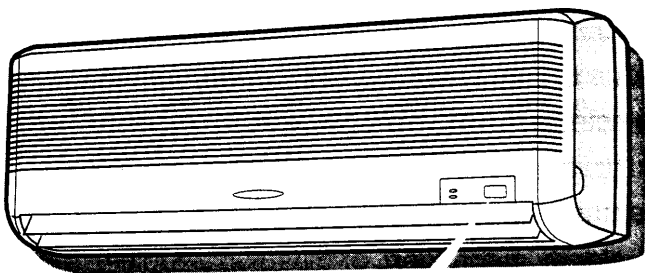
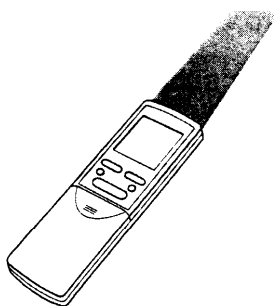


SHARP®



**SPLIT TYPE
ROOM AIR CONDITIONER**

OPERATION MANUAL



INDOOR UNIT	OUTDOOR UNIT
AY-X127J	AE-X127J

Thank you for purchasing this Sharp product. Please read this manual carefully before operating the air conditioner, and keep this manual and the Installation Manual as handy references.


CONTENTS

• PRECAUTIONS	1	• ADJUSTING THE AIR FLOW DIRECTION . . .	8
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PRECAUTIONS

WARNING

- Using a power circuit with improper voltage and frequency can result in damage to the unit and possibly fire.
Use a circuit with a 230-240 volt (±10%) rating.
- Open a window or door periodically to ventilate the room, especially when using gas appliances.
- Inserting objects into the unit could result in injury due to rotation of the high-speed fans.
- Pulling the power cord might result in damage or electrical shock. Do not misuse the power cord.
- This appliance is not intended for use by young children or infirm persons without supervision.
Young children should be supervised to ensure that they do not play with the appliance.
- When using the air conditioner for infants, children, elderly, bedridden, or disabled people- make sure the room temperature is suitable for those in the room.
- Always use a fuse with the correct current rating.
- Use only the manufacturer specified power cord (parts code; QACC-A234JBEO) for its replacement. Replacement should be conducted by a service centre approved by Sharp.

 This unit is designed for human comfort. Do not use for applications such as a kennel or nursery to raise animals or plants.

For your safety, ensure that your new air conditioner is installed by a licensed electrical contractor with accordance with the SAA WIRING RULES.

CAUTION

- To ensure that your warranty is not cancelled, both the indoor/outdoor units and supply/ interconnecting cables must be installed by a licensed air conditioning contractor.

LOCATION

- Do not locate the unit where there is excessive dust, fumes or moisture in the air.

INSTALLATION / REMOVAL

- Do not attempt to install or remove the unit yourself. Consult a licensed air conditioning contractor.

SPECIFICATIONS

Indoor unit	AY-X127J
Outdoor unit	AE-X127J
Rated A.C. voltage (V)	230-240
Rated frequency (Hz)	50
Cooling capacity (kw)	3.4*
Heating capacity (kw)	4.5*

*When tested in accordance with AS 1861.1.

ADDITIONAL NOTES ON OPERATION

OPERATING TEMPERATURE RANGE

		INDOOR TEMP.	OUTDOOR TEMP.
COOLING	upper limit	32°C D.B. 23°C W.B.	46°C D.B. —
	lower limit	21°C D.B. 15°C W.B.	21°C D.B. —
HEATING	upper limit	27°C D.B. —	21°C D.B. 15°C W.B.
	lower limit	20°C D.B. —	-8.5°C D.B. -95°C W.B.

D.B.=Dry-bulb W.B.=Wet-bulb

- A built-in protective device might prevent the unit from operating when used out of this range.
- Condensation might form on the air outlet when the unit operates continuously in the COOL or the DRY mode when the humidity is over 80 percent.

WHEN POWER FAILURE OCCURS

This air conditioner has a back-up function in case of power failure during operation. After power recovery, the unit will automatically restart in the same settings which were activated before the power failure, except for timer operation settings. If the timers are set, they will need to be reset after power recovery.

PREHEATING FUNCTION

In the HEAT operation, the indoor fan might not start for two to five minutes after the unit is turned on to prevent the air from circulating before the unit is sufficiently warmed up.

DE-ICING FUNCTION

- When ice forms on the heat exchanger in the outdoor unit during the HEAT operation, an automatic de-icer operates for about 5 to 10 minutes to remove the ice. During de-icing, the inside and outside fans stop operating.
- A hissing sound may be heard originating from the indoor unit during de-icing.
- After de-icing is completed, the unit automatically resumes operation in the HEAT mode.

HEATING EFFICIENCY

- The unit employs a heat pump that draws heat from the outside air and releases it into the room. The outside air temperature therefore greatly affects the heating efficiency.
- If the outside temperature is unusually low, you may require additional heating to maintain the desired room temperature.
- On very cold days, it may take some time to heat the entire room, you may need to use the “full power” feature to speed up heating.

TIPS ON SAVING ENERGY

Below are some simple ways to save energy when you use your air conditioner.

SET THE CORRECT TEMPERATURE

- Setting the temperature 1 °C higher in COOL mode, and 2°C lower in HEAT mode than the desired temperature can result in a 10 percent saving in electricity.
- Setting the temperature colder than necessary during cooling will result in excess power consumption.

KEEP OUT DIRECT SUNLIGHT AND DRAFTS

- Keeping out direct sunlight when cooling will aid in reducing the power consumption.
- Close the windows and doors when heating and cooling the room.

SET PROPER AIR FLOW DIRECTION TO OBTAIN THE BEST AIR CIRCULATION

KEEP FILTER CLEAN TO ENSURE THE MOST EFFICIENT OPERATION

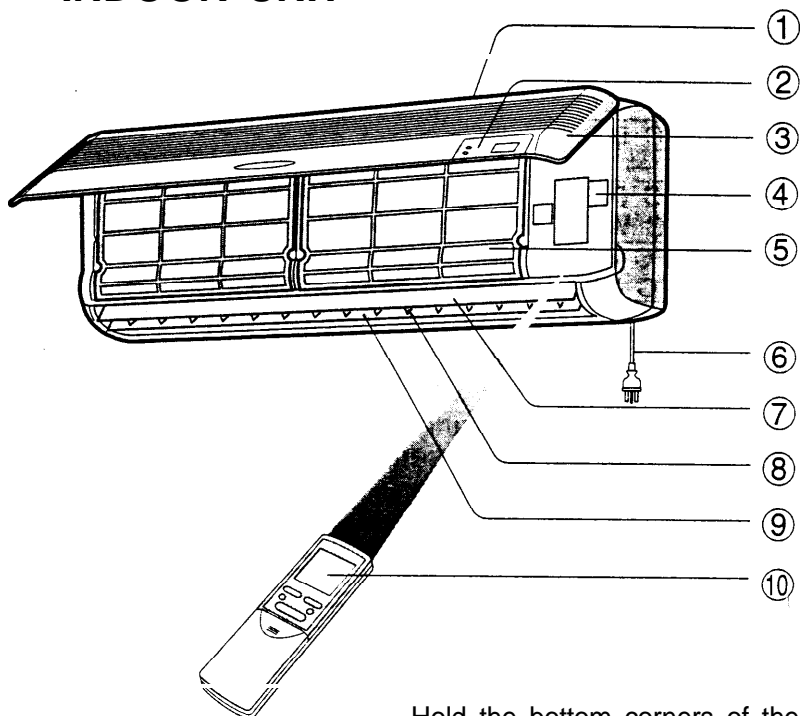
MAKE MOST OF THE TIMER OFF FUNCTION

UNPLUG THE POWER CORD WHEN THE UNIT IS NOT TO BE USED FOR AN EXTENDED PERIOD

- The indoor unit still consumes a small amount of power when it is not operating.

PART NAMES

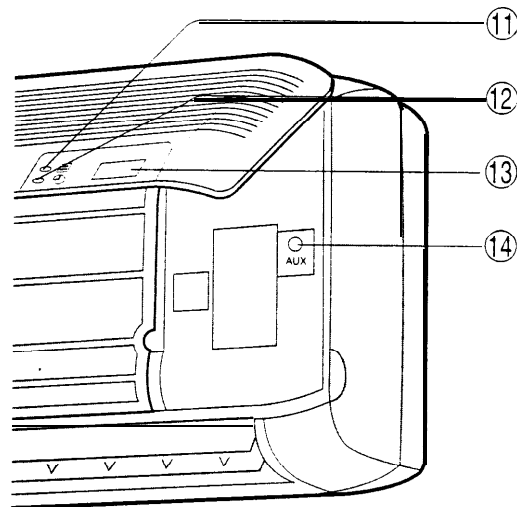
INDOOR UNIT



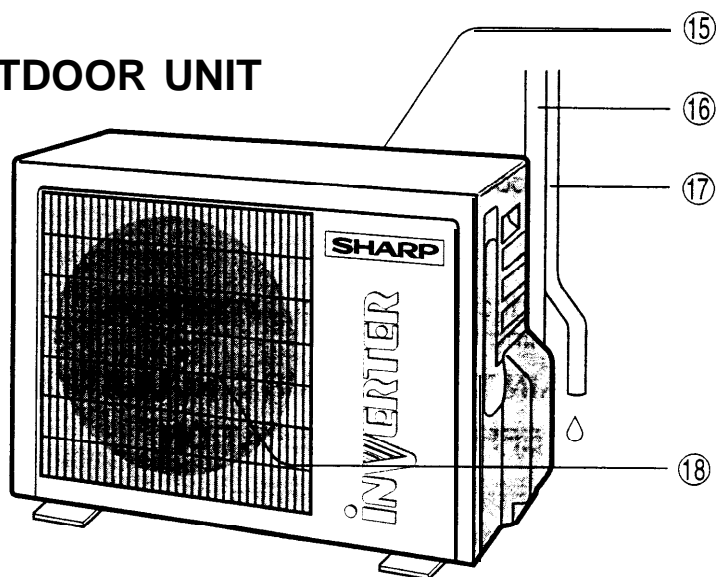
- ① Inlet (Air)
- ② Indicator Panel
- ③ Hinged Front Panel
- ④ Operation Panel
- ⑤ Air Filters
- ⑥ Power Supply Cord
- ⑦ Vertical Adjustment Louvre
- ⑧ Horizontal Adjustment Louvres
- ⑨ Outlet (Air)
- ⑩ Remote Control

Hold the bottom corners of the open panel and gently pull outwards.

- ⑪ Operation Lamp (red)
- ⑫ Timer Lamp (yellow)
- ⑬ Remote Control Receiver Window
- ⑭ AUX. Button



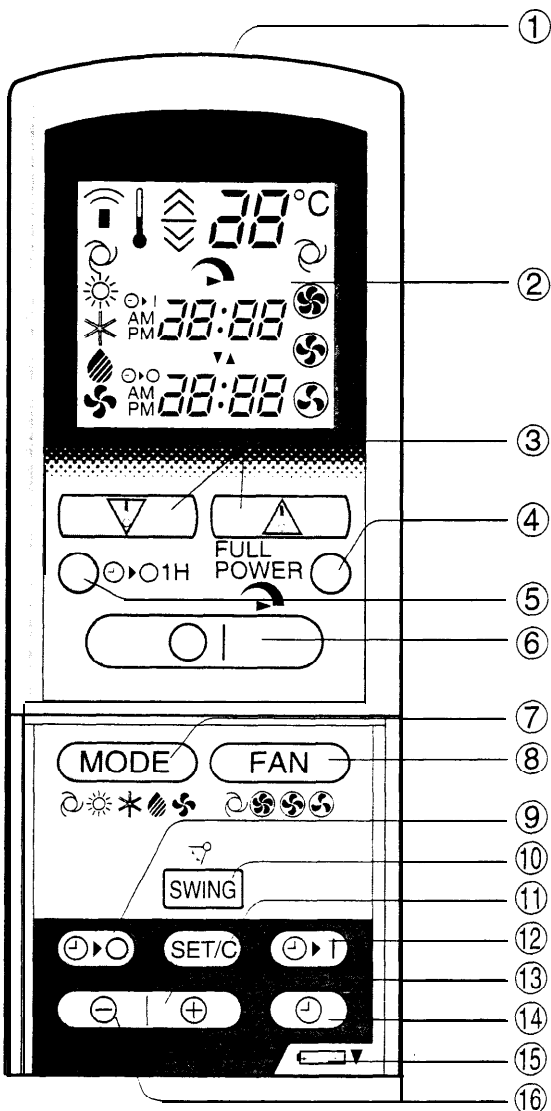
OUTDOOR UNIT



- ⑮ Inlet (Air)
- ⑯ Refrigerant Tubes and Interconnecting Cord
- ⑰ Drainage Hose
- ⑱ Outlet (Air)

NOTE: Actual units might vary slightly from those shown above.

REMOTE CONTROL



@TRANSMITTER

- ② DISPLAY (Liquid Crystal Display)
- ③ THERMO. (Thermostat) Button
- ④ FULL POWER OPERATION Button
- @ONE-HOUR TIMER Button
- @ON/OFF Button
- ⑦ MODE Button
- ⑧ FAN Button
- ⑨ TIMER OFF Button (for setting the timer)
- ⑩ SWING Button
- ⑪ TIMER SET/CANCEL Button, and CLOCK SET Button
- ⑫ TIMER ON Button (for setting the timer)
- ⑬ TIME ADVANCE Button
- ⑭ CLOCK Button
- ⑮ Indicates BATTERY COMPARTMENT is below this mark
- ⑯ TIME REVERSE Button

L.C.D. REMOTE CONTROL DISPLAY

@THERMOSTAT SETTING FOR AUTO AND DRY MODES

- ⑮ TEMPERATURE SYMBOL
- ⑯ TRANSMITTING SYMBOL

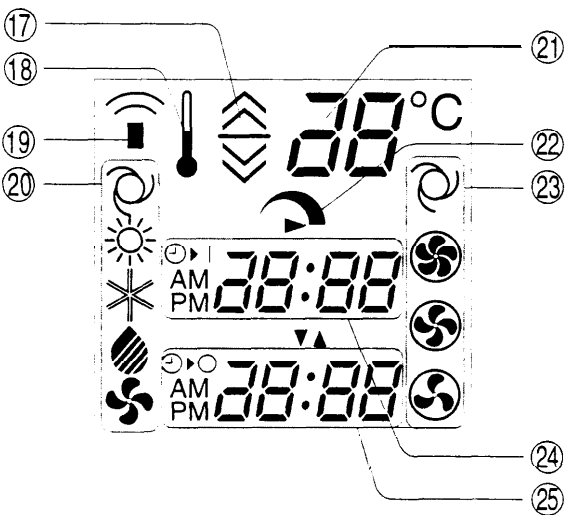
@MODE SYMBOLS

- ⌀ : AUTO ▨ : DRY
- ☀ : HEAT ⚙ : FAN ONLY
- ❄ : COOL

@TEMPERATURE INDICATOR

- ⑳ FULL POWER OPERATION MODE SYMBOL
- ㉑ FAN SPEED SYMBOLS

- ⌀ : AUTO ⚙ : LOW
- ⚙ : HIGH ⚙ : SOFT



- ㉔ TIMER ON INDICATOR/CLOCK
Indicates the timer-on time or current time.
- ㉕ TIMER OFF INDICATOR
Indicates the timer-off time or one-hour timer setting.

USING THE REMOTE CONTROL

LOADING BATTERIES

Use two size-AAA (R03) batteries.

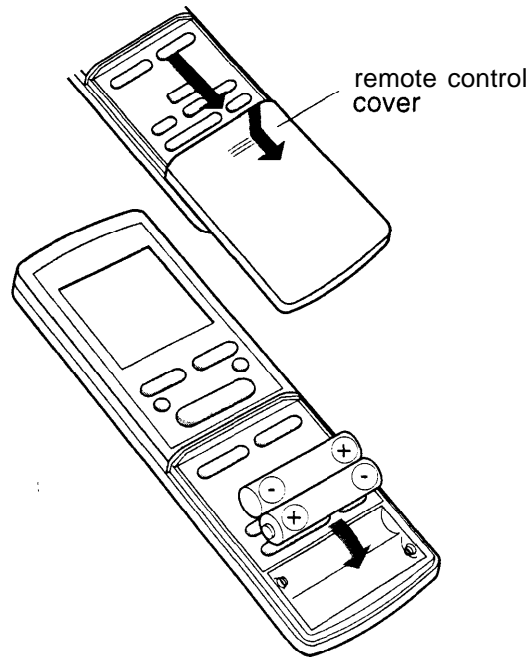
- 1 Slide open the remote control cover as shown.

Now continue to pull the cover in the same direction to completely remove it.

- 2 Insert the batteries in the compartment, making sure the \oplus and \ominus polarities are properly aligned.

- AM 6:00 will appear on the display when the batteries are properly loaded.

- 3 Replace the cover.



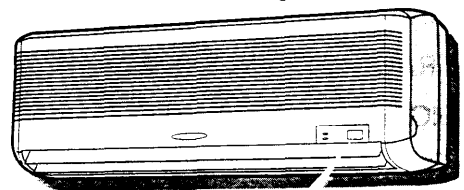
NOTES:

- The battery life is approximately one year with normal use.
- When you replace the batteries, always use two new ones of the same type.
- If the remote control does not operate normally after replacing the batteries, take out the batteries and replace them again after 30 seconds.
- If you will not be using the unit for a long time, remove the batteries from the remote control.

HOW TO USE THE REMOTE CONTROL

Point the remote control towards the indoor unit's receiver window and press the desired button. A beep will sound when the indoor unit receives the signal.

- Make sure no objects, such as curtains, are between the remote control and the indoor unit.
- The remote control can operate up to 7meters away, when the batteries are in good condition.



⚠ CAUTION

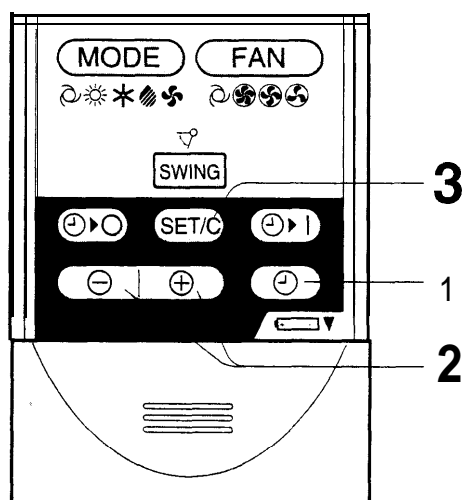
- Do not expose the receiver window on the indoor unit to strong, direct sunlight, which can adversely affect its operation. In such case, close the curtains to block the sunlight.
- Use of a fluorescent lamp with a quick starter in the same room might interfere with transmission of the signal.
- The indoor unit might be affected by signals emitted from the remote control of a television, VCR or other equipment used in the same room.
- Do not leave the remote control in direct sunlight or near a heater. Also, protect the unit and remote control from moisture and shock which can discolour or damage them.

SETTING THE CURRENT TIME

There are two setting modes:
12-hour-clock and 24-hour-clock.

Example: 5 o'clock in the afternoon

Clock	Display
12-hour-clock	PM 5:00
24-hour-clock	17:00

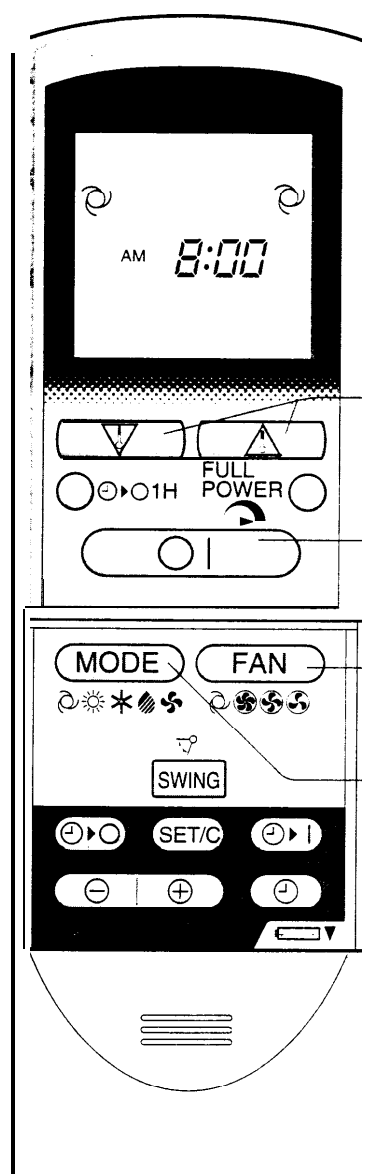


- 1 To set 12-hour-clock, press the CLOCK button once.
To set 24-hour-clock, press the CLOCK button twice.
- 2 Press the TIME ADVANCE or-REVERSE buttons to set the current clock time.
 - Hold the buttons down to fast-forward or reverse the time on the display.
- 3 Press the SET/C button.
 - The colon (:) blinks to indicate that the clock is functioning.

NOTE:

- The time cannot be set, if the on or off timers have programmed.
Please refer to "Timer Operation" on page 9 and 10.

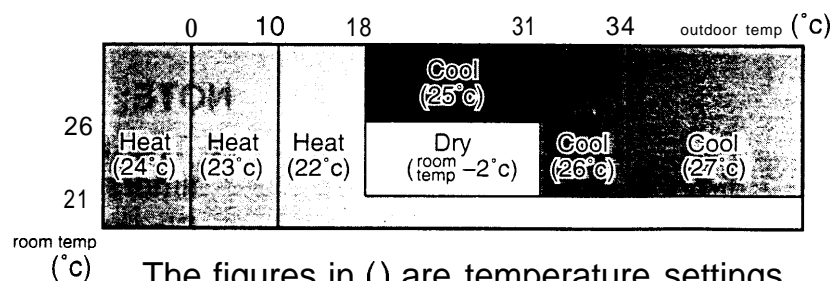
BASIC OPERATION



- 1 Press the MODE button to select the operation mode.
- 2 Press the ON/OFF button to start operation.
 - The red OPERATION lamp on the indoor unit will light up.
- 3 Press the THERMO button to set the desired temperature.
 - In the AUTO and DRY mode, the indicator bars represent changes in temperature.
 - 2°C higher
 - 1°C higher
 - 1°C lower
 - 2°C lower
 - In the manual HEAT and COOL mode, the temperature can be set within the range of 18 to 32 °C
 - In the FAN ONLY mode, the temperature cannot be set.
- 4 Press the FAN button to set the desired fan speed.
 - In the DRY mode, the fan speed cannot be changed.
 - In the FAN ONLY mode, the fan speed AUTO cannot be set.
- 5 To turn off the unit, press the ON/OFF button again.
 - The red OPERATION lamp on the indoor unit will go out.

TIPS ABOUT AUTO MODE:

in the AUTO MODE, the temperature setting and mode (HEAT, COOL or DRY) are automatically selected depending on the room temperature and outdoor temperature when the unit is turned on.



The figures in () are temperature settings.

ADJUSTING THE AIR FLOW DIRECTION

VERTICAL AIR FLOW

The direction of the air flow is automatically preset for the optimum effect in each mode as follows;

COOL and DRY mode	Horizontal air flow
HEAT and FAN ONLY mode	Diagonal air flow

HOW TO ADJUST THE AIR FLOW DIRECTION

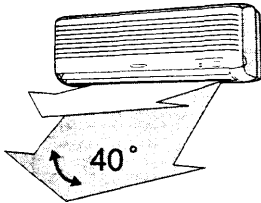
Press the SWING button of the remote control once.

- The vertical adjustment louvre will swing continuously within the range of 80°.

Press the SWING button again when the desired position is reached and the louvre will stop.

Adjustment range

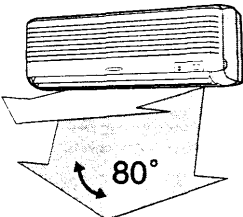
COOL and DRY mode



40°

The range is narrower to prevent condensation from forming.

HEAT and FAN ONLY mode

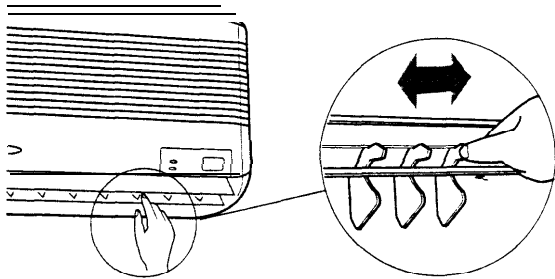


80°

The range is wider for increased air circulation.

HORIZONTAL AIR FLOW

Hold the horizontal adjustment louvres as shown and adjust the air flow direction.



CAUTION

Never attempt to adjust the vertical adjustment louvres manually.

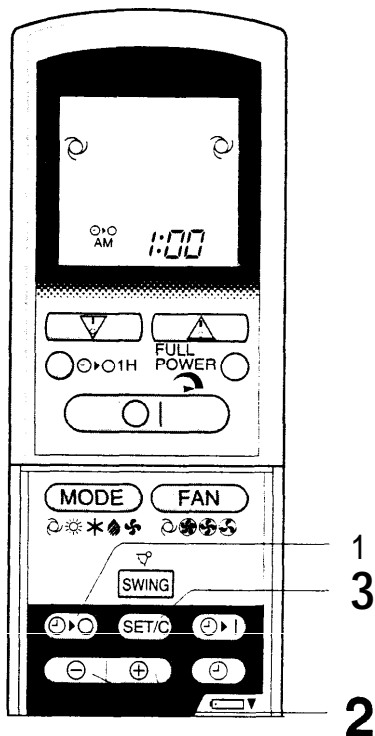
- Manual adjustment of these louvres can cause the unit to malfunction when remote-controlled later.
- When the vertical adjustment louvres are adjusted completely downward during COOL and DRY modes for an extended period of time, condensation might form.

TIMER OPERATION

NOTE:

Before setting the timer, ensure that the current time is properly set.

TIMER OFF



- 1 Press the TIMER OFF (⌚) button.
- 2 The TIMER OFF indicator will blink; press the TIME ADVANCE or REVERSE buttons to set the desired time. (The time can be set in 10-minute increments.)
- 3 Point the remote control at the receiver window on the indoor unit, and press the TIMER SET (SET/C) button.
 - The yellow TIMER lamp on the indoor unit lights up.
 - A beep will sound when the indoor unit receives the signal.

(TIPS ABOUT TIMER OFF OPERATION)

When the TIMER OFF mode is set, the room temperature is automatically adjusted to prevent the room from becoming too hot or too cold while you sleep. (Auto sleep function)

COOL/DRY MODE:

- One hour after the timer operation has begun, the temperature rises 1°C higher than the thermostat setting.

HEAT MODE:

- One hour after the timer operation has begun, the temperature drops 3°C lower than the thermostat setting.

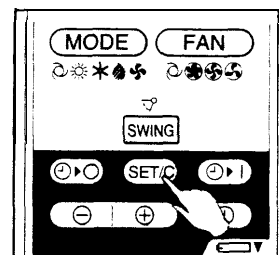
NOTE:

Auto sleep function will not activate during the FAN ONLY mode.

(TO CANCEL TIMER MODE)

Press the TIMER CANCEL (SET/C) button.

- The yellow TIMER lamp on the indoor unit will go out.
- The current time will be displayed on the remote control.



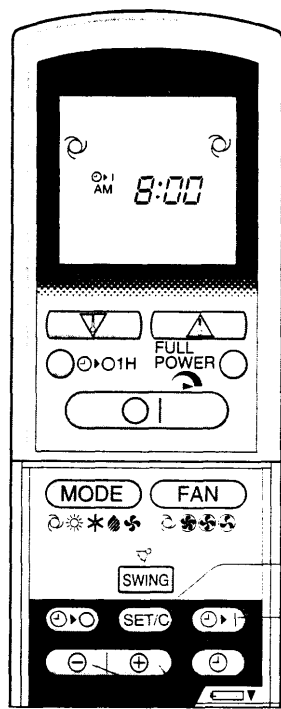
NOTE:

- Both timers will be cancelled when the SET/C button is pressed.

(TO CHANGE A TIME SETTING)

First, cancel the TIMER, then set it again.

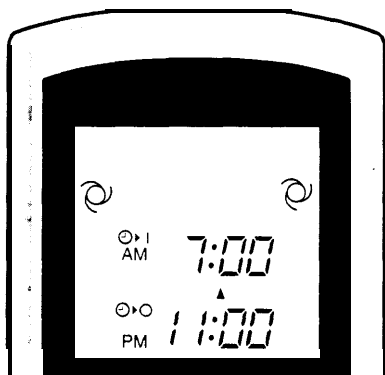
TIMER ON



- 1** Press the TIMER ON (⏻) button.
- 2** The TIMER ON indicator will blink; press the TIME ADVANCE or REVERSE buttons to set the desired time. (The time can be set in 10-minute increments.)
- 3** Point the remote control at the receiver window on the indoor unit and press the TIMER SET (SET/C) button.
 - The yellow TIMER lamp on the indoor unit lights up.
 - A beep will sound when the indoor unit receives the signal.
- 4** Select the operation condition.
 - The unit will turn on prior to the setting time to allow the room to reach the desired temperature by the programmed time. (Awaking function)

(COMBINED USE OF ON AND OFF TIMERS)

You can combine the use of the ON and OFF timers.



Example:

Stop operation at 11:00 p.m. and resume operation (using the same settings) to obtain the desired room temperature by 7:00 a.m.

- 1** Set the TIMER OFF to 11:00 p.m. during operation.
- 2** Set the TIMER ON to 7:00 a.m.

The arrows (▼ or ▲) between the TIMER ON indicator and the TIMER OFF indicator shows which timer will activate first.

NOTES:


- You cannot program the ON and OFF timers to different temperatures or other settings.
- Either timer can be programmed prior to the other.
- The timers will only operate once.

Although the last timer setting will be memorised, the timer must be selected each time it is required.

FULL POWER MODE

In this mode, the air conditioner works at maximum power operation. This mode makes the room cool or warm rapidly.

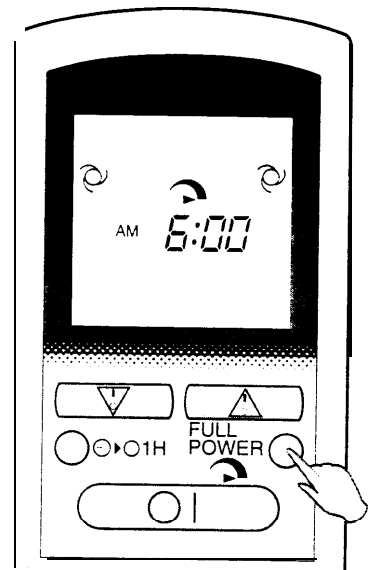
1 To activate the FULL POWER mode, press the FULL POWER button during operation.

- FULL POWER mode symbol  is displayed on the remote control.
- The temperature display disappears.
- This mode will be automatically cancelled after one hour's operation.

2 To cancel the FULL POWER mode, press the FULL POWER button again.

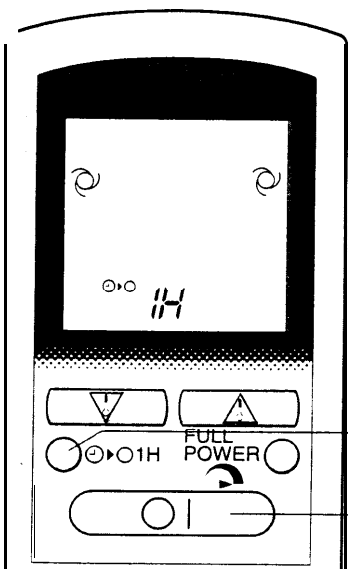
NOTES:

- You cannot use the FULL POWER mode during the DRY or the FAN ONLY mode.
- You cannot set the temperature during the FULL POWER operation.
(The fan speed is adjustable.)



ONE-HOUR TIMER

When the ONE-HOUR TIMER is set, the unit will operate for one hour after setting.



1 Press the ONE-HOUR TIMER button.

- "1 H" will be displayed on the remote control.
- The unit will operate for one hour.

2 To turn off the unit within an hour, press the ON/OFF button.

- The red OPERATION lamp on the indoor unit will go out.

If you wish to operate the unit for another hour, press the ONE-HOUR TIMER button again during operation.

NOTE:

- The ONE-HOUR TIMER operation has priority over other timer operations, such as TIMER ON and TIMER OFF.

Use this mode when the remote control is not available.

TO TURN ON

Lift the front panel of the indoor unit and press the AUX. button on the operation panel.

- The red OPERATION lamp on the indoor unit will light up and the unit will start operating in the AUTO mode.
- The fan speed and temperature setting will be set to AUTO.

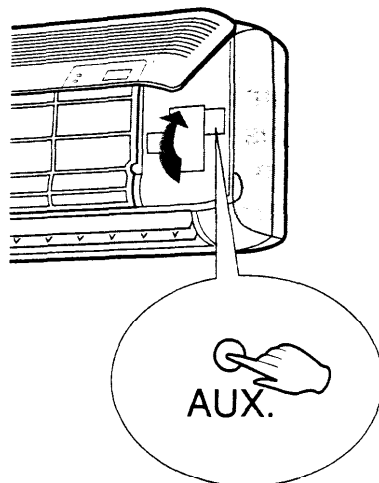
TO TURN OFF

Press the AUX. button on the operation panel again.

- The red OPERATION lamp on the indoor unit will go out.

NOTE:

If the AUX. button is pressed during normal operation, the unit will turn off.

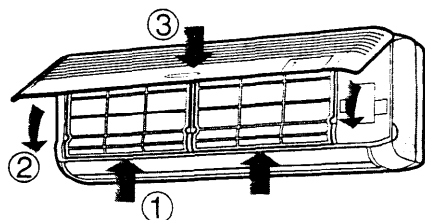
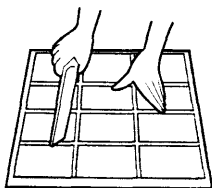
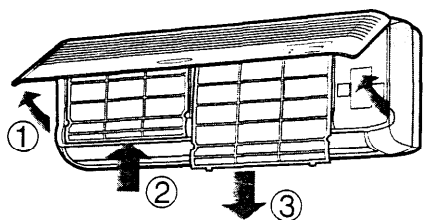


MAINTENANCE

Be sure to unplug the power cord from the wall outlet or turn off the circuit breaker before performing any maintenance.

CLEANING THE FILTERS

The air filters should be cleaned every two weeks.



1 TURN OFF THE UNIT

2 REMOVE THE FILTERS

- 1 Lift up the front panel of the indoor unit.
- 2 Push the air filters up slightly to unlock them.
- 3 Pull the air filters down to remove them.

3 CLEAN THE FILTERS

Use a vacuum cleaner to remove the dust. If the filters are dirty, wash them with warm water and a mild detergent. Dry the filters in the shade before reinstalling.

4 REINSTALL THE FILTERS

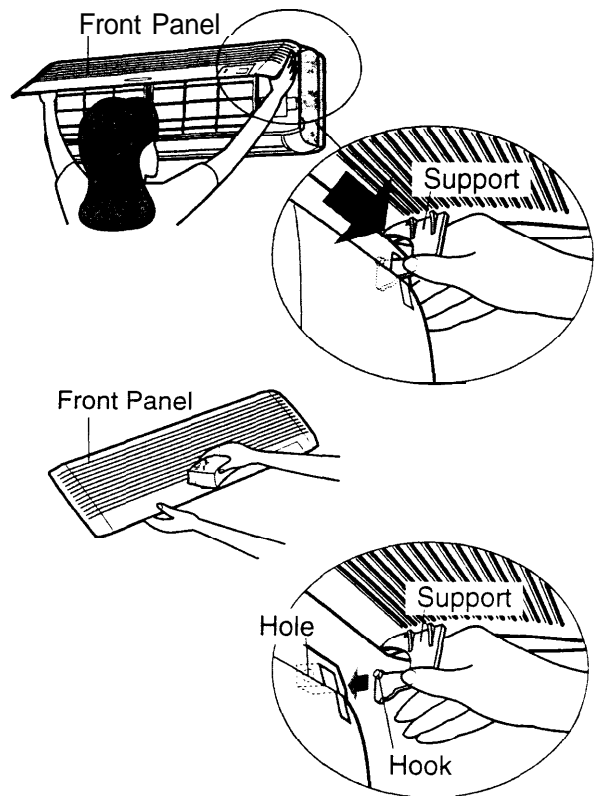
- 1 Reinstall the filters.
- 2 Close the front panel.
- 3 Push the centre of the front panel firmly to lock it in place.

MAINTENANCE

WASHING THE FRONT PANEL

Be sure to detach the front panel from the indoor unit before washing.
Dry thoroughly before attaching it.

- 1** Turn off the unit and detach the front panel.
Raise the front panel up until it stops.
 - Push the left and right supports of the front panel gently to the out side accordingly, and unhook them.
- 2** Wash with water.
 - Wash gently with water and soft sponge.
Dry it thoroughly in the shade. (Do not use scouring pads, as it will damage the front panel surface.)
 - Mild detergent may be used when the front panel is very dirty. Rinse thoroughly with water.
- 3** Attach the front panel back in place.
Hold each support with each hand.
Carefully push in the supports until the hooks fit the inside holes.



CLEANING THE UNIT AND THE REMOTE CONTROL

- Wipe them with a soft cloth.
- Do not directly splash or pour water on them. It could result in electrical shock or damage to them.
- Do not use hot water, thinner, abrasive powders or strong solvents.

POST-SEASON CHECK

- 1** Operate the unit in the FAN ONLY mode for about half a day to allow the mechanism to thoroughly dry.
- 2** Stop the operation and unplug the unit. Turn off the circuit breaker, if you have one exclusively for the air conditioner.
- 3** Clean the filters, then reinstall them.

PRE-SEASON CHECK

- 1** Make sure that the air filters are not dirty.
- 2** Make sure that nothing obstructs the air inlet or outlet.
- 3** Check the outdoor mounting rack periodically for wear and to make sure it is firmly in place.

BEFORE CALLING FOR SERVICE

The following are normal conditions for the unit

UNIT DOES NOT OPERATE The unit will not operate just after being turned off, or the mode being changed. This is to protect the mechanism. Wait 3 minutes for the unit to function.	LOW NOISE The soft, swishing noise is the sound of the refrigerant flowing inside the unit.
WARM AIR DOESN'T COME OUT The unit is preheating or de-icing.	WATER VAPOUR <ul style="list-style-type: none">• In the COOL and DRY operation, water vapour can sometimes be seen at the air outlet due to the difference in temperature between the room air and the outlet air.• In the HEAT operation, water vapour might come out of the outdoor unit during de-icing.
ODORS A peculiar odor exuded by the carpet or furniture might be emitted from the unit.	

If the unit appears to be malfunctioning, check the following points before calling for service.

IF THE UNIT FAILS TO OPERATE
Check to see if the circuit breaker has tripped or the fuse has blown.

IF THE UNIT FAILS TO COOL OR HEAT THE ROOM EFFECTIVELY		
Check the filters. If they're dirty, clean them.	Check the outdoor unit to make sure nothing is blocking the air inlet or outlet.	Check that the remote control is set properly.
Make sure windows and doors are closed tightly.	A large number of people in the room can prevent the desired temperature from being reached.	Check whether any heat-generating appliances are operating in the room.

IF THE UNIT FAILS TO RECEIVE THE REMOTE CONTROL SIGNAL		
Check whether the remote control batteries have become old and weak.	Try to send the signal again with the remote control pointed properly towards the unit's receiver window.	Check whether the remote control batteries are installed with the polarities properly aligned.

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OSAKA, JAPAN

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TINSEA1 67JBR0 7D0 ①

SHARP

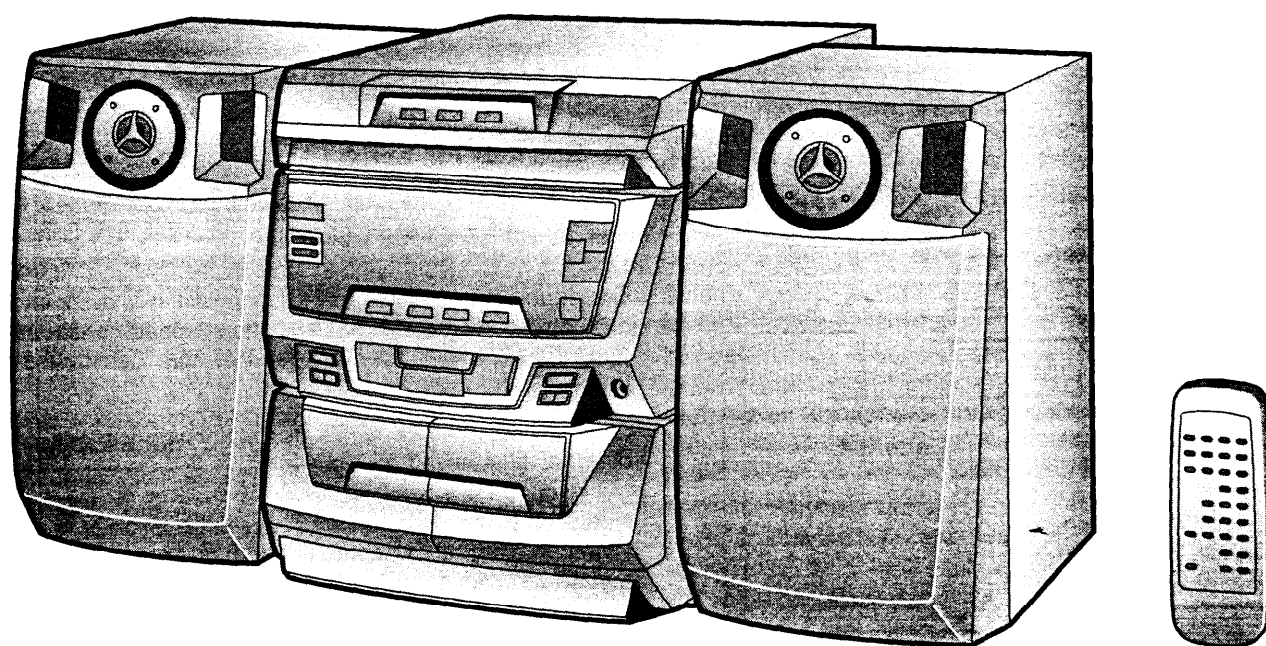
MINI COMPONENT SYSTEM

MODEL

CD-C415W

OPERATION MANUAL

CD-C415W mini component system consisting of
CD-C41 5W mini component system
CP-C415 speaker system.



COMPACT
disc
DIGITAL AUDIO

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OPERATION

- When the ON/STAND-BY switch is set at STAND-BY position mains voltage is still present inside the unit. When the ON/STAND-BY switch is set at STAND-BY position and the clock is displayed, the unit may be brought into operation by use of (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.

- SRS technology Licensed from SRS Labs. SRS technology holds the following patents:U.S. Patent No. 4,748,669 and U.S. Patent No. 4,841,572.
- SRS, the SRS Logo (●) and the SOUND RETRIEVAL SYSTEM are registered trademarks of SRS Labs, Inc. in the United States.

CAUTION

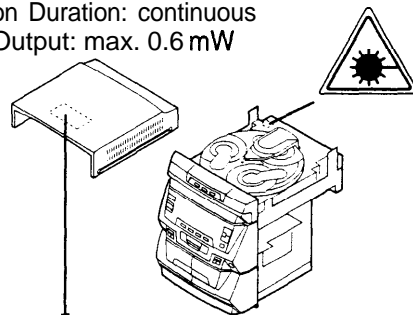
CLASS 1 LASER PRODUCT
APPAREIL À LASER DE CLASSE 1
PRODUCTO LASER DE CLASE 1

- 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 or 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

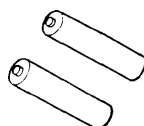
Material: GaAlAs
Wavelength: 780 nm
Emission Duration: continuous
Laser Output: max. 0.6 mW



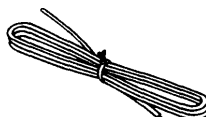
CAUTION: INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.
VARNING: OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN OCH BETRÄKTA EJ STRÅLEN MED OPTISKA INSTRUMENT.
ADVERSEL: USYNLIG LASERSTRÅLNING VED ÅBNING. SE IKKE IND I STRÅLEN+HJELLER IKKE MED OPTISKE INSTRUMENTER.
VARO! AVATTAESSA OLET ALTTIINA NÄKYMÄTTÖN LASERSTRÄLLELLE. ÄLÄ TUURTTA SATTESSEEN ALAKA KATSEI SITA OPTISEN LÄITTEEN LAPI.
VARNING: OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN OCH BETRÄKTA EJ STRÅLEN GENOM OPTISKT INSTRUMENT.
ADVERSEL: USYNLIG LASERSTRÅLNING NÄR DEKSEL ÅPNES. STIRR IKKE INN I STRÅLEN ELLER SE DIREKTE MED OPTISKE INSTRUMENTER.



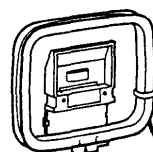
Remote control x 1



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



FM aerial x 1



AM loop aerial x 1

Note:

Parts and equipment mentioned in this operation manual other than those shown above 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 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, since pulling the lead can damage internal wires.
- Remove the AC power plug from the wall socket before cleaning the heads, pinch rollers, etc.
This unit contains dangerous 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, set the ON/STAND-BY switch to STAND-BY, then disconnect the AC power lead from the AC socket. Plug the AC power lead back in, and then set the ON/STAND-BY switch to ON.
- If a lightning storm is taking place near you, it is suggested that you disconnect the AC power lead from the AC socket for safety.

Warning:

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

Volume control

The sound level at a given volume setting depends on a combination of speaker efficiency, location and various other factors.

It is advisable to avoid exposure to high volume levels, which occur whilst turning the unit on with the volume control setting up high, or whilst continually listening at high volumes.

Condensation

Sudden temperature changes, storage or operation in an extremely humid environment may cause condensation inside the cabinet (CD pickup, tape heads, etc.) or on the transmitter LED on the remote control.

Condensation can cause the unit to malfunction.

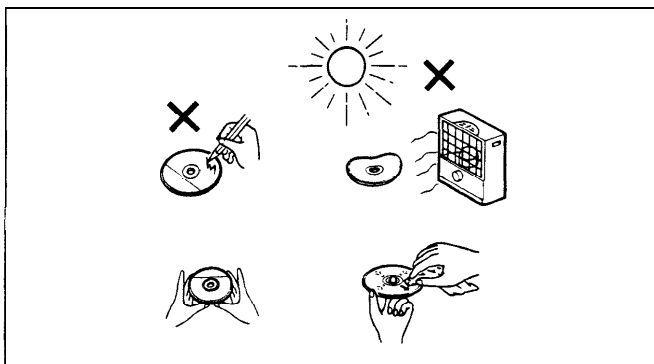
If this happens, leave the power on with no disc (or cassette) in the unit until normal playback is possible (about 1 hour) or wipe off any condensation on the transmitter LED with a soft cloth before operating the unit.

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.

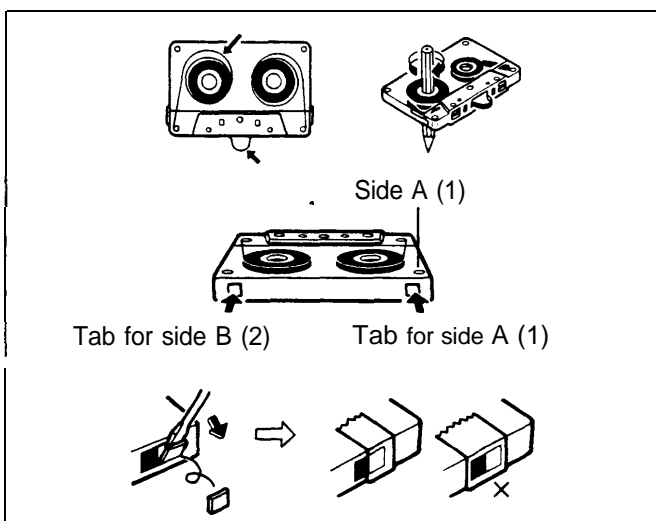
Follow the guidelines below for maximum enjoyment from your CD collection and player.

- 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.



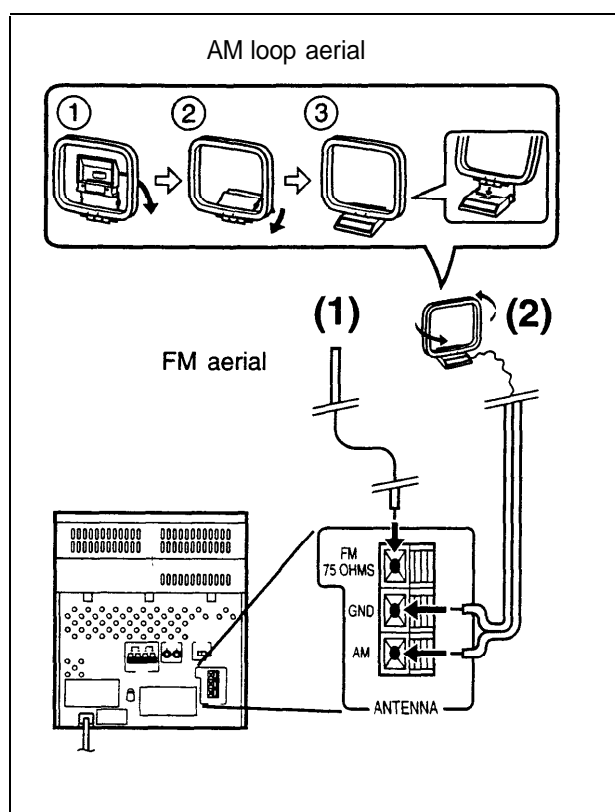
Cassette tape

- 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 recording. →



PREPARATION FOR USE

- Unplug the AC power lead from the AC socket before connecting or disconnecting any component.



■ Aerial connection

(1) Supplied FM aerial

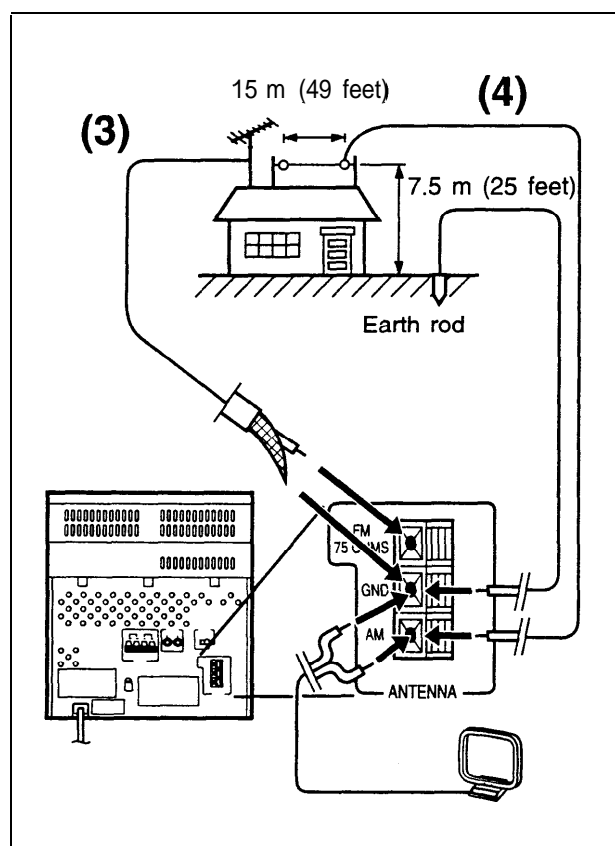
Connect the FM aerial wire to the FM 75 OHMS terminal and orient the FM aerial wire in the direction where the strongest signal can be received.

(2) Supplied AM loop aerial

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

Notes:

- When static is still heard even after adjusting the position of the AM loop aerial, try reversing the wires.
- Do not place the AM loop aerial and the FM aerial wire on the unit. It may result in noise generation, since the unit is equipped with digital electronics. Place the AM loop aerial and the FM aerial wire away from the unit for better reception.
- If the AM loop aerial and the FM aerial wire are placed near the AC power lead, it may cause interference.



(3) External FM aerial

To connect a 75 ohm, coaxial cable aerial, use the terminals marked FM 75 OHMS and GND.

To connect the external aerial to the unit, it is recommended that a 75 ohm coaxial cable be used. Its shielded construction resists most types of electrical interference that can cause reception noise.

Consult your SHARP audio dealer for suggestions on the type of aerial best suited for your area.

Note:

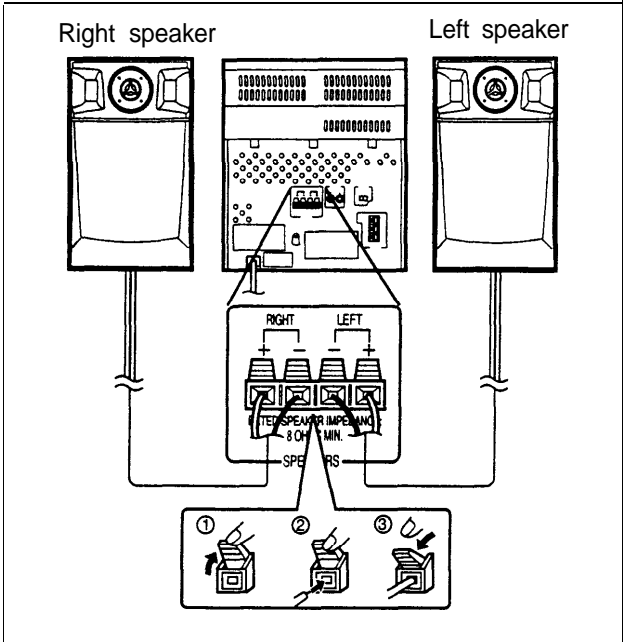
When an external FM aerial is used, disconnect the supplied FM aerial wire from the FM 75 OHMS terminal.

(4) External AM aerial

Use an external AM aerial (not supplied) if you need better reception. Consult your dealer.

Note:

When using an external AM aerial, be sure to keep both wires of the AM loop aerial connected.



■ Speaker connection

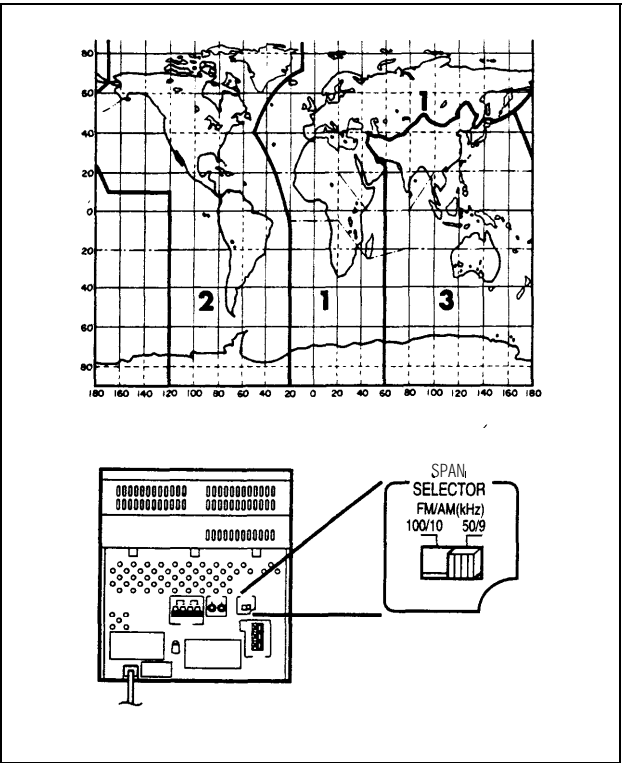
Connect each speaker wire to the SPEAKER terminals as shown. Use speakers with an impedance of 8 ohms or more, as lower impedance speakers can damage the unit.

Cautions:

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

Note:

- The speaker net is not removable.



■ 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 Set the ON/STAND-BY switch to STAND-BY.
- 2 Set the SPAN SELECTOR switch as desired.
 - 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 Press and hold down the VOLUME button, the / button and the ON/STAND-BY switch all at the same time. Hold them for at least 1 second.

Note:

- The operation explained above will-erase all data stored in memory, such as clock and timer settings, tuner and CD presets.

■ Connecting the AC power lead

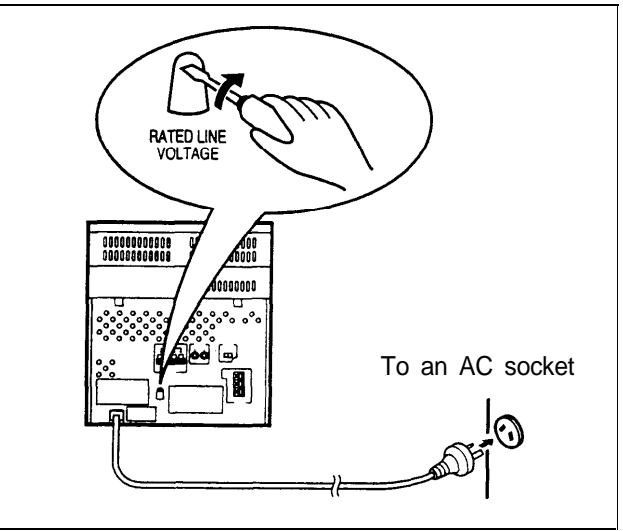
Check the setting of the AC voltage selector located on the rear panel before plugging the unit into an AC socket. If necessary, adjust the selector to correspond to the AC power voltage used in your area.

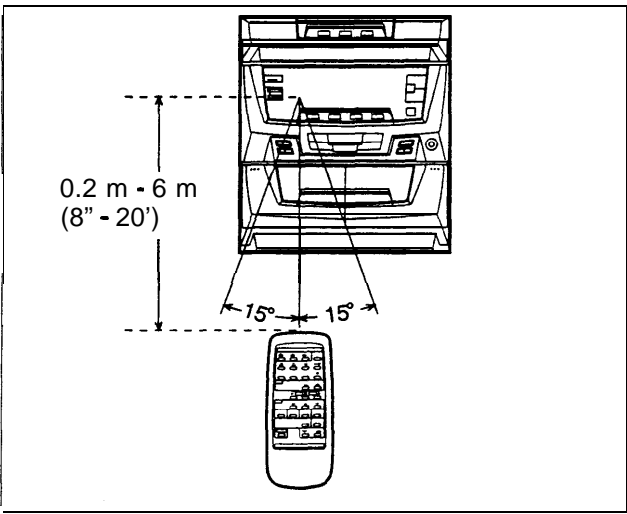
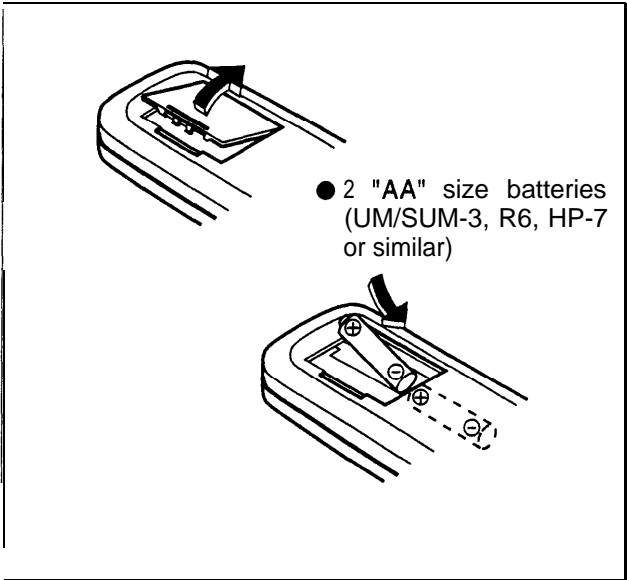
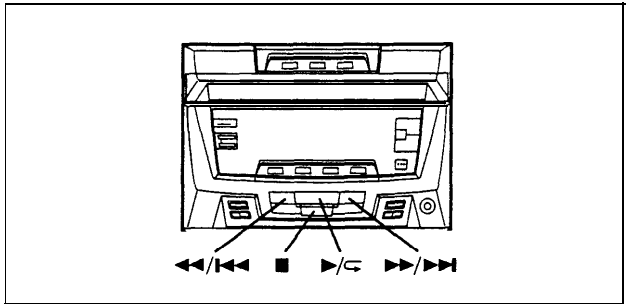
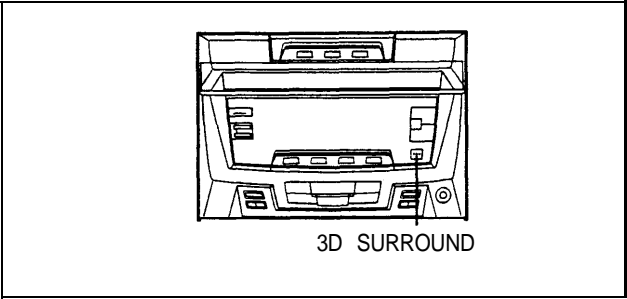
Selector adjustment

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 is not to be used for a prolonged period of time.





■ Demo mode

- When the AC power lead is first connected, the unit will enter the demonstration mode and the word "3D-SURROUND" will scroll across the display. To cancel the demonstration mode, press the 3D SURROUND button. The 3D SURROUND button will only work when the ON/STAND-BY switch is in the STAND-BY position.

■ Main unit operating buttons

The main unit operating buttons are common to all functions CD/Tuner/Tape.

Some buttons cannot be used, depending on the function that is selected.

■ 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 is not in use for long periods to prevent potential damage due to battery leakage.

Caution:

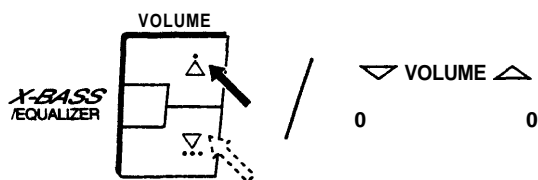
Do not use rechargeable batteries (nickel-cadmium battery, etc.).

Notes concerning use:

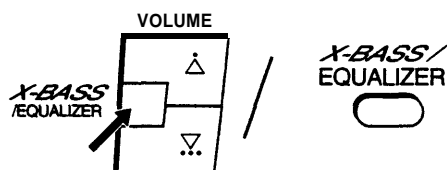
- Replace the batteries if control distance decreases or operation becomes erratic.
- Periodically clean the transmitter LED on the remote control and the sensor on the main unit with a soft cloth.
- Exposing the sensor on the main unit to strong light may interfere with operation. Change the lighting or the direction of the unit.
- Keep the remote control away from moisture, excessive heat, shock, and vibrations.

SOUND CONTROL

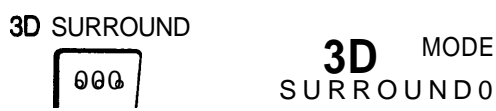
(Main unit) (Remote control)



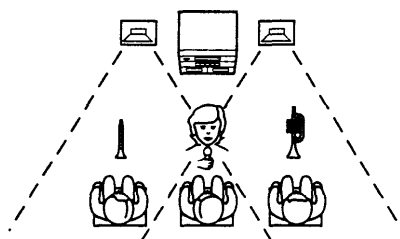
(Main unit) (Remote control)



(Main unit) (Remote control)

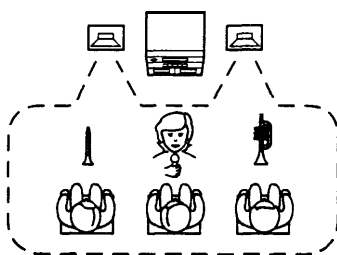


Ordinary stereo sound



Listening area
(Listening range with good stereo fidelity)

SRS (●) 3D SURROUND



Wide listening area
(Stereo music can be heard anywhere in the room.)

Volume

Press the VOLUME button to increase the volume and the VOLUME- button to decrease the volume.

- The volume display can be changed within the range of "0" to "10".

Extra bass (X-BASS)/Pre-programmed equalizer

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.

When the X-BASS/EQUALIZER button is pressed, the current mode setting will be displayed. To change to a different mode, press the X-BASS/EQUALIZER button repeatedly.

X-BASS FLAT HEAVY VOCAL SOFT
 |

SRS (●) 3D SURROUND

1 Select any desired audio source and begin playback.

2 Select the desired sound mode.

When the 3D SURROUND (3D SURROUND MODE) button is pressed, the current mode setting will be displayed. To change to a different mode, press the 3D SURROUND (3D SURROUND MODE) button repeatedly.

- To listen to music in the 3D SURROUND mode, select either "SURROUND MODE 1" or "SURROUND MODE 2". "SRS (●)" will appear.

OFF SURROUND MODE-1 SURROUND MODE-2
 |

Note:

- The 3D SURROUND effect will not work on a monaural sound source.

About SRS (●) 3D surround:

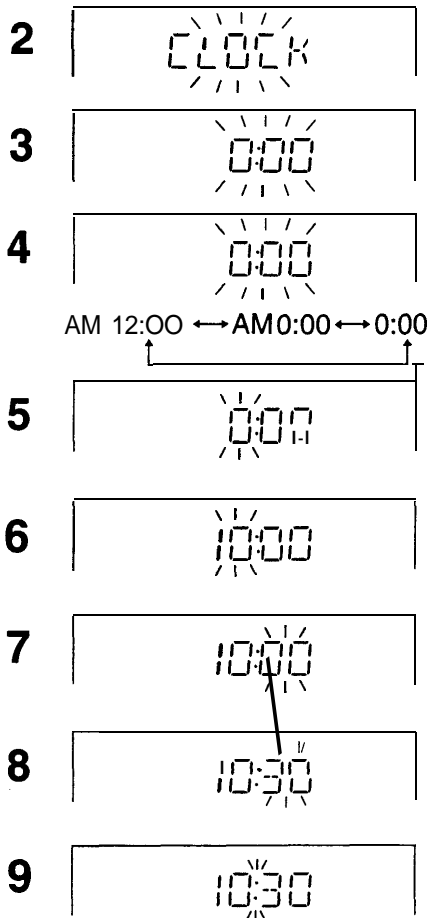
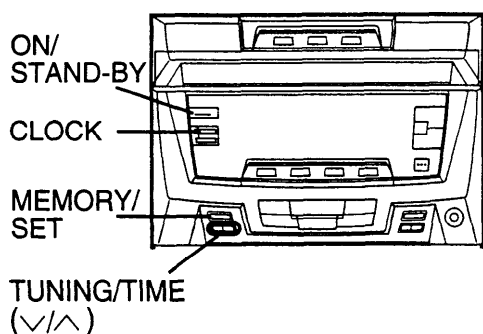
SRS is a breakthrough technology that creates 3-dimensional sound by processing sound signals based on the human auditory system. It produces real depth and localization of the sound image which cannot be accomplished by ordinary stereo. SRS only requires two speakers.

SRS (●) 3D surround effects:

- Live performance atmosphere
(Simulates a live concert atmosphere)
- The localization of various musical sources is quite clear.
(The positions of the musical instruments and singers are very clear.)
- Reproduction of depth
(Sounds from the front and back of an orchestra can be identified easily.)
- Expansion of the sound field
(The sound image is spread out over a wide area.)

SETTING THE CLOCK

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



- 1 Set the ON/STAND-BY switch to STAND-BY.
- 2 Press the CLOCK button.
- 3 Within 3 seconds, press the MEMORY/SET button.
- 4 Press the TUNING/TIME (V or Λ) button to select the time display.
 - "AM 12:00" → The 12-hour display will appear. (AM 12:00 - PM 11:59)
 - "AM 0:00" → The 12-hour display will appear. (AM 0:00 - PM 11:59)
 - "0:00" → The 24-hour display will appear. (0:00 - 23:59)
- 5 Press the MEMORY/SET button.
- 6 Press the TUNING/TIME (V or Λ) button to adjust the hour.
 - Press the TUNING/TIME button once to advance the time by 1 hour. Press for more than 0.5 seconds 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 (V or Λ) button to adjust the minutes.
 - Press the button for at least 0.5 seconds 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" seconds. (Seconds are not displayed.)

Note:

- In the event of a power failure or when the AC power lead is disconnected, the clock display will go out. When the AC power supply is restored, the clock display will flash on and off to indicate the time when the power failure occurred or when the AC power lead was disconnected. If this happens follow the procedure below to change the clock time.

To change the clock time:

When the ON/STAND-BY switch is set to STAND-BY.

- ① Press the MEMORY/SET button.
- ② Perform steps 6 - 9 above.

When the ON/STAND-BY switch is set to ON.

- ① Press the CLOCK button.
- ② Within 3 seconds, press the MEMORY/SET button.
- ③ Perform steps 6 - 9 above.

To see the time display: (When the power is ON)

Press the CLOCK button.

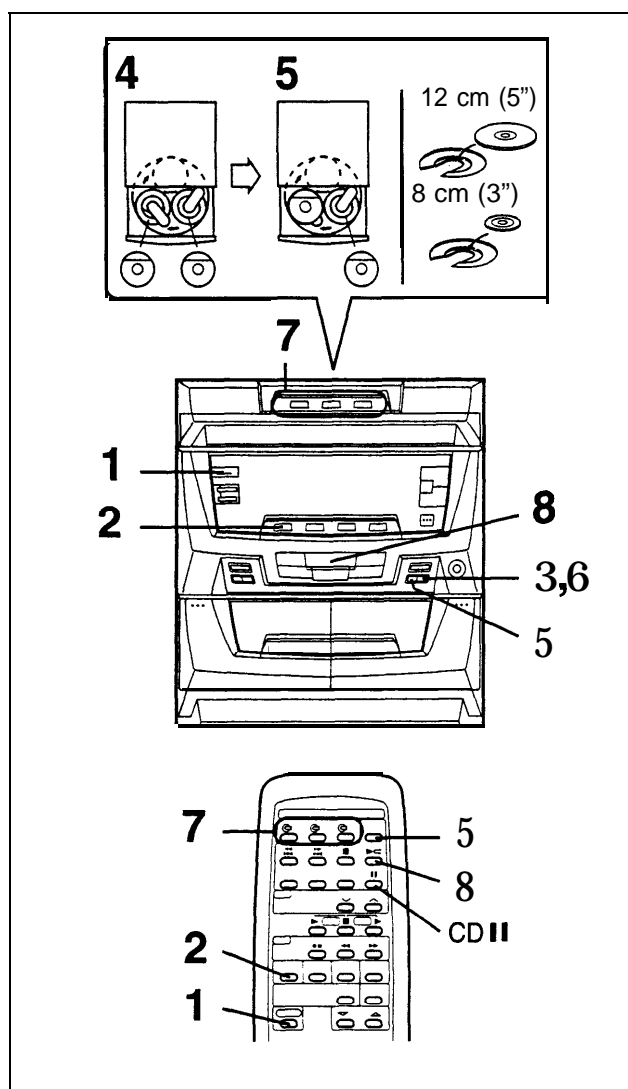
- The time display will appear for about 3 seconds.

To switch the time display mode:

- 1 Set the ON/STAND-BY switch to STAND-BY.
- 2 Press and hold down the VOLUME V button, the ►►/►► button and the ON/STAND-BY switch all at the same time. Hold them for at least 1 second.
- 3 Perform steps 1 - 9 above.

Note:

- The operation explained above will erase all data stored in memory, such as clock and timer settings, tuner and CD presets.



■ Loading and playing CDs

- 1 Set the ON/STAND-BY switch to 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.
 - a The total number of tracks and the total playing time for one disc will be displayed. At this time, the disc number indicator is flashing.
 - 7 Press the desired disc number button (⊖1-⊖3).
 - 8 Press the ►/◄ button.
 - Playback will begin from track 1 on the disc you have specified to play.
 - After the disc finishes playing, the next disc will be automatically played.
 - 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.

Cautions:

- Do not carry the unit with discs left in the disc trays. The discs may come loose inside the unit and 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 power fails whilst the tray is open, wait until the power supply returns or gently push the tray manually to close it.
- If the disc tray is stopped forcibly, "ERROR" will appear on the display and the unit will not function. If this occurs, turn off the ON/STAND-BY switch and turn it on again.
- If TV or radio interference occurs during CD operation, move the unit away from the TV or radio.
- If a disc is damaged, dirty, or loaded upside down, the disc will be skipped and the next disc will be automatically played.

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.

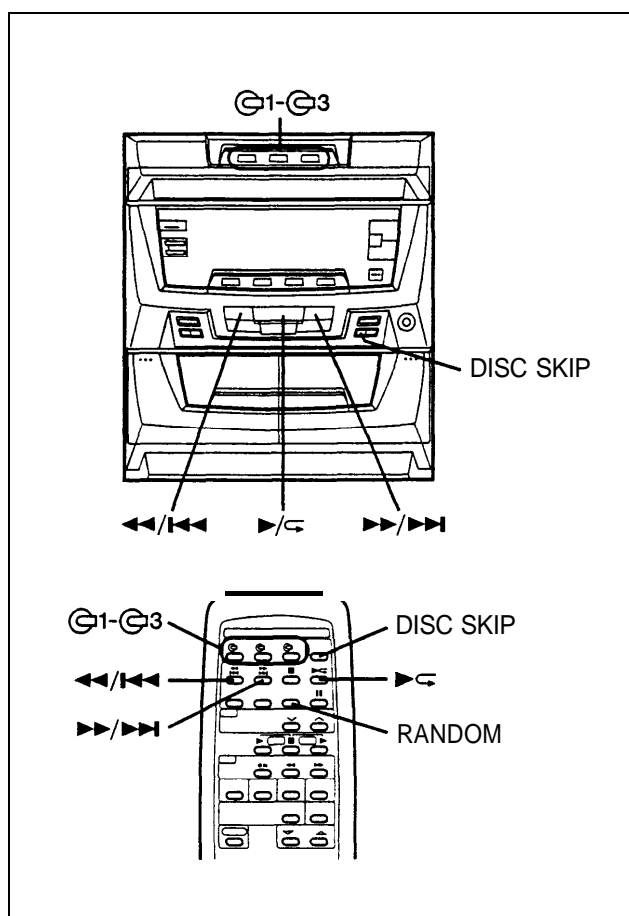
To remove the CDs:

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.

To switch the unit off after use:

Set the ON/STAND-BY switch to STAND-BY.



■ 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 (G1-G3) 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 to the track being played again:

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 can be played in random order automatically.

- 1 Load the CD(s) and close the disc tray.

- 2 Press the RANDOM button to begin random play.

- "R" will appear.

To cancel random play:

Press the ► / ◀ button.

- "R" will go out.

Note:

- When using random play, be sure to press the ■ (CD ■) button, or switch off the power when you have finished listening. Otherwise, the disc will play continuously.

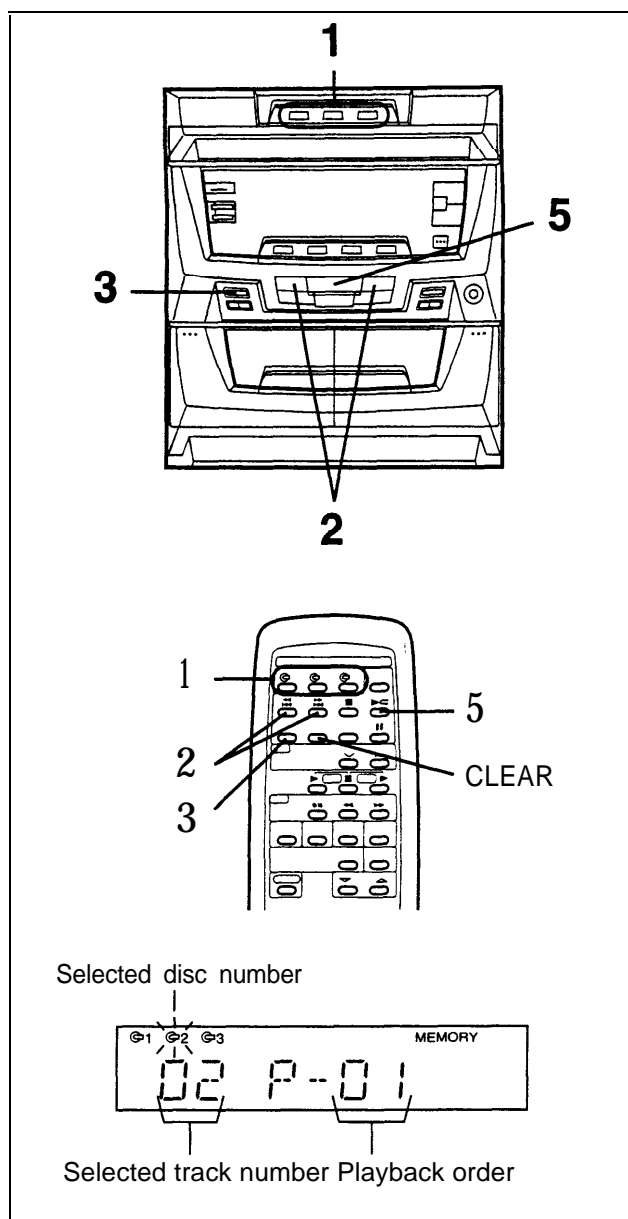
■ Cue and review

4

- 1 Load the CDs and begin playback.
- 2 Hold the ►► button down for audible fast forward, and hold the ◀◀ button down for audible fast reverse.
- 3 Normal playback will resume when the ◀◀ or ►► button is released.

Note:

- If the end of the disc is reached whilst cueing, "END" will appear on the display. (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.



■ APMS

(Automatic Programmable Music Selector)

You can play back 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 - ⊖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.
- 5 Press the ▶/◀ button to start playback of programmed selections.

To clear the programmed selections:

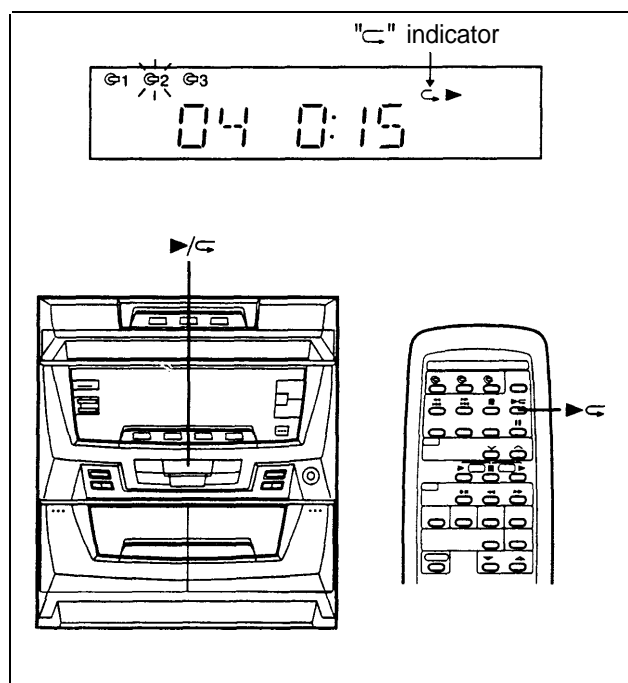
(Remote control operation)

Press the CLEAR button whilst the disc is stopped.

- Each time the button is pressed, one track will be cleared, beginning with the last track programmed.

Notes:

- Opening the disc tray automatically cancels the programmed sequence.
- Even if you set the ON/STAND-BY switch to STAND-BY 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 and press it again.

- "C" will appear.

To repeat a programmed sequence:

- 1 Programme a sequence of up to 32 tracks.

- 2 Press the ▶/◀ button and press it again.

- "C" will appear.

To cancel repeat play:

Press the ▶/◀ button again.

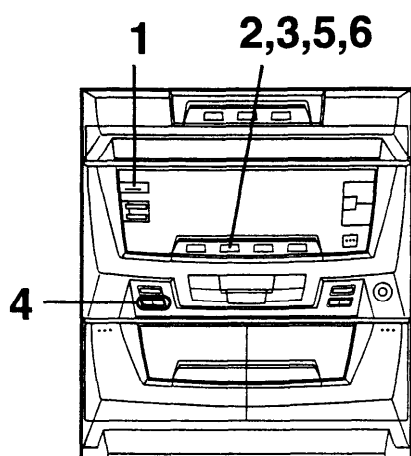
- "C" will go out.

Note:

- When using repeat play, be sure to press the ■ (CD ■) button, or switch off the power when you have finished listening. Otherwise, the CD(s) will play endlessly.

RADIO OPERATION

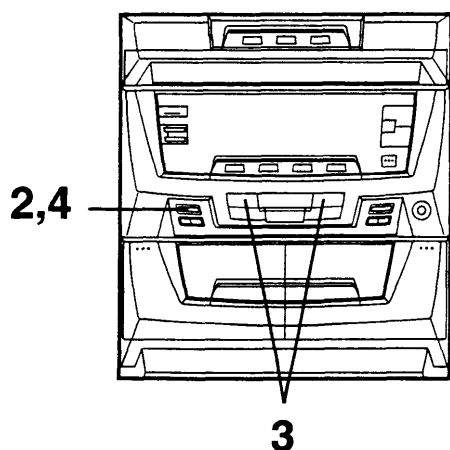
(Main unit operation)



Note:

This product can receive FM stereo/FM monaural and AM monaural broadcasts. AM stereo broadcasts will not be played in stereo.

(Main unit operation)



Tuning

- 1 Set the ON/STAND-BY switch to 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 (V or A) button to tune into the desired station.

Manual tuning:

Press the TUNING (V or A) buttons 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 (V or A) 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 (V or A) 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.

To switch the unit off after use:

Set the ON/STAND-BY switch to STAND-BY.

Note:

- The memory recalls the last station received even after changing the TUNER (BAND) button or function selector buttons, or setting the ON/STAND-BY switch to STAND-BY.

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.
- 3 Within 30 seconds, press the PRESET (V or A) 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.

To recall a memorised station:

Press the PRESET (✓ or A) button for less than 0.5 seconds to select the desired station.

- The contents (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

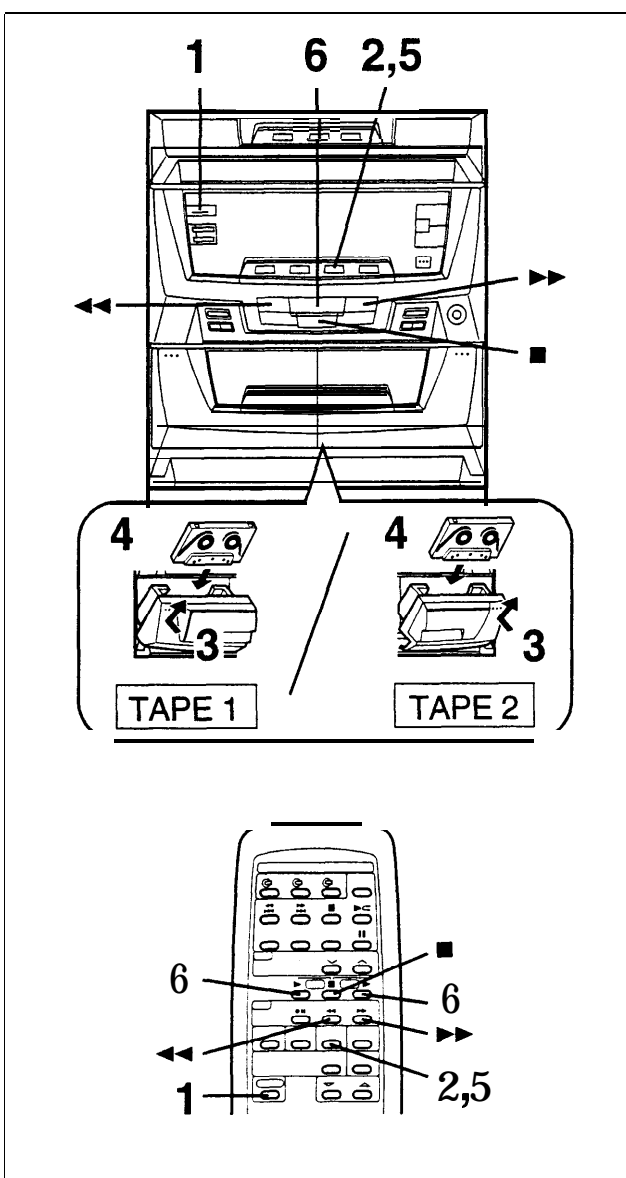
The stations saved in the preset memory can be scanned automatically.

- 1 To scan the preset stations, press the PRESET (✓ or A) button for more than 0.5 seconds.
- The station preset number flashes and programmed stations are sequentially received for 5 seconds each.
- 2 Press the PRESET (✓ or A) 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.

CASSETTE OPERATION



■ TAPE 1 or TAPE 2 playback

- 1 Set the ON/STAND-BY switch to ON.
 - 2 Press the TAPE (I-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 (I-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 ■ button.

Fast forward/rewind: (TAPE 2 only)

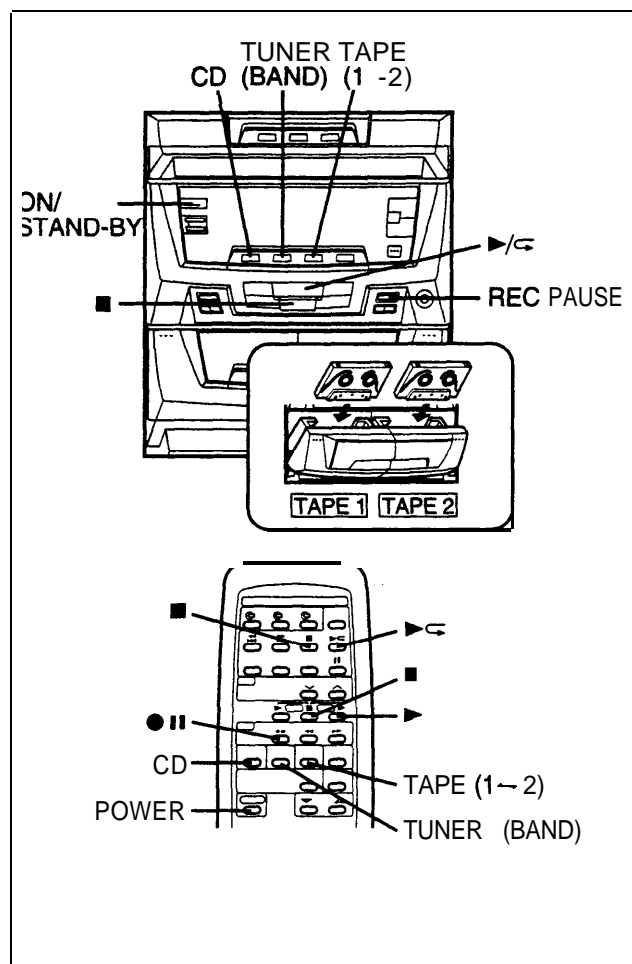
- 1 Press the ■ button, then press the TAPE (I-2) button to select TAPE 2.
- 2 To advance the tape, press the ►► button. To rewind it, press the ◄◄ button.

Precautions:

- When removing the cassette tape, press the ■ button, and then open the cassette compartment.
- Before changing from one tape operation to another, press the ■ button.
- If a power failure occurs during tape operation, the tape head will remain engaged with the tape and the cassette door will not open. In this case, wait until power is restored.

- When recording important selections, be sure to make a preliminary test to ensure that the desired material is being properly recorded.
- The VOLUME, X-BASS, 3D SURROUND and EQUALIZER controls may be adjusted with no effect on the recorded signal. (Variable Sound Monitor)

- Metal and CrO₂ tapes should not be used for recording or dubbing.
- To erase a recorded tape, press the TAPE (1 → 2) button to select TAPE 2, press the REC PAUSE (● II) button, and finally press the ►/◄ (►) button. (Check to make sure that TAPE 1 is not being used.)



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

- 1 Set the ON/STAND-BY switch to 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 10.)
- 3 Load a cassette into the TAPE 2 cassette compartment.
- 4 Press the REC PAUSE (● II) button.
 - "CD SYNC" will flash.
- 5 Press the ►/◄ (►) button,
 - "REC" will flash.
 - CD playback will start approximately 2 seconds after the tape starts.

To stop recording:

Press the ■ button.
The CD and tape will stop.

Note:

- When the end of the tape is reached whilst the unit is recording, the CD player will display the track number which was being played at that time, and stop automatically. After you turn over the tape and press the REC PAUSE (● II) button and then ►/◄ (►) button, recording will restart from the beginning of the track that was interrupted whilst recording on the first side of the tape.

■ Recording from the built-in radio

- 1 Tune in to the desired station. (See pages 1 1-12.)
- 2 Load a cassette into the TAPE 2 cassette compartment.
- 3 Press the REC PAUSE (● II) button.
- 4 Press the ►/◄ (►) button.
 - "REC" will flash.

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 on the tape.

■ Dubbing from tape to tape

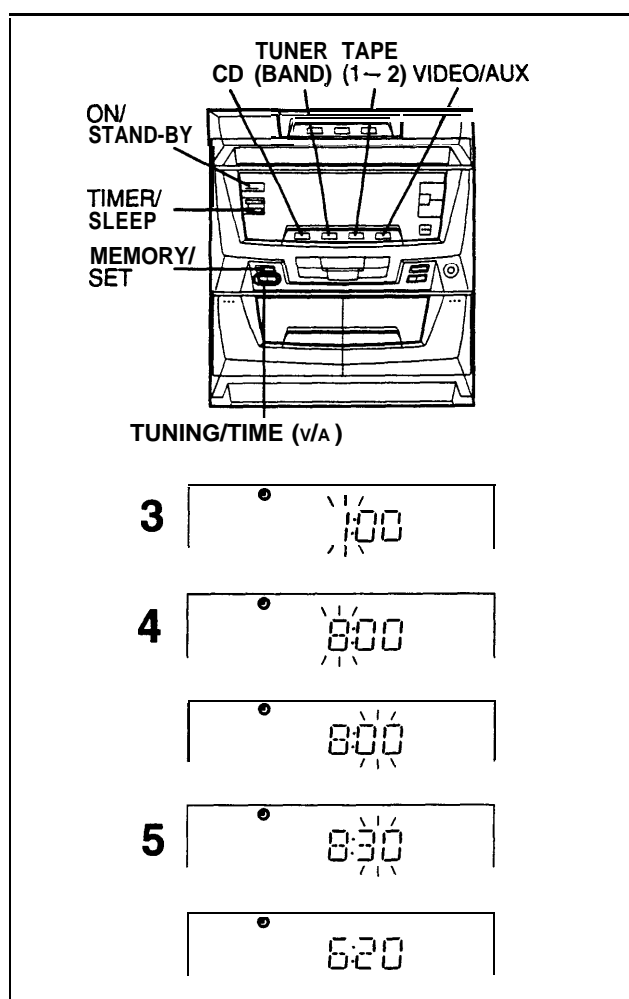
- 1 Set the ON/STAND-BY switch to ON.
- 2 Load a prerecorded cassette into the TAPE 1 cassette compartment. Insert a blank tape into the TAPE 2 cassette compartment.
 - It is recommended that the recording tape be the same length as the master tape.
- 3 Press the TAPE (1 → 2) button to select TAPE 1.
- 4 Press the REC PAUSE (● II) button.
- 5 Press the ►/◄ (►) button,
 - Dubbing from TAPE 1 to TAPE 2 will begin.

To stop dubbing:

Press the ■ button on the tape.

- TAPE 1 and TAPE 2 will simultaneously stop.

HOW TO USE THE BUILT-IN TIMER



■ 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 A) 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 turn off 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 sleep timer setting:

Press the TIMER/SLEEP button.

To cancel the sleep operation:

Press the TIMER/SLEEP button repeatedly until "SLEEP" disappears.

- Before setting the timer, make sure that the clock setting is correct.

■ Timer playback

- 1 Set the ON/STAND-BY switch to ON.
- 2 Press the CD, TUNER (BAND), TAPE (1-2) or VIDEO/AUX button to select the desired function.
- 3 Press the TIMER/SLEEP button repeatedly until "⌚" is displayed.
- 4 Press the TUNING/TIME (✓ or A) button to set the hour at which to start, and then press the MEMORY/SET button.
- 5 Press the TUNING/TIME (✓ or A) button to set the minute at which to start, and then press the MEMORY/SET button.
- The power will be automatically turned off, and the time will be displayed.
- 6 When the preset time is reached, the volume will increase gradually until it reaches the volume you were listening to before turning off the unit.
- 7 If you select CD or TAPE during timer playback, the power will be turned off after the tape or CD is finished playing back. If you select TUNER or VIDEO/AUX, the power will be turned off one hour later.

■ Timer recording

- 1 Set the ON/STAND-BY switch to 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.
- 3 Press the TIMER/SLEEP button repeatedly until "⌚" and "REC" are displayed.
- 4 Press the TUNING/TIME (✓ or A) button to set the hour at which to start, and then press the MEMORY/SET button.
- 5 Press the TUNING/TIME (✓ or A) button to set the minute at which to start, and then press the MEMORY/SET button.
- The power will be automatically turned off, and the time will be displayed.
- 6 When the recording tape reaches its end, the timer recording will end, and the power will be turned off.
- When the timer recording is started, the volume level is set to "0".
When using the unit after completion of timer recording, adjust the volume level.

To cancel timer operation:

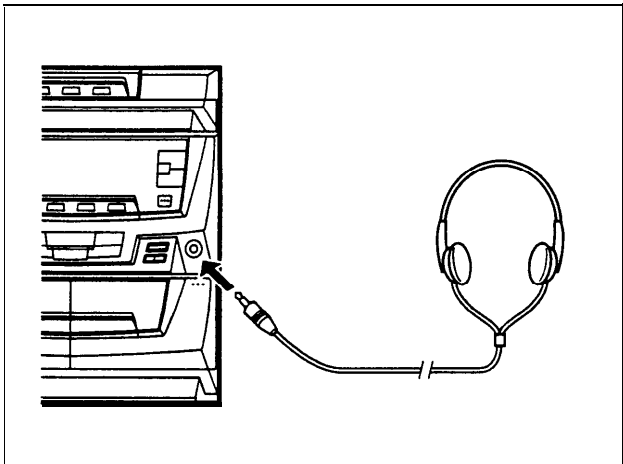
Set the ON/STAND-BY switch to ON.

To change the programmed contents:

Start again from step 1.

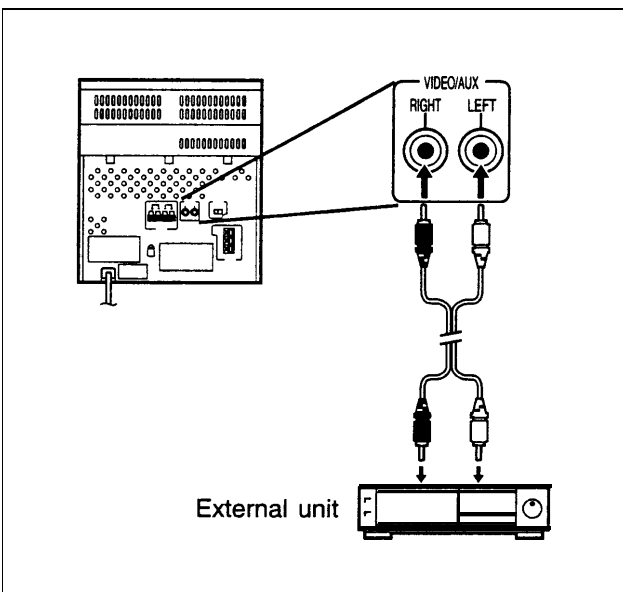
Note:

- Once the timer is set, this time will be displayed until the setting is changed.



- Be sure that 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 desired volume.

USING EXTERNAL UNITS



VIDEO/AUX (Audio signal) input

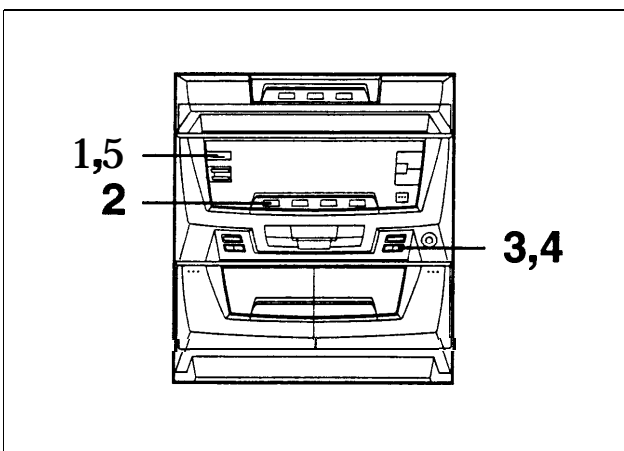
To listen to or record signals from external sources through this unit:

- 1 Use an 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, VCR), be sure to connect the audio output to this unit and the video output to a television.
- 2 Set the ON/STAND-BY switch to 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 13.

Note:

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

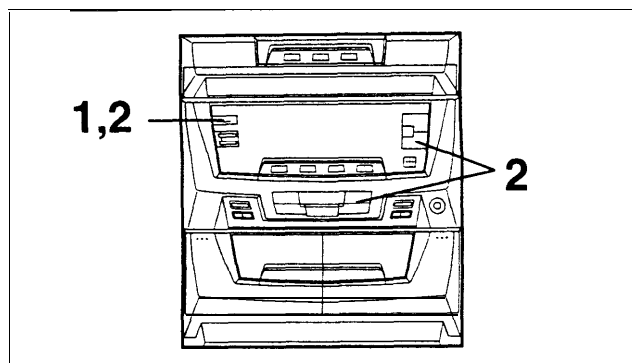
TRANSPORTING THE UNIT



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




- 1 Set the ON/STAND-BY switch to 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 Set the ON/STAND-BY switch to STAND-BY, and then unplug the AC power lead from the AC socket.

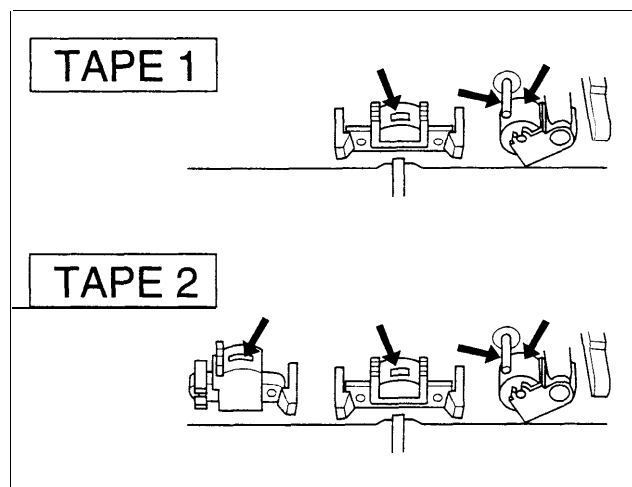
RESETTING THE MICROCOMPUTER



Reset the microcomputer by performing the following procedure for the cases shown below:

- To erase all of the stored memory contents, or
- If the display does not function properly, or
- The unit does not operate properly.

- 1 Set the ON/STAND-BY switch to STAND-BY.
- 2 Press and hold down the VOLUME  button, the  /  button and the ON/STAND-BY switch all at the same time. Hold them for at least 1 second.



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 a 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: 65 W

Dimensions: Width; 270 mm (10-5/8")
Height; 300 mm (11-13/16")
Depth; 359.5 mm (14-3/16")

Weight: 5.0 kg (11.0 lbs.)

Amplifier section

Output power: PMPO; 160 W (total)
MPO; 33 W (16.5 W + 16.5 W)
(10 % T.H.D.)
RMS; 20 W (10 W + 10 W)
(10 % T.H.D.)

Output terminals: Speakers; 8 ohms
Headphones; 16-50 ohms
(recommended; 32 ohms)

Input terminals: Video/Auxiliary (audio signal);
245 mV/47 kohms

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: 0.15 % (WRMS)

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)

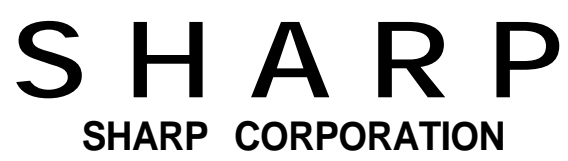
Speaker section

Type: 2-way type [100 mm (4") woofer and super tweeter]

Maximum input power: 20 W
8 ohms

Impedance: 8 ohms
Dimensions: Width; 180 mm (7-1/8")
Height; 300 mm (11-13/16")
Depth; 214 mm (8-7/16")

Weight: 2.4 kg (5.3 lbs.)/each



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