

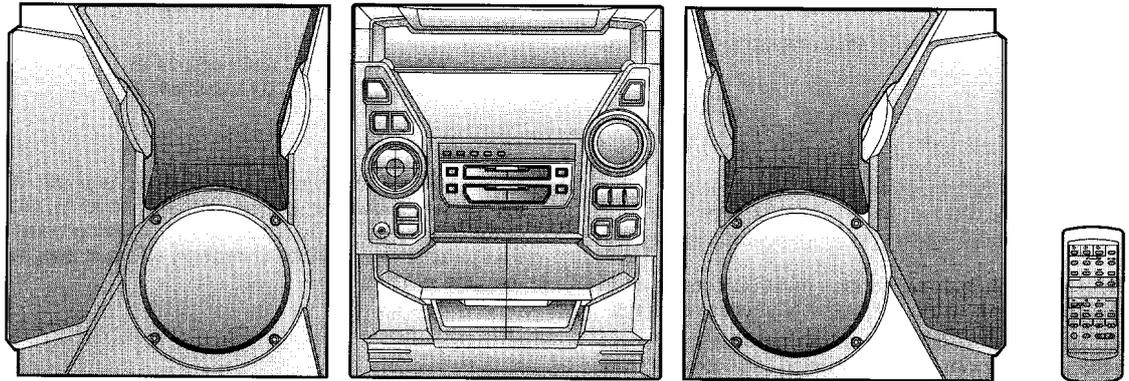
SHARP

MINI COMPONENT SYSTEM OPERATION MANUAL

MODEL
CD-BA2000H

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.

CD-BA2000H Mini Component System consisting of
CD-BA2000H (main unit) and CP-BA2000H (speaker
system).



COMPACT
disc
DIGITAL AUDIO

R·D·SEON

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

SPECIAL NOTES

NOTE FOR USERS IN THE U.K.

The mains lead of this product is fitted with a non-rewireable (moulded) plug incorporating a 3A fuse. Should the fuse need to be replaced, a BSI or ASTA approved BS 1362 fuse marked ∇ or \diamond 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 inserted 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 connected 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 obtained 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.

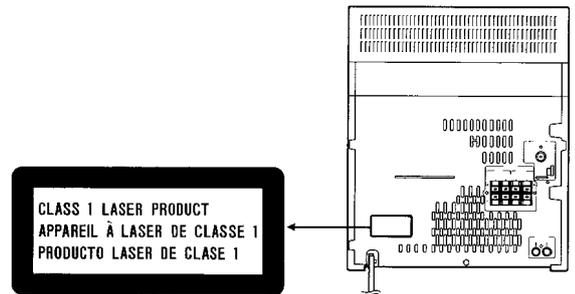
- Recording and playback of any material may require consent, which SHARP is unable to give. Please refer particularly to the provisions of the Copyright Act 1956, the Dramatic and Musical Performers Protection Act 1958, the Performers Protection Acts 1963 and 1972 and to any subsequent statutory enactments 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 dangerous voltages, always remove mains plug from the socket before any service operation and when not in use for a long period.

Warning:

To prevent fire or shock hazard, do not expose this appliance to dripping or splashing. No objects filled with liquids, such as vases, shall be placed on the apparatus.



CAUTION

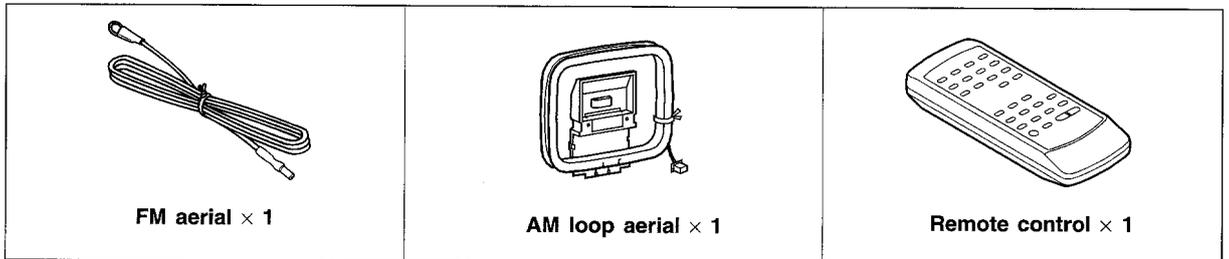
Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

As the laser beam used in this compact disc player is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

CONTENTS

	Page		Page
ACCESSORIES	2	CASSETTE OPERATION	25
PRECAUTIONS	3	RECORDING	26
NAMES OF CONTROLS AND INDICATORS	4-5	HOW TO USE THE BUILT-IN TIMER	27-28
PREPARATION FOR USE	6-9	USING EXTERNAL UNITS	28
SETTING THE CLOCK	10	RESETTING THE MICROCOMPUTER	29
SOUND CONTROL	11	TRANSPORTING THE UNIT	29
COMPACT DISC OPERATION	12-14	MAINTENANCE	29
RADIO OPERATION	15-16	SPECIFICATIONS	30
RDS (Radio Data System) OPERATION	17-25		

ACCESSORIES



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

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 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.

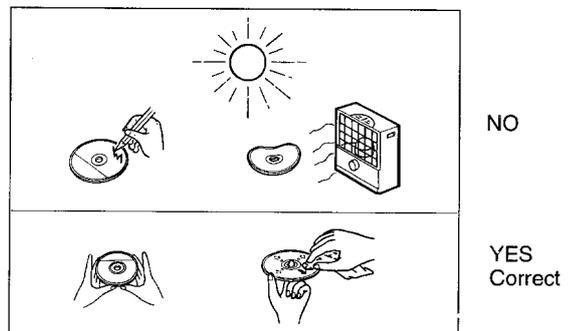
If this happens, leave the power on with no disc (or cassette) in the unit until normal playback is possible (about 1 hour). Wipe off any condensation on the transmitter LED with a soft cloth before operating the unit.

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.

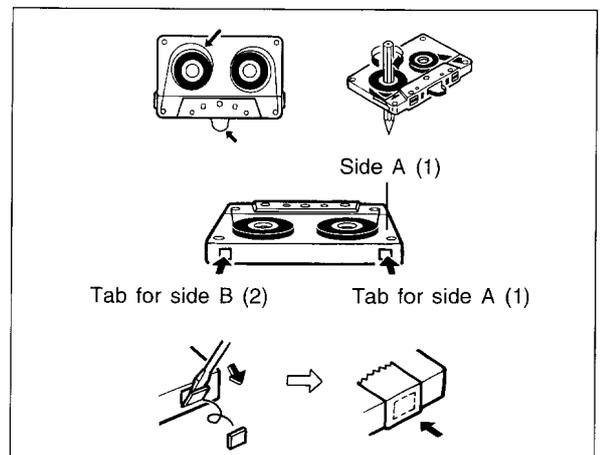
Follow the guidelines below for maximum enjoyment from your CD collection and player.

- 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.

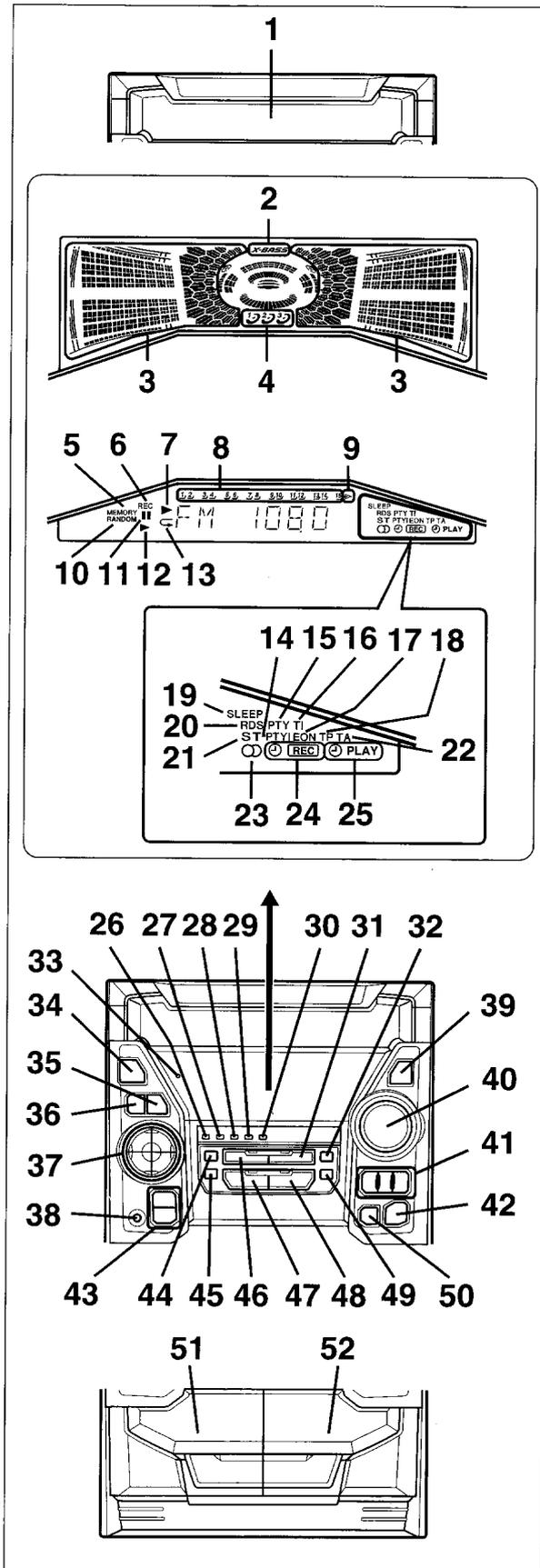


Cassette tape

- For playback, use normal or low-noise tape for the best sound. (Metal or CrO₂ 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.



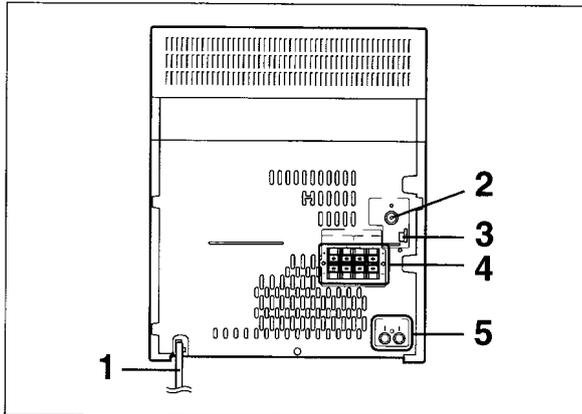
NAMES OF CONTROLS AND INDICATORS



■ Front panel

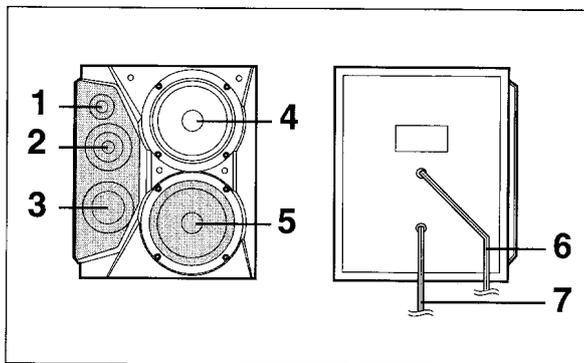
1. (CD) Disc Tray
2. Extra Bass Indicator
3. Spectrum Analyzer/Volume Level Indicator
4. (CD) Disc Number Indicators
5. (CD/TUNER) Memory Indicator
6. (TAPE 2) Record Indicator
7. (CD) Play Indicator
8. (CD) Music Schedule Indicators
9. (CD) More Tracks Indicator
10. (CD) Random Play Indicator
11. (CD) Pause Indicator
12. (TAPE) Play Indicator
13. (CD) Repeat Indicator
14. Dynamic PTY Indicator
15. Programme Type Indicator
16. Traffic Information Indicator
17. EON Indicator
18. Traffic Programme Indicator
19. Sleep Indicator
20. RDS Indicator
21. FM Stereo Mode Indicator
22. Traffic Announcement Indicator
23. FM Stereo Indicator
24. Timer Record Indicator
25. Timer Play Indicator
26. (TUNER) Programme Type/Traffic Information Search Button
27. (TUNER) EON Button
28. (TUNER) ASPM Button
29. (TUNER) Display Mode Selector Button
30. (TUNER) Station Selector Button
31. (CD) Track Up/Cue Button
(TUNER) Preset Up Button
(TAPE 2) Fast Forward Button
32. Equalizer Mode Selector Button
33. Timer Set Indicator
34. On/Stand-by Button
35. Timer/Sleep Button
36. Clock Button
37. Function Selector Buttons
38. Headphone Socket
39. Dimmer
40. Volume Control
41. (CD) Disc Number Select Buttons
42. (CD) Open/Close Button
43. Tuning and Time Up/Down Buttons
44. Memory/Set Button
45. (TAPE 2) Record Pause Button
46. (CD) Track Down/Review Button
(TUNER) Preset Down Button
(TAPE 2) Rewind Button
47. (CD/TAPE) Stop Button
48. (CD) Play/Repeat Button
(TAPE) Play Button
49. Extra Bass/Demo Mode Button
50. (CD) Disc Skip Button
51. (TAPE 1) Cassette Compartment
52. (TAPE 2) Cassette Compartment

(Continued)



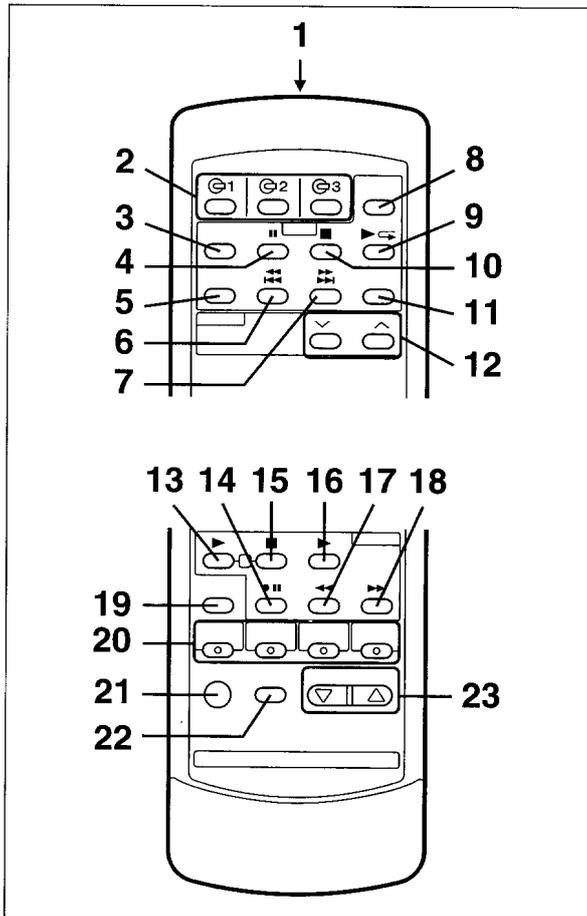
■ Rear panel

1. AC Power Lead
2. FM 75 Ohms Aerial Socket
3. AM Loop Aerial Socket
4. Speaker Terminals
5. Video/Auxiliary (Audio Signal) Input Sockets



■ Speaker

1. Super Tweeter
2. Tweeter
3. Bass Reflex Duct
4. Woofers
5. Subwoofer
6. Main Speaker (Woofers, Tweeter and Super Tweeter) Wire
7. Subwoofer Wire



■ 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

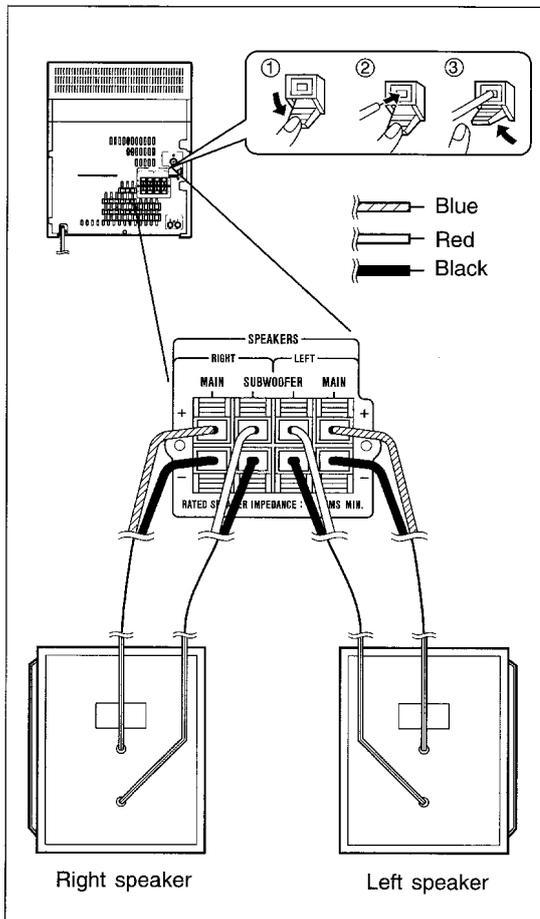
● Tape control section

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.

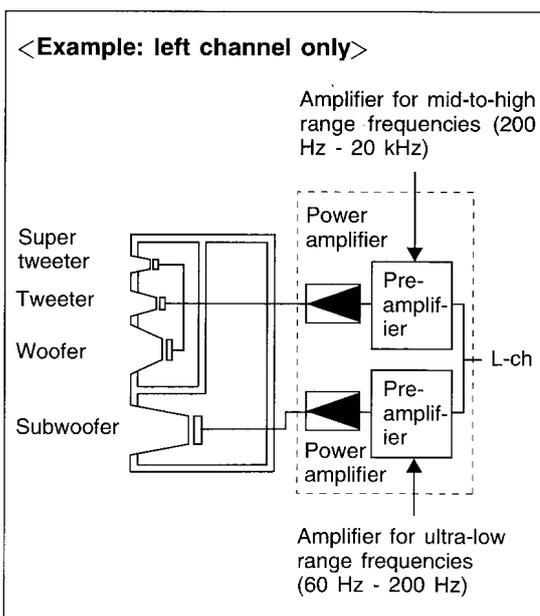
Speaker connection

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.

- 1 Connect the upper black wire to the MAIN(-) terminal and the blue wire to the MAIN(+) terminal.
- 2 Connect the lower black wire to the SUBWOOFER(-) terminal and the red wire to the SUBWOOFER(+) terminal.

Caution:

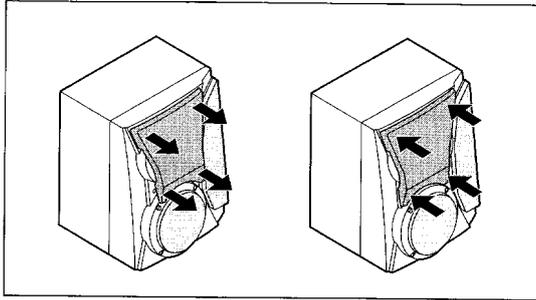
- Never mistake the connections to the MAIN and the SUBWOOFER terminals. Wrong connection may damage the main unit or the speakers.
- Model CP-BA2000H is the exclusive speaker for the CD-BA2000H. Do not use it for other models. Besides, do not connect other speakers to the CD-BA2000H speaker terminals. Such connections can damage the main unit.
- Do not mix the right channel and left channel wiring 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 stand or sit on the speakers. If the speakers fall or collapse, you may be injured.



Bi-amp system:

- This product drives the built-in subwoofer unit and the speaker unit composed of the super tweeter, tweeter and woofer for mid-to-high range frequencies with independent amplifiers which have individual frequency characteristics. As a result, both units can avoid the sound interference and can create clear sound.

(Continued)



■ 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 grills on the woofers are removable.

Caution:

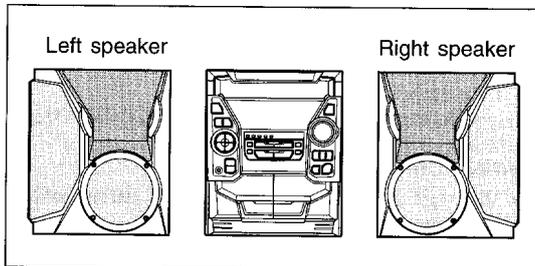
When the speaker grilles are removed, the speaker diaphragms are exposed. Make sure nothing comes into contact with the speaker diaphragms.

■ 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 speaker system

The left and right speakers have individual shapes. For best performance, place the speakers according to the diagram to the left.



■ Aerial connection

Supplied FM aerial

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

Supplied AM loop aerial

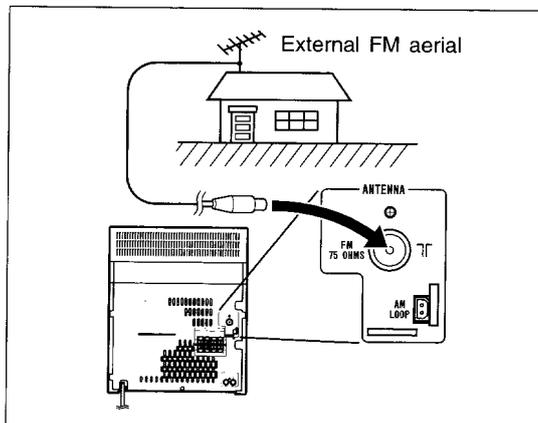
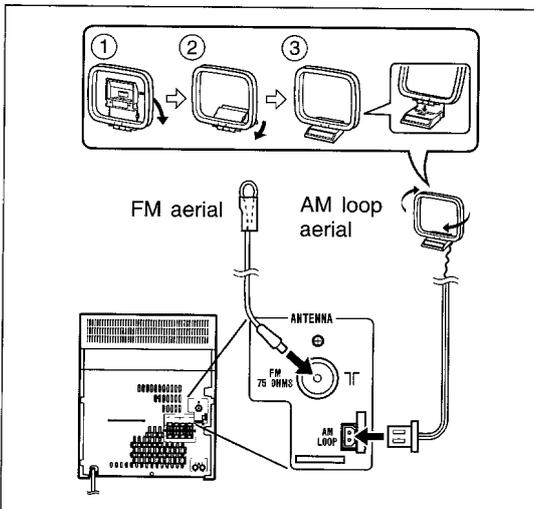
Connect the AM loop aerial wire to the AM LOOP socket. Position the AM loop aerial for optimum reception. Place the AM loop aerial on a shelf, etc., or attach it to a stand or a wall with screws (not supplied).

Notes:

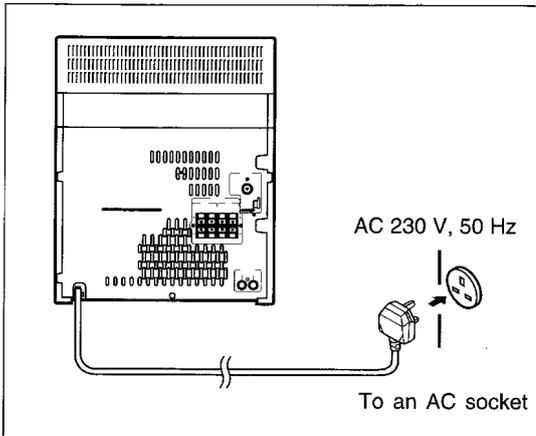
- Do not place the aerial on the main unit as it may result in noise pickup from the internal digital electronics. Place the aerial away from the unit for better reception.
- If the AM loop aerial and the FM aerial wire are placed near the AC power lead, interference may result.

External FM aerial

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

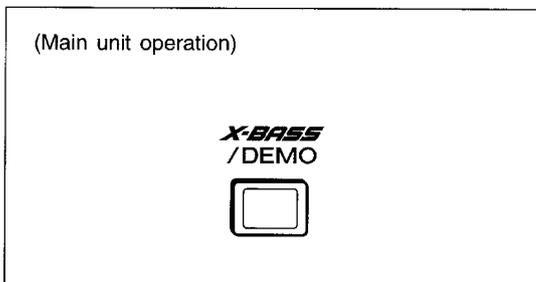


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■ Connecting the AC power lead

- After connecting the speakers, plug the AC power lead into a convenient AC socket.
- Unplug the AC power lead from the AC socket if the unit will not be in used for a prolonged period of time.



■ 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.

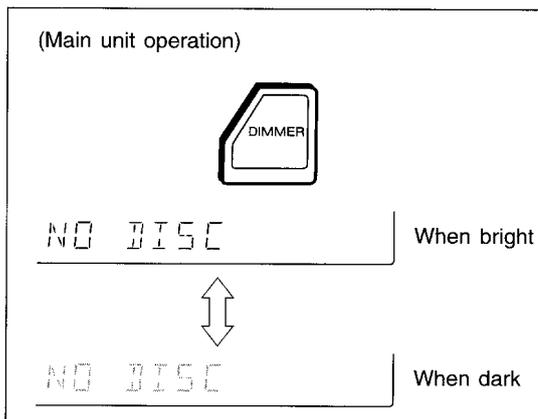
- The demonstration mode will be cancelled and the unit will be in the low power consumption mode.

To return to the demonstration mode:

When the unit is in the stand-by mode, press the X-BASS/DEMO button again.

Notes:

- When the unit is in the low power consumption mode, the display will disappear.
- 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

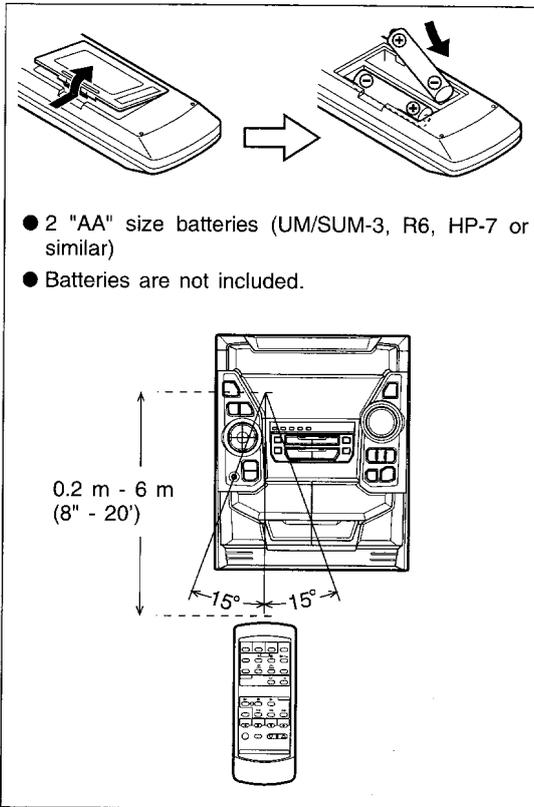
Press the DIMMER button.

- The display will be made dimmer.

To return to the original brightness:

Press the DIMMER button again.

(Continued)



■ Remote control

- When inserting or removing the batteries, push them towards the ⊖ battery terminals.
- 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.

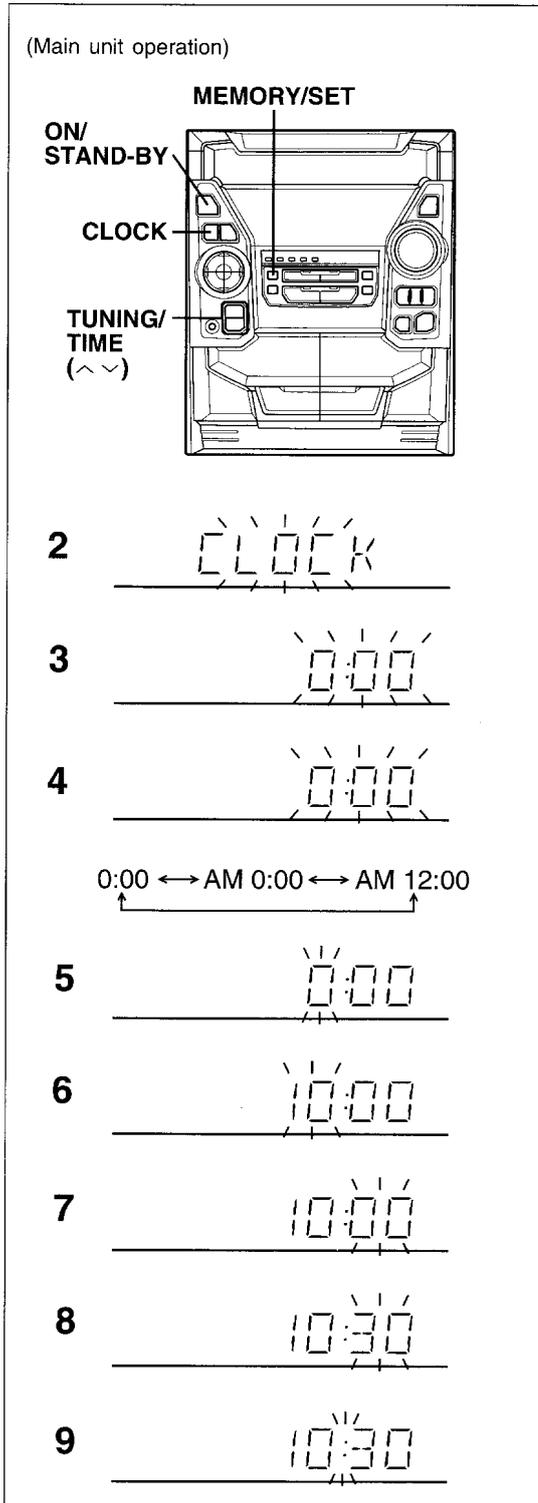
Caution:

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.

SETTING THE CLOCK



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

- 1 Press the ON/STAND-BY button to enter the stand-by mode.
- 2 Press the CLOCK button.
- 3 Within 5 seconds, press the MEMORY/SET button.
- 4 Press the TUNING/TIME (✓ or ^) button to select the time display mode.
 - "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 29).

- 5 Press the MEMORY/SET button.
- 6 Press the TUNING/TIME (✓ or ^) button to adjust the hour.
 - 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.
- 8 Press the TUNING/TIME (✓ or ^) button to adjust the minutes.
 - 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.
 - 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.

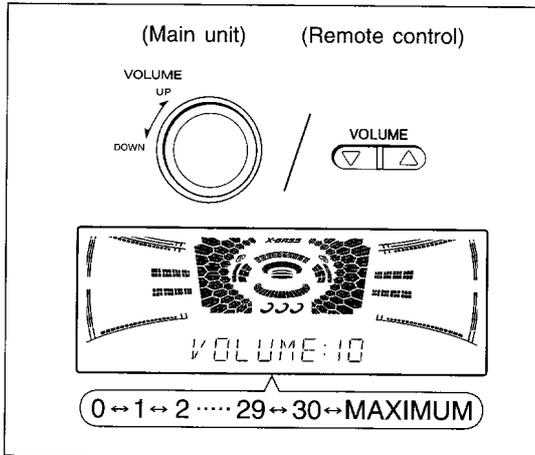
To change the clock time:

- 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 the section "RESETTING THE MICRO-COMPUTER", on page 29.
- ② Perform steps 1 - 9 above.

SOUND CONTROL



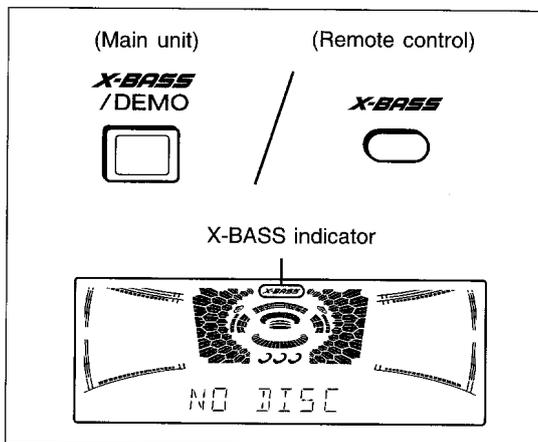
■ Volume

(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 \blacktriangle button to increase the volume and the VOLUME \blacktriangledown button to decrease the volume.

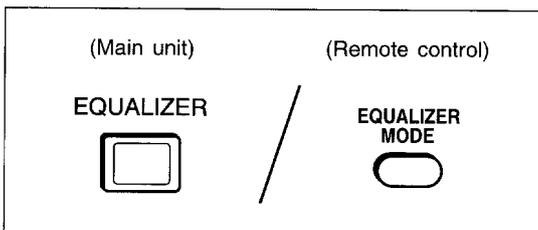


■ Extra bass (X-BASS)

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.

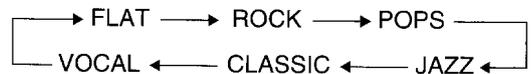
To cancel the extra bass mode, press the X-BASS/DEMO (X-BASS) button.

"X-BASS" will disappear.



■ 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.



FLAT: The sound is not modified.

ROCK: Bass and treble are emphasised.

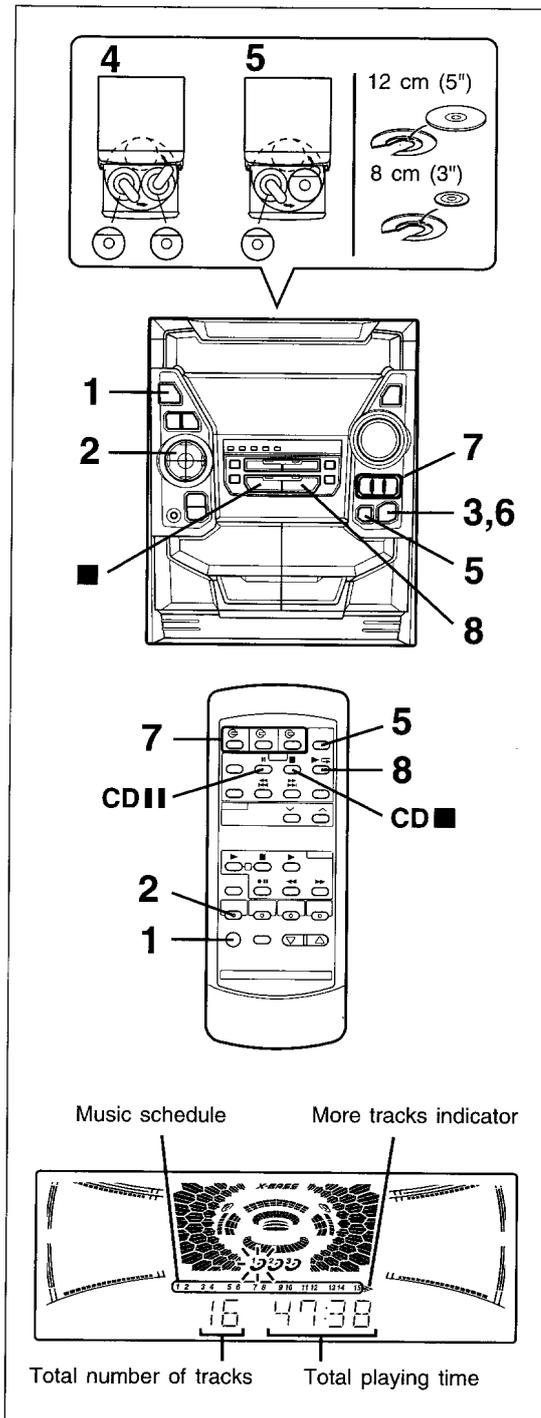
POPS: Bass and treble are slightly emphasised.

JAZZ: Treble is cut a little.

CLASSIC: Treble is reduced a lot.

VOCAL: Vocals (midrange tones) are emphasised.

COMPACT DISC OPERATION



■ 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.
 - The music schedule will be displayed only for the number of tracks on the disc.
 - If the CD contains more than 15 tracks, "▶" will appear.
- 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 II button on the remote control.
 - "II" will appear.
- 2** Press the ▶◀ button to resume playback from the same point.

To stop playback:

Press the ■ (CD ■) button.

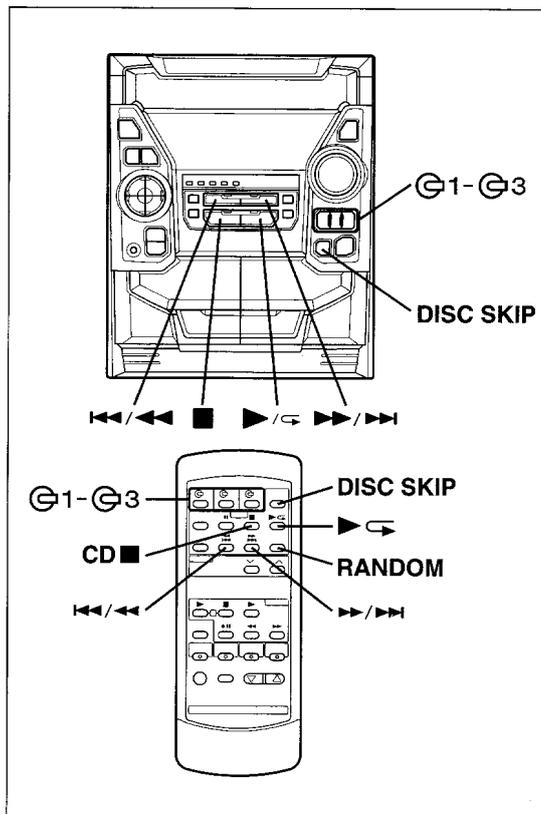
To remove the CDs:

- 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.

(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.)

■ APSS (Auto Program Search System)

APSS automatically locates the beginning of any track.

To listen again to the track being played:

Press the ◀◀ button for less than 0.5 seconds during playback.

To move to the beginning of the next track:

Press the ▶▶ button for less than 0.5 seconds during playback.

- To skip a number of tracks at one time, press the ◀◀ or ▶▶ button repeatedly until the desired track number is shown.
- To start playback from a desired track, press the ◀◀ or ▶▶ 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.

■ 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.

■ 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 ▶▶ button during random play, you can move to the next track. On the other hand, the ◀◀ 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:

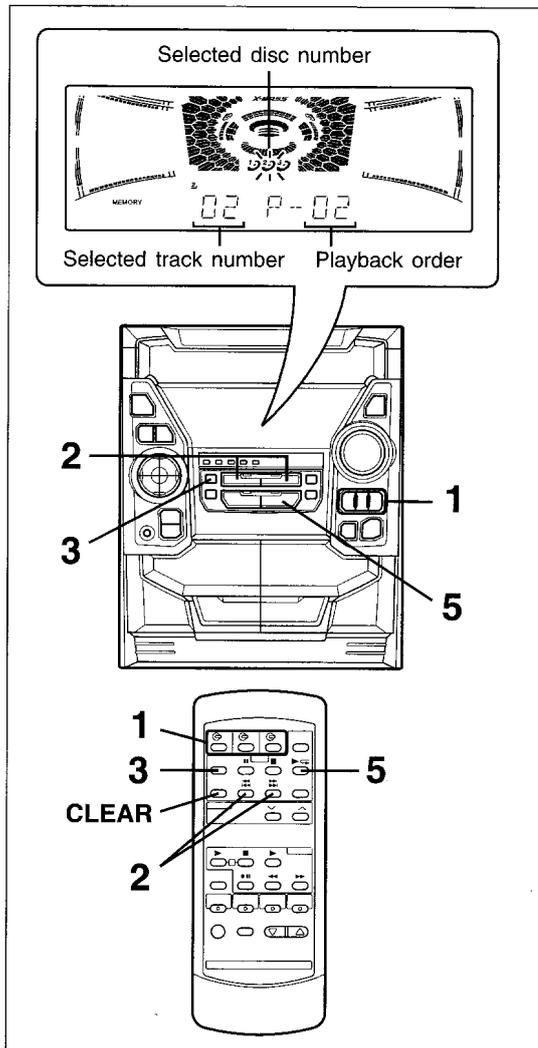
Press the ►/◄ (►◄) button.

- "R" will go out.

Caution:

- **Do not carry the unit with discs left in the disc trays. 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 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.

(Continued)



■ APMS

(Automatic Programmable Music Selector)

You can playback the tracks on the CDs in the disc 1 - 3 positions in any order desired. 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, 2, 3) to select the desired disc number.
- 2 Press the **◀◀** or **▶▶** button to select the desired track.
- 3 Press the MEMORY/SET (MEMORY) button.
 - "MEMORY" will appear to show that the programmed sequence is being entered into memory.
- 4 Repeat steps 1 - 3 for any other track. Up to 32 tracks can be programmed.
 - 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. 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.

■ 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.

To repeat a programmed sequence:

- 1 Programme a sequence of up to 32 tracks.

- 2 Press the **▶/◀** (**▶◀**) button twice.

- "◀" will appear.

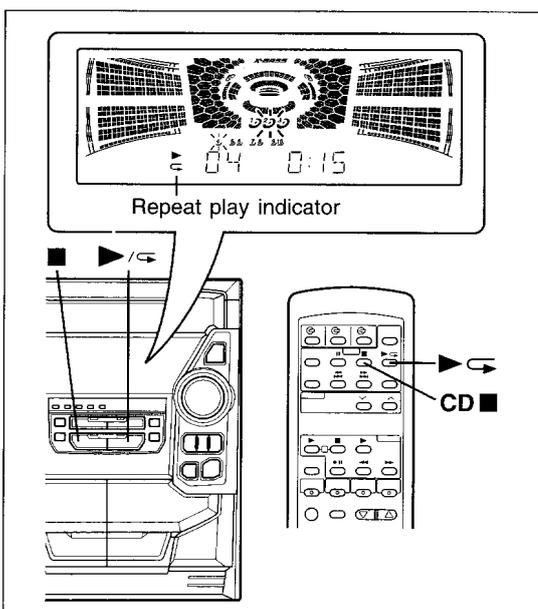
To cancel repeat play:

Press the **▶/◀** (**▶◀**) button again.

- "◀" will go out.

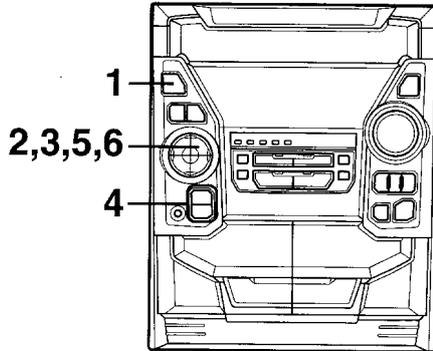
Note:

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



RADIO OPERATION

(Main unit operation)



■ 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/TIME (V or ^) button to tune into the desired station.

Manual tuning:

Press the TUNING/TIME (V 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 (V 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 (V 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.

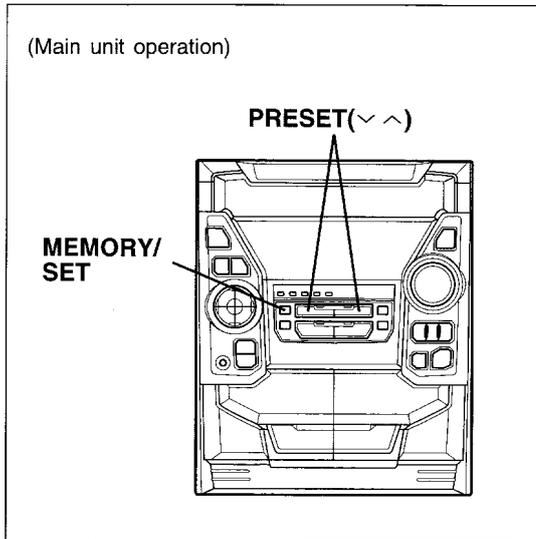
After use:

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

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.

(Continued)



■ Preset tuning

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

To enter stations into memory:

- 1 Perform steps 1 - 6 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.
 - 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:

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.

■ Preset memory scan

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

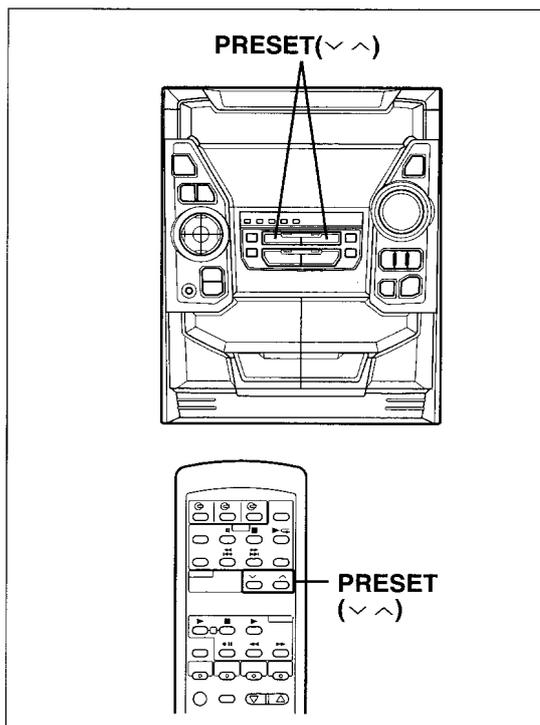
- 1 To scan the preset stations, press the PRESET (∨ or ∙) button for more than 0.5 seconds.
 - The station preset number will flash and the programmed stations will be tuned in sequentially, for 5 seconds each.
- 2 Press the PRESET (∨ or ∙) button again to stop the memory scan at the desired station.

Note:

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

To erase all 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.



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:

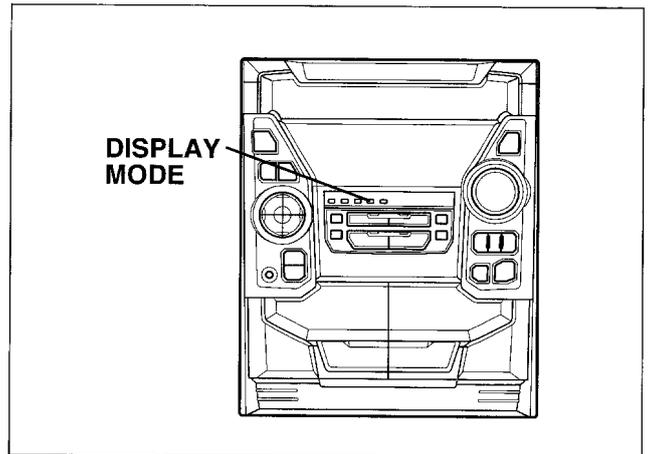
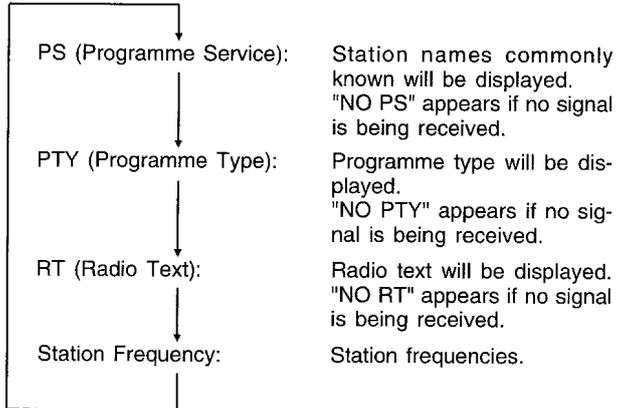
When the TP and TA appear at the same time, an announcement is being made.

When only the TA appears, an announcement is not being made. (See page 24.)

Information Provided by RDS

With the CD-BA2000H, 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.



(Continued)

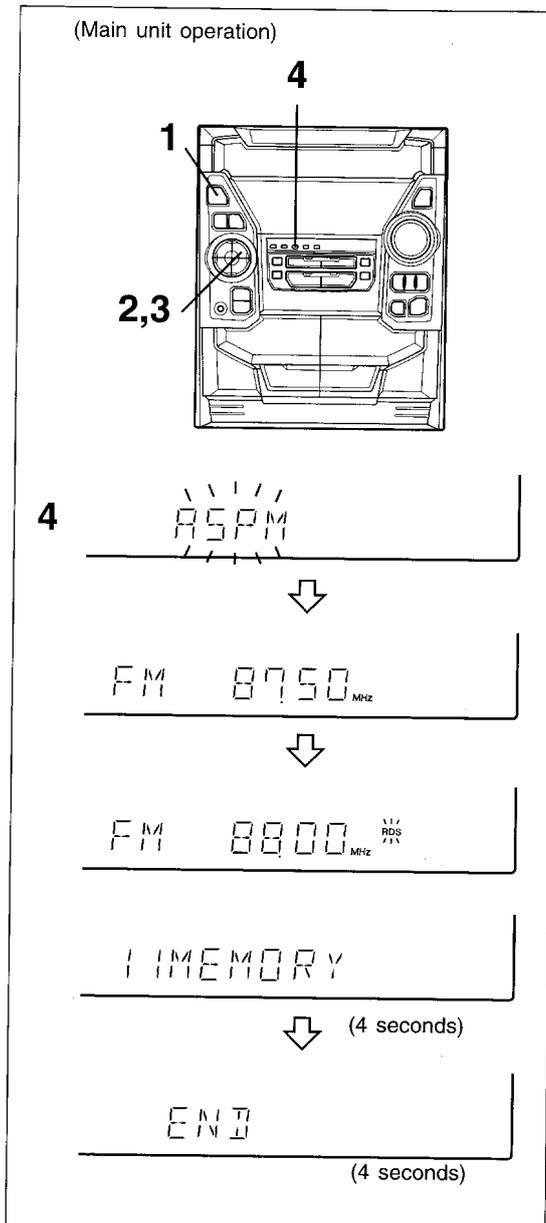
Descriptions of the PTY (Programme Type) codes, TP (Traffic Programme) and TA (Traffic Announcement) With the CD-BA2000H, you can search for and receive the following PTY, TP and TA signals.

NEWS:	Short accounts of facts, events and publicly expressed views, reportage and actuality.	FINANCE:	Stock Market reports, commerce, trading etc.
AFFAIRS:	Topical programme expanding or enlarging upon the news, generally in different presentation style or concept, including debate, or analysis.	CHILDREN:	For programmes targeted at a young audience, primarily for entertainment and interest, rather than where the objective is to educate.
INFO:	Programmes whose purpose is to impart advice in the widest sense.	SOCIAL:	Programmes about people and things that influence them individually or in groups. Includes: sociology, history, geography, psychology and society.
SPORT:	Programme concerned with any aspect of sport.	RELIGION:	Any aspect of beliefs and faiths, involving a God or Gods, the nature of existence and ethics.
EDUCATE:	Programme intended primarily to educate, of which the formal element is fundamental.	PHONE IN:	Involving members of the public expressing their views either by phone or at a public forum.
DRAMA:	All radio plays and serials.	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.
CULTURE:	Programmes concerned with any aspect of national or regional culture, including language, theatre, etc.	LEISURE:	Programmes concerned with recreational activities in which the listener might participate. Examples include, Gardening, Fishing, Antique collecting, Cooking, Food & Wine etc.
SCIENCE:	Programmes about the natural sciences and technology.	JAZZ:	Polyphonic, syncopated music characterised by improvisation.
VARIED:	Used for mainly speech-based programmes usually of light-entertainment nature, not covered by other categories. Examples include: quizzes, panel games, personality interviews.	COUNTRY:	Songs which originate from, or continue the musical tradition of the American Southern States. Characterised by a straightforward melody and narrative story line.
POP M:	Commercial music, which would generally be considered to be of current popular appeal, often featuring in current or recent record sales charts.	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.
ROCK M:	Contemporary modern music, usually written and performed by young musicians.	OLDIES:	Music from the so-called "golden age" of popular music.
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.	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.
LIGHT M:	Classical Musical for general, rather than specialist appreciation. Examples of music in this category are instrumental music, and vocal or choral works.	DOCUMENT:	Programme concerned with factual matters, presented in an investigative style.
CLASSICS:	Performances of major orchestral works, symphonies, chamber music etc., and including Grand Opera.	TEST:	Broadcast when testing emergency broadcast equipment or receivers.
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.	ALARM !:	Emergency announcement made under exceptional circumstances to give warning of events causing danger of a general nature.
WEATHER:	Weather reports and forecasts and Meteorological information.	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".

(Continued)



■ 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 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:

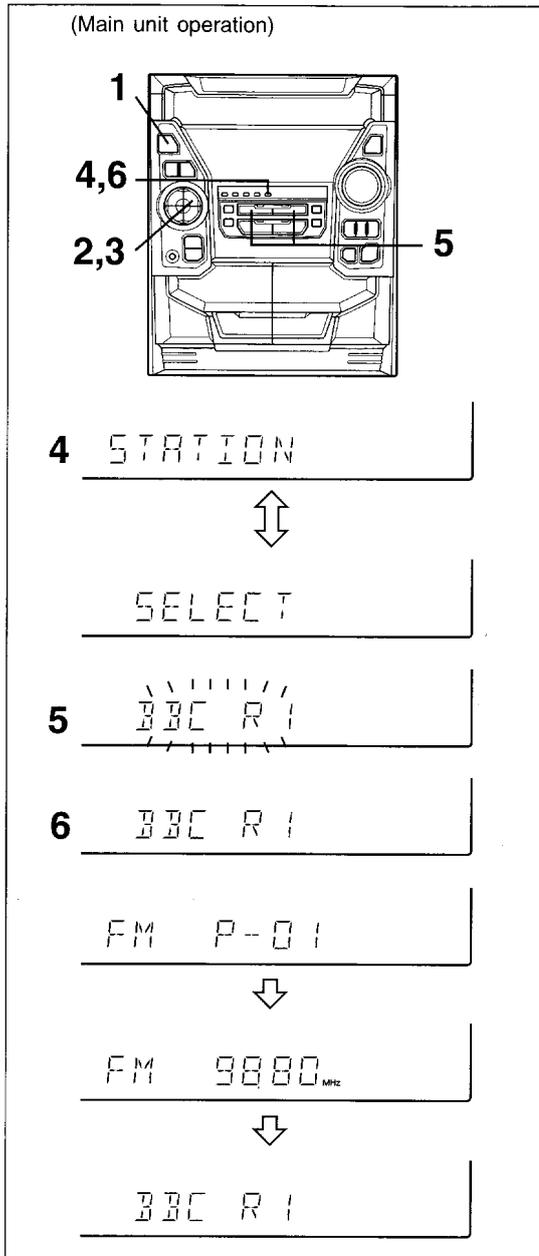
Press the ASPM button whilst it is scanning for stations.

- 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.

(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 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.

- 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, press the PRESET (∨ or ∧) button to select a desired station name you want.
 - 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.
 - 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:

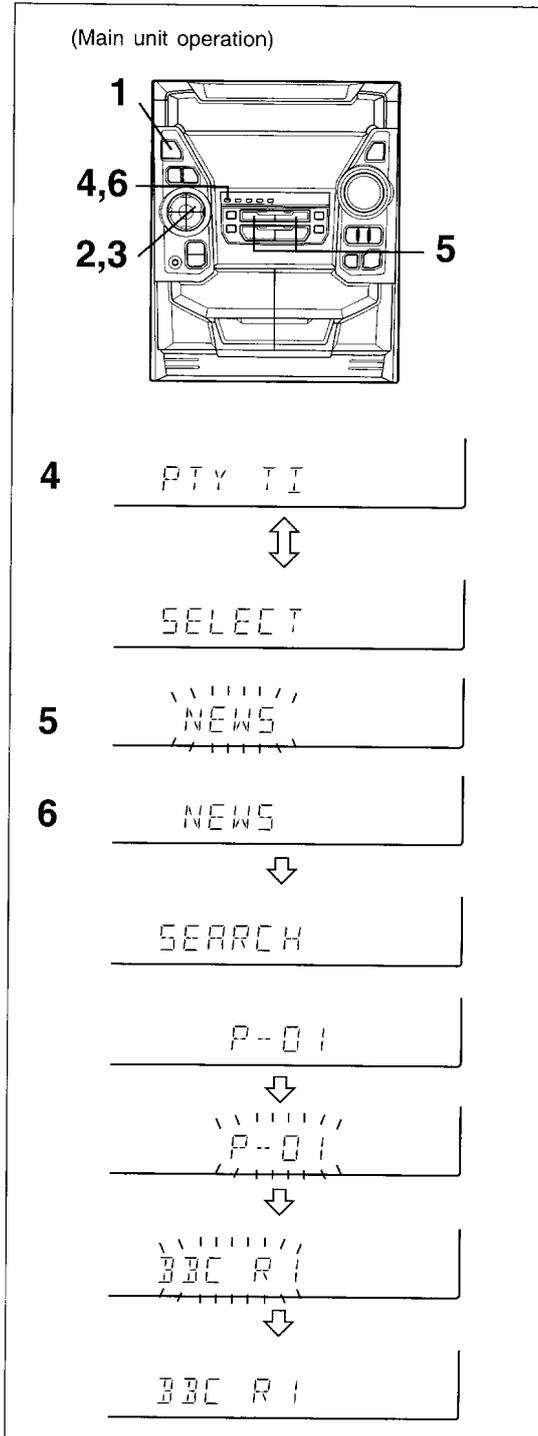
Press the STATION button whilst "STATION" and "SELECT" appear alternately.

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, 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.

(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 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 button.
 - "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.
 - 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.
 - 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 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:

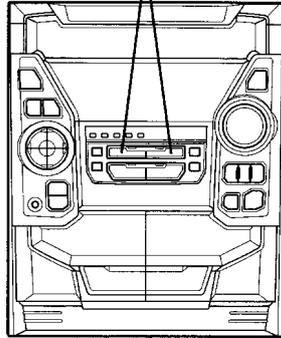
If you select traffic programme (TP) as the programme type in step 5, to receive only radio stations which broadcast traffic programmes, the TP will appear. (However, this does not necessarily mean that you will hear any traffic announcements at that time.) When a traffic announcement is actually being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

(When both the TP and TA will appear, an announcement is being made.)

(Continued)

(Main unit operation)

PRESET (∨ ∨)



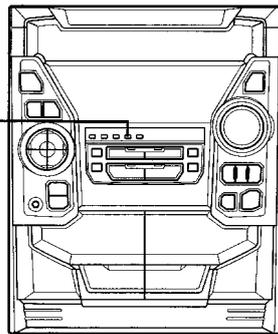
■ To manually recall the stations stored in memory

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)

DISPLAY MODE



BBC R 1



NEWS



UK WEATH



FM 98.80 MHz

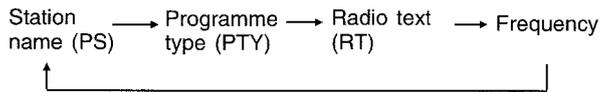
NO PS

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:



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:



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 8 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.

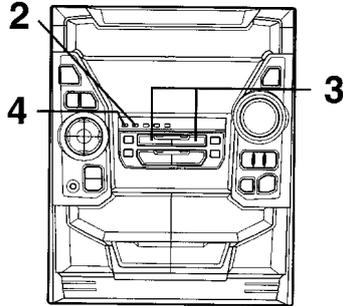
■ Notes for RDS operation

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.

(Continued)

(Main unit operation)



1 BBC R1 RDS EON TA

2 PTY TI RDS EON TA



SELECT RDS EON TA

3 NEWS RDS EON TA

4 NEWS RDS PTY EON TA



WAITING RDS PTY EON TA



BBC R1 RDS PTY EON TA

5 BBC KENT RDS PTY EON TP

■ 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 using the PRESET (∨ or ∧) button.
 - 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.

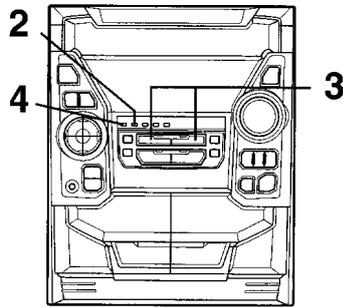
PTYI	Meaning
Lights up	Tuned into a dynamic PTY station.
Goes out	Tuned into a static PTY.

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.

(Continued)

(Main unit operation)



1 BBC R1 RDS EON TA

2 PTY TI RDS EON TA



SELECT RDS EON TA

3 TI RDS EON TA

4 TI RDS TI EON TA



WAITING RDS TI EON TA



BBC R1 RDS TI EON TA

5 BBC KENT RDS TI EON TP TA

■ 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 PRESET (∨ or ∧) button.
 - 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 specified starts on an ON (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 pressed 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.

(Continued)

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

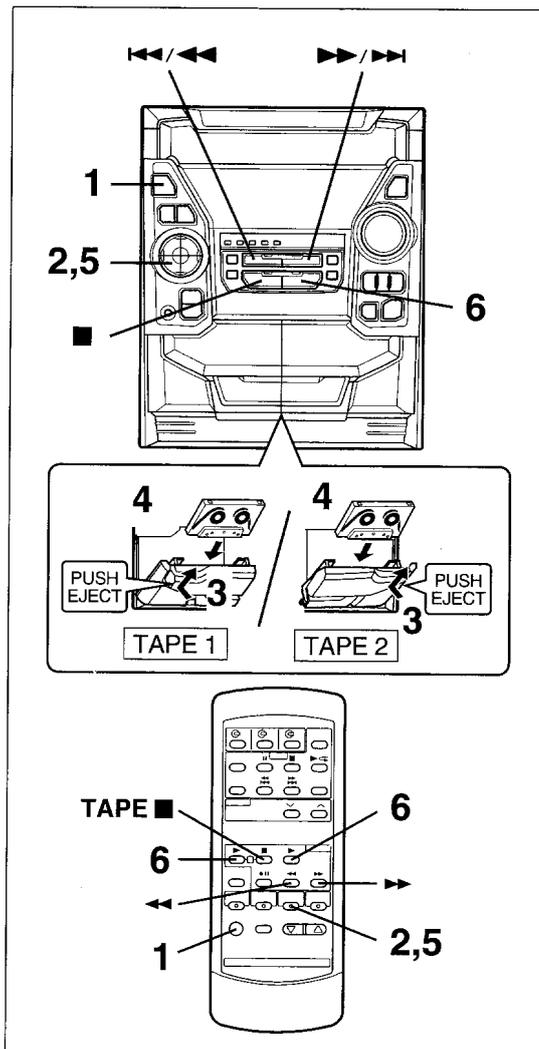
- When the unit is set in the stand-by mode
- When the unit is switched to another band in the EON stand-by mode
- When you change the FM station whilst in the EON stand-by mode
- When a preset call is made

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.

- 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.

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)

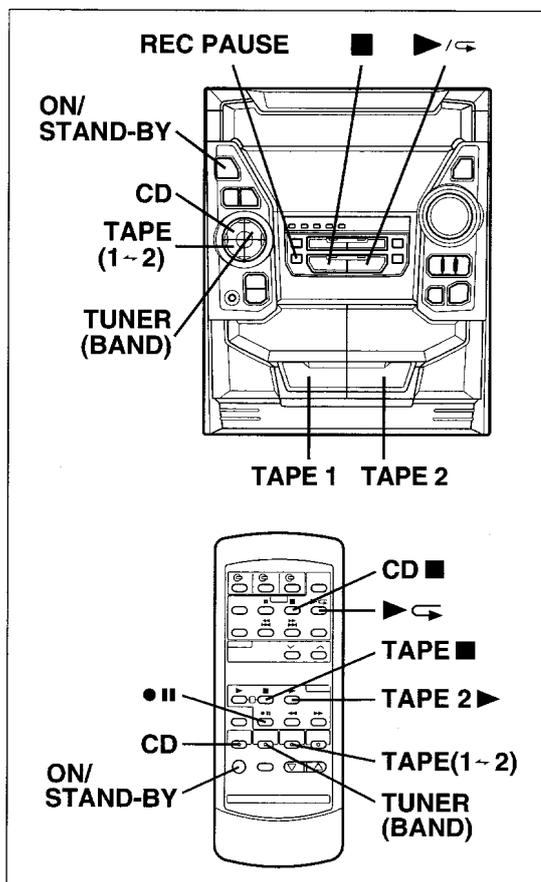
- ① Press the ■ (TAPE ■) button, then press the TAPE (1 → 2) button to select TAPE 2.
- ② To advance the tape, press the ▶▶ button.
To rewind it, press the ◀◀ button.

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.

RECORDING

- 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 signals (Variable Sound Monitor).



■ Recording from the built-in radio

- 1 Tune in to the desired station. (See pages 15-16.)
- 2 Load a cassette into the TAPE 2 cassette compartment.
- 3 Press the REC PAUSE (● ||) button.
 - "REC" will flash.
- 4 Press the ▶ / ◀ (TAPE 2 ▶) button.
 - "REC" will appear.

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.

To stop recording:

Press the ■ (TAPE ■) button.

- Metal and CrO₂ 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 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.)
- 3 Load a cassette into the TAPE 2 cassette compartment.
- 4 Press the REC PAUSE (● ||) 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 (● ||) 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.)

■ 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 be 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 (● ||) button.
- 5 Press the ▶ / ◀ (TAPE 2 ▶) button.

To stop dubbing:

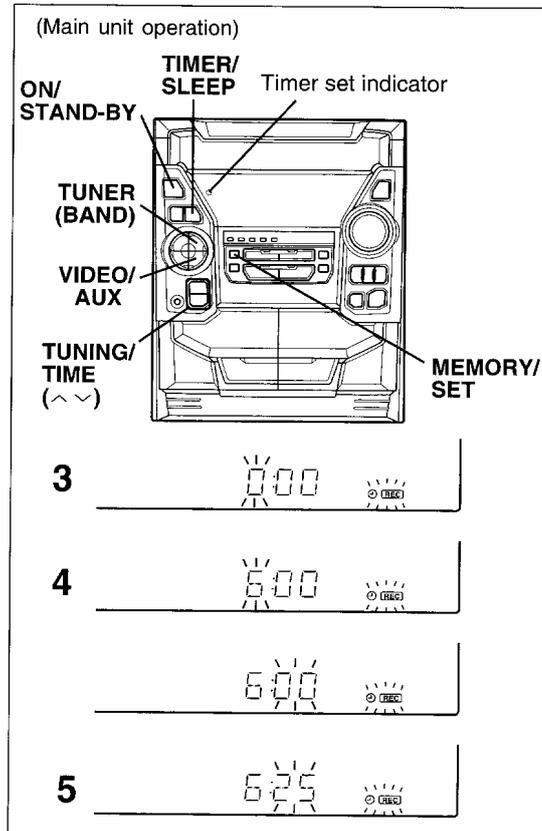
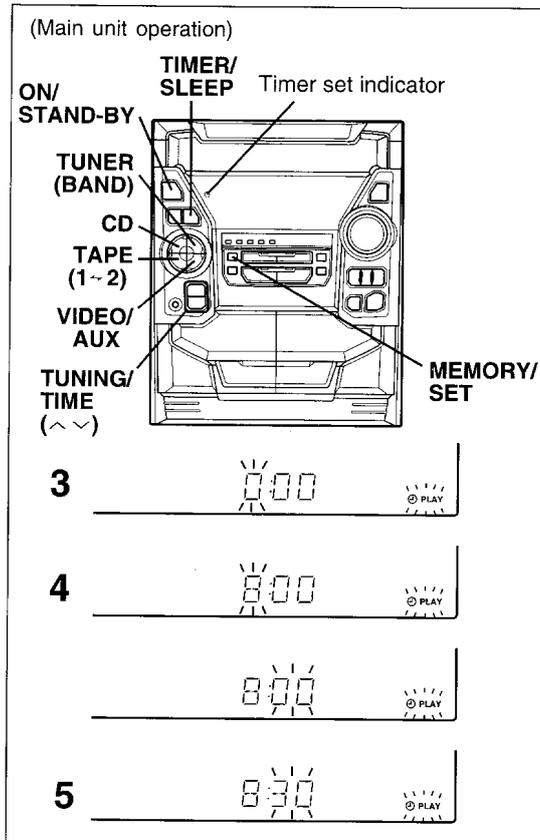
Press the ■ (TAPE ■) button.
● TAPE 1 and TAPE 2 will simultaneously stop.

■ 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 (● ||) button.
 - 4 Press the ▶ / ◀ (TAPE 2 ▶) button.

HOW TO USE THE BUILT-IN TIMER

- Before setting the timer, make sure that the clock setting is correct. (Page 10)



■ Timer playback

- 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 control.
- 3 Press the TIMER/SLEEP button repeatedly until "Ⓜ PLAY" 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.

Note:

- When performing timer playback using an external unit connected to the VIDEO/AUX socket, only the power of the main unit will be turned off automatically. (The power of the external unit will not be turned off.)

■ Timer recording

- 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 control.
- 3 Press the TIMER/SLEEP button repeatedly until "Ⓜ REC" 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.

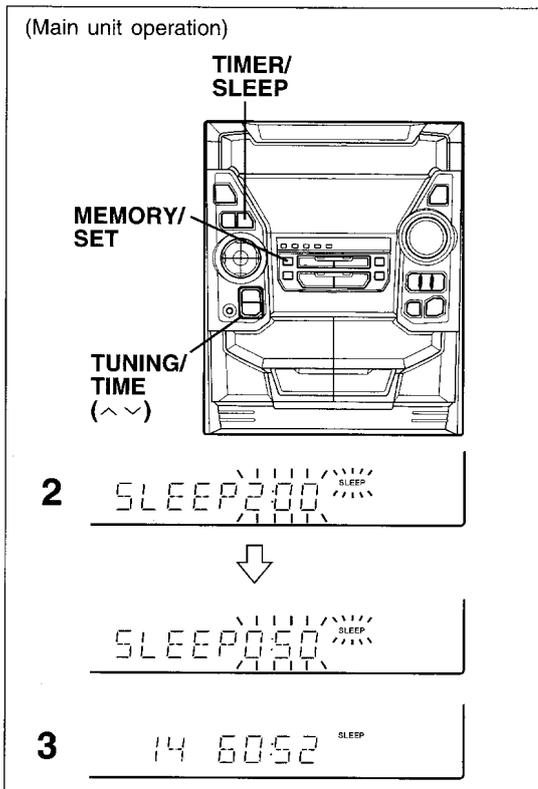
To change the programmed contents:

Start again from step 1.

Note:

- Once the time is set, the setting will be retained until a new time is entered.

(Continued)



■ Sleep operation

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

- 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 (∨ or ∧) button to adjust the time.

(Maximum: 3 hours - Minimum: 1 minute)

The amount of sleep time can also be changed during the sleep operation.

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

- 3 Press the MEMORY/SET button.
- 4 The unit will enter the stand-by mode automatically after the preset sleep time has elapsed.

Note:

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

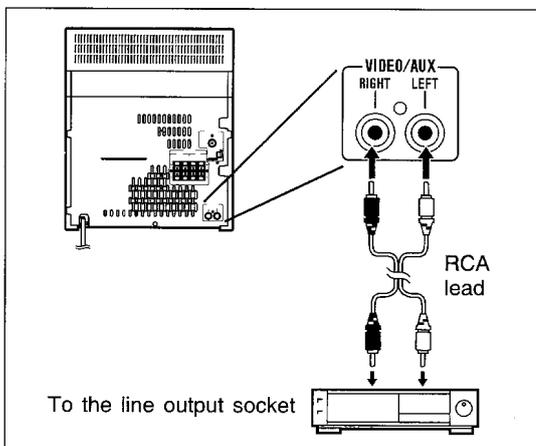
To confirm the remaining sleep time:

Press the TIMER/SLEEP button.

To cancel the sleep operation:

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

USING EXTERNAL UNITS



■ Video/Auxiliary (Audio signal) input

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

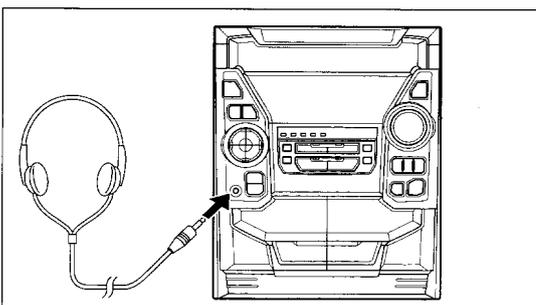
- 1 Use a separately available RCA lead to connect the desired external unit to the VIDEO/AUX sockets. (red → right channel, white → left channel)
- When using video equipment (Laser Disc player or VCR), be sure to connect the audio output to this unit and the video output to a television.
- 2 Press 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 - 4 of the "Recording from the built-in radio" section on page 26.

Note:

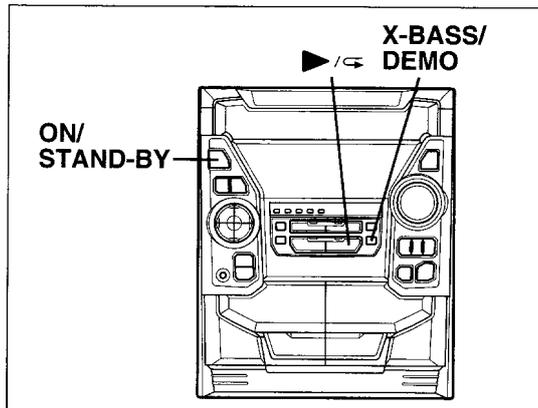
- To prevent hum interference, do not place this unit near a television receiver.

■ 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 disconnected automatically. Adjust the VOLUME control for the desired volume.



RESETTING THE MICROCOMPUTER



Reset the microcomputer under the following conditions:

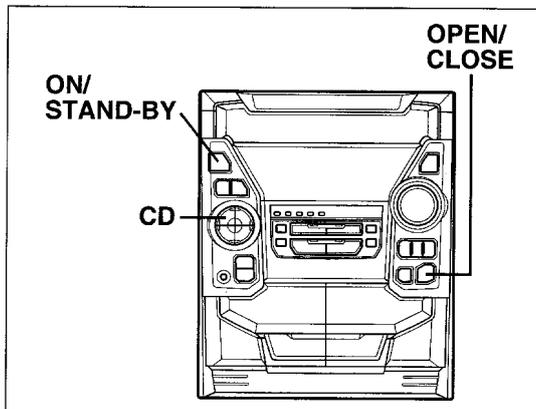
- To erase all of the stored memory contents (clock and timer settings, and tuner and CD presets).
- If the display is not correct.
- If the operation is not correct.

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

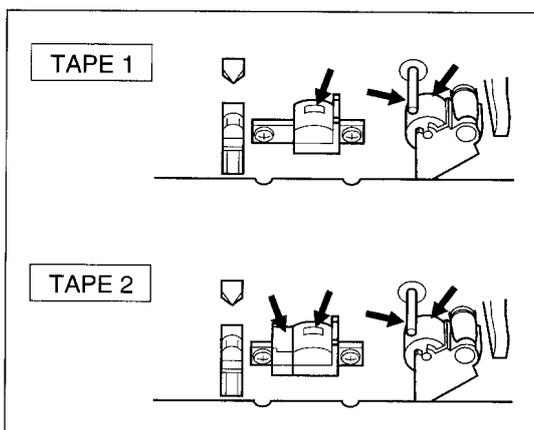
TRANSPORTING THE UNIT



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 stand-by 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: 154 W
Dimensions: Width; 270 mm (10-5/8")
Height; 330 mm (13")
Depth; 355 mm (14")
Weight: 8.7 kg (19.2 lbs.)

● Amplifier section

Output power: RMS; 200 W (100 W + 100 W)
(10% T.H.D)
[Main speaker (woofer, tweeter and super tweeter);
80 W (40 W + 40 W),
Subwoofer;
120 W (60 W + 60 W)]
RMS; 184 W (92 W + 92 W)
(0.9% T.H.D)
[Main speaker (woofer, tweeter and super tweeter);
74 W (37 W + 37 W),
Subwoofer;
110 W (55 W + 55 W)]
Output terminals: Speakers; 6 ohms
Headphones; 16-50 ohms
(recommended; 32 ohms)
Input terminals: Video/Auxiliary (audio signal);
500 mV/47 kohms

● 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)
Signal/noise ratio: 55 dB (TAPE 1, playback)
50 dB (TAPE 2, recording/playback)
Wow and flutter: 0.3 % (WRMS)

● Speaker section

Type: 4-way type [13 cm (5-1/4") sub-woofer, 13 cm (5-1/4") woofer, 5 cm (2") tweeter and super tweeter]
Maximum input power (Total): 200 W
Rated input power (Total): 100 W
Impedance: 6 ohms
Dimensions: Width; 270 mm (10-5/8")
Height; 330 mm (13")
Depth; 264.6 mm (10-3/8")
Weight: 4.7 kg (10.3 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 0345 125387

SHARP

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