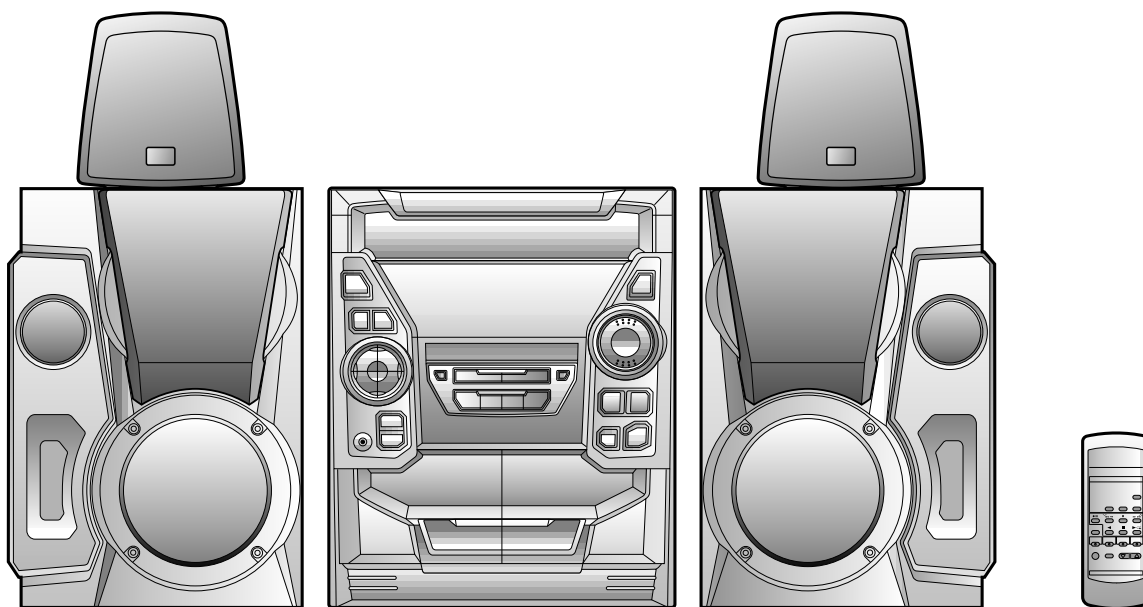# SHARP

迷你組合系統
MINI COMPONENT SYSTEM

使用說明書
OPERATION MANUAL

CD-80W 迷你組合系統包括 CD-80W（主機）、CP-80（前揚聲器）和 GBOXS0041AWM1（環繞聲揚聲器）。

CD-80W mini component system consisting of CD-80W (main unit), CP-80 (front speaker) and GBOXS0041AWM1 (surround speaker).

COMPACT
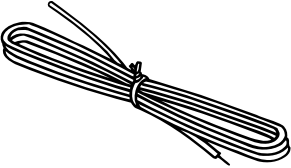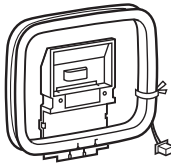**disc**
DIGITAL AUDIO

中文
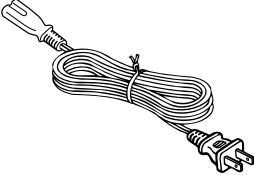
ENGLISH

ENGLISH

INTRODUCTION
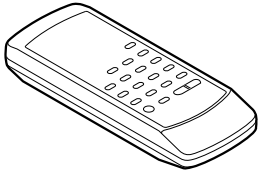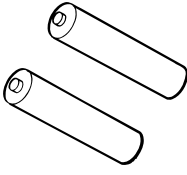
Thank you for purchasing this SHARP product.
To obtain the best performance from this product, please read this manual carefully.
It will guide you in operating your SHARP product.

CONTENTS

ACCESSORIES

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

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

SPECIAL NOTES

● 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.

● Audio-visual material may consist of copyrighted works which must not be recorded without the authority of the owner of the copyright.
Please refer to the relevant laws in your country.

CAUTION

```
CLASS 1 LASER PRODUCT
APPAREIL À LASER DE CLASSE 1
PRODUCTO LASER DE CLASE 1
```

● This Mini Component System is classified as a CLASS 1 LASER product.

● The CLASS 1 LASER PRODUCT label is located on the rear cover.

● 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.

Laser Diode Properties
Material: GaAIAs
Wavelength: 780 nm
Emission Duration: continuous
Laser Output: max. 0.6 mW
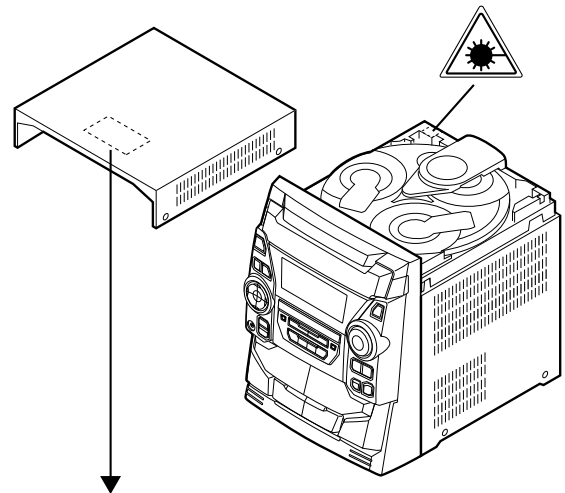
CAUTION-INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.

VARNING-OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN OCH BETRAKTA EJ STRÅLEN MED OPTISKA INSTRUMENT.

ADVERSEL-USYNLIG LASERSTRÅLING VED ÅBNING. SE IKKE IND I STRÅLEN-HELLER IKKE MED OPTISKE INSTRUMENTER.

VARO! AVATTAESSA OLET ALTTIINA NÄKYMÄTÖN LASERSÄTEILYLLE. ÄLÄ TUIJOTA SÄTEESEEN ÄLÄKÄ KATSO SITÄ OPTISEN LAITTEEN LÄPI.

VARNING-OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN OCH BETRAKTA EJ STRÅLEN GENOM OPTISKT INSTRUMENT.

ADVERSEL-USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES. STIRR IKKE INN I STRÅLEN ELLER SE DIREKTE MED OPTISKE INSTRUMENTER.

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.

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.

NO

YES
Correct
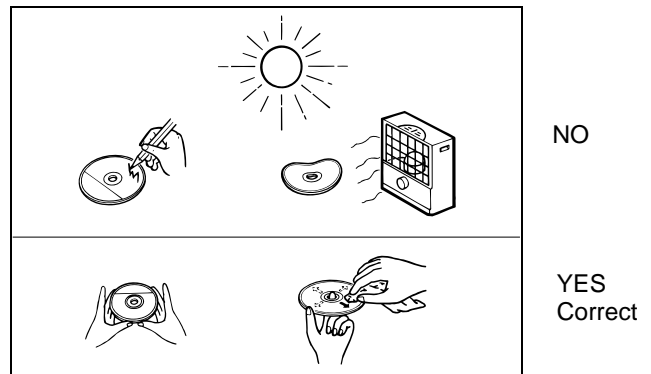
■ Cassette tape

● 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)
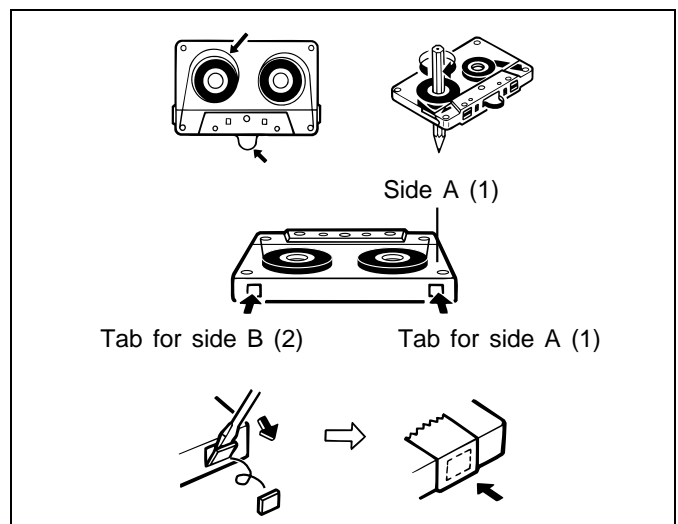
NAMES OF CONTROLS AND INDICATORS
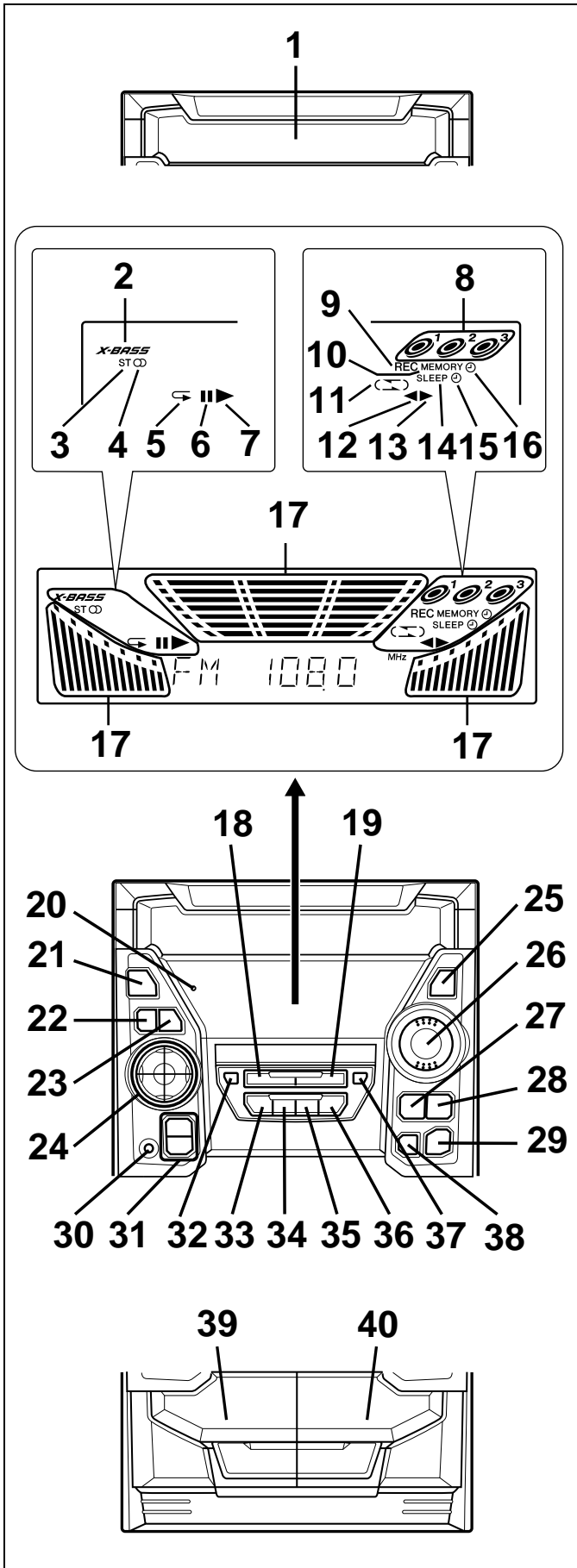
■ Front panel

1. **(CD) Disc Tray**

2. **Extra Bass Indicator**
3. **FM Stereo Mode Indicator**
4. **FM Stereo Indicator**
5. **(CD) Repeat Indicator**
6. **(CD) Pause Indicator**
7. **(CD) Play Indicator**
8. **(CD) Disc Number Indicators**
9. **(TAPE 2) Record Indicator**
10. **(CD/TUNER) Memory Indicator**
11. **(TAPE) Reverse Mode Indicator**
12. **(TAPE 2) Reserve Play Indicator**
13. **(TAPE 1) Play Indicator**
   (TAPE 2) Forward Play Indicator
14. **Sleep Indicator**
15. **Timer Record Indicator**
16. **Timer Play Indicator**
17. **Spectrum Analyzer/Volume Level Indicator**

18. **(CD) Track Down/Review Button**
   (TUNER) Preset Down Button
   (TAPE 2) Fast Wind Button
19. **(CD) Track Up/Cue Button**
   (TUNER) Preset Up Button
   (TAPE 2) Fast Wind Button
20. **Timer Set Indicator**
21. **On/Stand-by Button**
22. **Clock Button**
23. **Timer/Sleep Button**
24. **Function Selector Buttons**
25. **Dimmer Button**
26. **Volume Up/Down Buttons**
27. **Equalizer Mode Selector Button**
28. **Extra Bass/Demo Mode Button**
29. **(CD) Open/Close Button**
30. **Headphone Socket**
31. **Tuning and Time Up/Down Buttons**
32. **Memory/Set Button**
33. **(TAPE) Reverse Play Button**
34. **(CD/TAPE) Stop Button**
35. **(TAPE 2) Reverse Mode Button**
36. **(CD) Play/Repeat Button**
   (TAPE 1) Play Button
   (TAPE 2) Forward Play Button
37. **(TAPE 2) Record Pause Button**
38. **(CD) Disc Skip Button**

39. **(TAPE 1) Cassette Compartment**
40. **(TAPE 2) Cassette Compartment**
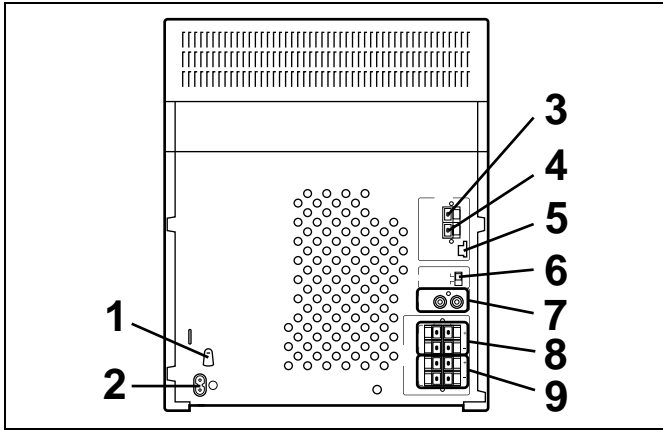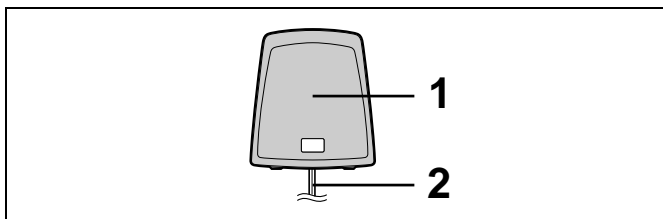
■ **Rear panel**

1. **AC Voltage Selector**
2. **AC Power Input Socket**
3. **FM 75 Ohms Aerial Terminal**
4. **FM Aerial Earth Terminal**
5. **AM Loop Aerial Input Socket**
6. **Span Selector Switch**
7. **Video/Auxiliary (Audio Signal) Input Sockets**
8. **Front Speaker Terminals**
9. **Surround Speaker Terminals**
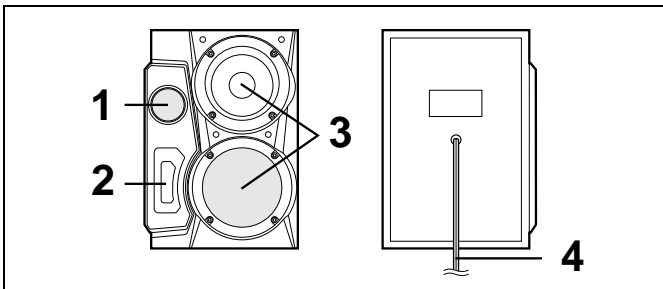
■ **Front speaker**

1. **Tweeter**
2. **Bass Reflex Duct**
3. **Woofers**
4. **Speaker Wire**

■ **Surround speaker**

1. **Full-Range Speaker**
2. **Speaker Wire**
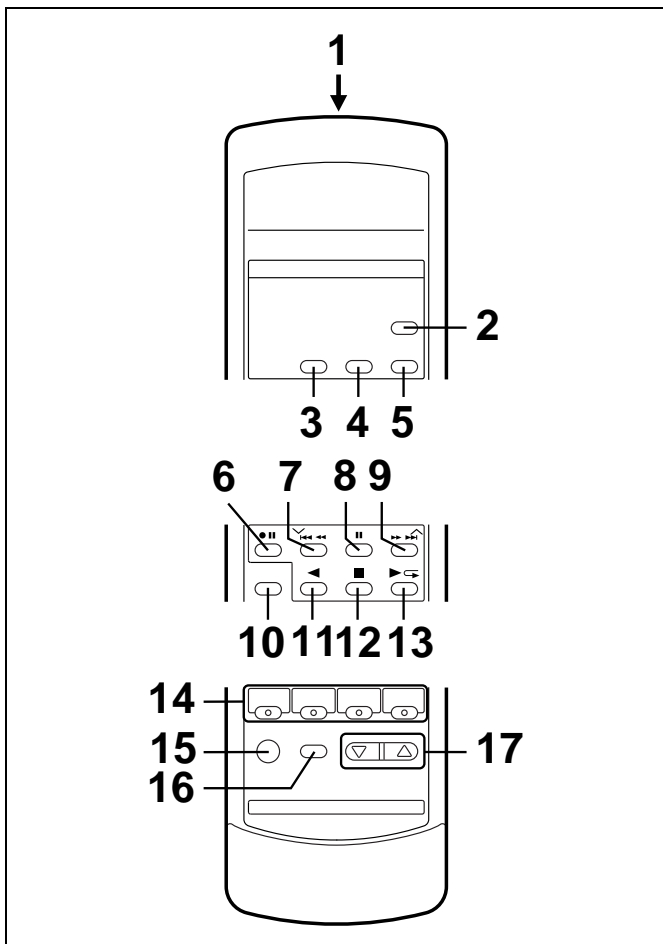
■ **Remote control**

1. **Remote Control Transmitter LED**
2. **(CD) Disc Skip Button**
3. **(CD) Clear Button**
4. **(CD) Memory Button**
5. **(CD) Random Button**
6. **(TAPE 2) Record Pause Button**
7. **(CD) Track Down/Review Button**
   (TUNER) Preset Down Button
   (TAPE 2) Fast Wind Button
8. **(CD) Pause Button**
9. **(CD) Track Up/Cue Button**
   (TUNER) Preset Up Button
   (TAPE 2) Fast Wind Button
10. **Equalizer Mode Selector Button**
11. **(TAPE 2) Reverse Play Button**
12. **(CD/TAPE) Stop Button**
13. **(CD) Play/Repeat Button**
    (TAPE 1) Play Button
    (TAPE 2) Forward Play Button
14. **Function Selector Buttons**
15. **On/Stand-by Button**
16. **Extra Bass Button**
17. **Volume Up/Down Buttons**

PREPARATION FOR USE

Front speaker (Right)

Front speaker (Left)

Red

Red

Black

Black

Surround speaker (Right)

Surround speaker (Left)

With white line

With white line

① ② ③

TV

Main unit

Front speaker (Left)

Front speaker (Right)

Surround speaker (Left)

Surround speaker (Right)

Left speaker

Right speaker

● Unplug the AC power lead from the AC socket before connecting or disconnecting any component.
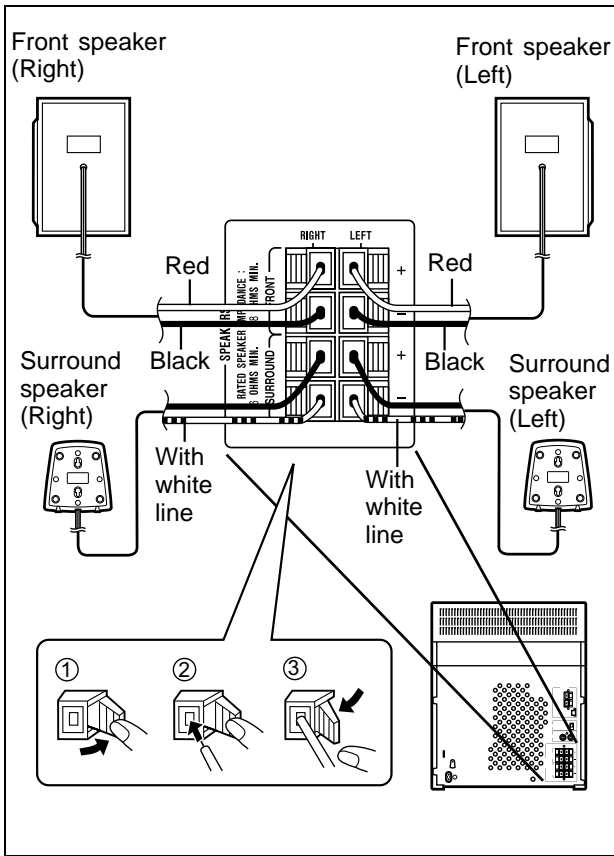
■ Speaker connection

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 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 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.
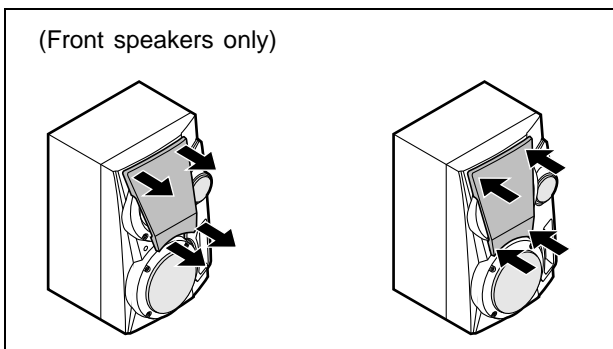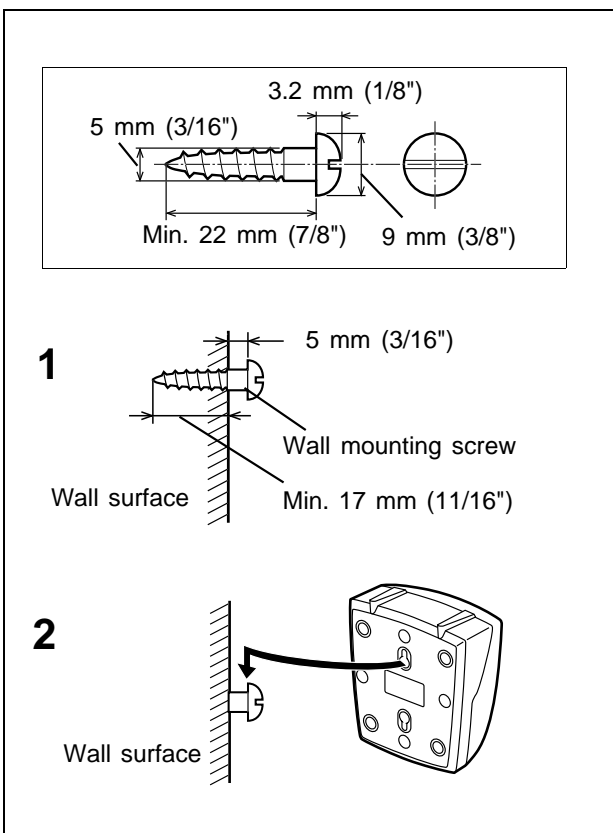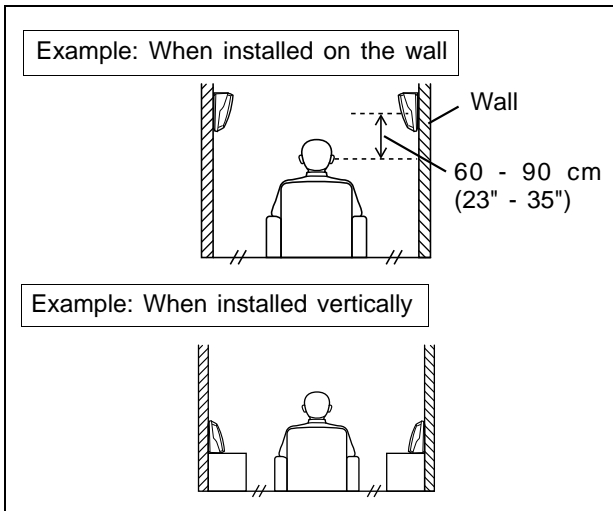
■ Placing the speaker system

To enjoy the surround effect, we recommend that you place each speaker as shown to the left.
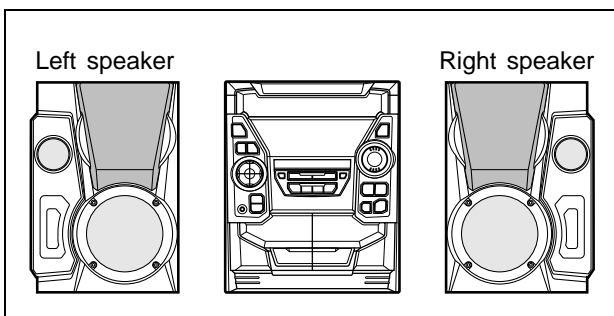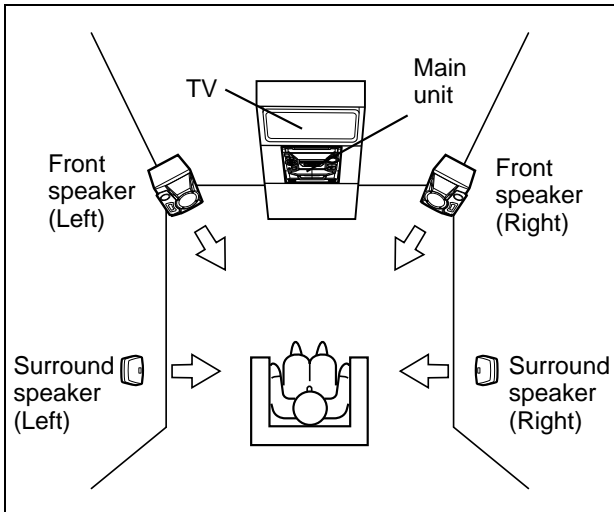
Placing the front speakers:
The left and right speakers have individual shapes. For best performance, place the speakers according to the diagram to the left.

E-6

Example: When installed on the wall

Wall

60 - 90 cm
(23" - 35")

Example: When installed vertically

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, if possible.

3.2 mm (1/8")

5 mm (3/16")

Min. 22 mm (7/8")   9 mm (3/8")

1

5 mm (3/16")

Wall mounting screw

Wall surface   Min. 17 mm (11/16")

2

Wall surface

■ 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 to the left.

1 Drive one screw into the wall for each speaker as shown in the illustration.

● Make sure that both the screw and the wall can support a load of 20 kg (45 lbs.).

● Drive the screws, so there is about a 5 mm (3/16") space between the wall and the head of the screw.

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

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

(Front speakers only)
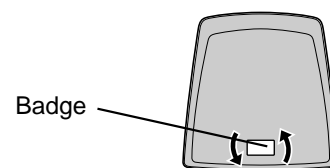
■ Removing the speaker grilles

1 Remove the lower part of the speaker grille first.

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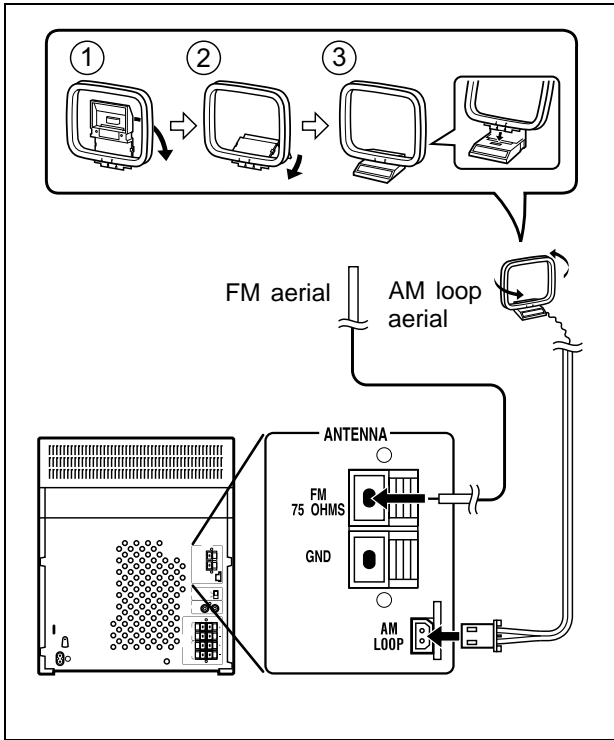
● Only the grills on the upper woofers are removable.

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.

E-7

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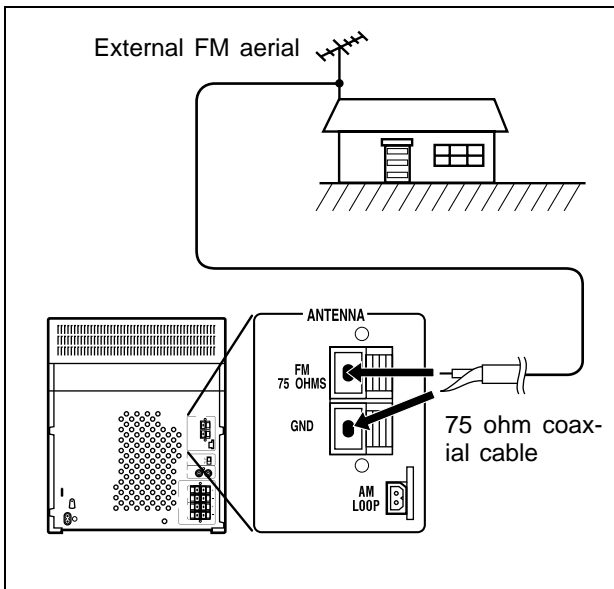
External FM aerial
Use an external FM aerial if you require better reception. Consult your dealer.

Note:
When an external FM aerial is used, disconnect the supplied FM aerial wire.

■ AM/FM interval (span)

The International Telecommunication Union (ITU) has established that member countries should maintain either a 10 kHz or a 9 kHz interval between broadcasting frequencies of 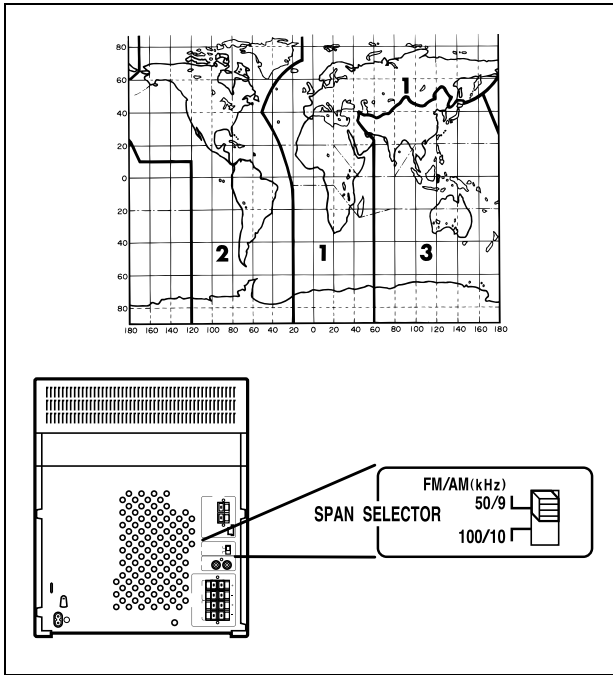any AM station. The illustration shows the 9 kHz interval zones (regions 1 and 3), and the 10 kHz interval zone (region 2).
Before using the unit, set the SPAN SELECTOR switch (on the rear panel) to AM tuning interval (span) of your area.

To change the tuning zone:

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

2 Set the SPAN SELECTOR switch to "50/9" for 9 kHz AM interval (50 kHz FM interval), and "100/10" for 10 kHz AM interval (100 kHz FM interval).

3 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.
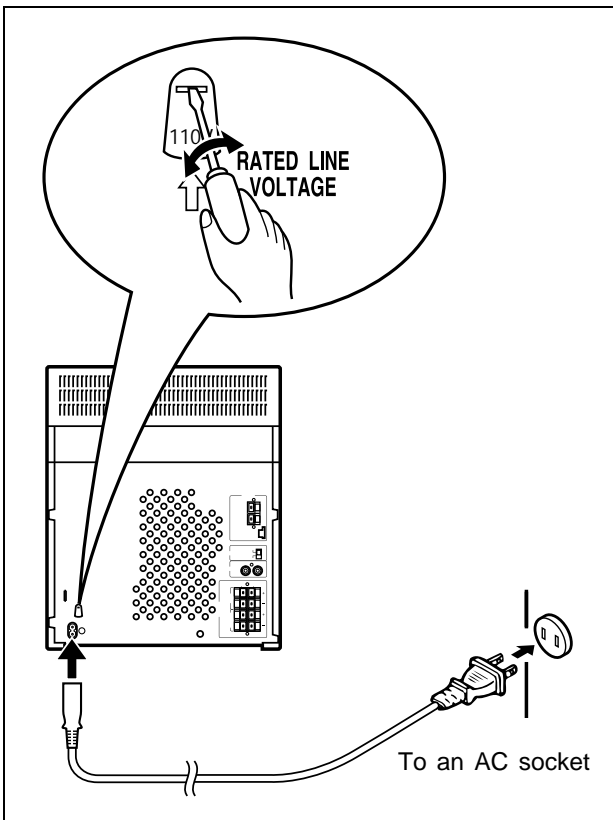
■ Connecting the AC power lead

Check the setting of the AC voltage selector located on the rear panel before plugging the unit into an AC socket. If necessary, adjust the selector to correspond to the AC power voltage used in your area.

Selector adjustment:
Turn the selector with a screwdriver until the appropriate voltage number appears in the window (110V, 127V, 220V or 230V - 240V AC).

Notes:
● Plug the AC power lead into a convenient AC socket, after any connections.
● Unplug the AC power lead from the AC socket if the unit will not be in used 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.

(Main unit operation)

X-BASS /DEMO

■ 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 display will disappear.

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

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

(Main unit operation)

DIMMER

NO DISC — When bright

⇕

NO DISC — When dark

■ To change the brightness of the display

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

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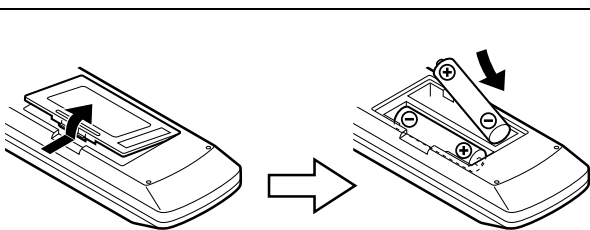Press the DIMMER button again.

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

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

←15°→←15°→
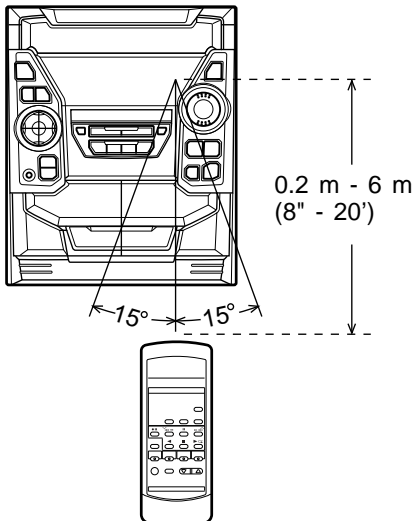
■ Remote control

● 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.

E-10

SETTING THE CLOCK

(Main unit operation)

MEMORY/SET

ON/ STAND-BY

CLOCK

TUNING/ TIME (∧ ∨)

2 `CLOCK`

3 `0:00`

4 `0:00`

0:00 ⟷ AM 0:00 ⟷ AM 12:00

5 `0:00`

6 `10:00`

7 `10:00`

8 `10:30`

9 `10:30`
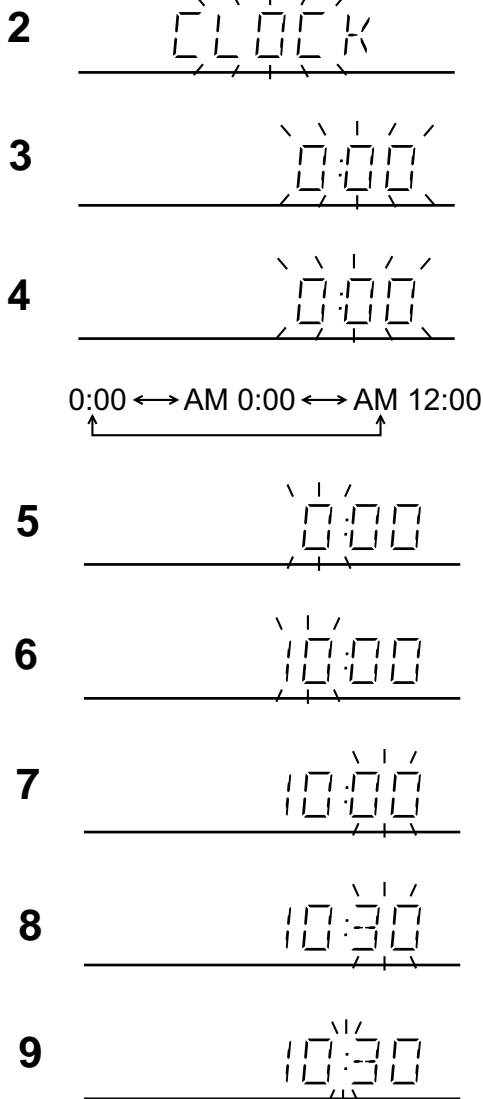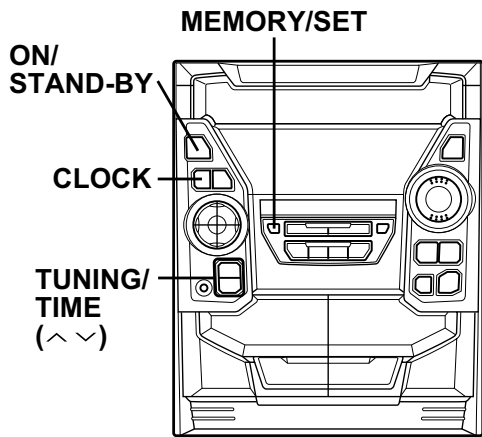
In this example, the clock is set for the 24-hour (0:00) system.

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 23).

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.

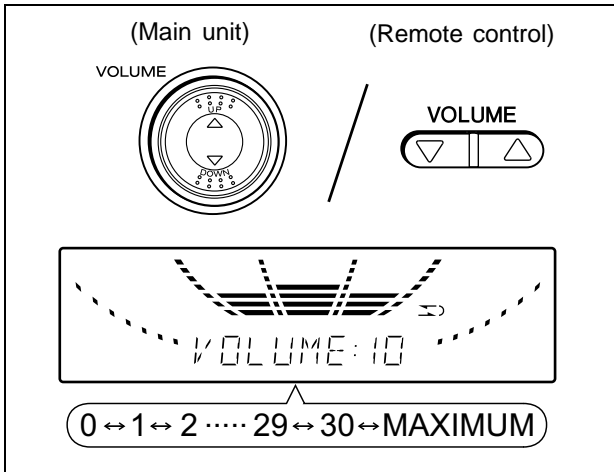**To change the clock time:**

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 23.

② Perform steps 1 - 9 above.

SOUND CONTROL

(Main unit) (Remote control)

VOLUME

VOLUME
▽ ▲

VOLUME:10

(0 ↔ 1 ↔ 2 ⋯⋯ 29 ↔ 30 ↔ MAXIMUM)

■ Volume

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

(Main unit) (Remote control)

X-BASS/DEMO

X-BASS

X-BASS indicator

X-BASS

NO DISC
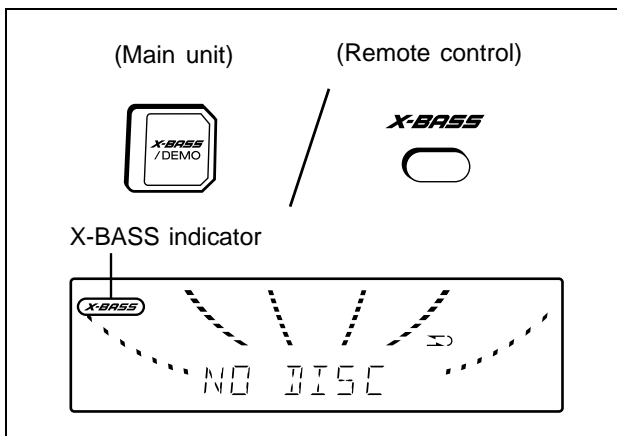
■ Extra bass (X-BASS)

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)

EQUALIZER
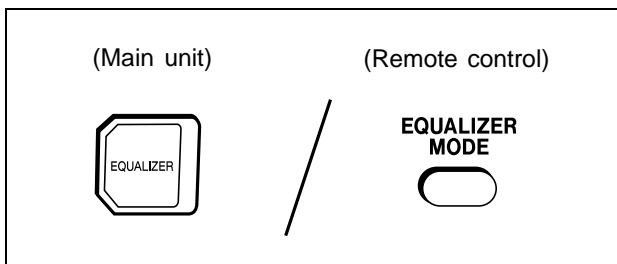
EQUALIZER MODE

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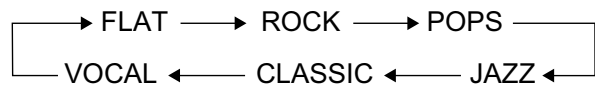
FLAT: The sound is not modified.
ROCK: Bass and treble are emphasised.
POPS: Bass and treble are slightly emphasised.
JAZZ: Treble is cut a little.
CLASSIC: Treble is reduced a lot.
VOCAL: Vocals (midrange tones) are emphasised.

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.
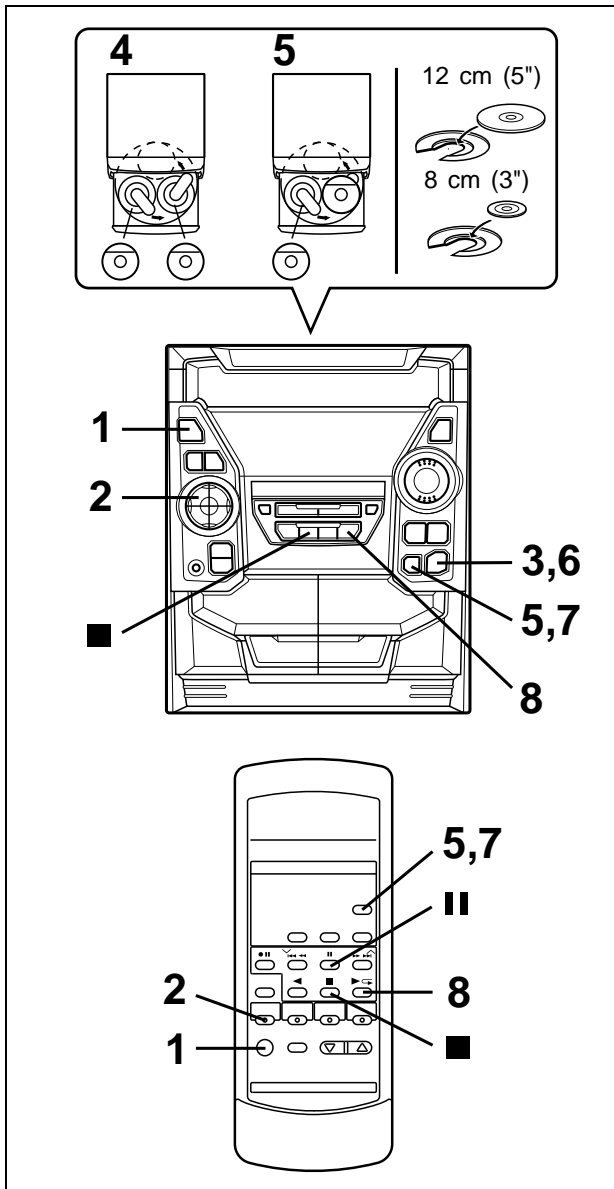
● The total number of tracks and the total playing time for one disc will be displayed. At this time, the disc number indicator is flashing.

7 Press the DISC SKIP button to select the desired disc number.

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.

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.

To interrupt playback:

① Press the ❚❚ button on the remote control.

● "❚❚" will appear.

② Press the ►⟳ button to resume playback from the same point.
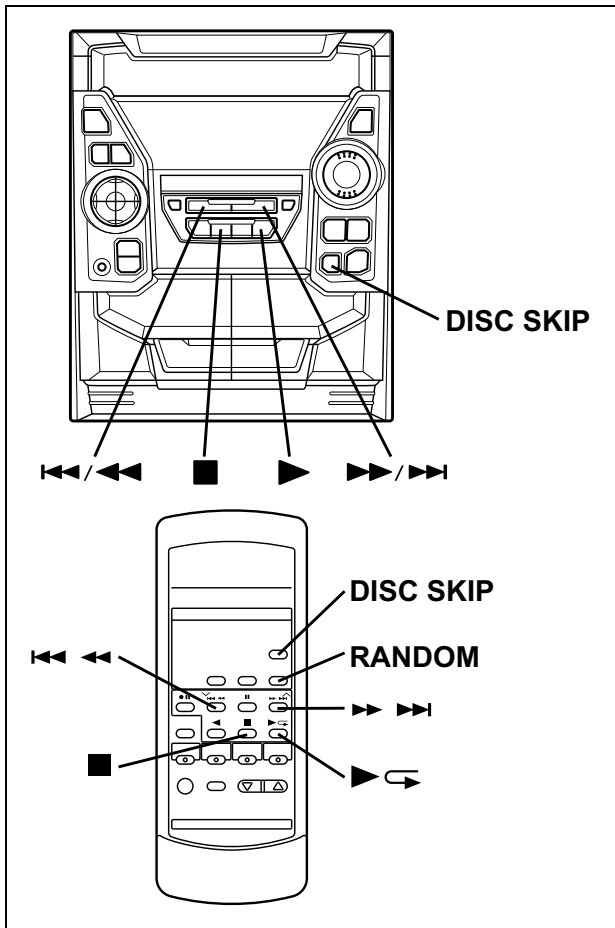
To stop playback:

Press the ■ button.

To remove the CDs:
Whilst in the stop mode, press the OPEN/CLOSE button.
● The disc tray will open. Remove the two discs. Then, press the 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.

DISC SKIP

◄◄/◄◄   ■   ►   ►►/►►◄

DISC SKIP

RANDOM

◄◄ ◄◄

►► ►►◄

■

►⌐

■ 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.

Note:
● 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.)

■ 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.

■ 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 ■ 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.

■ 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 ■ 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.

Selected disc number

Selected track number   Playback order
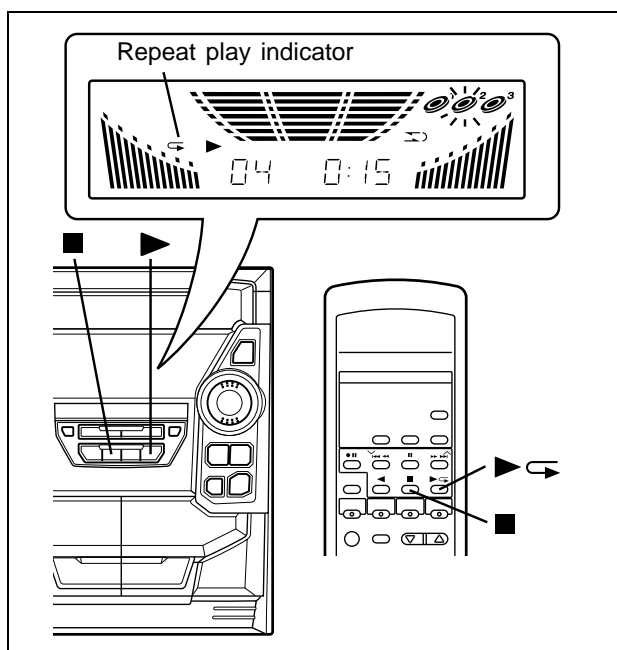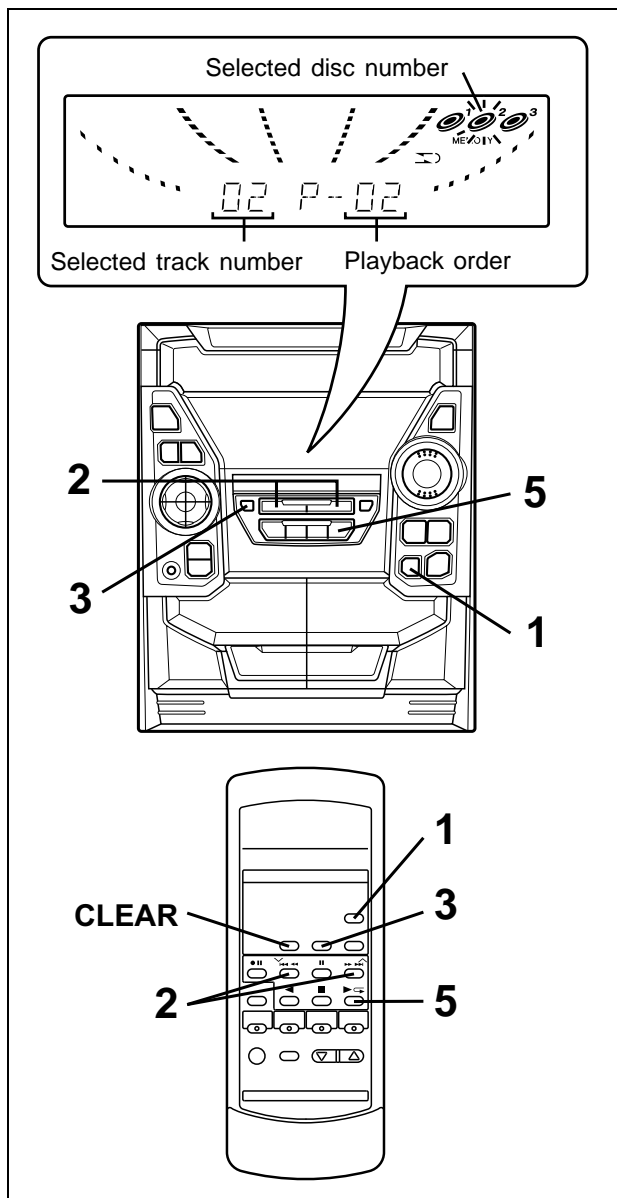
■ APMS
(Automatic Programmable Music Selector)

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, press the DISC SKIP button 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 indicator

■ 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:
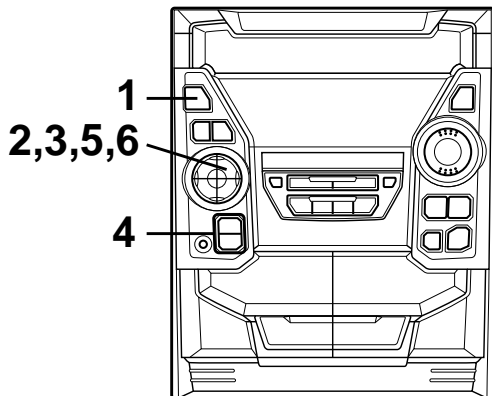Press the ▶ (▶⊂) button again.
● "⊂" will go out.

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

E-15

RADIO OPERATION

(Main unit operation)

1

2,3,5,6

4

■ 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 ($\vee$ or $\wedge$) button to tune into the desired station.

Manual tuning:
Press the TUNING/TIME ($\vee$ or $\wedge$) 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 ($\vee$ or $\wedge$) 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 ($\vee$ or $\wedge$) button again.

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.

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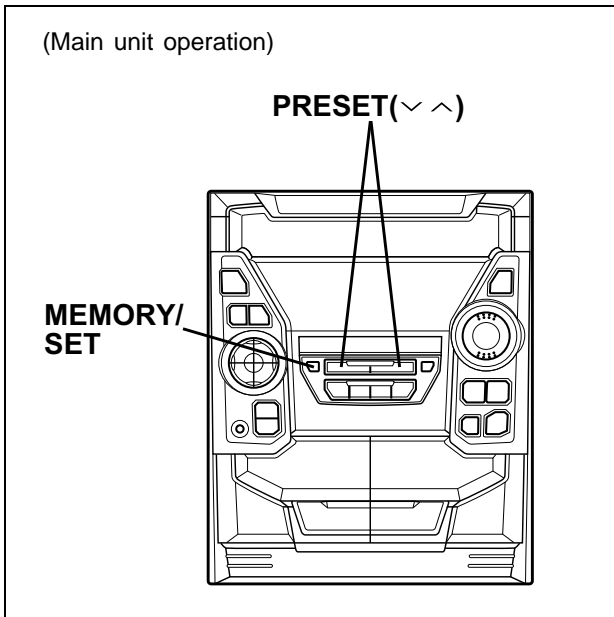
After use:
Press the ON/STAND-BY button to enter the stand-by mode.

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.

(Main unit operation)

PRESET($\vee$ $\wedge$)

MEMORY/ SET

PRESET($\vee$ $\wedge$)

PRESET ($\vee$ $\wedge$)

■ 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 ($\vee$ or $\wedge$) 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 recall a memorised station:

Press the PRESET ($\vee$ or $\wedge$) 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 ($\vee$ or $\wedge$) 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 ($\vee$ or $\wedge$) 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.

E-17
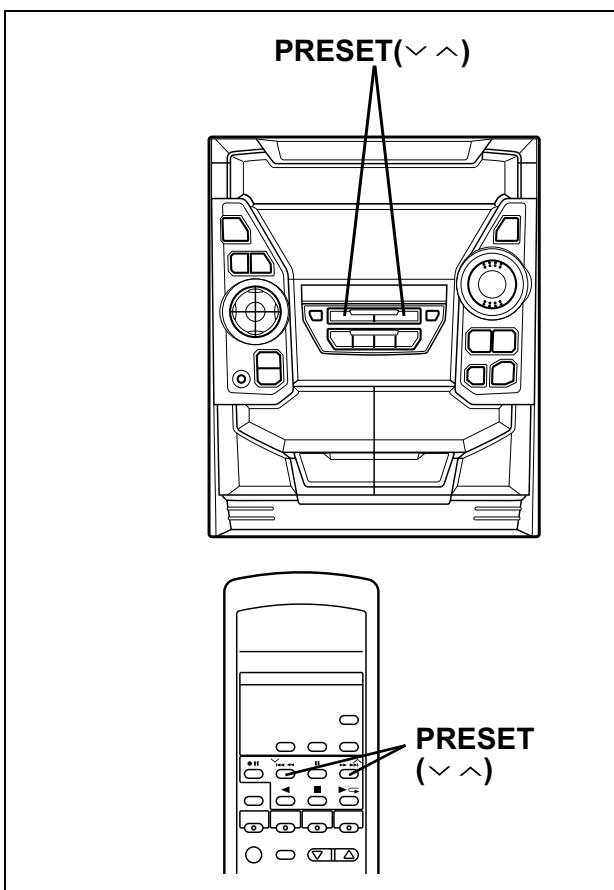
CASSETTE OPERATION
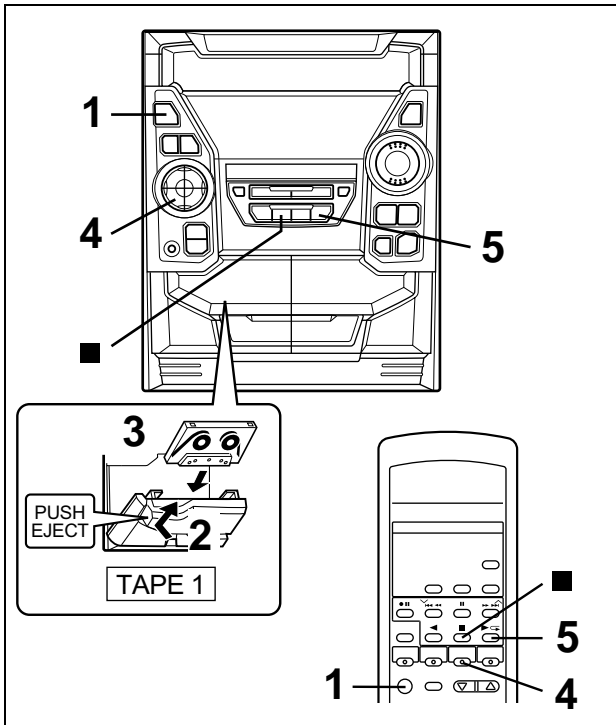
■ TAPE 1 playback

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

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

3 Load a cassette into the TAPE 1 cassette compartment.

4 Press the TAPE (1 ⇀ 2) button to select TAPE 1.
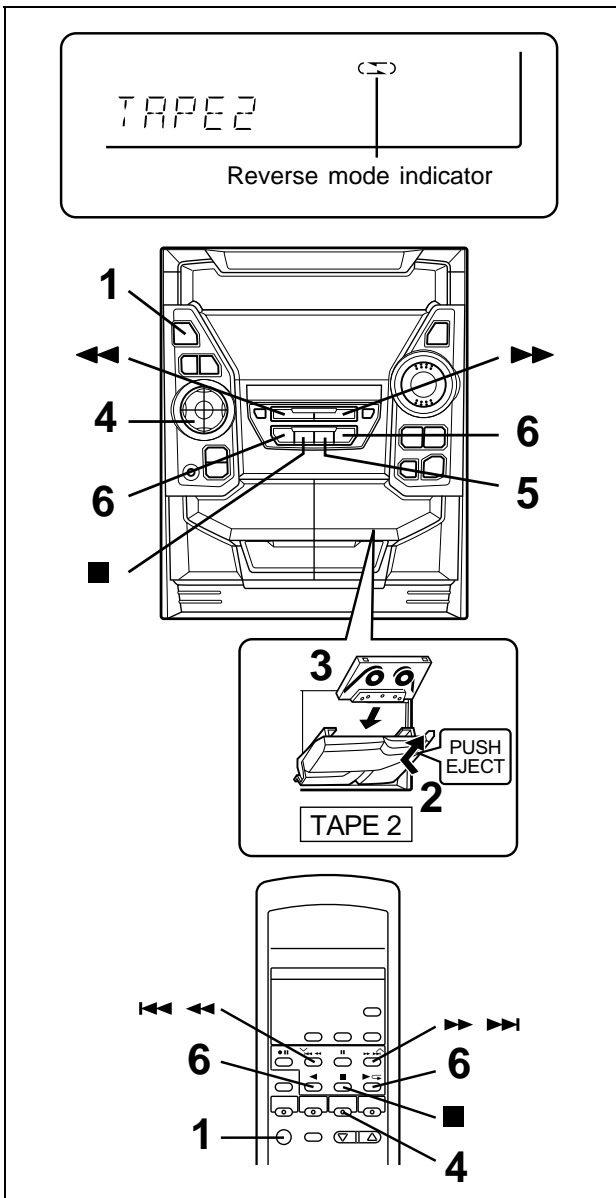
5 Press the ► (► ⊂⊃) button to start playback.

To stop playback:
Press the ■ button.

Note:
● You can not fast-forward or rewind the cassette in the TAPE 1 compartment.

■ TAPE 2 playback

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

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

3 Load a cassette into the TAPE 2 cassette compartment.
● Load the tape with side A (1) facing you.

4 Press the TAPE (1 ⇀ 2) button to select TAPE 2.

5 Press the ⊂⊃ button.
  ⇀ ... To listen to one side of the tape.
  ⇄ ... To listen to both sides of the tape.
  ⇄ ... For endless repeat play of both sides of the tape.

6 Press the ► (► ⊂⊃) button to listen to side A (1), or the ◄ button for side B (2).
● To play both sides of the tape (⊂⊃), start from side A (1). When the tape starts playback from side B (2), side A (1) will not be played after side B (2) finishes.

To stop playback:
Press the ■ button.

To fast wind the tape:

① Press the ■ button, then press the TAPE (1 ⇀ 2) button to select TAPE 2.

② To fast wind the tape onto the right reel, press the ►► (►► ►►|) button.
To fast wind it onto the left reel, press the ◄◄ (|◄◄ ◄◄) button.

Caution:
● To remove the cassette tape, press the ■ button, and then open the cassette compartment.

● Before changing from one tape operation to another, press the ■ button.

● If a power failure occurs during tape operation, the tape head will remain engaged with the tape and the cassette door will not open. In this case, wait until power is restored.

E-18

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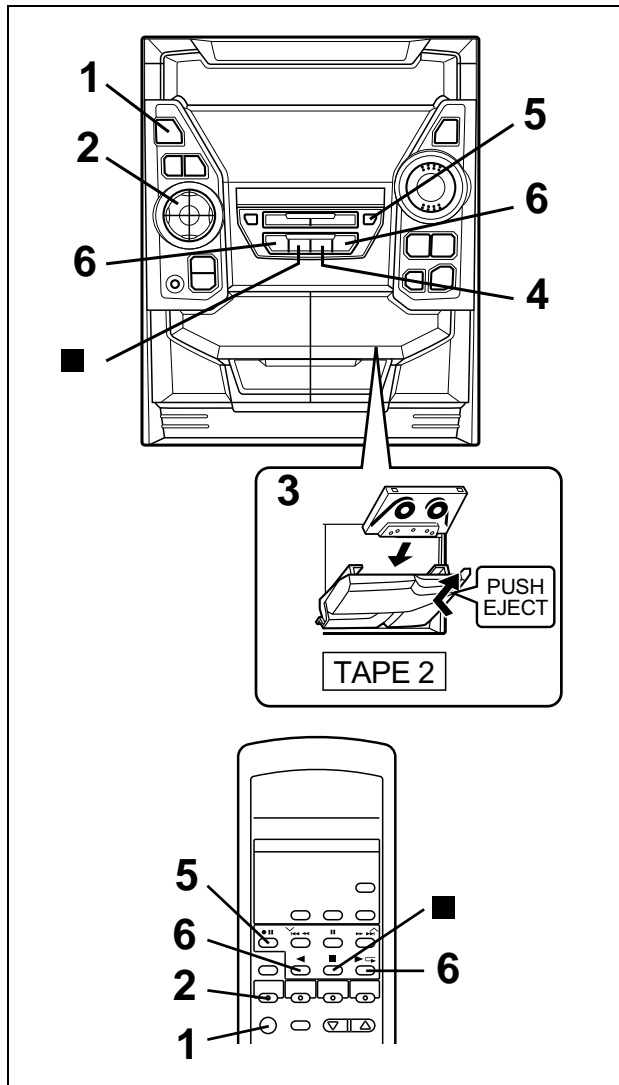
- Metal and CrO_2 tapes should not be used for recording or dubbing.

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

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

2 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 15.)

3 Load a cassette into the TAPE 2 cassette compartment.

- Load the tape with side A (1) facing you.

- Wind past the leader of the tape, on which recording can not be performed.

4 Press the ⊂⊃ button.

- ⊤ ... To record on only one side.
- ⊤⊃ ... To record on both sides.

5 Press the REC PAUSE (● ‖) button.

- "SYNC" and "REC" will flash.

6 Press the ► (► ⊂⊃) button to record on side A (1), or the ◄ button to record on side B (2).

- "SYNC" will disappear and "REC" will light up.

- CD playback will start approximately 5 seconds after the tape starts.

- To record on both sides, begin on side A (1). [If recording is started from side B (2), the tape will not switch over to side A (1).]

To stop recording:
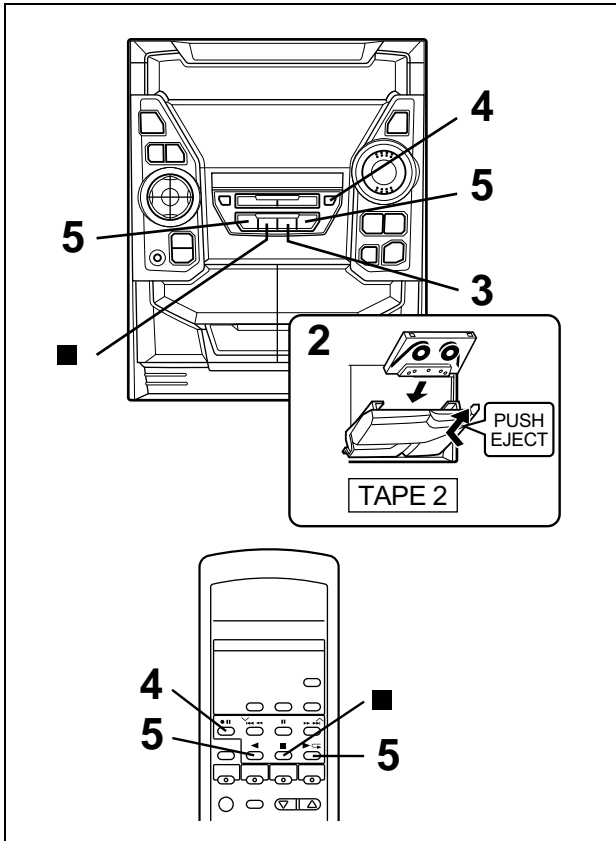Press the ■ button.
The CD and tape will stop.
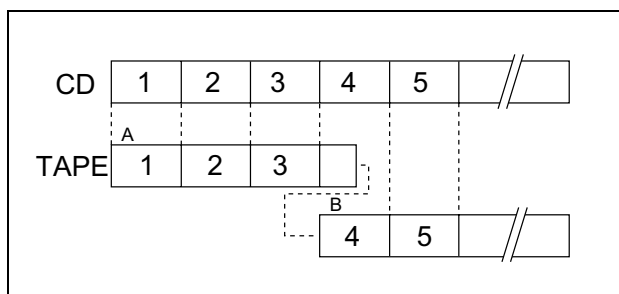
Auto restart function:
● When recording continuously on both sides of the tape:
Even if the last track of side A (1) is not finished recording, side B (2) will automatically start recording from the beginning of that track.
The recording will be made without cutting the beginning of the track on side B (2).

■ Recording from the built-in radio

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

2 Load a cassette into the TAPE 2 cassette compartment.
● Load the tape with side A (1) facing you.
● Wind past the leader of the tape, on which recording can not be performed.

3 Press the ⊂⊃ button.
　⇅ ... To record on only one side.
　⇅⊃ ... To record on both sides.

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

5 Press the ► (► ⊂) button to record on side A (1), or the ◄ button to record on side B (2).
● "REC" will appear.
● To record on both sides, begin on side A (1). [If recording is started from side B (2), the tape will not switch over to side A (1).]

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 ■ button.

■ 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.
● The reverse mode will be set to (⇅).

4 Press the REC PAUSE (● ‖) button.

5 Press the ► (► ⊂) button.

To stop dubbing:
Press the ■ 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 Set the ⊂⊃ button to ⇅ to erase only one side and to ⇅⊃ to erase both sides.

4 Press the REC PAUSE (● ‖) button.

5 Press the ► (► ⊂) button to erase side A (1), or the ◄ button to erase side B (2).

● To erase on both sides, begin on side A (1). [If erasing is started from side B (2), the tape will not switch over to side A (1).]

E-20
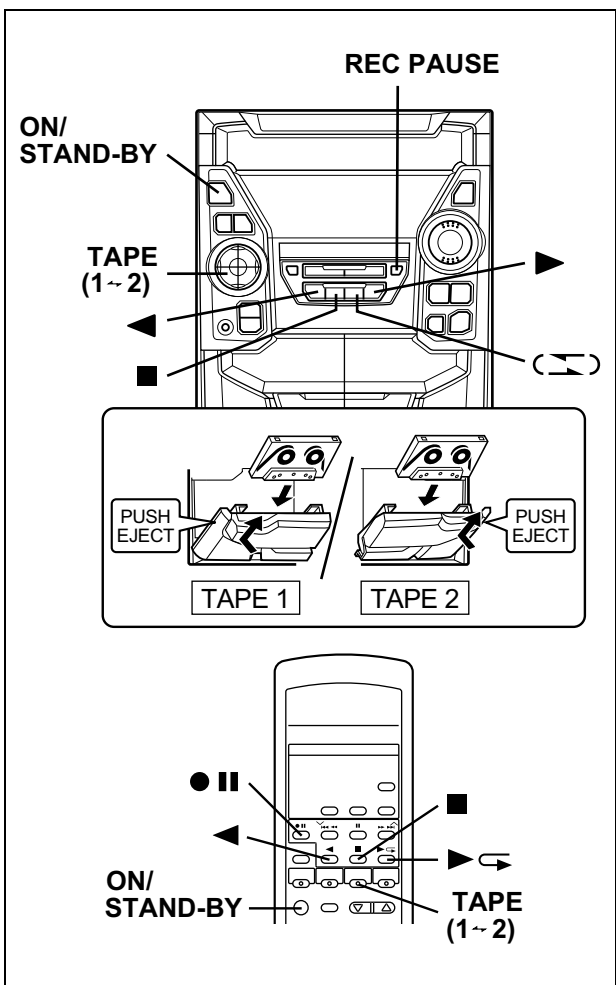
HOW TO USE THE BUILT-IN TIMER

● Before setting the timer, make sure that the clock setting is correct. (Page 11)

(Main unit operation)

ON/STAND-BY
TIMER/SLEEP
Timer set indicator
TUNER (BAND)
CD
TAPE (1 ↔ 2)
VIDEO/AUX
TUNING/TIME (∧ ∨)
VOLUME
MEMORY/SET

3　 0:00

4　 8:00

　 8:00

5　 8:30

(Main unit operation)

ON/STAND-BY
TIMER/SLEEP
Timer set indicator
TUNER (BAND)
VIDEO/AUX
TUNING/TIME (∧ ∨)
VOLUME
MEMORY/SET

3　 0:00

4　 6:00

　 6:00

5　 6:25

■ 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 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 play-back starts.

Note:
● When performing timer playback using an external unit con-nected 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 com-partment.

● Load the tape with the side to be recorded facing you.

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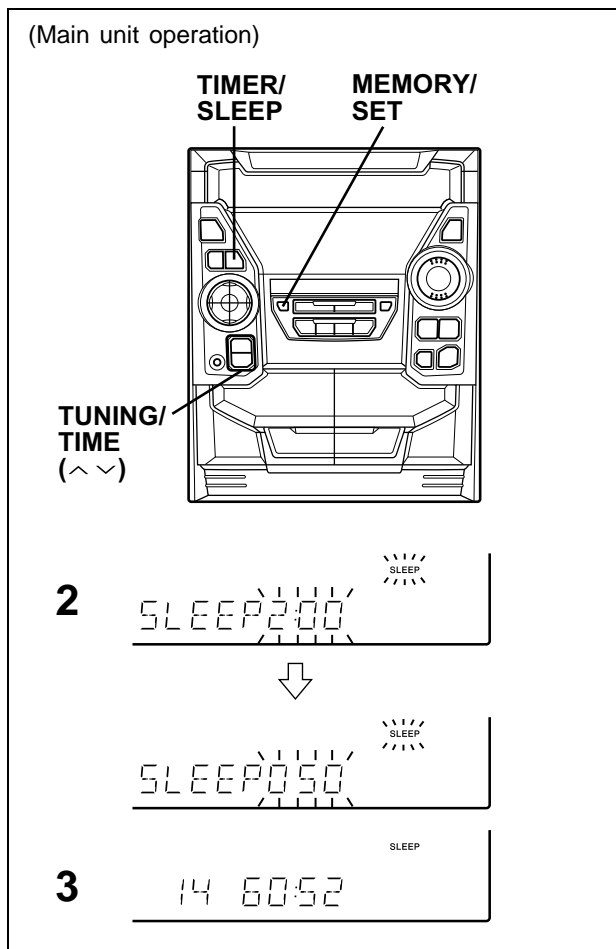Press the ON/STAND-BY button to turn the power on.

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

Note:
● Once the time is set, the setting will be retained until a new time is entered.

E-21

(Continued)

(Main unit operation)

TIMER/
SLEEP

MEMORY/
SET

TUNING/
TIME
(∧ ∨)

2

SLEEP200
SLEEP

⬇

SLEEP050
SLEEP

3

14 60:52
SLEEP

■ 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 ($\vee$ 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.

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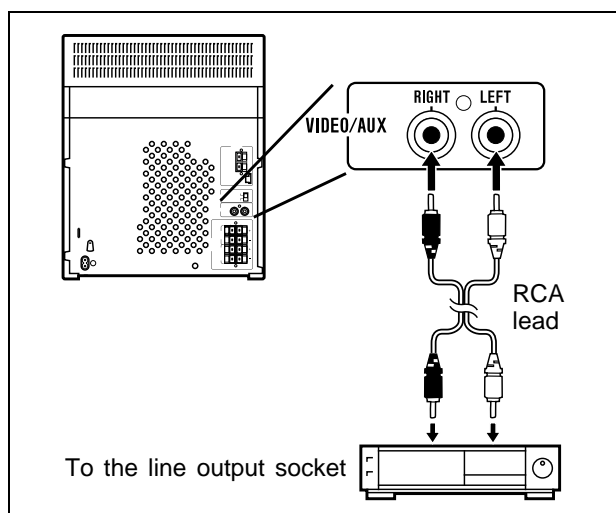
To confirm the remaining sleep time:
Press the TIMER/SLEEP button.

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

USING EXTERNAL UNITS

RIGHT LEFT

VIDEO/AUX

RCA
lead

To the line output socket

■ 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 20.

Note:
● To prevent hum interference, do not place this unit near a television receiver.
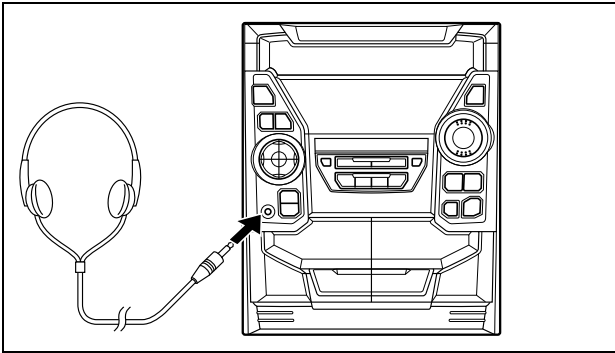
■ Headphones

● 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
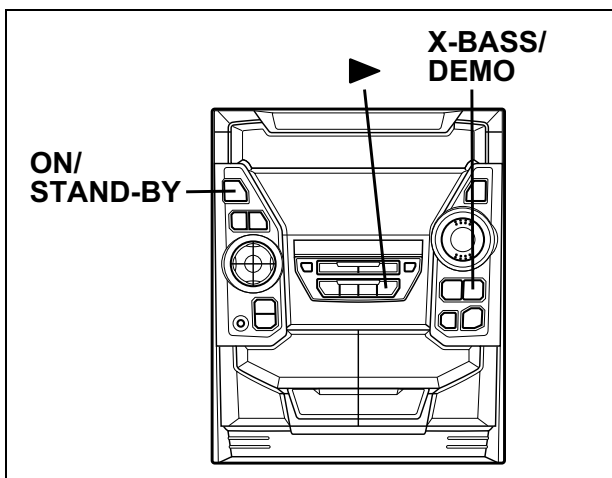
Reset the microcomputer under the following conditions:
● To erase all of the stored memory contents (clock and timer settings, and tuner and CD presets).

● 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
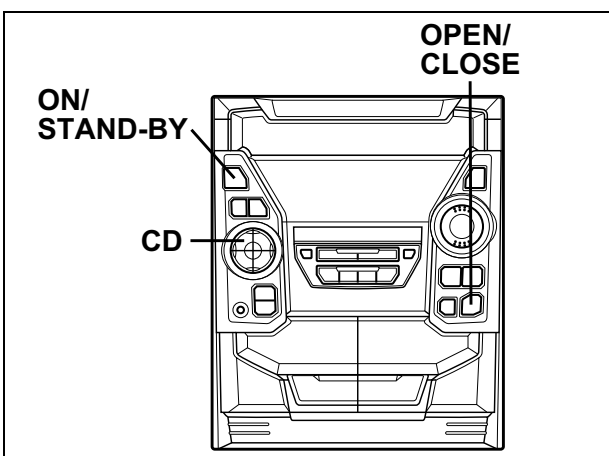
Before you move this product to a new location, proceed as follows:

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

TAPE 1

TAPE 2
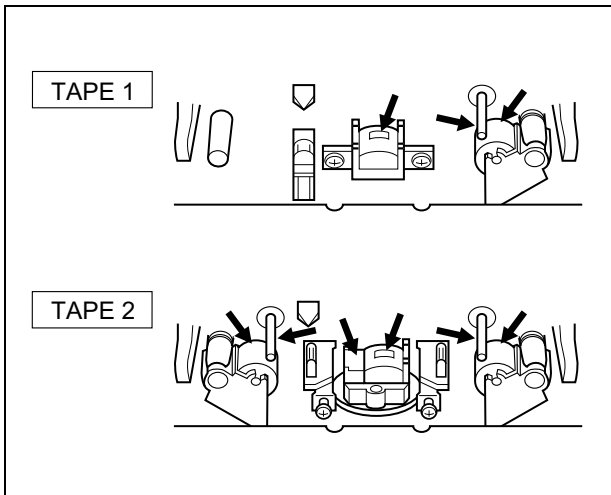
■ Internal care

● 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 110/127/220/230-240 V, 50/60 Hz
Power consumption:	100 W
Dimensions:	Width; 270 mm (10-5/8") Height; 330 mm (13") Depth; 355 mm (14")
Weight:	6.7 kg (14.7 lbs.)

● Amplifier section

Output power:	MPO; 160 W (80 W + 80 W) (10 % T.H.D.) RMS; 100 W (50 W + 50 W) (10 % T.H.D.) RMS; 74 W (37 W + 37 W) (0.9 % T.H.D.)
Output terminals:	Front speakers; 8 ohms Surround speakers; 16 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 semiconductor 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; 88-108 MHz AM; 531-1,602 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)

● Front speaker section

Type:	3-way type [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; 231.5 mm (9-1/8") Height; 330 mm (13") Depth; 210 mm (8-1/4")
Weight:	3.1 kg (6.8 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

備忘 / MEMO

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