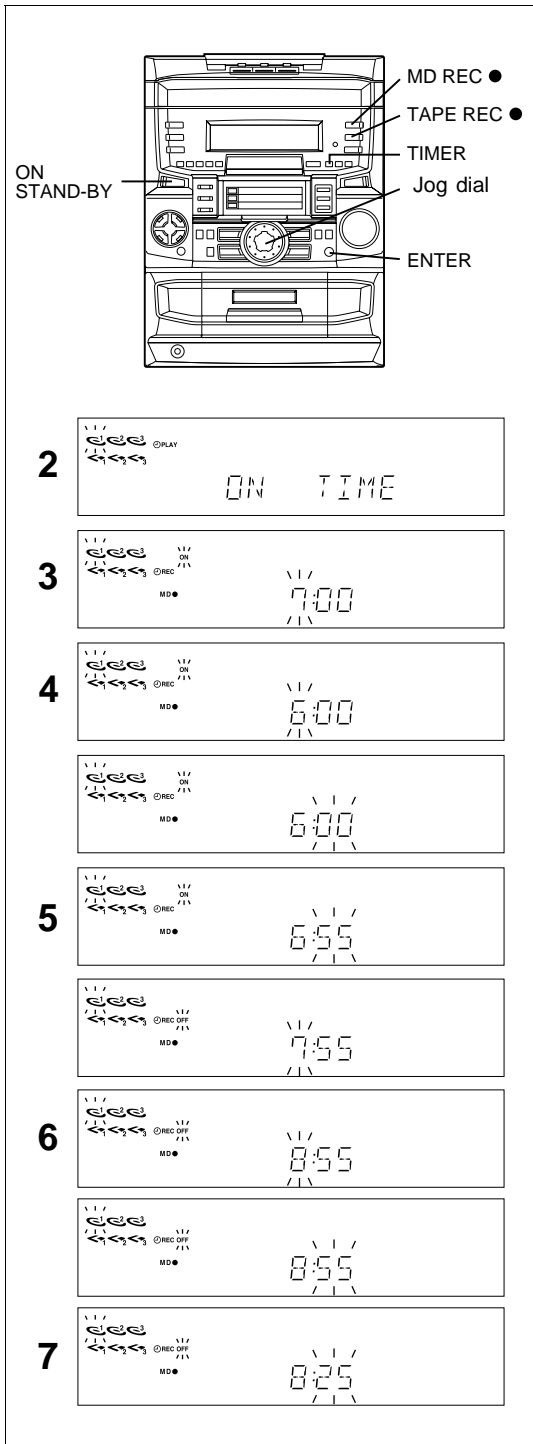
To confirm the timer setting:
Press the TIMER button once.
● The turn-on time and the turn-off time will be displayed.

To cancel timer operation:
① Press the ON/STAND-BY button to turn the power on.

② Press the TIMER button repeatedly to turn off the timer, "⏱ PLAY" will go out.

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(Continued)

● Before setting the timer, make sure that the clock setting is correct. (Page 9)

■ Timer recording

Before timer recording, the following preparations are required.
● Load a recordable MD or tape.

1 Press the ON/STAND-BY button to turn the power on.

2 Press the TIMER button.

3 Within 5 seconds, press the MD REC ● or TAPE REC ● button.
● The start time setting display will appear.

4 Within 10 seconds, turn the jog dial to set the hour to start, and then press the ENTER button.

5 Within 10 seconds, turn the jog dial to set the minute to start, and then press the ENTER button.
● If not set manually, the ending time will automatically be set for one hour after the starting time.

6 Within 10 seconds, turn the jog dial to set the hour to stop, then press the ENTER button.

7 Within 10 seconds, turn the jog dial to set the minute to stop, then press the ENTER button.

8 Press the MD, CD, TUNER (BAND), TAPE or AUX button to select the desired function.

When MD is selected:
● Continuous recording will start from MD 1.

When CD is selected:
● Continuous recording will start from the CD whose red frame is flashing.
To specify a disc to start recording from, press one of the CD PLAY 1 ► - 3 ► buttons. Then, press the ■ button.

When TUNER is selected:
● Tune in the radio station.

When is AUX is selected:
● Set the timer on the other equipment connected to this unit.

9 Rotate the VOLUME control to adjust the sound volume.
● Be careful not to turn the volume up too high.

10 Press the ON/STAND-BY button to enter the stand-by mode.
● The timer set indicator will light up.

11 When the timer start time is reached, timer recording will start.
● When there are three recordable MiniDiscs in the unit, continuous recording will start from MD 1 and continue in order. Recording on a tape will stop after the recording has filled one side.

12 When the timer end time is reached, timer recording will stop.
● "⏰ REC" will disappear, and the timer mode will be cancelled. The unit will enter the stand-by mode.

Notes:
● Timer playback and timer recording cannot be set at the same time using the timer.
Use the timer in one mode or the other.
● The timer cannot control the component connected to the AUX-IN sockets.
● When the available recording time has been consumed, the recording will stop.

To change the programmed contents:
Start again from step 1.

To confirm the timer setting:
Press the TIMER button once.
● The turn-on time and the turn-off time will be displayed.

To cancel timer operation:
① Press the ON/STAND-BY button to turn the power on.

② Press the ON/STAND-BY button repeatedly to turn off the timer, "⏰ REC" will go out.

45

(Continued)

Caution:
In the following cases, the timer recording function will not work.

When recording on a MiniDisc:
● When a MiniDisc has not been inserted.

● When a playback-only MiniDisc is inserted.

● When the MiniDisc you inserted is protected against accidental erasure.

● When there is no recording space left on the Mini-Disc you have inserted (when the "TOC FULL ∗" or "DISC FULL" messages appear).

When recording on a tape:
● When no tape is inserted.

● When the tape is protected against accidental erasure.

SLEEP
Jog dial
ENTER

2 SLEEP2:00

3 SLEEP 55
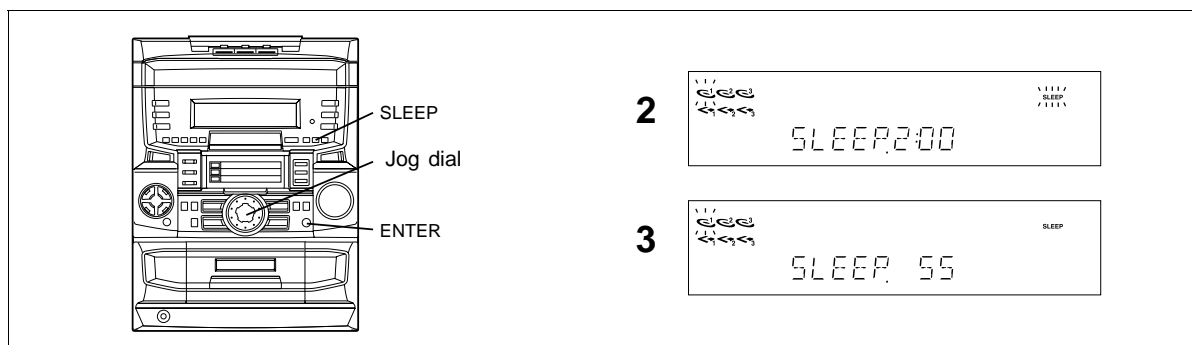
■ Sleep operation

The radio, compact disc and MiniDisc can all be turned off automatically.

1 Play the desired sound source.

2 Press the SLEEP button.

● "SLEEP" will flash.

● If you do not need to change the time, go to step 3.

To change the sleep time:
Whilst the sleep time is displayed, turn the jog dial to adjust the time.
(Maximum: 2 hours - Minimum: 1 minute)
The amount of sleep time can also be changed during the sleep operation. (1-minute intervals)

3 Press the ENTER button.

4 The unit will enter the stand-by mode automatically after the preset sleep time has elapsed.

To cancel the sleep operation:
Press the ON/STAND-BY button to enter the stand-by mode.
The sleep operation can also be cancelled as follows if you can not set the unit to the stand-by mode during recording.

① Press the SLEEP button.
● "SLEEP" will flash.

② Within 5 seconds, press the SLEEP button again.
● The sleep operation will be cancelled. ("SLEEP" will go off.)

Notes:
● Once the sleep time is set, it will remain the same duration until the setting is changed.

● The sleep functions of this unit cannot be used to control equipment connected to this unit. You must use the sleep functions of the other equipment, if it has them.
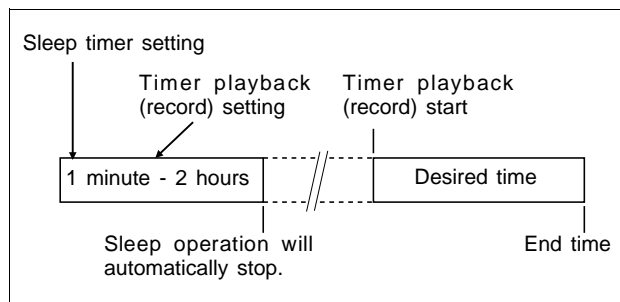
■ Simultaneous sleep and timer operation

To use sleep and timer playback in combination:

① Perform steps 1 - 12 on page 44 "Timer playback".

② Perform steps 1 - 4 of the "Sleep operation" on this page.

To use sleep and timer recording in combination:

① Perform steps 1 - 12 on page 45 "Timer recording".

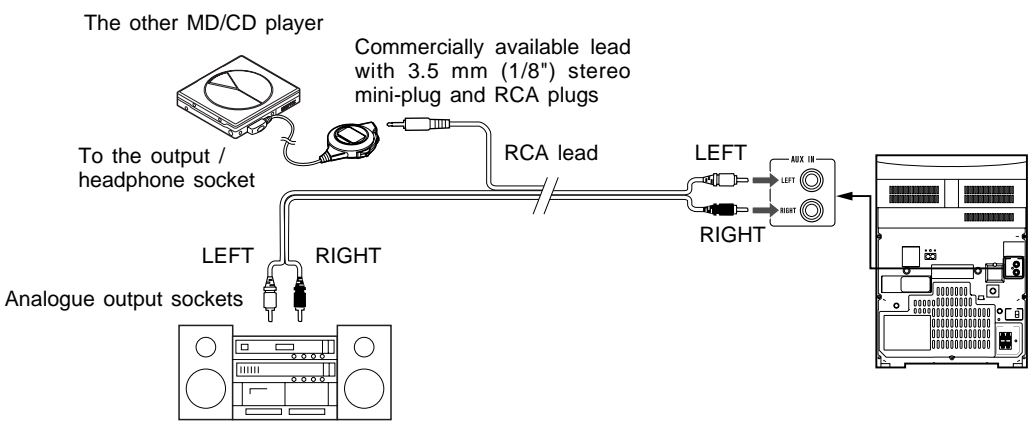② Perform steps 1 - 4 of the "Sleep operation" on this page.

Sleep timer setting
Timer playback (record) setting   Timer playback (record) start

| 1 minute - 2 hours | | Desired time |

Sleep operation will automatically stop.   End time

Note:
● The sleep timer will perform timer playback or timer recording from the source you are listening to, until the power is turned off.

46

USING EXTERNAL UNITS

■ Connecting external units

Before connecting external units, set this unit to the stand-by mode and turn off the power to the external units.

Connecting to stereos or MD/CD players (equipment which can output analogue signals)

The other MD/CD player

Commercially available lead with 3.5 mm (1/8") stereo mini-plug and RCA plugs

To the output / headphone socket

RCA lead

LEFT

RIGHT

AUX IN
LEFT
RIGHT

LEFT   RIGHT

Analogue output sockets
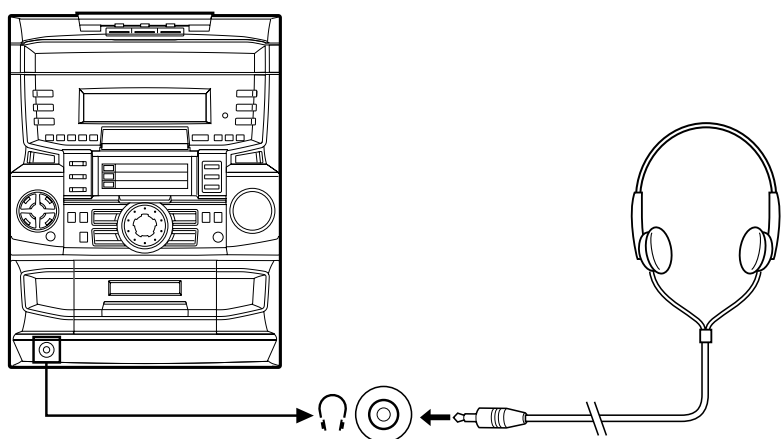
● Red plug → To RIGHT
● White plug → To LEFT

Note:
● When audio output signals of an external unit are connected to this unit, oscillation may occur. In such a case, disconnect either the input or output connection.

Note about making digital copies
This product has a mechanism to keep you from making digital copies of a MiniDisc (digital input) that was originally recorded from a CD. This is a requirement of the SCMS (Serial Copy management System).
● Analogue recording of such a MiniDisc is possible using the analogue input.

■ Headphones

● Before plugging in or unplugging the headphones, make sure the volume level is reduced.

● Be sure your headphones have a 3.5 mm (1/8") diameter plug and are between 16 ohms and 50 ohms impedance. The recommended impedance is 32 ohms.

● When headphones are connected, the speakers are disabled automatically. Adjust the VOLUME control for the desired volume.

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<P=003>

(Continued)
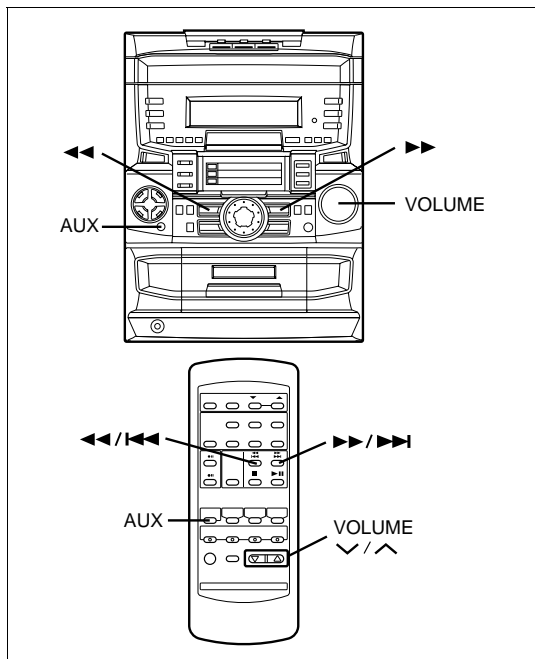
■ Listening to sound from an external unit

1 Press the AUX button.

2 Start playback on the external unit and press the ◄◄ (◄◄ /I◄◄) or ►► (►► /►►I) button to adjust the input level.

● Adjust this level when "OVER" appears or when the sound volume is too low.

3 Rotate the VOLUME control on the main unit or press the VOLUME ∨ or ∧ button on the remote control to adjust the sound volume.
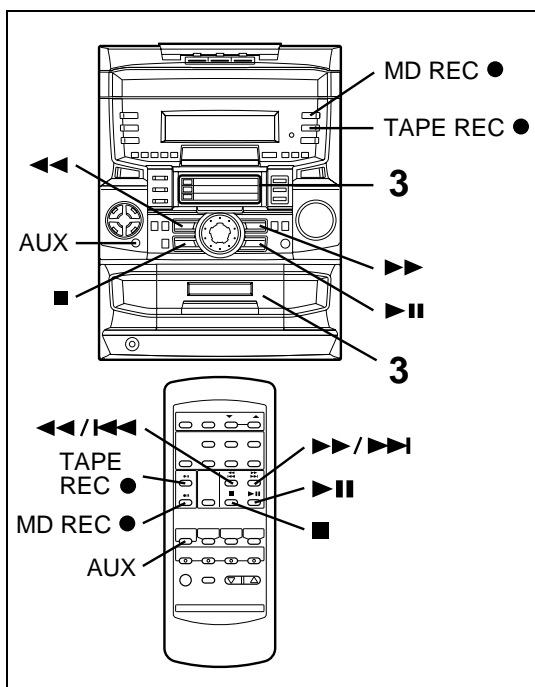
■ Manual recording

You can start recording by yourself whilst listening to the playback from other equipment (tuner or CD).

1 Press the AUX button.

2 Start playback on the external unit and press the ◄◄ (◄◄ /I◄◄) or ►► (►► /►►I) button to adjust the recording level.

● Adjust this level when "OVER" appears or when the sound volume is too low.

● Adjust the recording level, and then stop the external unit.

3 Load up to three recordable MiniDiscs or a tape.

4 Press the MD REC ● or TAPE REC ● button.

5 Press the ► II button.

● When there are three recordable MiniDiscs in the unit, continuous recording will start from MD 1 and continue in order. Recording on a tape will stop after the recording has filled one side.

6 Start playback on the external unit.

● When the available recording time is consumed, the recording will stop automatically.

● If the time specified for the other equipment to play is less than the available recording time, press the ■ button to stop the recording.

To stop recording:
Press the ■ button.

Note:
● If the recording level is too low, the recorded sound will be too low. If it is set too high, the recording may be distorted. The range over which the sound strength will vary is quite wide, particularly on digitally recorded tapes like DAT. Therefore, adjust the recording level so that it is not set too high.

48

WHAT IS A MINIDISC?

The disc is stored in a cartridge. You can handle it easily without worrying about dust, fingerprints, etc.
However, dust entering the opening of the cartridge, dirt on the cartridge, warping, etc. may cause malfunctions. Please note the following.

■ Handling the MiniDisc

Do not touch the disc directly!
Do not open the shutter or touch the disc directly.
If the shutter is opened forcibly, it may break.

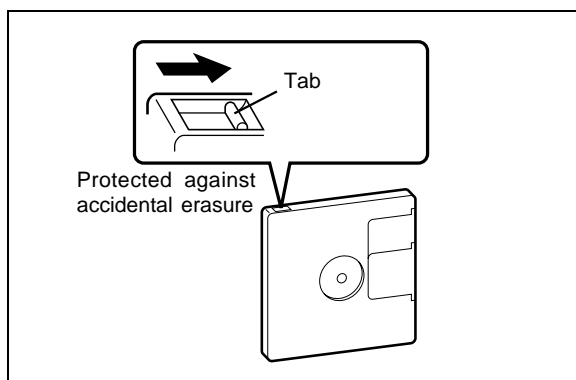

Disc
Shutter | Cartridge
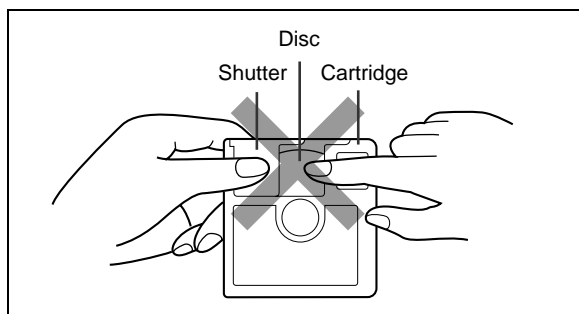
Where not to store discs:
Do not store discs in places with high temperatures or humidity. Specifically, do not leave discs in places exposed to direct sunlight or in cars with doors and windows closed.
Do not leave discs in places where sand can get into the cartridge easily (e.g., beaches).

■ To prevent recorded discs from being erased accidentally (accidental erasure prevention)

Slide the accidental erase prevention tab, located on the side of the disc, in the direction indicated by the arrow.
● The disc will then be protected against accidental erasure.

● To add a recording to such a disc, slide the accidental erase prevention tab back to its original position.

Tab

Protected against accidental erasure

■ What is a MiniDisc?

● A MiniDisc is a 64 mm (2-1/2") diameter disc which is stored in a cartridge. MiniDiscs are easy to handle, compared to compact discs, because they are protected against dust and scratches.

● Recording and playback use a digital system with a sound quality that is similar to that found on compact discs.
MiniDiscs cannot twist or stretch like tapes. The quality of sound will not deteriorate. MiniDiscs are extremely durable.

● Never disassemble MiniDiscs.

■ Adaptive TRansform Acoustic Coding [ATRAC]

The ATRAC (Adaptive TRansform Acoustic Coding) is a new technology that is designed to eliminate the information in sounds which you can not hear and to compress the remaining sound data so that the recording uses about 1/5 of the original sound information.
Sound data is analysed and filtered to take advantage of psycho acoustic masking. The acoustic quality of the sound is not impaired.

■ Types of discs

There are two types of discs: playback-only and recordable type.
● Playback-only MiniDisc:
This type of MiniDisc is used for commercially available pre-recorded music. This is the same kind of optical disc as CDs. Playback is performed using an optical pickup. (Recording and editing are not possible.)

● Recordable MiniDisc:
This is a "raw disc" on which recording can be performed. A magneto optical disc is used.
Recordings are made using a laser and magnetic field. Repeated recording is possible.

A Shutter will be used on only one side (back).   Shutters will be used on both sides.
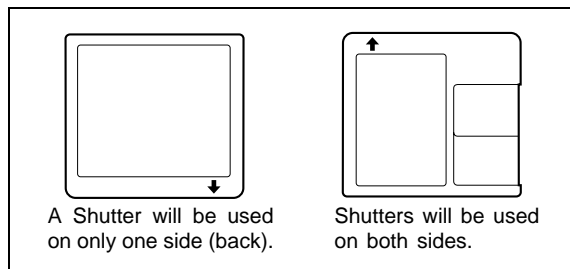
■ How to apply labels

When sticking a label on an MD cartridge, be sure to observe the following. If a label is not affixed properly, an MD may become jammed in the unit such that it can not be removed.
● Stick a label correctly to the specified area.
(Do not stick labels to areas other than the specified one.)

● Do not stick one label upon another.

● If a label is peeling off or starts to come loose, replace it with a new one.
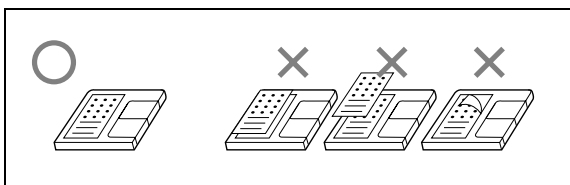
■ Shock Resistant Memory

During playback, approximately 10 seconds of information is stored in the semiconductor memory. Therefore, even when the pickup cannot read information for a second or two due to an external shock, the sound continues without interruption because the information stored in memory is output.

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MINIDISC SYSTEM LIMITATIONS

Even if the maximum recording time of a MiniDisc has not been reached, "TOC FULL *" may be displayed. (*:Number or Symbol)	In the MD system, the delimiter of the recording area on an MD is programmed in a TOC. If partial erasing, recording and editing are repeated several times, TOC information will fill up, even though the number of tracks has not reached the limit (255 tracks), and further recording will be impossible. (If you use the all erase function, this MD can be used from the beginning.)
Even if the maximum recording time of a MiniDisc has not been reached, "DISC FULL" may be displayed.	If there is any flaw on the MiniDisc, that part is automatically excluded from the space available for recording. Therefore, the recording time becomes shorter.
Even if several short tracks are erased, the remaining recording time may not show an increase.	When the remaining recording time of a disc is displayed, short tracks less than 12 seconds long may not be included in the total.
The total of the recorded time and time remaining on a disc may not add up to the maximum possible recording time.	A cluster (about 2 seconds) is normally the minimum unit of recording. So, even if a track is less than 2 seconds long, it will use about 2 seconds of space on the disc. Therefore, the time actually available for recording may be less than the remaining time displayed. If there are scratches on discs, those sections will be automatically avoided (no recording will be placed in those sections). Therefore, the recording time will be reduced.
Two tracks may not be combined in editing.	For MiniDiscs on which repeated recording and editing operations were performed, the COMBINE function may not work. A track recorded from a CD (digital recording) and a track recorded from a radio or other equipment (analogue recording) cannot be combined.
If recorded tracks are fast reversed or fast forwarded, the sound may skip.	An MD which has been recorded or edited repeatedly may skip during fast reverse or fast forward.

TROUBLESHOOTING

■ If a problem occurs

If this unit functions abnormally during operation, first check the following items. If the unit continues to function abnormally, or if an abnormality appears other than listed below, turn off the player's power and disconnect the AC power plug, then consult your SHARP dealer or service personnel.

General

SYMPTOM	POSSIBLE CAUSE	REMEDY
● The clock is wrong.	● Did a power failure occur?	● Try setting it again.
● When a button is pressed, the unit does not respond.	——————	● Set this unit to the stand-by mode and then turn it back on. Then, retry the operation. ● Unplug the power lead from the AC socket. Then, plug it in again and retry the operation.
● No sound is heard.	● Is the volume level is set to "0"? ● Are the headphones connected? ● Are the speaker wires disconnected? ● Were the speaker wires short-circuited whilst being connected?	● Increase the volume level. ● Disconnect the headphones. ● Connect the wires securely. ● Unplug the power lead from the AC socket and then plug it in again.
● Radios make unusual noise or the picture on the TV screen is distorted.	● When a radio or TV which uses an indoor aerial is placed near the unit, the picture on the TV screen may be distorted or the radio may not function properly.	● It is recommended that you use an external aerial.

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CD playback

SYMPTOM	POSSIBLE CAUSE	REMEDY
● Even though a disc has been loaded, "CD NO DISC" is displayed.	● The disc is loaded up-side down.	● Load the disc with the correct side up.
● Playback stops in the middle of a track, or playback is not performed properly.	● The disc is very dirty.	● Clean the disc.
	● The disc which does not satisfy the standards.	● Load the correct disc.
● Playback sounds are skipped.	● Is the unit located near excessive vibrations?	● Place the unit on a firm, level surface free from vibration.
	● Has condensation formed inside the unit?	● Remove the disc and leave the power turned on. The unit should function properly in about 1 hour.

MD recording and playback

SYMPTOM	POSSIBLE CAUSE	REMEDY
● A recording cannot be made.	● Is the MiniDisc protected against accidental erasure?	● Slide the accidental erase prevention tab back to its original position.
	● Did you try to make recording on a playback-only MiniDisc?	● Replace it with a recordable disc.
	● Can you see the "DISC FULL" or "TOC FULL ∗" message in the display? (∗:Number or Symbol)	● Put in another recordable disc with recording space on it.
● Even though a disc has been loaded, "MD NO DISC" or "MD ∗∗ ERR" is displayed. (∗:Number or Symbol)	● The disc is very dirty.	● Clean the disc.
	● Is the unit located near excessive vibrations?	● Place the unit on a firm, level surface free from vibration.
● Playback sounds are skipped.	● Has condensation formed inside the unit?	● Remove the disc and leave the power turned on. The unit should function properly in about 1 hour.

Tape recording and playback

SYMPTOM	POSSIBLE CAUSE	REMEDY
● A recording cannot be made.	● Is the tape protected against accidental erasure?	● Cover the accidental erase prevention hole.
● Sound is skipped.	● The tape is damaged.	● Replace the tape.
● Sound in high-frequency range cannot be reproduced.	● The capstan and pinch roller are very dirty.	● Clean the capstan and pinch roller.
● Sound quivers.		
● The cassette cannot be ejected.	● Did a power failure occur?	● Wait until the power is supplied.

Radio reception

SYMPTOM	POSSIBLE CAUSE	REMEDY
● Radios make unusual noise consecutively.	● The unit is placed near the TV or computer.	● When the unit receives a radio broadcast near a TV set, a computer or a wordprocessor, it may pick up noise. If this happens, try to move the unit from the place where the noise is picked up.
	● The aerial direction is not placed properly.	● Correct the aerial direction.
● The preset channel cannot be recalled.	● Did you erase the programmed station?	● Preset the channel again.
	● Did you leave the power lead unplugged for a long time?	● Redo programming.

Remote control

SYMPTOM	POSSIBLE CAUSE	REMEDY
● The remote control does not function or does not operate properly.	● The batteries (polarity) are not inserted properly.	● Insert properly.
	● The batteries inside the remote control are dead.	● Replace the batteries.
	● The remote control is operated from an incorrect distance or angle.	● Operate it within a range of 0.2 m (8") to 6 m (20') and within an angle of 15° to either side of centre.
● The power cannot be turned on from the remote control.	● Is the AC power lead plugged in?	● Connect the AC power lead.

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When an error message is displayed, proceed as follows:

Error messages	Meaning	Remedy
BLANK MD	● Nothing is recorded.	● Replace it with another disc.
Can't EDIT	● A track cannot be edited.	● Change the stop position of the track and then try editing it.
Can't REC	● Recording cannot be performed correctly due to vibration or shock in the unit. ● The tape is protected against accidental erasure.	● Re-record or replace the MiniDisc. ● Cover the accidental erase prevention hole.
CD NO DISC	● A CD has not been loaded. ● The disc data cannot be read.	● Load a CD. ● Reload the CD.
DEFECT	● Since this disc has scratches on it, the recording operation was skipped.	● Replace it with another recordable disc.
DISC FULL	● The MiniDisc is out of recording space.	● Replace it with another recordable disc.
EDIT OVER	● There is no space to make CD editing on the disc.	● Replace it with a disc that has enough time to record.
FOCUS ERR	● A disc has not been loaded. ● The disc data cannot be read.	● Reload the MiniDisc.
MD ∗∗ ERR **(∗:Number or symbol)**	● The disc is damaged. ● A TOC is not written on the MD or there is something wrong with data.	● Reload the disc or replace it.
MD ERR	● Trouble is found.	● Contact the shop where you purchased the unit.
MD NO DISC	● A MiniDisc has not been loaded. ● The disc data cannot be read.	● Load a MiniDisc. ● Reload the MiniDisc.
MECH ∗ ERR **(∗:Number or symbol)**	● There is a mechanical problem and the disc is not working properly.	● Set this unit to the stand-by mode and press the MD EJECT button.
NAME FULL	● The number of characters for the disc name or track name exceeds 40.	● Shorten the disc or track name.
NOT AUDIO	● The data recorded on this disc is not audio data.	● Select another track. ● Replace the disc.
PLAY MD	● You tried to record on a playback-only.	● Replace it with another recordable disc.
PROTECTED	● The disc is write protected.	● Move the write protection tab back to its original position.
TEMP OVER	● The temperature is too high.	● Set this unit to the stand-by mode and wait for a while.
TOC ∗∗ ERR **(∗:Number or symbol)**	● The disc is damaged. ● TOC information cannot be read. ● MD not specified.	● Replace it with another disc.
TOC FULL∗ **(∗:Number or symbol)**	● There is no space left for recording character information (track names, disc names, etc.).	● Replace it with another recordable disc.
TOC W ERROR	● Recording is impossible.	● Contact the shop where you purchased the unit.
TRAY ERROR	● The CD tray operates incorrectly.	● Unplug the AC power lead, plug it back, and then turn the power on.

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U TOC ∗ ERR **(∗:Number or** **Symbol)**	● TOC information recorded on the MD does not match the MD specifications or it cannot be read.	● Replace it with another disc. ● Erase all of the track, and try recording.
U TOC W ERR	● The TOC information could not be created properly due to a mechanical shock or to scratches on the disc.	● Turn off the power, and try to write the TOC again. (Remove any source of shock or vibration whilst writing.)
? DISC	● The data contains an error.	● Replace it with another disc.
00:00	● Music is not being recorded.	● Replace the disc with another recordable disc.

■ Moisture condensation

In the following cases, condensation may form inside the unit.
● Shortly after turning on a heater.
● When the unit is placed in a room where there is excessive steam or moisture.
● When the unit is moved from a cool place to a warm place.

When the unit has condensation inside, the disc signals cannot be read, and the product may not function properly.
● If this happens, remove the disc. The condensation should evaporate in approximately 1 hour. The unit will then function properly.

■ If a problem occurs

If this product is subjected to strong external interference (mechanical shock, excessive static electricity, abnormal supply voltage due to lightning, etc.) or if it is operated incorrectly, it may malfunction or the display may not function correctly. If such a problem occurs, do the following:
● To erase all of the stored memory contents (clock and timer settings, and tuner, MD and CD presets).
● If the display is not correct.
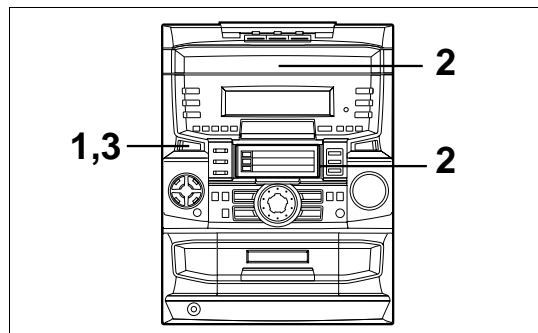● If the operation is not correct.
1 Press the ON/STAND-BY button to enter the stand-by mode.
2 Press the ON/STAND-BY button whilst holding down the ►► button and the DELETE/CLEAR button.

Caution:
● The operation explained above will erase all data stored in memory including clock and timer settings, and tuner, MD and CD presets.

TRANSPORTING THE UNIT

Before you move this product to a new location, proceed as follows:
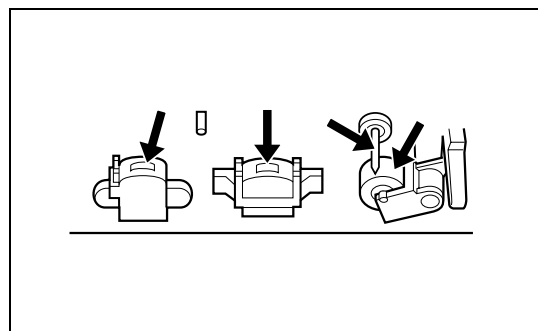**1** Press the ON/STAND-BY button to turn the power on.
2 Remove all CDs, MDs and tapes inserted in the unit.
● Three CDs and three MDs can be inserted in the unit. Therefore, make sure that all of them are removed.
3 Press the ON/STAND-BY button to enter the stand-by mode.
4 After "GOOD BYE" has gone out, unplug the AC power lead from the AC socket.

MAINTENANCE

■ Internal care

● Dirty heads, capstan or pinch roller can cause poor sound and tape jams. Clean these parts with a cotton swab moistened with commercial head/pinch roller cleaner or isopropyl alcohol.
● After long use, the deck's heads and capstans may become magnetised, causing poor sound. Demagnetise these parts once every 30 hours of playing/recording time by using a commercial tape head demagnetiser. Read the demagnetiser's instructions carefully before use.

■ External care

● Periodically wipe the cabinet with a soft cloth and a diluted soap solution, then wipe with a dry cloth.
● Do not use chemically treated cleaning cloths or other chemicals.

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SPECIFICATIONS

As part of our policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

● MiniDisc recorder section

Type:	3-disc multi-play MiniDisc recorder
Signal readout:	Non-contact, 3-beam semiconductor laser pickup
Audio channel:	Stereo; 2 channels Monaural (Playback only); 1 channel (long-time recording mode)
Frequency response:	20 - 20,000 Hz
Rotation speed:	400 - 900 rpm CLV, Approx
Quantization:	16-bit linear (CD recording) 20-bit linear (Analogue recording)
Error correction:	ACIRC (Advanced Cross Interleave Reed-Solomon Code)
Coding:	ATRAC (Adaptive TRansformed Acoustic Coding)
Recording method:	Magnetic field modulation overwrite method
D/A converter:	1-bit D/A converter
Sampling frequency:	44.1 kHz
Wow and flutter:	Unmeasurable (less than 0.001% W. peak)
Signal/noise ratio:	95 dB (1 kHz)
Dynamic range:	90 dB (1 kHz)

● Compact disc player section

Type:	3-disc multi-play compact disc player
Signal readout:	Non-contact, 3-beam semiconductor laser pickup
Rotation speed:	200 - 500 rpm CLV, Approx.
Error correction:	CIRC (Cross Interleave Reed-Solomon Code)
Quantization:	16-bit linear
D/A converter:	1-bit D/A converter
Frequency response:	20 - 20,000 Hz
Signal/noise ratio:	95 dB (1 kHz)
Dynamic range:	90 dB (1 kHz)
Wow and flutter:	Unmeasurable (less than 0.001% W. peak)

● Tuner section

Frequency range:	FM; 87.5 - 108 MHz AM; 522 - 1,620 kHz
Sensitivity:	FM; 2.5 μV (75 ohms unbalanced) AM; 650 μV/m

● Cassette deck section

Type:	Compact cassette tape
Frequency response:	50 - 14,000 Hz (Normal tape)
Motor:	DC motor with electronic governor × 1
Signal/noise ratio:	50 dB (Recording/Playback)
Bias and erasure system:	AC
Tape speed:	4.76 cm/sec. (1-7/8 ips.)
Wow and flutter:	0.15 % (WRMS)
Heads:	Record/playback × 1 Erase × 1

● General

Power source:	AC 230 V, 50 Hz
Power consumption:	95 W
Output power:	RMS; 100 W (50 W + 50 W) (10 % T.H.D.) RMS; 86 W (43 W + 43 W) (0.9 % T.H.D.)
Input terminals:	Auxiliary (Analogue); 500 mV/47 kohms
Output terminals:	Headphones; 16 - 50 ohms (recommended; 32 ohms) Speakers; 6 ohms
Dimensions:	Width; 270 mm (10-11/16") Height; 352 mm (13-7/8") Depth; 376 mm (14-13/16")
Weight:	8.6 kg (19.0 lbs.)

● Speaker section

Type:	3-way type [130 mm (5-1/8") woofer, 50 mm (2") tweeter and super tweeter]
Maximum input power:	100 W
Rated input power:	50 W
Impedance:	6 ohms
Dimensions:	Width; 220 mm (8-11/16") Height; 352 mm (13-7/8") Depth; 260 mm (10-1/4")
Weight:	3.2 kg (7.1 lbs.)/each

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TERMS OF GUARANTEE

Sharp Electronics (UK) Ltd. ("Sharp") guarantees to provide for the repair, or at its option the replacement, of this product subject to the conditions listed below:-

1. This guarantee shall only apply to faults which are due to inferior workmanship or materials. It does not cover faults or damage caused by accident, misuse, fair wear and tear, neglect, tampering with the product, or repair other than by a Service Facility appointed by Sharp.

2. As this product is intended for private domestic use only, the guarantee will not apply if the product is used in the course of a business, trade or profession.

3. To benefit from this guarantee, any fault which occurs must be notified to Sharp, or its appointed Service Facility within one year from the date this product was purchased. Proof of purchase must be provided.

4. The guarantee does not cover carriage costs, jewelled styli, audio tapes, compact discs or batteries.

5. In the unlikely event of this product requiring repair, please contact the supplier from whom it was purchased. Where this is not possible, please contact the Sharp Customer Information Centre on the telephone number given below.

6. No person has any authority to vary the terms or conditions of this guarantee.

7. This guarantee is offered as an additional benefit to your statutory rights, and does not affect these rights in any way.

If you have any difficulty operating this product, or would like information on other Sharp products, please telephone the Sharp Customer Information Centre on the number given below.

Sharp Customer Information Centre - Telephone 0345 125387

SHARP

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