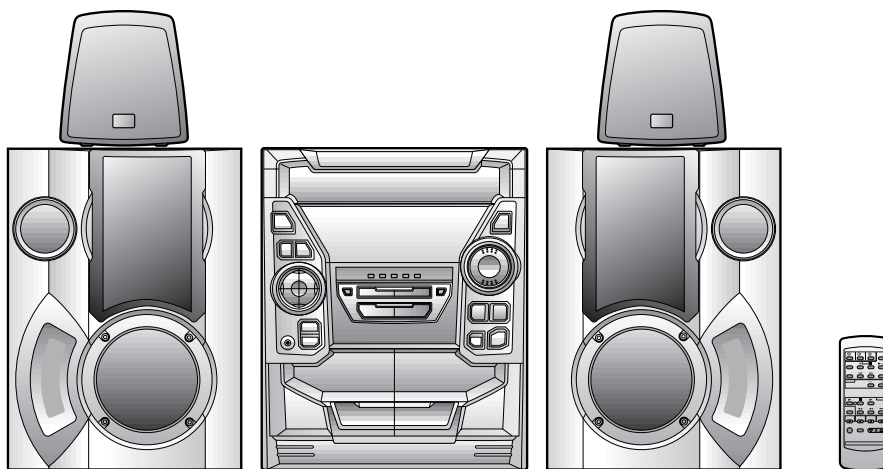# SHARP

MINI COMPONENT SYSTEM

OPERATION MANUAL

MODEL **CD-BA1700H**

CD-BA1700H Mini Component System consisting of CD-BA1700H (main unit), CP-BA1700H (front speakers) and GBOXS0041AWM1 (surround speakers).

COMPACT
disc
DIGITAL AUDIO

R·D·S EON

SAVING ENERGY
STAND-BY POWER
CONSUMPTION **0.6**w

INTRODUCTION

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.
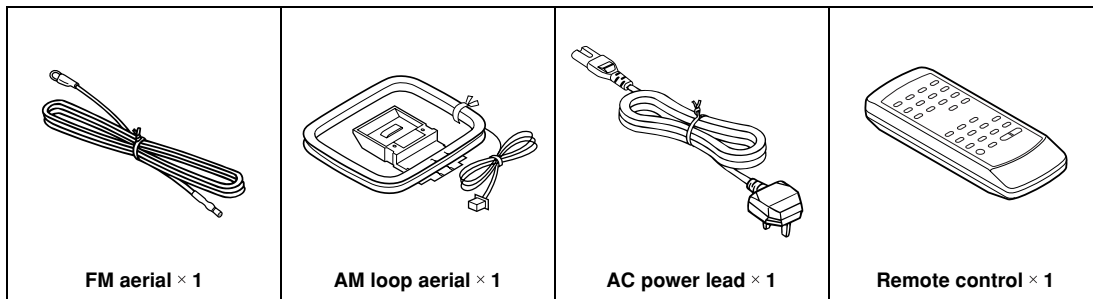
CONTENTS

ACCESSORIES

| FM aerial × 1 | AM loop aerial × 1 | AC power lead × 1 | Remote control × 1 |

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

2

PRECAUTIONS

■ General

● Please ensure that the equipment is positioned in a well ventilated area and ensure that there is at least 10 cm (4") of free space along the sides, top and back of the equipment.
● 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 rollers, 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 does not work properly whilst in use, 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.
● The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths, curtains, etc.
● No naked flame sources, such as lighted candles, should be placed on the apparatus.
● Attention should be drawn to the environmental aspects of battery disposal.
● The apparatus is designed for use in moderate climate.

Warning:
The voltage used must be the same as that specified on this unit. Using this product with a higher voltage other than that 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, 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 discs and unit.
● 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
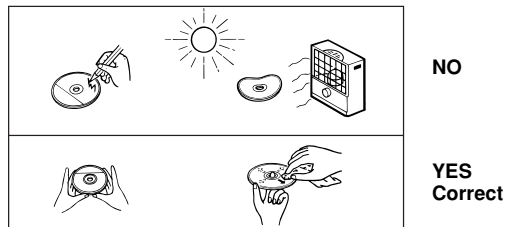
■ Cassette tape

● 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.
● TAPE 1: Playback only. TAPE 2: Playback or record.

Side A (1)

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

3
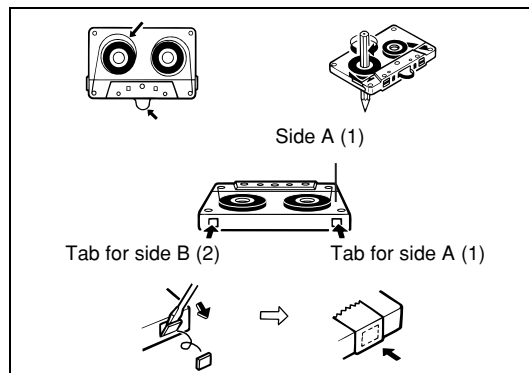
■ **Front panel**
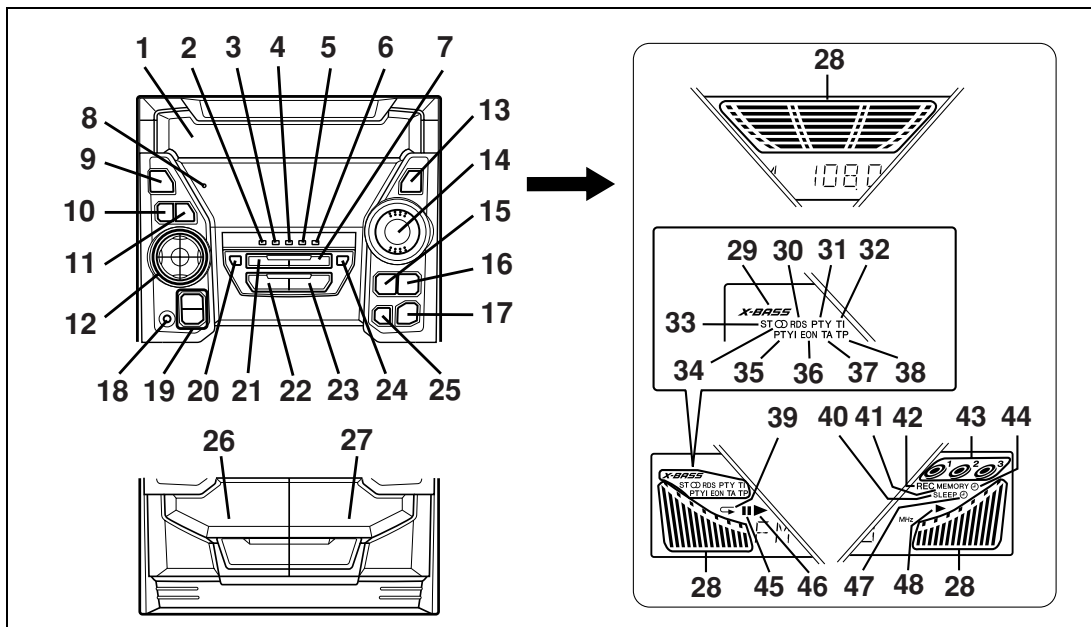
1. (CD) Disc Tray
2. (TUNER) Programme Type/Traffic Information Search Button
3. EON Button
4. ASPM Button
5. Display Mode Selector Button
6. Station Selector Button
7. (CD) Track Up/Cue Button
   (TUNER) Preset Up Button
   (TAPE 2) Fast Forward Button
8. Timer Set Indicator
9. On/Stand-by Button
10. Clock Button
11. Timer/Sleep Button
12. Function Selector Buttons
13. Dimmer Button
14. Volume Up/Down Buttons
15. Equalizer Mode Selector Button
16. Extra Bass/Demo Mode Button
17. (CD) Open/Close Button
18. Headphone Socket
19. Tuning and Time Up/Down Buttons
20. Memory/Set Button
21. (CD) Track Down/Review Button
    (TUNER) Preset Down Button
    (TAPE 2) Rewind Button
22. (CD/TAPE) Stop Button
23. (CD) Play/Repeat Button
    (TAPE) Play Button
24. (TAPE 2) Record Pause Button
25. (CD) Disc Skip Button

26. (TAPE 1) Cassette Compartment
27. (TAPE 2) Cassette Compartment

28. Spectrum Analyzer/Volume Level Indicator
29. Extra Bass Indicator
30. RDS Indicator
31. Programme Type Indicator
32. Traffic Information Indicator
33. FM Stereo Mode Indicator
34. FM Stereo Indicator
35. Dynamic PTY Indicator
36. EON Indicator
37. Traffic Announcement Indicator
38. Traffic Programme Indicator
39. (CD) Repeat Indicator
40. Sleep Indicator
41. (CD/TUNER) Memory Indicator
42. Record Indicator
43. (CD) Disc Number Indicators
44. Timer Play Indicator
45. (CD) Pause Indicator
46. (CD) Play Indicator
47. Timer Record Indicator
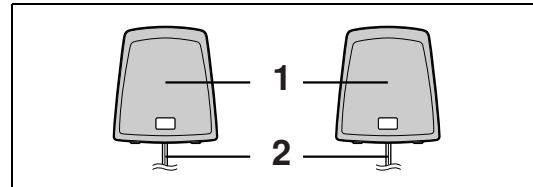48. (TAPE) Play Indicator

4

(Continued)

■ Rear panel
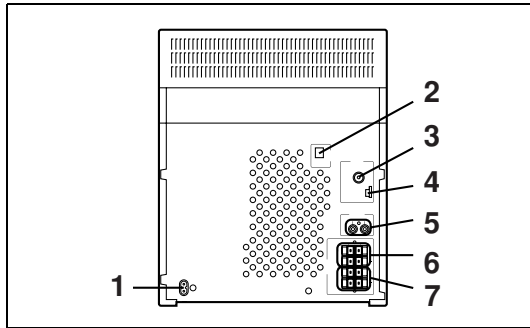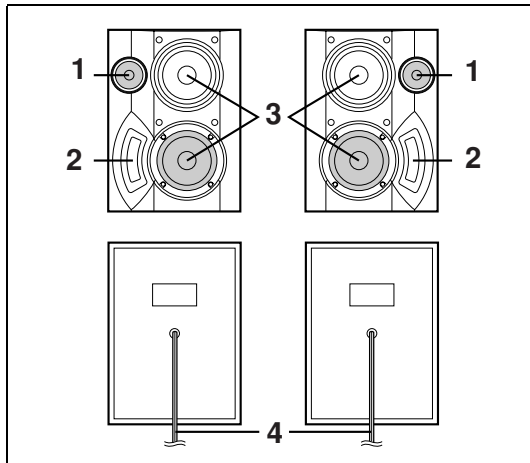

1. AC Power Input Socket
2. CD Digital Output Socket
3. FM 75 Ohms Aerial Socket
4. AM Loop Aerial Socket
5. Video/Auxiliary (Audio Signal) Input Sockets
6. Front Speaker Terminals
7. Surround Speaker Terminals

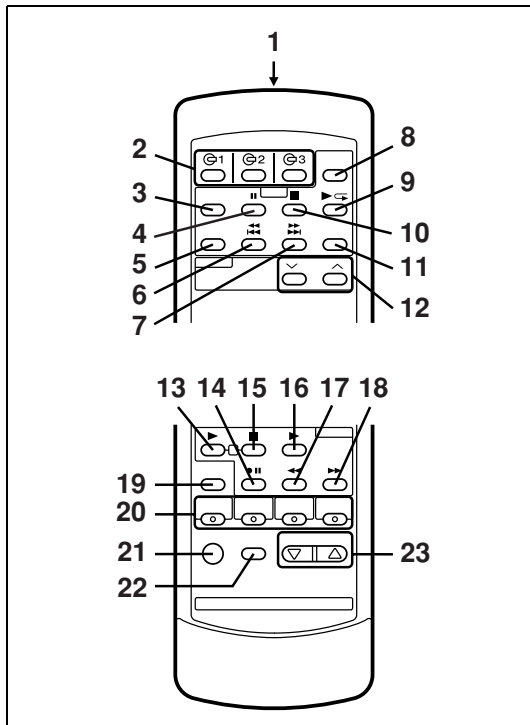### ■ Surround speaker

1. Full-Range Speaker
2. Speaker Wire

■ Front speaker

1. Tweeter
2. Bass Reflex Duct
3. Woofer
4. Speaker Wire

5

■ Remote control

1. Remote Control Transmitter LED

● **CD control section**
 2. Disc Number Select Buttons
 3. Memory Button
 4. Pause Button
 5. Clear Button
 6. Track Down/Review Button
 7. Track Up/Cue Button
 8. Disc Skip Button
 9. Play/Repeat Button
10. Stop Button
11. Random Button

● **Tuner control section**
12. Preset Up/Down Buttons

● **Tape control section**
13. (TAPE 1) Play Button
14. (TAPE 2) Record Pause Button
15. (TAPE 1/2) Stop Button
16. (TAPE 2) Play Button
17. (TAPE 2) Rewind Button
18. (TAPE 2) Fast Forward Button

● **Common section**
19. Equalizer Mode Selector Button
20. Function Selector Buttons
21. On/Stand-by Button
22. Extra Bass Button
23. Volume Up/Down Buttons

PREPARATION FOR USE

● Unplug the AC power lead from the AC socket before connecting 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 to the AM LOOP 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).

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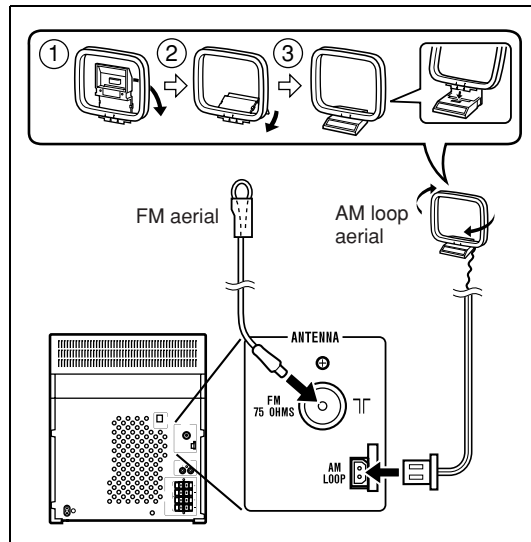
Notes:
● Do not place the aerial on the main unit as it may result in noise pickup from the internal digital electronics. Place the aerial away from the unit for better reception.
● If the AM loop aerial and the FM aerial wire are placed near the AC power lead, interference may result.

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

External FM aerial

6
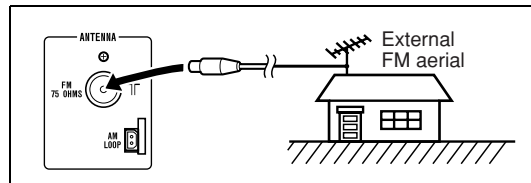
(Continued)

■ Speaker connection

Front speakers
Connect each speaker wire to the FRONT SPEAKER terminals as shown.
Use speakers with an impedance of 8 ohms or more, as lower impedance speakers can damage the unit.
● Connect the black wire to the minus (-) terminal, and the red wire to the plus (+) terminal.

Surround speakers
Connect each speaker wire to the SURROUND SPEAKER terminals as shown.
Use speakers with an impedance of 16 ohms or more, as lower impedance speakers can damage the unit.
● Connect the wire with the white line to the minus (-) terminal and the plain wire to the plus (+) terminal.
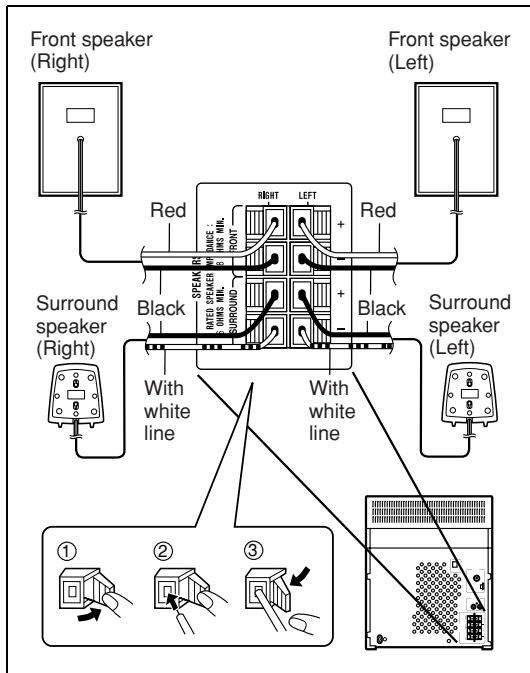

Caution:
● Do not mistake the right channel for the left channel when connecting the speakers to the unit. The right speaker is the one on the right side when you are facing the front of the unit.
● Do not let bare speaker wires touch each other as this may damage the amplifier and/or speakers.
● Do not allow any objects to fall into or to be placed in the bass reflex ducts.
● Do not stand or sit on the speakers. If the speakers fall or collapse, you may be injured.

■ Placing the speaker system

To enjoy the surround effect, we recommend that you place each speaker as shown below.
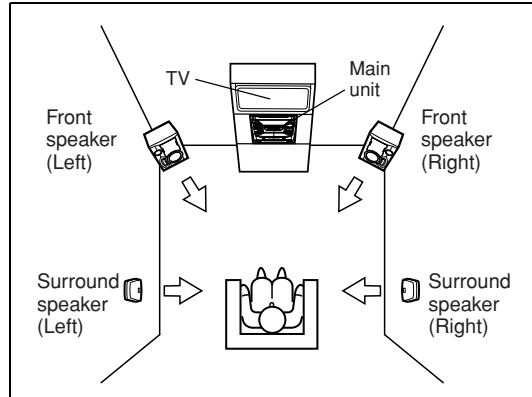
Placing the front speakers:
The left and right speakers have individual shapes. For best performance, place the speakers according to the diagram below.
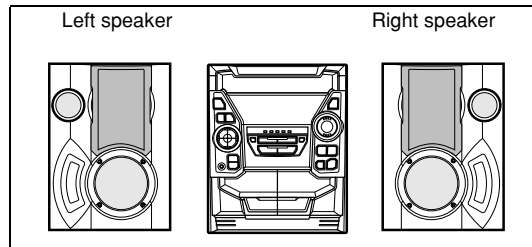
Installation of the surround speakers:
If possible, mount the surround speakers on the wall. Install them 60 - 90 cm (23" - 35") above the height of your ears when you are seated.

7

(Continued)

■ To mount the surround speakers on the wall

The design of the surround speakers allows them to be hung on the wall. Be sure to use the type and size of screw that is shown below.

1 Make a hole in the wall using a drill.

2 Drive a wall mount plug into the hole using a hammer. Drive the wall mount plug in until it is flush with the wall surface.

3 Drive one screw into the wall mount plug for each speaker as shown in the illustration.
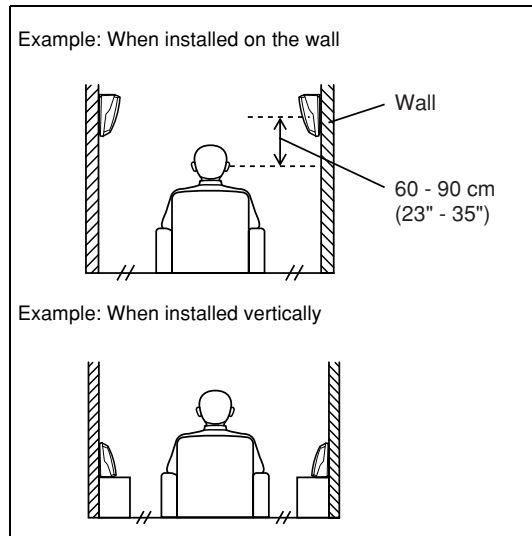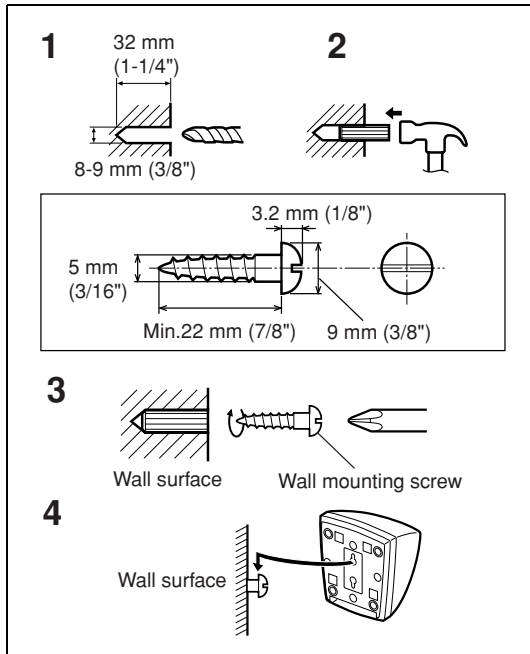● Drive the screws, so there is about a 5 mm (3/16") space between the wall and the head of the screw.

4 Mount the surround speaker on the wall so that the screw head is inserted into the slot on the surround speaker.

1 32 mm (1-1/4")
8-9 mm (3/8")

2

3.2 mm (1/8")
5 mm (3/16")
Min.22 mm (7/8")   9 mm (3/8")

**3** Wall surface   Wall mounting screw

4 Wall surface

Note:
When the surround speakers are installed vertically, the speaker badge will be upside down. In this case, you can adjust the badge to face the proper direction. Just turn it by hand.

Badge
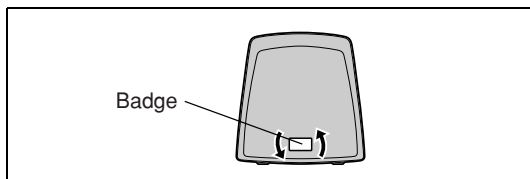
■ Removing the speaker grilles

1 Remove the lower part of the speaker grille first.

2 Remove the upper part of the speaker grille.
● Only the grilles on the upper woofers are removable.

(Front speakers only)
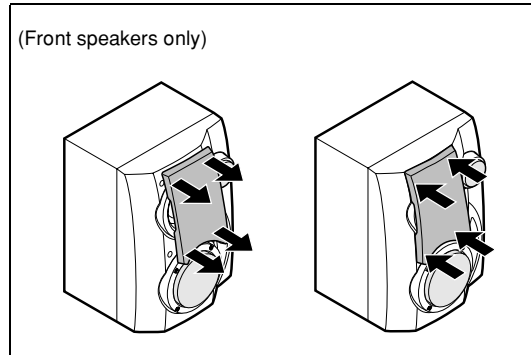
Caution:
When the speaker grilles are removed, the speaker diaphragms are exposed. Make sure nothing comes into contact with the speaker diaphragms.

■ Mounting the speaker grilles

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

■ 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.

AC 230 V, 50 Hz

To AC INPUT   To an AC socket
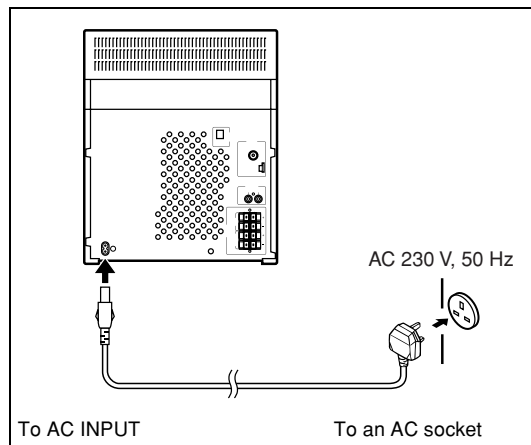
Notes:
● Unplug the AC power lead from the AC socket if the unit will not be in use for a prolonged period of time.
● Never use a power lead other than the one supplied. Use of a power lead other than the one supplied may cause an electric shock or fire.

8

(Continued)

■ Demo mode

When the AC power lead is first connected, the unit will enter the demonstration mode.

To cancel the demonstration mode:
When the unit is in the stand-by mode (demonstration mode), press the X-BASS/DEMO button.
● The demonstration mode will be cancelled and the unit will enter the low power consumption mode.

To return to the demonstration mode:
When the unit is in the stand-by mode, press the X-BASS/DEMO button again.

(Main unit operation)

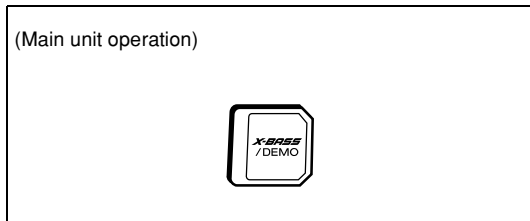**Note:**
When the power is on, the X-BASS/DEMO button can be used to select the extra bass mode.

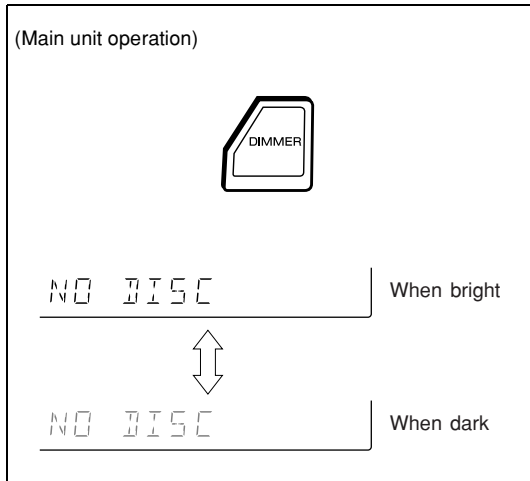### ■ To change the brightness of the display

Press the DIMMER button.
● The display will be made dimmer.

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

(Main unit operation)

NO DISC   When bright

⇕

NO DISC   When dark

■ Remote control

● When inserting or removing the batteries, push them towards the ⊖ battery terminals.
● Installing the batteries incorrectly may cause the unit to malfunction.
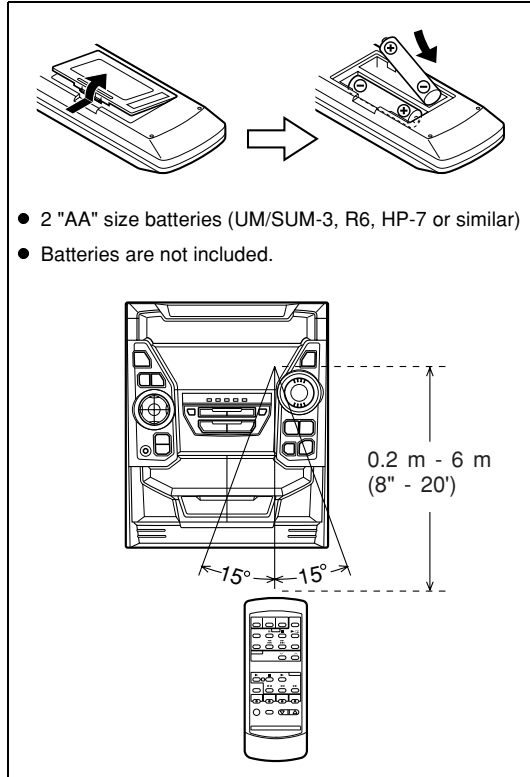
● 2 "AA" size batteries (UM/SUM-3, R6, HP-7 or similar)

● Batteries are not included.

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

15°   15°

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.

9

SETTING THE CLOCK

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

(Main unit operation)

ON/STAND-BY

MEMORY/SET
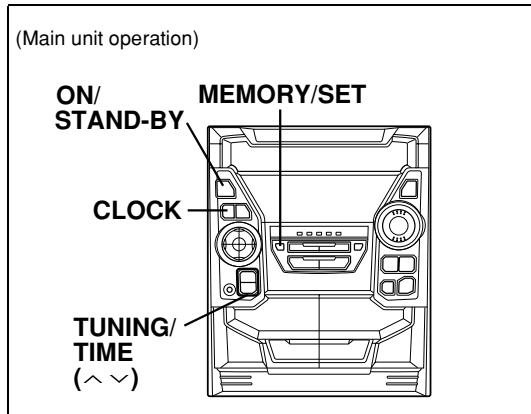
CLOCK

TUNING/TIME (∧ ∨)

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

2 Press the CLOCK button.

$$CLOCK$$

3 Within 5 seconds, press the MEMORY/SET button.

$$0:00$$

4 Press the TUNING/TIME (∨ or ∧) button to select the time display mode.

$$0:00$$

0:00 ⟷ AM 0:00 ⟷ AM 12:00

"0:00" → The 24-hour display will appear. (0:00 - 23:59)

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

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

● Note that this can only be set when the unit is first installed or it has been reset (see page 34).

5 Press the MEMORY/SET button.

$$0:00$$

6 Press the TUNING/TIME (∨ or ∧) button to adjust the hour.

$$10:00$$

● Press the TUNING/TIME (∨ or ∧) button once to advance the time by 1 hour. Hold it down to advance continuously.
● When the 12-hour display is selected, "AM" will change automatically to "PM".

7 Press the MEMORY/SET button.

$$10:00$$

8 Press the TUNING/TIME (∨ or ∧) button to adjust the minutes.

$$10:30$$

● Press the TUNING/TIME (∨ or ∧) button once to advance the time by 1 minute. Hold it down to change the time in 5-minute intervals.
● The hour setting will not advance even if minutes advance from "59" to "00".

9 Press the MEMORY/SET button.

$$10:30$$

● The clock starts operating from "0" second. (Seconds are not displayed.) And then the clock display will disappear after a few seconds.

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

Note:
● The clock display will flash on and off at the push of the CLOCK button when the AC power supply is restored after a power failure occurs or after the AC power lead is disconnected. If this happens, follow the procedure below to change the clock time.

To change the clock time:
1 Press the CLOCK button.
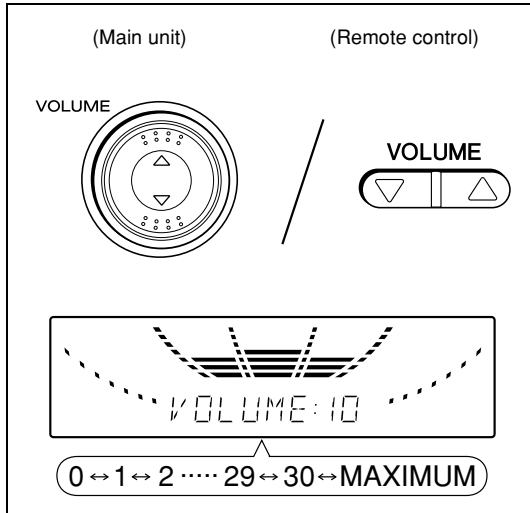2 Within 5 seconds, press the MEMORY/SET button.
3 Perform steps 6 - 9 above.

To change the time display mode:
1 Perform steps 1 - 2 in "RESETTING THE MICROCOMPUTER", on page 34.
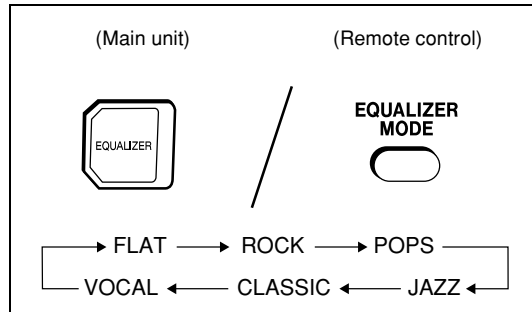2 Perform steps 1 - 9 above.

10

SOUND CONTROL

■ Volume

Press the VOLUME △ button to increase the volume and the VOLUME ▽ button to decrease the volume.

```
        (Main unit)              (Remote control)

VOLUME
                                      VOLUME
                                    ▽      △


         VOLUME:10

     0↔1↔2 ····· 29↔30↔MAXIMUM
```

■ Extra bass (X-BASS)

When the power is first turned on, the unit will enter the extra bass mode which emphasises the bass frequencies, and "X-BASS" will appear. To cancel the extra bass mode, press the X-BASS/DEMO(X-BASS) button. "X-BASS" will disappear.

```
        (Main unit)              (Remote control)

        X-BASS                    X-BASS
        /DEMO


X-BASS indicator


  X-BASS

          NO DISC
```
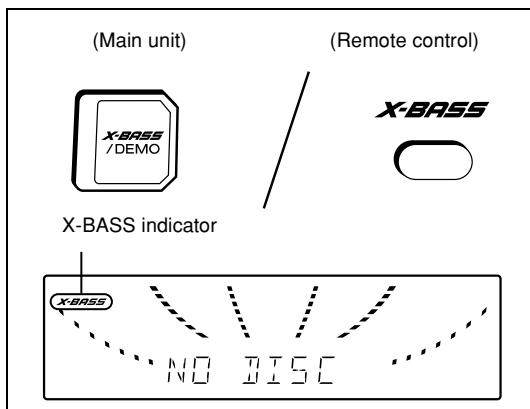
■ Pre-programmed equalizer

When the EQUALIZER (EQUALIZER MODE) button is pressed, the current mode setting will be displayed. To change to a different mode, press the EQUALIZER (EQUALIZER MODE) button repeatedly.

```
        (Main unit)              (Remote control)

                                   EQUALIZER
                                     MODE
        EQUALIZER


    → FLAT ──→ ROCK ──→ POPS ─
    └ VOCAL ←── CLASSIC ←── JAZZ ←
```

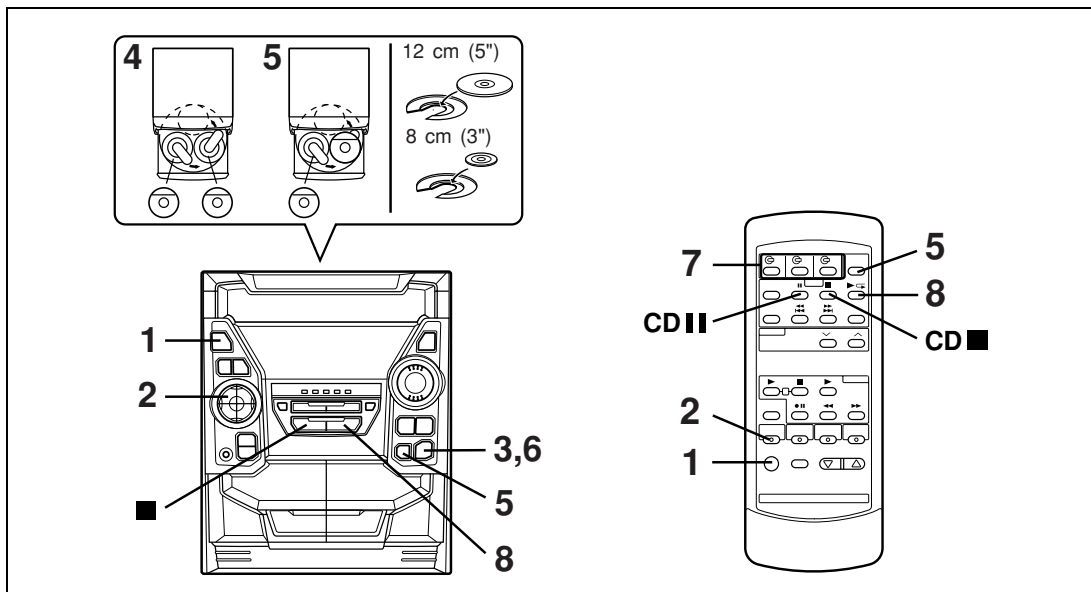|	
FLAT:	The sound is not modified.
ROCK:	Bass and treble are emphasised.
POPS:	Bass and treble are slightly emphasised.
JAZZ:	Treble is cut a little.
CLASSIC:	Treble is reduced a lot.
VOCAL:	Vocals (midrange tones) are emphasised.

■ CD playback

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 DISC 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 disc number indicator is flashing.

7 **Press the desired disc number button (⊜ 1 - ⊜ 3).**

8 **Press the ► / ⊏ (► ⊏) button.**
● Playback will begin from track 1 on the disc you have selected to play.
● 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 interrupt playback:
1 Press the CD ‖ button on the remote control.
● "‖" will appear.
2 Press the ► ⊏ button to resume playback from the same point.

To stop playback:
Press the ■ (CD ■) 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 DISC SKIP button to rotate the disc tray and remove the remaining disc.
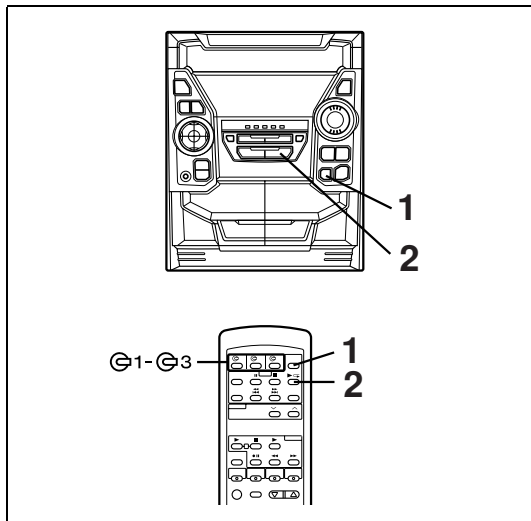
After use:
Press the ON/STAND-BY button to enter the stand-by mode.

12

(Continued)

■ Disc number selection

1 **When stopped, press the DISC SKIP button.**

2 **Press the ► / ⌐ (► ⌐) button.**

● The next disc playback will begin, after which each following disc will be played sequentially.

Notes:
● When the DISC SKIP button is pressed during playback, playback will begin automatically from the next disc. (It is not necessary to press the ► / ⌐ (► ⌐) button.)
● When one of the disc number buttons (⊚ 1 - ⊚ 3) is pressed during playback, playback of the selected disc will begin automatically. (It is not necessary to press the ► / ⌐ (► ⌐) button.)

■ Cue and review

1 **Load a disc and begin playback.**

2 **Hold down the ►► button for audible fast forward, and hold down the ◄◄ button for audible fast reverse.**

3 **Normal playback will resume when the ◄◄ or ►► button is released.**
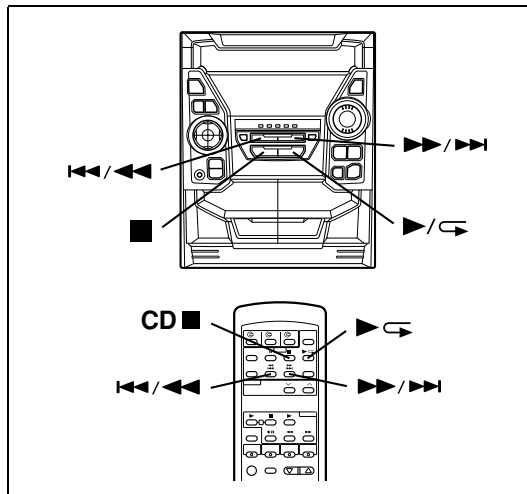
Notes:
● When the end of the disc is reached whilst cueing, "END" will appear in the display and CD operation will be paused. (Even though the next disc has been loaded, the disc will not be switched.) Press the ◄◄ button for fast reverse or press the ■ (CD ■) button to stop CD operation.
● If the beginning of the disc is reached whilst reviewing, the mode will automatically switch to normal playback at that point.

■ APSS (Auto Program Search System)

APSS automatically locates the beginning of any track.

To listen again to the track being played:
Press the I◄◄ button for less than 0.5 seconds during playback.

To move to the beginning of the next track:
Press the ►►I button for less than 0.5 seconds during playback.

● To skip a number of tracks at one time, press the I◄◄ or ►►I button repeatedly until the desired track number is shown.
● To start playback from a desired track, press the I◄◄ or ►►I button whilst in the stop mode to select the track number, and then press the ► / ⌐ (► ⌐) button.
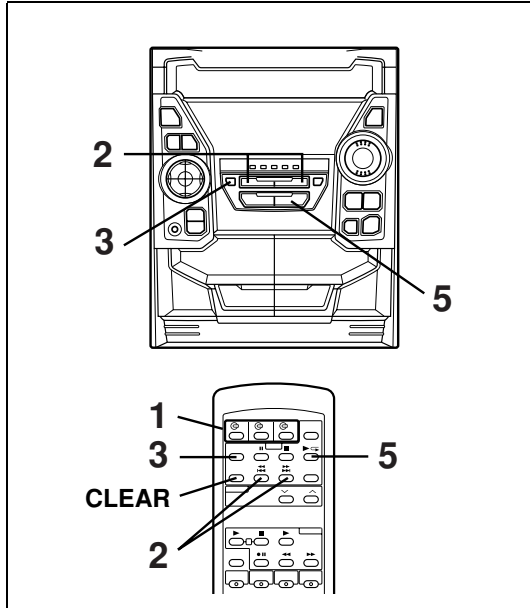
Note:
● APSS can only search for music on a single disc.

13

## ■ APMS (Automatic Programmable Music Selector)

You can playback the tracks on the CDs in the disc 1 - 3 positions in any order. By specifying the disc numbers from 1 to 3, and the track numbers from 1 to 99, you can choose up to 32 selections for playback in the order you like.

1 When in the stop mode, use the disc number buttons (⊜ 1 - ⊜ 3) to select the desired disc number.
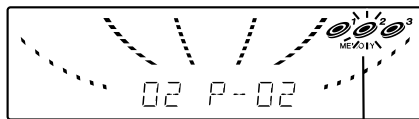
2 Press the ⏮ or ⏭ button to select the desired track.

Selected disc number
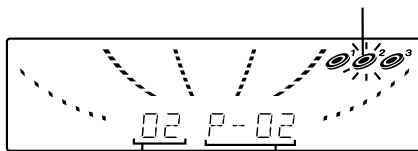
Selected track number   Playback order

3 Press the MEMORY/SET (MEMORY) button.

MEMORY

● "MEMORY" will appear to show that the programmed sequence is being entered into memory.

4 Repeat steps 1 - 3 for any other tracks. Up to 32 tracks can be programmed.

Total number of tracks

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

5 Press the ► / ⏏ (► ⏏) button to start playback of programmed selections.

To clear the programmed selections:
Press the CLEAR button on the remote control whilst the disc is stopped.
● Each time the button is pressed, one track will be cleared, beginning with the last track programmed.

Notes:
● Opening the disc tray automatically cancels the programmed sequence.
● Even if you press the ON/STAND-BY button to enter the stand-by mode or the function is changed from CD to some other function, the programmed selections will not be cleared.
● During APMS operation, random play is not possible.

14

(Continued)

■ Repeat play

All tracks on up to 3 discs, or a programmed sequence can be continuously repeated.
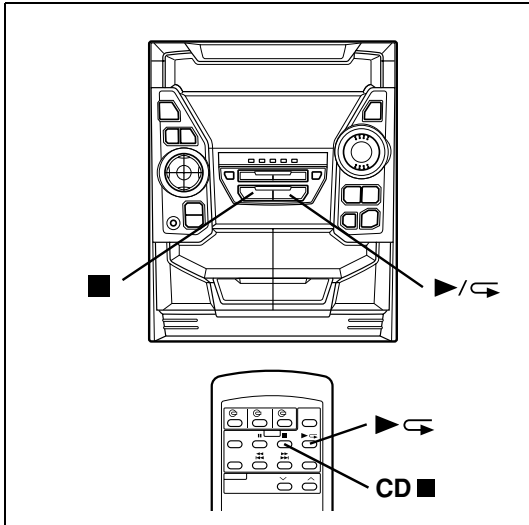
To repeat all tracks on up to 3 discs:
Press the ▶ / ⟲ (▶ ⟲) button twice.
● "⟲" will appear.

Repeat play indicator

To repeat a programmed sequence:
1 Programme a sequence of up to 32 tracks.
2 Press the ▶ / ⟲ (▶ ⟲) button twice.
● "⟲" will appear.

To cancel repeat play:
Press the ▶ / ⟲ (▶ ⟲) button again.
● "⟲" will go out.

Note:
● When using repeat play, be sure to press the ■ (CD ■) button after you are through listening. Otherwise, the CD(s) will play continuously.
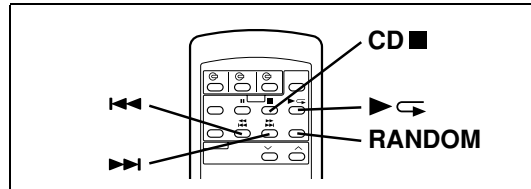
■ Random play

(Remote control operation)
The tracks on the disc(s) can be played in random order automatically.

1 Load a disc(s) and close the disc tray.

2 Press the RANDOM button to begin random play.
● "R" will appear.

Notes:
● If you press the ▶▶I button during random play, you can move to the next track. On the other hand, the I◀◀ button does not allow you to move to the previous track. The beginning of the track being played will be located.
● When using random play, be sure to press the ■ (CD ■) button after you are through listening. Otherwise, the disc(s) will play continuously.
● In random play, the unit will select and play tracks automatically. (You cannot select the order of the tracks.)

To cancel random play:
Press the ▶ / ⟲ (▶ ⟲) button.
● "R" will go out.

Caution:

● **Do not carry the unit with discs left in the disc tray. 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 turn 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, "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 then turn the power 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.

15

RADIO OPERATION

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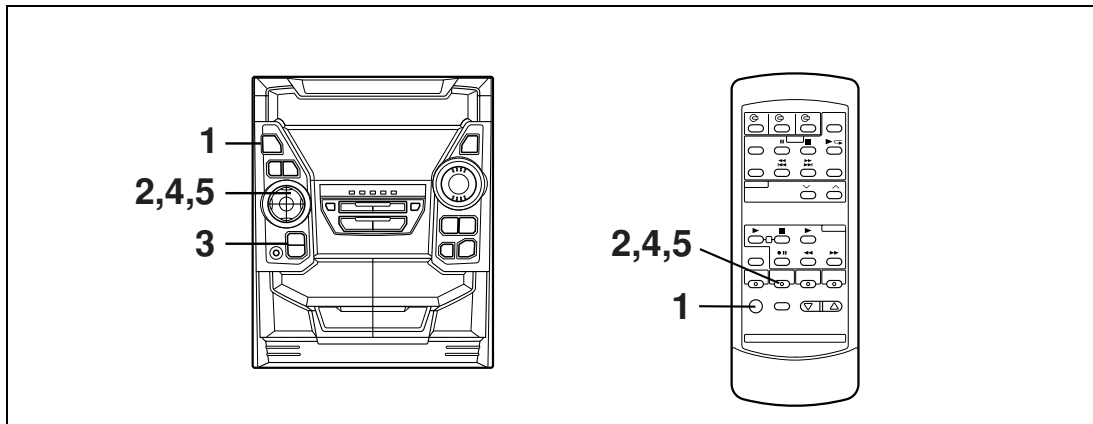
1 **Press the ON/STAND-BY button to turn the power on.**

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

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

Manual tuning:
Press the TUNING/TIME (∨ 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/TIME (∨ 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/TIME (∨ 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.

4 **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.

5 **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.

Note:
● 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.

16

■ Preset tuning

You can store up to 40 stations in memory (40 stations consisting of any combination of FM and AM stations) and recall them at the push of a button.

To enter stations into memory:

1 Perform steps 1 - 5 in the "Tuning" section.

2 Press the MEMORY/SET button.
● "MEMORY" and the preset channel number will flash.

3 Within 30 seconds, press the PRESET (∨ or ∧) button 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 MEMORY/SET 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.

Notes:
● 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 displayed.

(Main unit operation)
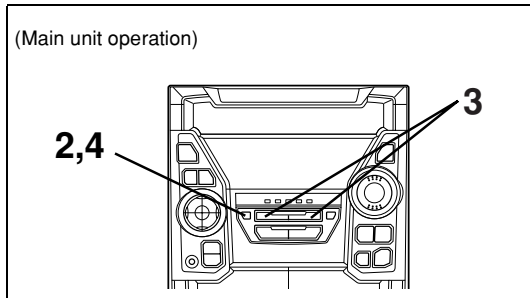
To recall a memorised station:
Press the PRESET (∨ or ∧) button for less than 0.5 seconds to select the desired station.
● The stations (preset channel number, frequency and frequency band) which have been stored in memory will appear in the display in numerical order, irrespective of the frequency bands.

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.

To erase all the contents in the preset memory:
1 Press the ON/STAND-BY button to enter the stand-by mode.
2 Press the ON/STAND-BY button whilst holding down the TUNER (BAND) button and the X-BASS/DEMO button.
● "TUNER CL" will appear.
● After performing this operation, all of the preset memory information will be erased.

■ 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.
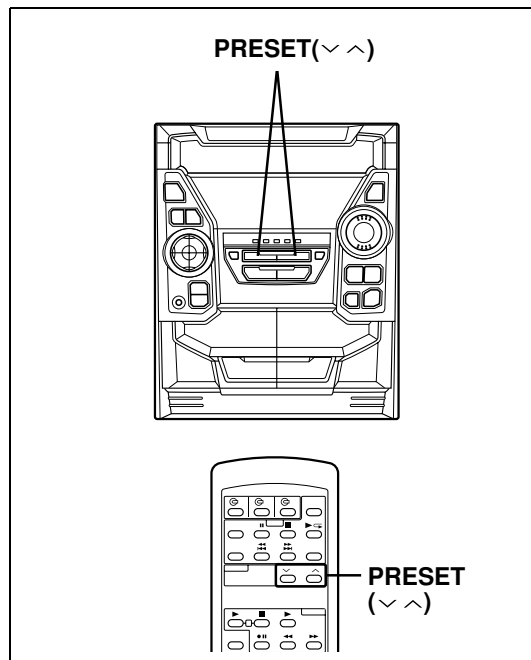
PRESET(∨ ∧)

PRESET (∨ ∧)

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

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 provides the RDS service, the RDS will appear, and the station frequency (and then the station name if sent) will be displayed.
"TP" (Traffic Programme) will appear on the display when the received broadcast carries traffic announcements, and "TA" (Traffic Announcement) will appear whilst a traffic announcement is received.
"EON" will appear whilst the EON (Enhanced Other Networks information) data is broadcast.
"PTYI" (Dynamic PTY Indicator) will appear whilst the Dynamic PTY station is received.

Note:
"TP" and "TA" appear at the same time during an announcement. When only "TA" appears, an announcement is not made. (See page 26.)

■ Information Provided by RDS

With the CD-BA1700H, 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 ⟶ PTY ⟶ RT ⟶ Station Frequency ⟶
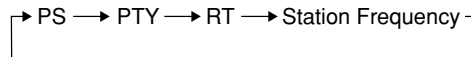
PS (Programme Service)	Station names commonly known will be displayed. "NO PS" appears if no signal is received.
PTY (Program Type)	Programme type will be displayed. "NO PTY" appears if no signal is received.
RT (Radio Text)	Radio text will be displayed. "NO RT" appears if no signal is received.
Station Frequency	Station frequencies.

DISPLAY MODE

18
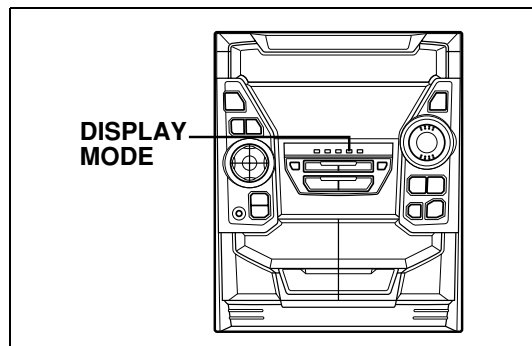
(Continued)

Descriptions of the PTY (Programme Type) codes, TP (Traffic Programme) and TA (Traffic Announcement).
With the CD-BA1700H, 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 specialised music styles, Jazz, Folk or Country. Music in this category is often but not always, vocal, and usually of short duration.

LIGHT M: Classical music 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 currently on air.

Note:
● When the unit is in the EON stand-by mode and a programme is selected, the unit will display "TI" instead of "TA".

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■ 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.)
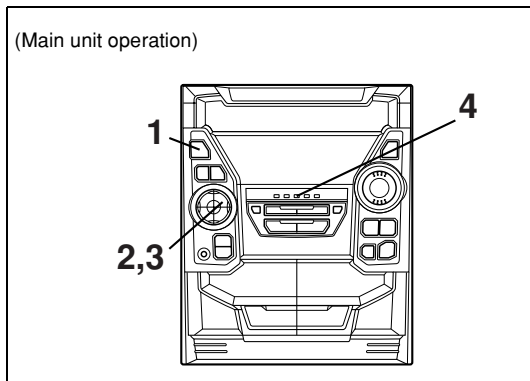
(Main unit operation)

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.
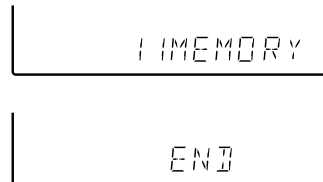
① After "ASPM" has flashed for about 4 seconds, scanning will start (87.50 - 108.00 MHz).
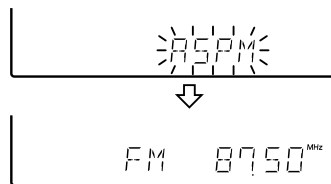
② When an RDS station is found, the RDS will appear for a short time and the station will be stored in memory.
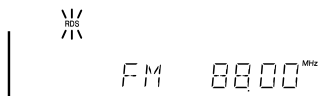
③ After scanning, the number of stations that have been automatically stored in memory will be displayed for 4 seconds, and then "END" will appear for 4 seconds.

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 appear 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 the contents in the preset memory:
1 Press the ON/STAND-BY button to enter the stand-by mode.
2 Press the ON/STAND-BY button whilst holding down the TUNER (BAND) button and the X-BASS/DEMO button.
● "TUNER CL" will appear.
● After performing this operation, all of the preset memory information will be erased.

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(Continued)

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

You can receive 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.
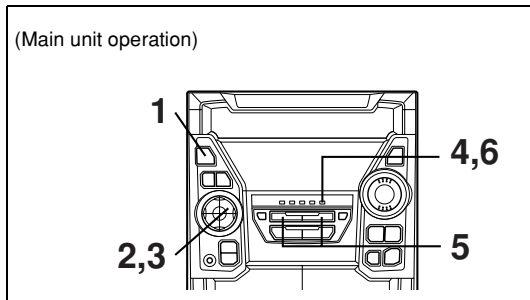
(Main unit operation)

1

4,6

2,3

5

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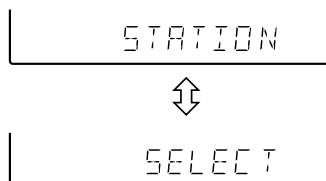
● "STATION" and "SELECT" will appear alternately for about 6 seconds.

5 Within 6 seconds, press the PRESET (∨ or ∧) button to select a desired station name.

```
      BBC R1
```
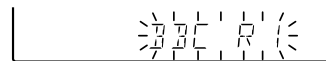
● Each time the button is pressed, the station name will appear. If the button is held down for more than 0.5 seconds, the station name will continuously change.

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

```
      BBC R1
```
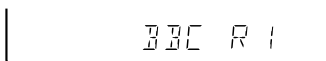
● After the selected station name has been lit for 1 second, the preset station which corresponds to the selected station name will be recalled.

```
      FM   P-01
         ⇩
      FM   98.80ᴹᴴᶻ
         ⇩
      BBC R1
```
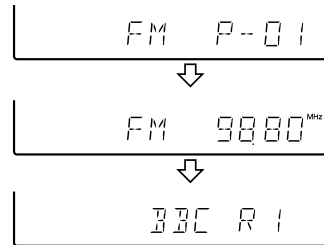
To cancel the station select operation:
Press the STATION button whilst "STATION" and "SELECT" appear alternately.

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, store station names in memory using the following procedure.
1   Press the STATION button.
2   Within 6 seconds, press the PRESET (∨ or ∧) button 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/SET button.
5   Within 30 seconds, press the MEMORY/SET button whilst the preset channel number is flashing.
●   The new station name has been stored in memory correctly.

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.

21

(Continued)

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

You can search for desired stations by specifying the programme type (news, sports, traffic programme, etc. ... see page 19) from among the stations that have been stored in memory. (ASPM is convenient for storing stations in memory.)

(Main unit operation)
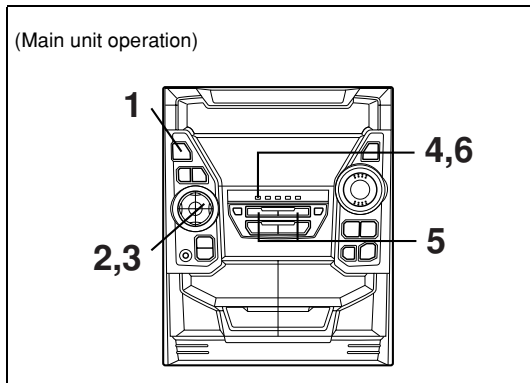
1 Press the ON/STAND-BY button to turn the power on.

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 button.
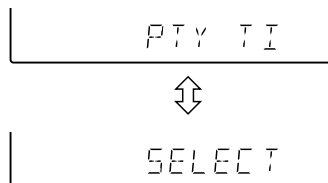
$$PTY \quad TI$$

$$\updownarrow$$

$$SELECT$$

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

5 Within 6 seconds, press the PRESET (∨ or ∧) button to select the programme type you want.

$$NEWS$$

● Each time the button 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 button again.

$$NEWS$$

$$⇩$$

$$SEARCH$$

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

$$P-01$$

$$⇩$$

$$P-01$$

$$⇩$$

$$BBC \ R1$$

$$⇩$$

$$BBC \ R1$$
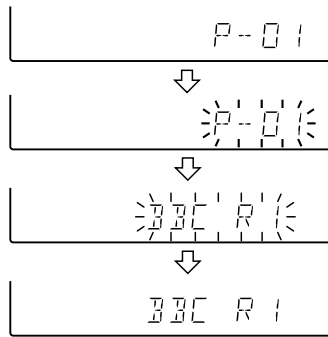
Note:
If the programme type has changed from flashing to steadily lit and the PTY.TI SEARCH button is pressed, nothing will happen. In this case, start again from step 4.
Each time a station of the programme type you want is encountered, you will be able to listen to the broadcast.
The channel number 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 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, "TP" will appear. (However, this does not necessarily mean that you will hear any traffic announcements at that time.) During a traffic announcement, "TA" will appear. (Both "TP" and "TA" will appear during an announcement.)

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(Continued)

■ To manually recall the stations stored in memory

Press the PRESET (∨ or ∧) button.
● Each time the button is pressed, 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)


PRESET
(∨ ∧)
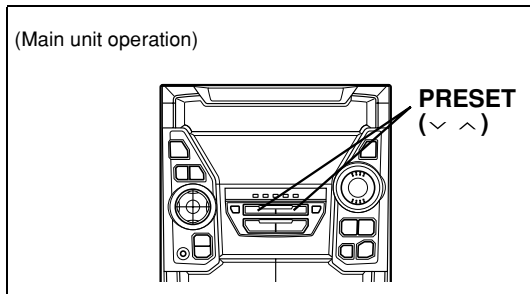
■ Notes for Radio text

● The radio text for 8 characters will be displayed steadily for 4 seconds and then it will scroll across the display.
● In the radio text position, "NO RT" will appear if the RDS station is not broadcasting any radio text.
● Whilst radio text data is 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.
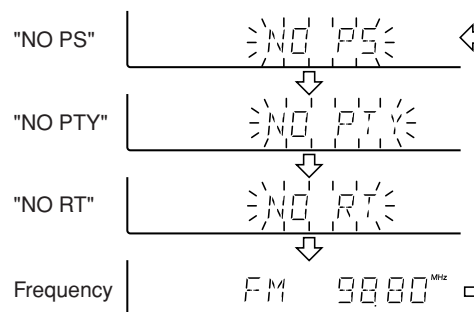
■ To switch the display

(Main unit operation)
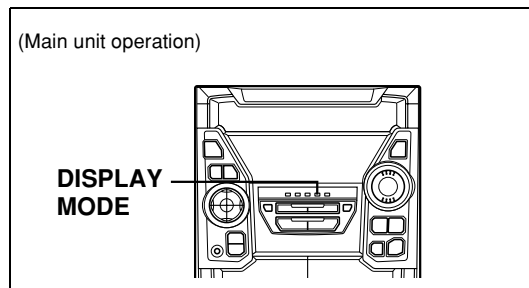
DISPLAY MODE

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

Station name (PS)	*BBC R 1*
Programme type (PTY)	*NEWS*
Radio text (RT)	*UK WEATH*
Frequency	*FM 98.80* MHz
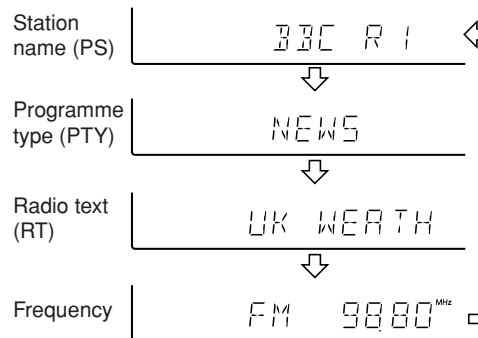
When the station you are tuning in is not an RDS station or even if it is an RDS station but it is very weak signal, the display will change in the following order:

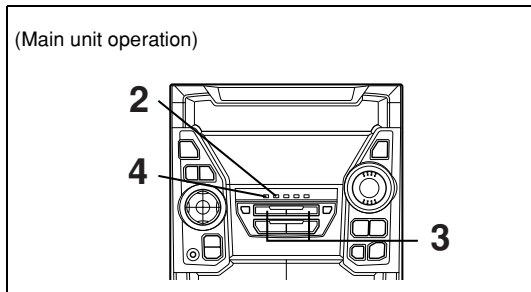|	
"NO PS"	*NO PS*
"NO PTY"	*NO PTY*
"NO RT"	*NO RT*
Frequency	*FM 98.80* MHz

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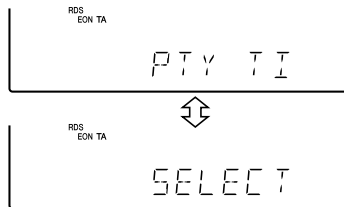● The display can only be switched whilst tuned to the FM band.

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(Continued)

■ EON-PTY

(Main unit operation)

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

```
RDS
EON TA

      BBC  R1
```

2 Press the EON button when "EON" appears.

```
RDS
EON TA

      PTY  TI
         ⇕
RDS
EON TA

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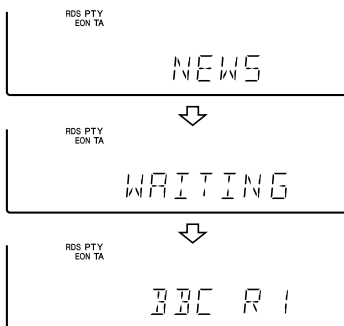
● "PTY TI" and "SELECT" will appear alternately for about 6 seconds.

3 Whilst they are displayed, select the desired programme type using the PRESET (∨ or ∧) button.

```
RDS
EON TA

      ⋰NEWS⋱
```

● The selected programme type will flash.

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

```
RDS PTY
EON TA

      NEWS
         ⇩
RDS PTY
EON TA

      WAITING
         ⇩
RDS PTY
EON TA

      BBC  R1
```

● 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.

```
      \ | /
RDS PTY
EON \ | \ TP

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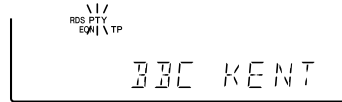
6 When the programme specified for the ON station is over, the unit will automatically return to the original station you were tuned to.

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 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.

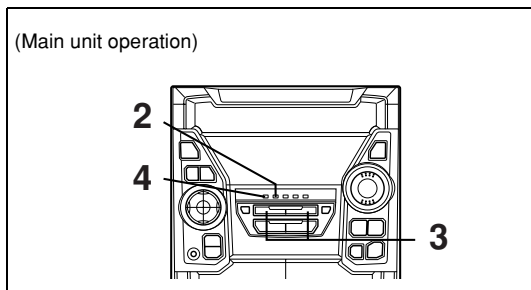| PTYI	Meaning
Lights up	Tuned into a dynamic PTY station.
Goes out	Tuned into a static PTY.

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.
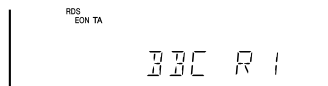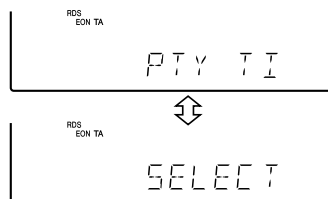
24

(Continued)

■ EON-TI

(Main unit operation)

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

```
RDS
EON TA

              BBC R1
```

2 Press the EON button when "EON" appears.

```
RDS
EON TA

              PTY TI
```
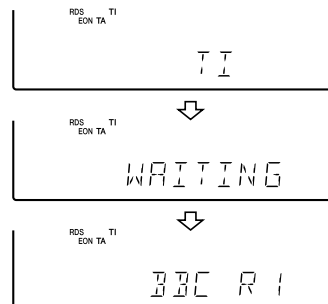⇕
```
RDS
EON TA

              SELECT
```

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

3 Whilst they are displayed, select the TI (Traffic Information) using the PRESET (∨ or ∧) button.

```
RDS
EON TA

              TI
```

● The selected "TI" will flash.

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

```
RDS      TI
EON TA

              TI
```
⇩
```
RDS      TI
EON TA

              WAITING
```
⇩
```
RDS      TI
EON TA

              BBC R1
```

● "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 specified starts on an ON (other network) station, the unit will automatically switch to that station, and "TI" will flash.

```
RDS      TI
EON TA TP

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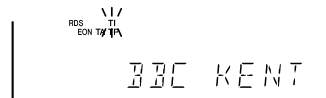
6 When the traffic announcement is over, the unit will automatically return to the original station you were tuned to.

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 pressed after TI is selected, "NO TI" will flash for 4 seconds.

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(Continued)

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 currently on air and may also carry EON information about other traffic announcements.
Lit	Lit	A traffic announcement is currently on air on this programme.

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

● When the unit is set in 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.

● To cancel the ON (other network) station tuned in by the EON system and to return to the original station, 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, "WEAK SIG" will appear and the unit will return to the original station if there is any problem with this station or the station cannot be received properly.

● Even if the unit switches from the station you are listening to directly to some "other network" station, the unit will search for the station with the strongest signal and switch to it if the signals from the other network stations are very weak. 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.

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CASSETTE OPERATION

■ TAPE 1 or TAPE 2 playback
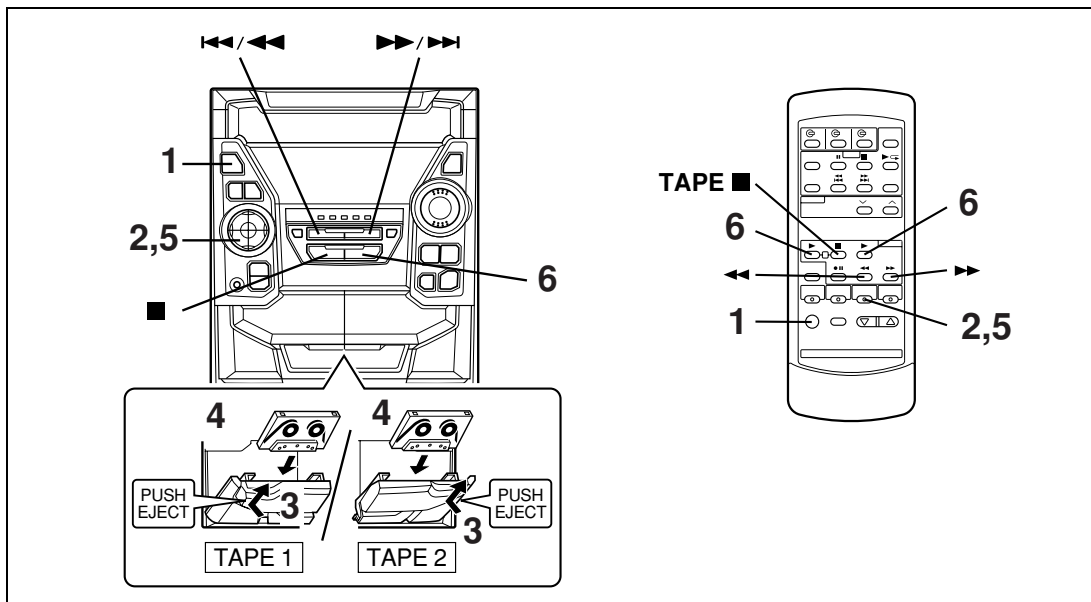
1 Press the ON/STAND-BY button to turn the power on.

2 Press the TAPE (1 ⁀ 2) button.

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

4 Load the cassette into the TAPE 1 or TAPE 2 cassette compartment.

5 With cassettes in both decks, press the TAPE (1 ⁀ 2) button to switch operation from one deck to the other.

6 Press the ► / ⌐ button to start playback.

● When playback is performed using the remote control, press the TAPE 1 or TAPE 2 ► button.

To stop playback:
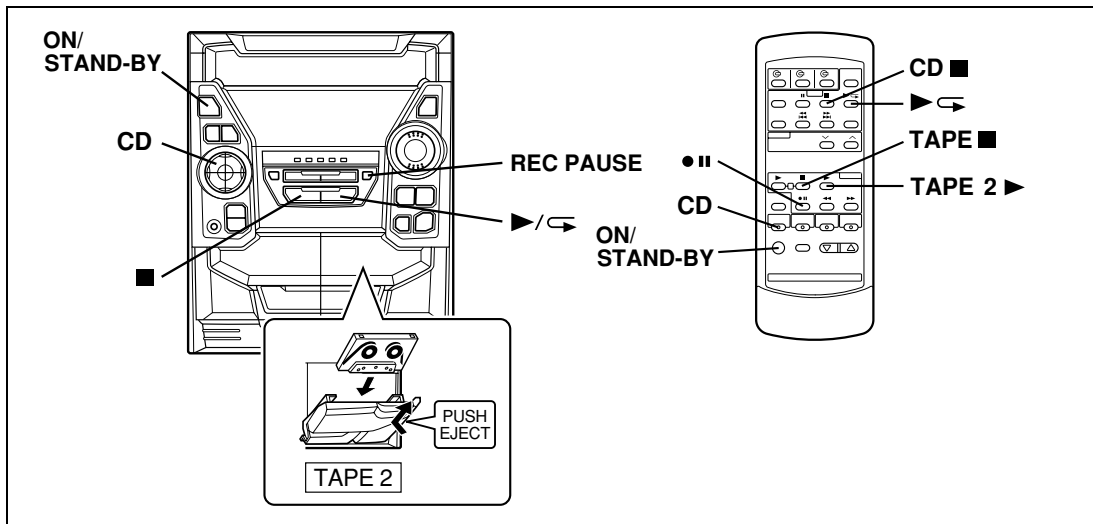Press the ■ (TAPE ■) button.

Fast forward/rewind: (TAPE 2 only)
1 Press the ■ (TAPE ■) button, then press the TAPE (1 ⁀ 2) button to select TAPE 2.
2 To advance the tape, press the ►► button. To rewind it, press the ◄◄ button.

Caution:
● To remove the cassette tape, press the ■ (TAPE ■) button, and then open the cassette compartment.
● Before changing from one tape operation to another, press the ■ (TAPE ■) 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. In this case, wait until power is restored.

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

- The volume and sound quality can be adjusted with no effect on the recorded signal (Variable Sound Monitor).

- Metal and CrO_2 tapes should not be used for recording or dubbing.

■ Recording from the built-in CD player (CD Synchronised Recording System)

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

2 Load a cassette into the TAPE 2 cassette compartment.

3 Press the CD button and load the desired disc.
- Use the APMS function to store the tracks you want to record in memory. (See page 14.)

4 Press the REC PAUSE (●II) button.
- "SYNC" and "REC" will flash.

5 Press the ►/⊑ (TAPE 2 ►) button.
- "SYNC" will disappear and "REC" will light up.
- CD playback will start approximately 5 seconds after the tape starts.

To stop recording:
Press the ■ (CD ■) button.
The CD and tape will stop.

Note:
- When the end of the tape is reached whilst recording, the CD player will display the track number which was being played at that time, and stop automatically. If you want to restart recording from the beginning of the interrupted track, turn over the tape, press the REC PAUSE (●II) button and then the ► / ⊑ (TAPE 2 ►) button. (If tracks have been stored in memory using the APMS function, recording will restart from the first track stored in memory.)

■ Recording from the built-in radio

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

2 Load a cassette into the TAPE 2 cassette compartment.

3 Tune in to the desired station (pages 16 - 17).

4 Press the REC PAUSE (●II) button.
- "REC" will flash.

5 Press the ► / ⊑ (TAPE 2 ►) button.
- "REC" will appear.

To interrupt recording:
1   Press the REC PAUSE (●II) button.
- "REC" will flash.
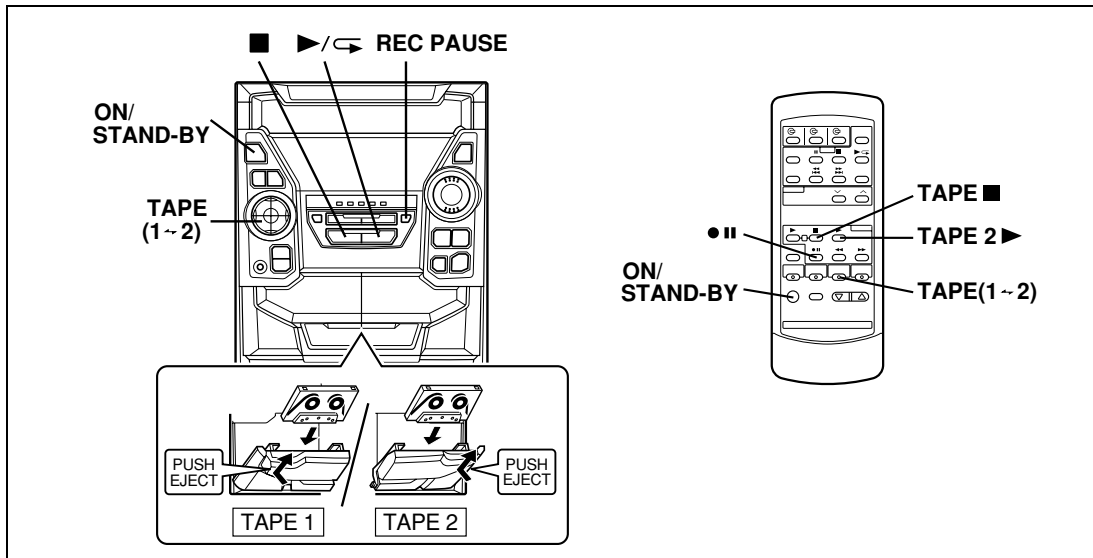2   Press the ► / ⊑ (TAPE 2 ►) button.
- "REC" will appear.

To stop recording:
Press the ■ (TAPE ■) button.

Note:
- If a whistling noise is heard whilst recording from an AM station, move the AM loop aerial to a position where noise is no longer heard from the unit.

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(Continued)

■ Dubbing from tape to tape

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

2 Load a prerecorded cassette into the TAPE 1 cassette compartment. Insert a blank tape into the TAPE 2 cassette compartment.
- It is recommended that the recording tape is the same length as the master tape.

3 Press the TAPE (1 ⇌ 2) button until "TAPE 1" appears in the display.

4 Press the REC PAUSE (●II) button.

5 Press the ► / ⤸ (TAPE 2 ►) button.

To stop dubbing:
Press the ■ (TAPE ■) button.
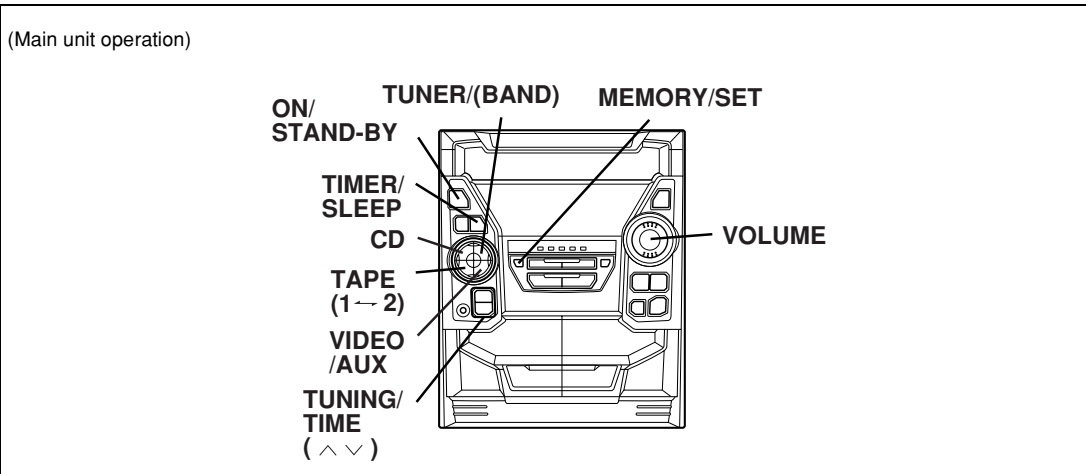- TAPE 1 and TAPE 2 will simultaneously stop.

■ Erasing recorded tapes

- Make sure that TAPE 1 is not in use.

1 Load the tape to be erased into the TAPE 2 cassette compartment.

2 Press the TAPE (1 ⇌ 2) button until "TAPE 2" appears in the display.

3 Press the REC PAUSE (●II) button.

4 Press the ► / ⤸ (TAPE 2 ►) button.

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■ **Timer playback**

The unit will turn on and play the selected source at the pre-set time.

● Before setting the timer, make sure that the clock setting is correct (page 10).

(Main unit operation)

ON/
STAND-BY

TUNER/(BAND)   MEMORY/SET

TIMER/
SLEEP

CD

TAPE
(1 ⇀ 2)

VIDEO
/AUX

TUNING/
TIME
(∧ ∨)

VOLUME

---

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

2 Press the CD, TUNER (BAND), TAPE (1 ⇀ 2) or VIDEO/AUX button to select the desired function, and then adjust the sound volume using the VOLUME buttons.

3 Press the TIMER/SLEEP button repeatedly until a white "☉" is displayed.
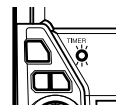
● The timer set indicator will flash.
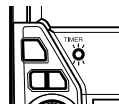
4 Press the TUNING/TIME (∨ or ∧) button to set the hour start time, then press the MEMORY/SET button.

5 Press the TUNING/TIME (∨ or ∧) button to set the minute start time, then press the MEMORY/SET button.

● The unit will enter the stand-by mode automatically, and the timer set indicator will light up.

6 When the preset time is reached, the timer playback will start.
● The volume will increase gradually.

7 If you select CD or TAPE, the unit will enter the stand-by mode after the playback. If you select TUNER or VIDEO/AUX, it will enter the stand-by mode one hour after the timer playback starts.

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

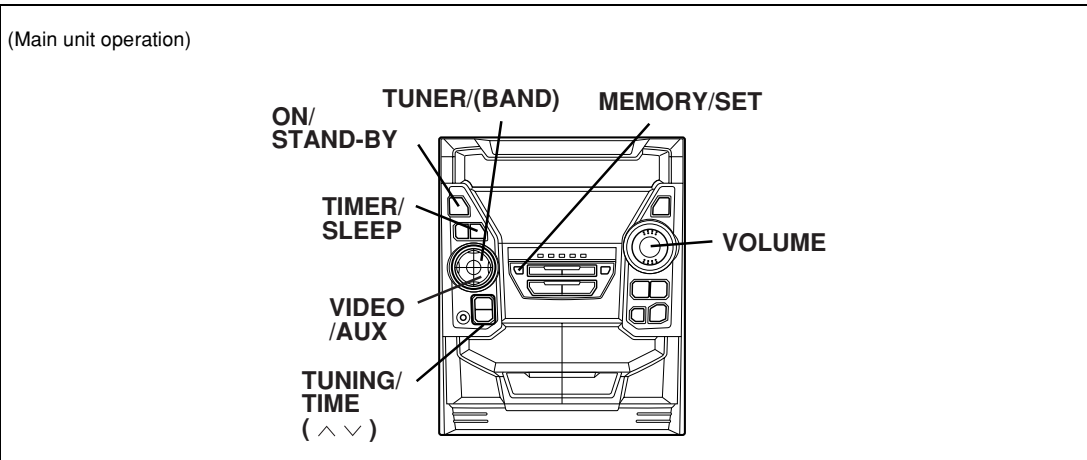**To change the programmed contents:**
Start again from step 1.

Notes:
● When performing timer playback using an external unit connected to the VIDEO/AUX sockets, only the power of the main unit will enter the stand-by mode automatically. (The power of the external unit will not be turned off.)
● Once the time is set, the setting will be retained until a new time is entered.

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(Continued)

■ Timer recording

The unit will turn on and start recording from the radio at the preset time.

● Before setting the timer, make sure that the clock setting is correct (page 10).

(Main unit operation)

ON/STAND-BY

TUNER/(BAND) **MEMORY/SET**

TIMER/SLEEP

VOLUME

VIDEO/AUX

TUNING/TIME (∧ ∨)

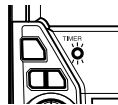**1** **Press the ON/STAND-BY button to turn the power on.**
● Load a cassette for recording into the TAPE 2 cassette compartment.

2 **Press the TUNER (BAND) or VIDEO/AUX button to select the desired function, and then adjust the sound volume using the VOLUME buttons.**

3 **Press the TIMER/SLEEP button repeatedly until a red "⏰" is displayed.**
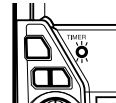
● The timer set indicator will flash.

4 **Press the TUNING/TIME (∨ or ∧) button to set the hour start time, then press the MEMORY/SET button.**

5 **Press the TUNING/TIME (∨ or ∧) button to set the minute start time, then press the MEMORY/SET button.**

● The unit will enter the stand-by mode automatically, and the timer set indicator will light up.

6 **When the preset time is reached, the timer recording will start.**
● The volume will increase gradually.

7 **When the recording tape reaches its end, the timer recording will end, and the unit will enter the stand-by mode.**

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

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

Notes:
● When performing timer recording using an external unit connected to the VIDEO/AUX sockets, only the power of the main unit will enter the stand-by mode automatically. (The power of the external unit will not be turned off.)
● Once the time is set, the setting will be retained until a new time is entered.

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(Continued)

■ Sleep operation

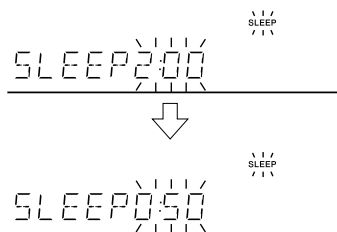The radio, compact disc and cassette deck can all be turned off automatically.

(Main unit operation)

TIMER/
SLEEP

MEMORY/
SET
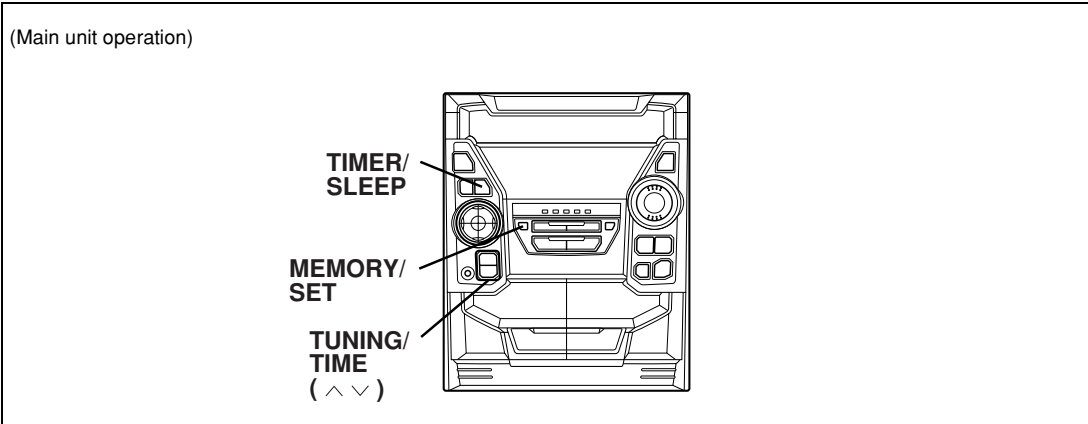
TUNING/
TIME
($\wedge$ $\vee$)

1 Play back the desired sound source.
2 Press the TIMER/SLEEP button repeatedly until "SLEEP" is displayed.

To change the sleep time:
Whilst the sleep time is displayed, press the TUNING/TIME ($\vee$ or $\wedge$) button to adjust the time. (Maximum: 3 hours - Minimum: 1 minute) The amount of sleep time can also be changed during the sleep operation.
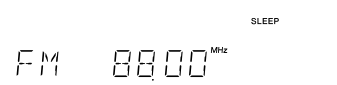
SLEEP200   SLEEP

↓

SLEEP050   SLEEP

● 3 hours - 5 minutes → 5-minute intervals
● 5 minutes - 1 minute → 1-minute intervals

3 Press the MEMORY/SET button.

FM   8800 MHz   SLEEP

4 The unit will enter the stand-by mode automatically after the preset sleep time has elapsed.
● The volume will be turned down 1 minute before the sleep operation finishes.

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

To confirm the remaining sleep time:
Press the TIMER/SLEEP button.

To cancel the sleep operation:
Press the ON/STAND-BY button to enter the stand-by mode.

32

USING EXTERNAL UNITS

■ Video/Auxiliary (Audio signal) input

To listen to or record signals from external sources through this unit:

1 Use a separately available RCA lead to connect the desired external unit to the VIDEO/AUX sockets. (red → right channel, white → left channel)
● When using video equipment (Laser Disc player or VCR), be sure to connect the audio output to this unit and the video output to a television.

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

3 Press the VIDEO/AUX button.

4 Operate the external unit.

5 To record the sound from the external unit, perform steps 2 - 5 of the "Recording from the built-in radio" section on page 28.
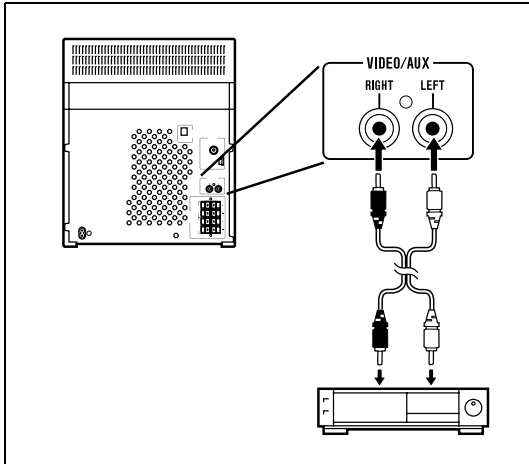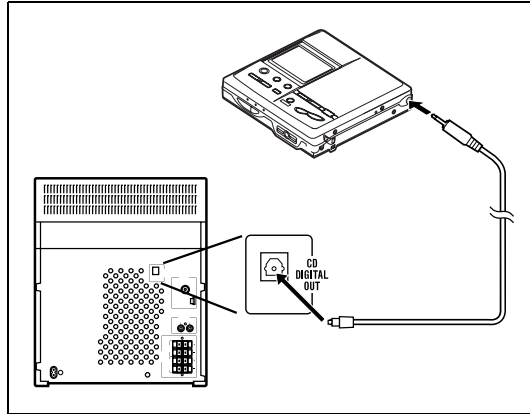
Note:
● To prevent hum interference, do not place this unit near television receivers.

■ CD digital output (optical)

The CD digital signal from this unit can be recorded by other DAT or MiniDisc recorders.

1 Remove the CD DIGITAL OUT socket cover.

2 Use a commercially available digital cable to connect the unit to the OPTICAL IN socket of a MiniDisc recorder or a DAT.

3 Put the external unit in the recording mode.

4 Play a CD on this unit.

Note:
● Only CD signals can be output.
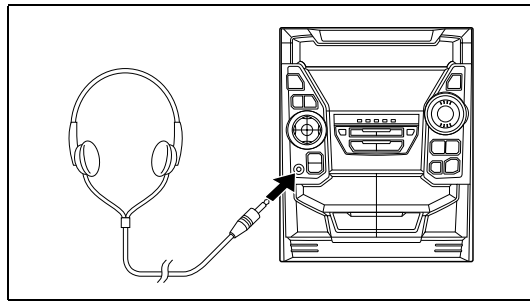
■ Headphones

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

Notes:
● 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 buttons for the desired volume.

33

RESETTING THE MICROCOMPUTER

Reset the microcomputer under the following conditions:
- To erase all of the stored memory contents (clock and timer settings, and tuner 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 standby mode.

2 Whilst pressing down the ► / ⌐ button and the X-BASS/DEMO button, hold down the ON/STAND-BY button for at least 1 second.
- "CLEAR AL" will appear.
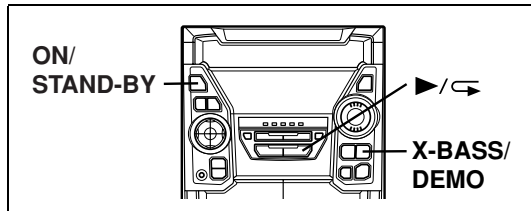
Caution:
- The operation explained above will erase all data stored in memory including clock and timer settings, and tuner and CD presets.

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.
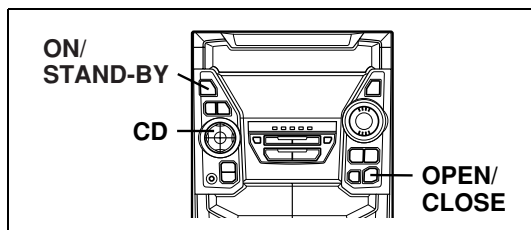
2 Press the CD button.

3 Press the OPEN/CLOSE button to open the disc tray.
- Remove all CDs inserted in the unit.

4 Press the OPEN/CLOSE button to close the disc tray.
- Make sure that "NO DISC" is displayed.

5 Press the ON/STAND-BY button to enter the standby mode, and then unplug the AC power lead from the AC socket.

MAINTENANCE

■ Internal care

- Dirty heads, capstans or pinch rollers 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.
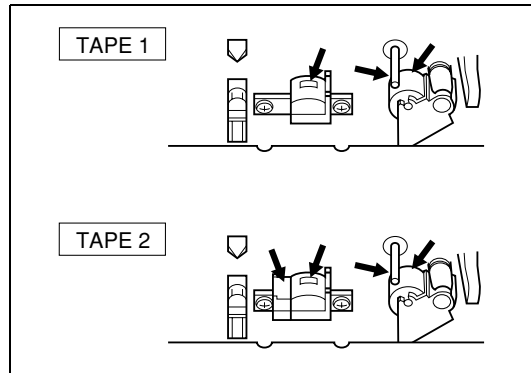
■ External care

- 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.

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.

■ General

Power source:	AC 230 V, 50 Hz
Power consumption:	95 W
Dimensions:	Width; 270 mm (10-5/8") Height; 330 mm (13") Depth; 375 mm (14-6/8")
Weight:	6.4 kg (14.0 lbs.)

■ Amplifier section

Output power:	RMS; 100 W (50 W + 50 W) (10 % T.H.D.)
	RMS; 74 W (37 W + 37 W) (0.9 % T.H.D.)
Input terminals:	Video/Auxiliary (audio signal); 500 mV/47 kohms
Output terminals:	Front speakers; 8 ohms
	Surround speakers; 16 ohms
	Headphones; 16-50 ohms (recommended; 32 ohms)
	CD digital output (optical)

■ Compact disc player section

Type:	3-disc multi-play compact disc player
Signal readout:	Non-contact, 3-beam semi-conductor laser pickup
D/A converter:	1-bit D/A converter
Frequency response:	20 - 20,000 Hz
Dynamic range:	90 dB (1 kHz)

■ Tuner section

Frequency range:	FM; 87.5 - 108 MHz
	AM; 522 - 1,620 kHz

■ Cassette deck section

Frequency response:	50 - 14,000 Hz (Normal tape)
Motor:	DC motor with electronic governor × 1
Bias and erasure system:	AC
Tape speed:	4.76 cm/sec. (1-7/8 ips.)
Signal/noise ratio:	55 dB (TAPE 1, playback) 50 dB (TAPE 2, recording/playback)
Wow and flutter:	0.3 % (WRMS)
Heads:	TAPE-1: Playback × 1 TAPE-2: Recording/playback × 1 Erase × 1

■ Front speaker section

Type:	3-way [10 cm (4") woofer ×2 and 5 cm (2") tweeter]
Maximum input power:	80 W
Rated input power:	40 W
Impedance:	8 ohms
Dimensions:	Width; 220 mm (8-11/16") Height; 330 mm (13") Depth; 227 mm (8-15/16")
Weight:	3.0 kg (6.6 lbs.)/each

■ Surround speaker section

Type:	10 cm (4") full-range speaker
Maximum input power:	30 W
Rated input power:	15 W
Impedance:	16 ohms
Dimensions:	Width; 170 mm (6-3/4") Height; 170 mm (6-3/4") Depth; 88 mm (3-1/2")
Weight:	0.5 kg (1.0 lbs.)/each

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 0990 274277

SHARP

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